

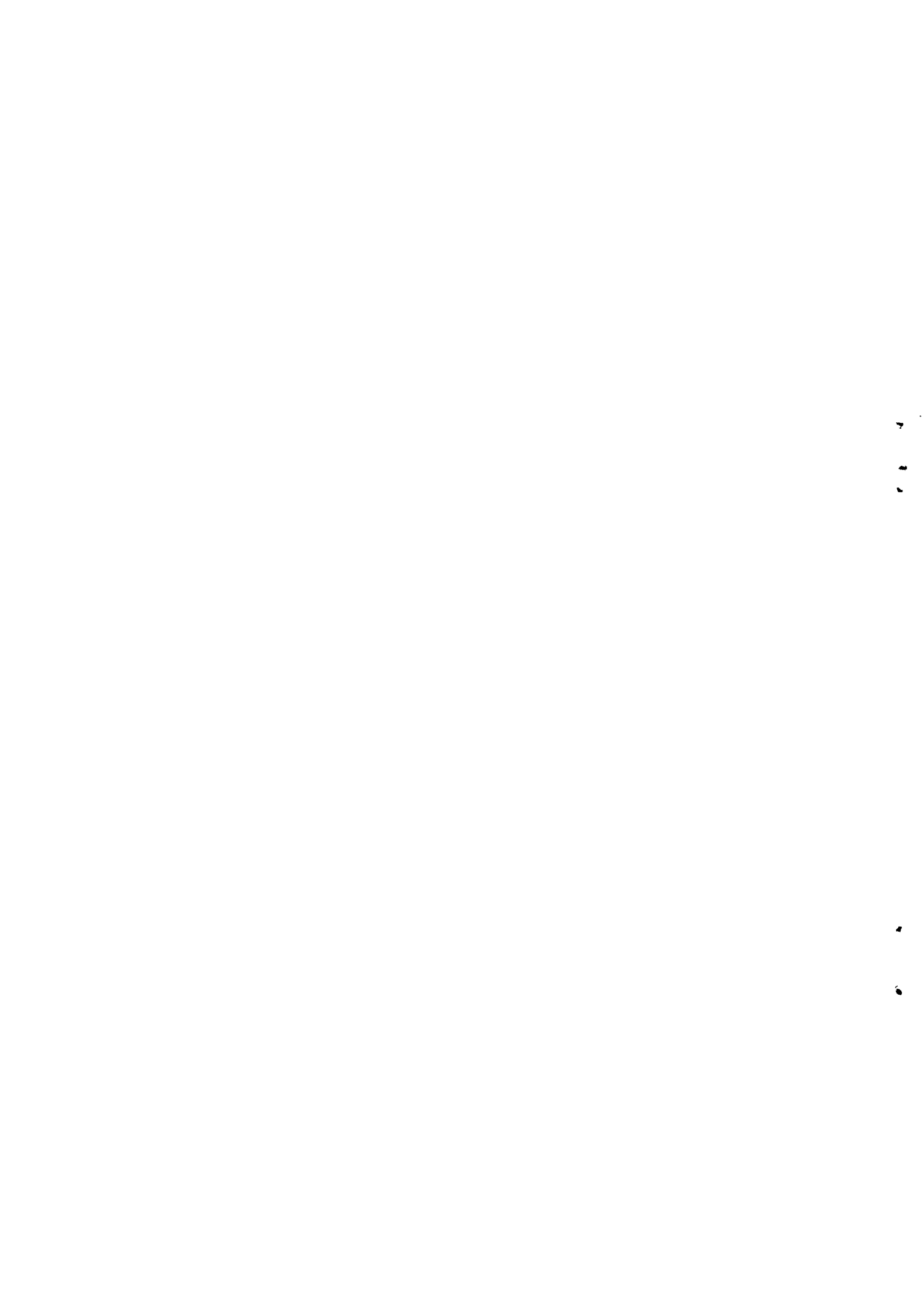
**MULTIDISCIPLINARY ACCIDENT
INVESTIGATION
REPORT AUTOMATION**

**Editing Manual and
Reference Information
Used in the Preparation of the
Collision Performance and Injury Report
Volume 5 of 5**

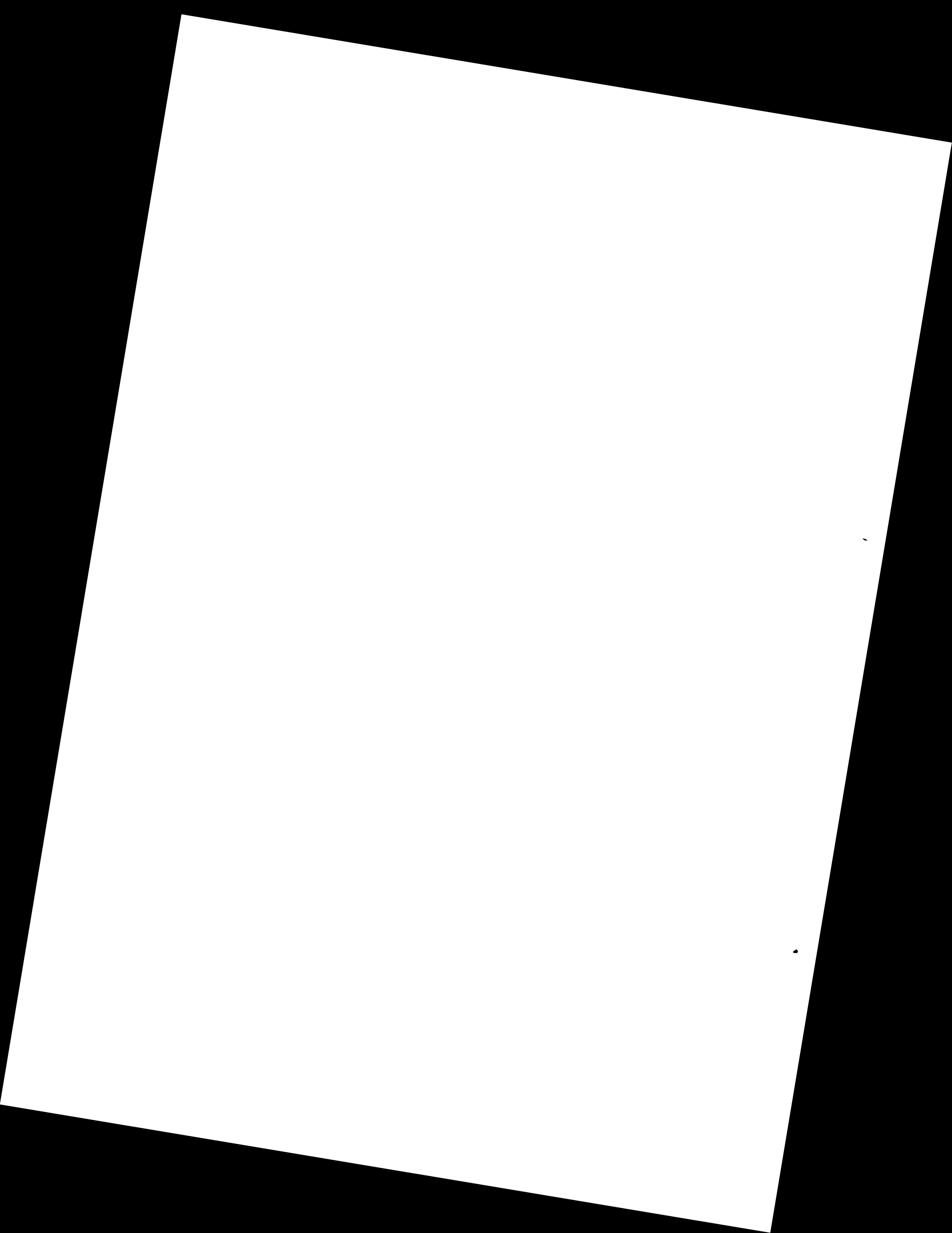
**HIGHWAY SAFETY RESEARCH INSTITUTE
THE UNIVERSITY OF MICHIGAN
ANN ARBOR, MICHIGAN 48104**

**OCTOBER 1972
CONTRACT No. DOT-HS-031-1-037
FINAL REPORT**

**Prepared for:
Department of Transportation
National Highway Traffic Safety Administration
Washington, D.C. 20590**



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<p>16. Abstract</p> <p>This is Volume 5 of a 5 volume final report documenting the results of the Multidisciplinary Accident Investigation (MDAI) Report Automation contract. It contains the editing conventions and reference information used in processing 1092 MDAI case vehicles into a time-shared accident data bank.</p> <p>An annotated "Collision Performance and Injury Report" Revision 3 is used to document editing conventions and new code values. The next two sections document the editing procedure and the interpretations of each question (variable) in narrative form. The final section is a compilation of vehicle reference information (e.g., original seat back angles) available to the data editors.</p>			
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EDITING MANUAL AND REFERENCE INFORMATION

Used In The Preparation Of The

COLLISION PERFORMANCE AND INJURY REPORT

For Inclusion In The Computer Data Bank

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DEPARTMENT OF TRANSPORTATION
WASHINGTON D. C. 20590



EDITING MANUAL

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SECTION 1

INTRODUCTION (9/72)

Traffic accident data reported on the General Motors Collision Performance And Injury Report (CPIR) Long Form Revision 3 (reference 1) plus certain supplementary information is edited and maintained as an on-line computer file in the HSRI accident data bank. This notebook is a compilation of reference information (e.g., original dimensions) and editing conventions used in preparing newly received reports for inclusion in the computer data bank.

This is the basic reference and instructional document used in daily operations and in the training of new case editors. It also serves to document the editing process. While prepared from the case editors' viewpoint, the manual may also be usefully employed by accident investigators preparing CPIR Revision 3 forms and data analysts using the CPIR computer files.

The editing conventions precede the reference information and are organized around the CPIR form, itself. The conventions are documented in two formats. In section 2, editing rules and new code values are noted on reproduced CPIR pages for quick reference. The next two sections describe the editing process (section 3) and the interpretations for each CPIR question/variable that is to be edited. (section 4)

The reference information (blue page separator) is alphabetized by descriptors as noted in the section 5 - Table of Organization..

A three part number has been used as a cross reference to the appropriate CPIR page number, punch card number, and column number throughout the interpretation of questions/variables and the reference information. Thus, the crossreference (7.3.12-24) refers to CPIR page 7, card 3 and columns 12 thru 24, which is the Case Vehicle Identification Number.

CPIR Page Number
| Card Number
| | Column Numbers
| | |
(7.3.12-24)

CROSSREFERENCE TO CASE VEHICLE VIN IN CPIR

This manual should be maintained in a loose-leaf notebook, because new and revised information sheets will be continually issued. If you wish to receive future updates as issued, please contact Joe Marsh (313/764-0248) or the National Highway Traffic Safety Administration, Accident Investigation Division.

BACKGROUND

While the compilation and publication of this manual was sponsored by the DOT National Highway Traffic Safety Administration under contract number DOT-HS-031-00-1-037, its contents are intended to represent a consensus of the previous experience of HSRI and others in editing CPIR data, computer data processing requirements, Motor Vehicle Manufacturers Association and Department of Transportation sponsored field investigators, NHTSA Accident Investigation Division, MVMA member companies and others involved in the utilization and analysis of the CPIR data files--a mix of everyone interested in the evolution of these materials.

This notebook documents our current editing practices and available reference information. It does not represent the ultimate set of editing conventions and procedures. There is room for many improvements in recording and processing MDAL data. By the nature and diversity of the problems relating to crash investigation, recording and analysis, a universally applicable set of coding conventions and procedures will probably never exist. Thus, this notebook will continue to change and grow. Comments, suggestions, additions, criticisms, corrections and questions are welcomed and encouraged.

The editing conventions (e.g., use of (888) for other vehicle speed when "not applicable") have evolved over several years of editing cases for computer processing. They are documented as a guide to our current editors and to assist training new editors in order to help assure consistency of interpretation. While helpful to the field investigator as an aid to consistent preparation of the CPIR form, they are not an "accident investigation protocol". While also helpful to the data analyst, they will not document biases in the investigators' interpretations, for instance.

The narrative description of the editing procedures and interpretations was prepared by assigning portions of the forms to each of the data editors, namely Steve Vanek, Helmut Schick, Bruce Goldin, Pete Kostishak, and Bruce Potter. The combined results were reviewed by each editor and so represent the consensus of current practice. Other reference materials, such as the General Motors CPIR Short Form Reference Manual (reference 2) were extracted from, as appropriate.

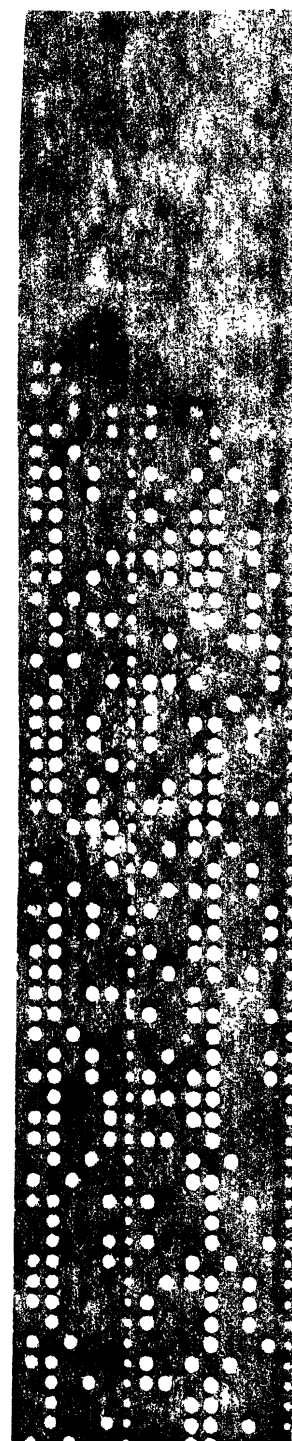
The reference information has been compiled from all available sources-- primarily the Vehicle Data and Code Supplement (references 3,4,5) published each year by the Motor Vehicle Manufacturers Association. Other information has been obtained from motor vehicle manufacturers, National Highway Traffic Safety Administration, field accident investigators, and original measurements of new cars. Again, notification of any added information or corrections would be appreciated.

SECTION 2
EDITING CONVENTIONS

This section contains a reproduction of the CPIR form and supplementary data form used to encode the accident information. The forms have been annotated with editing conventions and new codes in order to provide the editor with a quick reference source. The editing procedure and the interpretation of each specific question are documented in sections 3 and 4.

**COLLISION
PERFORMANCE
and
INJURY REPORT**

LONG FORM
(REVISION NUMBER 3)



COLLISION PERFORMANCE AND INJURY REPORT

This form was developed by General Motors to promote widespread interchange of standardized, comprehensive field data among professional research people engaged in accident investigation, and is designed to be used in conjunction with digital computers. Professional accident researchers can obtain more information on this accident investigation system by writing to:

Safety Research & Development Laboratory
GM - ADAP
General Motors Proving Ground
Milford, Michigan 48042

GENERAL INSTRUCTIONS

THE FIELD INVESTIGATOR SHOULD:

Make a complete photographic description of the vehicle. (See Page 40 for instructions.)

See Page 27 for Occupant Information Section instructions.

There are eight basic types of questions that you will be asked. Read the following examples, based on a fictitious accident, illustrating how these questions should be answered.

Accident: *A two door hardtop with 3 occupants was involved in an accident on a dirt, country road in Arizona. The doors did not jam. The rear view mirror was not contacted by any occupant but it was broken.*

EXAMPLES:

A. Enter the name of the state (Arizona) in the blank. Enter nothing in the adjacent "Punch Code" column because all grey areas will be filled in by the Analysis Group.

B. The word "AREA" is an implied multiple choice "question". Since the answer "(2) rural" best describes the area, enter a "2" on the blank in the "Punch Code" column. A "2" will later be punched in Column 20 of a computer card in response to your answer.

C. The correct answer for the example shown is not in the list, so write the word "dirt" in the blank after "(4) other: _____". Also enter "4" in the "Punch Code" column because the column is not shaded grey this time.

D. This type of question is written in a way that will save you time. (It could have been written, "Did the left front door jam?") The possible answers "(1,2,0)*" are given after the word "Front". The code key for (1,2,0) is given at the bottom of the page. Since "2" means "no", enter "2" in the answer blank because, according to our accident, the left front door did not jam.

E. Example E asks if the left rear door jammed. The code key for (1,2,3,0) is also given at the bottom of the page. Since this was a two door hardtop, "3" is chosen as the answer to indicate that the question is "not applicable".

F. & G. These examples pertain to the rear view mirror. The questions and possible answers are grouped together at the heads of the two answer columns. Example F asks if the rear view mirror was damaged. Since the mirror was broken, mark the blank in the "Damaged" column with a "1".

Example G asks if the rear view mirror was contacted by an occupant. Since there was apparently no occupant contact, enter "2" in the Occupant Contact column ("Contact" implies probable contact)

H. Example H offers no multiple choices. So enter the actual answer in the blank. Since there were 3 occupants, enter "03" in the blank. Notice that the answer is entered as far to the right as possible and the leading blanks are filled in with zeros.

A

Location	ARIZONA	PUNCH CODE	CARD COL
STATE	ARIZONA		
(CODE TO BE INSERTED BY ANALYSIS GROUP)		--	18-19
AREA			
(1) URBAN			
(2) RURAL		2	20
(3) UNKNOWN			

C

TYPE OF ROAD SURFACE		
(1) ASPHALT		
(2) CONCRETE		
(3) GRAVEL		
(4) OTHER	DIRT	4
(0) UNKNOWN		24

D

DOORS JAMMED		
FRONT (1,2,0)*	2	53
LEFT		
REAR (1,2,3,0)*	3	54

F

REAR VIEW MIRROR	DAMAGED (1,2,3,0)*		OCCUPANT CONTACT (1,2,3,0)*	
	PUNCH CODE	CARD COL	PUNCH CODE	CARD COL
	1	53	2	54

G

NUMBER OF OCCUPANTS	03	44 45
---------------------	----	-------

THE ANALYSIS GROUP SHOULD:

Cross check all available information, photographs, etc.

Complete the report using all available information and the provided code keys.

FORM VERSION NUMBER <u>3</u> REPORT NUMBER <u>2 3 4 5 6 7 8 9</u> CARD NUMBER <u>01</u> DATE OF COLLISION MO. / DAY / YR. <u>12 / 13 / 14</u> (999999) Unknown	TIME OF COLLISION _____ AM PM DATE OF FIELD INVESTIGATION _____ INVESTIGATOR _____ Serial Number for each Case Vehicle in an accident Blank Only one Case Vehicle in accident (1) Case Vehicle 1 of several in accident (2) Case Vehicle 2 of several case vehicles LOCATION WHERE VEHICLE WAS EVALUATED: _____ REPORT PREPARED BY _____	KEYPUNCH ONLY: DATE REC'D. _____ PUNCHED VERIFIED
---	---	--

LOCATION	PUNCH CODE	CARD COL.
STATE: _____ FIPS code	---	18-19
CITY, TOWNSHIP, ETC.:	---	---
AREA (1) URBAN (2) RURAL (0) UNKNOWN	---	20
LOCALITY (1) MANUFACTURING OR INDUSTRIAL (2) SHOPPING OR BUSINESS (3) APARTMENTS (4) SCHOOL OR PLAYGROUND (5) RESIDENTIAL (6) FARM (7) UNDEVELOPED (0) UNKNOWN	---	21
ENVIRONMENTAL CONDITIONS LIMITED ACCESS HIGHWAY (1) YES (2) NO (0) UNKNOWN	---	22
ROAD TOTAL TRAFFIC LANES (1) 1-Lane (2) 2-Lane Case Vehicle (3) 3-Lane (4) 4 or More Lanes (5) 4 or More Lanes Divided (6) Parking Lot, Driveway (7) Other, e.g. RR Tracks, Ramps (0) Unknown	---	23
OTHER ROAD TOTAL TRAFFIC LANES WIDTH (IF AT INTERSECTION) CHOOSE FROM ABOVE LIST OR (9) NOT APPLICABLE	---	24
TYPE OF ROAD SURFACE (1) Asphalt, Bituminous Concrete (2) CONCRETE (3) GRAVEL (4) MORE THAN ONE TYPE (5) OTHER: _____ (0) UNKNOWN	---	25

Case Vehicle Only	PUNCH CODE	CARD COL.
ROAD ALIGNMENT VERTICAL PLANE (1) LEVEL (2) CREST OF HILL (3) SLOPE 2% grade (4) BOTTOM OF HILL (0) UNKNOWN	---	26
HORIZONTAL PLANE (1) STRAIGHT (2) CURVE (0) UNKNOWN	---	27
SURFACE COVERING (01) DRY WATER (02) DAMP (03) WET (04) PUDDLED (05) UNKNOWN AMOUNT SNOW (06) LOOSE (07) PACKED (08) CONDITION UNKNOWN (09) ICE (10) SLUSH (11) SPILLED GRAVEL (12) OTHER: _____ (00) UNKNOWN	---	28-29
PRECIPITATION (1) NONE (2) RAIN (3) SNOW (4) HAIL (5) SLEET (6) OTHER: _____ (0) UNKNOWN	---	30
RATE OF PRECIPITATION (3) NOT APPLICABLE (4) LIGHT, Mist (5) MODERATE (6) HEAVY (0) UNKNOWN	---	31
SURFACE SLIPPERY (1) YES (2) NO (0) UNKNOWN	---	32

COLLISION DESCRIPTION

POSSIBLE MECHANICAL MALFUNCTION

COMMENTS AND OBSERVATIONS OF INVESTIGATOR ABOUT THE POSSIBILITY OF MECHANICAL MALFUNCTIONS

Lined area for writing comments and observations. The text is currently blank.

Lined area for writing comments and observations. The text is currently blank.

POSSIBLE MECHANICAL MALFUNCTION

INVESTIGATOR: _____

DATE OF INVESTIGATION: _____

DATE OF REPORT: _____

GENERAL INFORMATION

IMPAIRMENT

COLLISION CONFIGURATION (of case vehicle)	PUNCH CODE	CARD COL.
VEHICLE TO OBJECT (1,2,0)*	—	42
ROLLOVER (1,2,0)* (90° or more)	—	43
RAN OFF THE ROADWAY (1,2,0)* (Before first impact)	—	44
VEHICLE TO VEHICLE (1) Yes, Configuration unknown (NEW) (2) No (3) Head-on (F to F) (4) Intersection type L (2/72) (T + L before 2/72) (5) Side-swipe (6) Rear-impact (F and B) (7) Other: _____ New Code (8) Intersection type T (2/72) (0) Unknown	—	45
VEHICLE TO STOPPED VEHICLE (1,2,0)* (Either vehicle)	—	46
VEHICLE TO MOVING VEHICLE (1,2,0)*	—	47
OTHER (1,2,0)*: _____	—	48

CASE VEHICLE DRIVER'S ABILITY TO DRIVE IMPAIRED BY	PUNCH CODE	CARD COL.
(CHOOSE NO MORE THAN TWO) (00) UNKNOWN (02) NONE (03) DRINKING INVOLVED (Broad) (04) Drunk By Local Legal Standards (05) ASLEEP (06) FATIGUE (07) RECKLESSNESS (08) INATTENTION (09) LACK OF TRAINING (10) EMOTIONAL STATE (11) MEDICATION (12) Drugs (narcotic) (Fill Both) (13) ILLNESS (or otherwise) (14) INFIRMITIES (15) PHYSICALLY HANDICAPPED (16) OTHER: _____	—	58-59 60-61
SOURCE OF INFORMATION: _____ _____		

COLLISION TYPE

VEHICLES INVOLVED	PUNCH CODE	CARD COL.
TOTAL NUMBER (INCLUDING CASE VEHICLE) In Accident	—	49
OBJECTS CONTACTED (02) None (03) Other Automobile (04) Ground (rollover only) (05) Guardrail (06) Bridge (rail) (07) Sign (08) Ditch (09) Embankment (snowbank) (10) Culvert (11) Fence (12) Pole or Tree (13) Pedestrian (14) Large Animal (15) Motorcycle (16) Large Truck - Type Unknown (see 20-25) below (17) Train or Bus (18) Pedacycle (bicycle+) (19) Building (20) Light truck/pickup truck (22) Tractor without Tractor (9/72) (23) Van delivery truck (24) Straight truck (25) Tractor-trailor combination (26) Multi-purpose vehicle (Jeep) (40) Object disengaging from other vehicle (i.e., loose tire, box 9/72) (30) Hydrants, short posts, stumps (9/72) (31) Mailbox (rural), small posts/trees (32) Pier, Pillar (e.g., bridge support) (33) Retaining wall, abutment Highway Fixtures: (34) Impact attenuator (35) Breakaway Fixtures (36) Other: _____	ENTER OBJECTS IN ORDER OF CONTACT DURING COLLISION Fill with (02)'s for "None" New Codes	50-51 52-53 54-55 56-57

TRAFFIC VIOLATION (EITHER DRIVER)	PUNCH CODE	CARD COL.
(1) YES (2) NO (0) UNKNOWN DESCRIBE VIOLATION: _____ _____ _____ Citation need not be issued, but only indicated.	—	62

LEGAL ACTION	PUNCH CODE	CARD COL.
WAS TRAFFIC VIOLATION CITATION ISSUED TO ANYONE? (1,2,0)* IF "YES", CIRCLE VIOLATOR: DRIVER OF CASE VEHICLE DRIVER OF OTHER VEHICLE PEDESTRIAN OTHER: _____	—	63

(Accident Point of View) TYPE OF LOSS	PUNCH CODE	CARD COL.
PERSONAL INJURY (1,2,0)*	—	64
PROPERTY DAMAGE (1,2,0)*	—	65

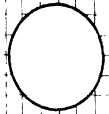
*WHERE (1,2,0) IS INDICATED, USE 1 FOR YES
2 FOR NO
0 FOR UNKNOWN

COLLISION SKETCH

Based on Information From _____

1. Draw heavy lines to show highway detail at the location of collision.
2. Give name of streets and highways and US, State and Interstate Route numbers, if any.
3. Identify all objects in sketch. Case vehicle should always be labeled "A". Time sequence numbers may be added (e.g., A1, A2).
4. Include dimensions when possible.

INDICATE NORTH
BY ARROW



COLLISION SKETCH

DESCRIBE COLLISION EVENTS _____

INFORMATION SOURCES: _____

REPORTED BY: _____

(Attach Police Report)

COMMENTS _____

Record four speed estimates, three digits each.

-Do not code range of speeds

-(888) for "Other Vehicle" Not applicable

SPEEDS

CASE VEHICLE	PUNCH CODE	CARD COL.	OTHER VEHICLE	<i>Always Fill in</i>	CARD COL.
ESTIMATED SPEED* (MPH)			ESTIMATED SPEED* (MPH)		
PRIOR TO IMPACT			PRIOR TO IMPACT		
ESTIMATED BY: _____	_____	66-68	ESTIMATED BY: _____	_____	72-74
At First Impact			At First Impact		
ESTIMATED BY: _____	_____	69-71	ESTIMATED BY: _____	_____	75-77
	<i>Note</i> →				
			END OF CARD 01		

*IF SPEEDS ARE UNKNOWN, ENTER 999 IN PUNCH CODE COLUMN

OTHER VEHICLE

See CPIR page 7
for details

NOTE: A complete analysis of this accident requires that a minimum amount of information be obtained on the other vehicle(s) involved. Therefore, the information on this page should be completed even though a separate long form may be filled out on these other vehicles.

DUPLICATE COLUMNS 1-9 FROM PRECEDING CARD

0 2
10 11

OTHER VEHICLE DESCRIPTION

VEHICLE IDENTIFICATION NUMBER

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

12 13 14 15 16 17 18 19 20 21 22 23 24

MAKE _____

MODEL _____

CODE TO BE INSERTED

25 26 27 28 29

MODEL YEAR 19 30 31

*See CPIR page 7
for details*

WEIGHT OF VEHICLE, LBS. 32 33 34 35

ODOMETER READING (IF OVER 100,000 USE 99 999) 36 37 38 39 40

OTHER VEHICLE

BODY STYLE

- (1) 2-DOOR HARDTOP
- (2) 2-DOOR SEDAN OR COUPE
- (3) 4-DOOR HARDTOP
- (4) 4-DOOR SEDAN
- (5) STATION WAGON
- (6) CONVERTIBLE
- (7) VAN
- (8) TRUCK
- (9) OTHER (BUS, ETC.) _____
- (0) UNKNOWN

PUNCH CODE

CARD COL.

41

ENGINE

NUMBER OF CYLINDERS (Enter "0" if unknown) _____

42

HIGH PERFORMANCE (1,2,0)* _____

43

NUMBER OF OCCUPANTS

44-45

VEHICLE LOADING

- (4) BELOW FULL RATED LOAD
- (5) NEAR FULL RATED LOAD
- (6) ABOVE FULL RATED LOAD
- (0) UNKNOWN

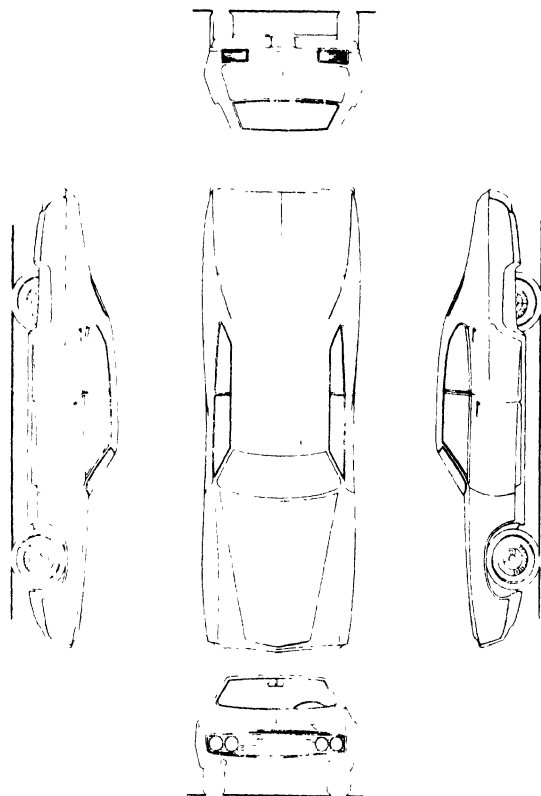
46

DAMAGE INDEX (OTHER VEHICLE)

47 48 49 50 51 52 53
Estimate Unknown Letters

VEHICLE DAMAGE

(This space may be used to enter details and notes about the other vehicle. See page 9 for instructions.)



COMMENTS. _____

Investigator can submit several "Other Vehicle" pages, but only one will be computer processed.

IF SEPARATE REPORT WAS MADE, GIVE REPORT NUMBER _____

Fill in if "Other Vehicle" reported on separate CPIR.

*WHERE (1,2,0) IS INDICATED, USE 1 FOR YES
2 FOR NO

CASE VEHICLE

DUPLICATE COLUMNS 1-9 FROM PRECEDING CARD 0 3
10 11

CASE VEHICLE DESCRIPTION
VEHICLE IDENTIFICATION NUMBER

12	13	14	15	16	17	18	19	20	21	22	23	24
----	----	----	----	----	----	----	----	----	----	----	----	----

Fill serial numbers with 9's
(Not dashes) to correct length

MAKE _____

MODEL _____

Fill in Make/Model Code

CODE TO BE INSERTED by team

Unknown (00000)	25	26	27	28	29
-----------------	----	----	----	----	----

MODEL YEAR 19 _____

Unknown (99) 30 31

Shipping Weight of Vehicle, lbs.

Unknown (0000), Over 10,000 use (9999) 32 33 34 35

ODOMETER READING _____

(IF OVER 100,000:) Unknown (00000) 36 37 38 39 40
USE 99 999

BODY STYLE	PUNCH CODE	CARD COL.
(Match to Pillar Damage, p. 12, 15) (Code Sun Roof as 1 to 5, not 6)		
(1) 2-Door Hardtop (no upper B pillar)		
(2) 2-Door Sedan or Coupe (any upper B)		
(3) 4-Door Hardtop		
(4) 4-Door Sedan		
(5) Station Wagon or Pickup Car		
(6) Convertible - soft or hard shell		
(7) Van (not walk-in)		
(8) Truck		
(9) Other (e.g. bus, jeep, train)	_____	41
(0) Unknown		
BODY STRUCTURE		
(1) BODY AND FRAME		
(2) UNITIZED		
(3) INTEGRAL - STUB FRAME		
(4) OTHER: _____		
(0) UNKNOWN	_____	42
ENGINE		
NUMBER OF CYLINDERS		
(Enter "0" if unknown)	_____	43
HIGH PERFORMANCE (1,2,0)*	_____	44
NUMBER OF OCCUPANTS		
Includes Driver		
(Enter 99 if unknown) Must match number of occupant info. sections	---	45-46

	PUNCH CODE	CARD COL.
VEHICLE LOADING		
(4) BELOW FULL RATED LOAD		
(5) NEAR FULL RATED LOAD		
(6) ABOVE FULL RATED LOAD		
(0) UNKNOWN	_____	47
EQUIPMENT OPTIONS		
TRANSMISSION		
(4) AUTOMATIC + Semi Automatic		
(5) MANUAL		
(0) UNKNOWN	_____	48
STEERING		
(4) POWER		
(5) MANUAL		
(0) UNKNOWN	_____	49
BRAKES		
(4) POWER		
(5) MANUAL		
(0) UNKNOWN	_____	50
BRAKES - TYPE		
(4) DRUM - ALL WHEELS		
(5) DISC - FRONT WHEELS		
(6) DISC - ALL WHEELS		
(0) UNKNOWN	_____	51
BRAKE ANTI-LOCK DEVICE		
(2) NONE INSTALLED		
(4) TWO-WHEEL		
(5) FOUR-WHEEL		
(0) UNKNOWN	_____	52
Top Position at Time of Collision		
(3) Solid Top - Not Applicable		
(4) Convertible Soft Top Up or Closed		
(5) Retracted Soft Top or Hard Shell Removed		
(6) Removable Hard Shell Installed (NEW)		
(7) Sun Roof - Closed (NEW)		
(8) Sun Roof - Open (NEW)		
(0) Unknown	_____	53
CASE VEHICLE REPAIR OR REPLACEMENT COST		
Unknown (9999)		
\$ _____	54	55 56 57
CASE VEHICLE DAMAGE INDEX		
PRIMARY DAMAGE		
WORST - Worst-most significant (e.g., related to injury)		
NEXT WORST	58 59 60 61 62 63 64	
SECONDARY DAMAGE Unknown or None (99-0000-0)		
Fill		
Both	65 66 67 68 69 70 71	
END OF CARD 03		
Always complete entire page		

CASE VEHICLE

*WHERE (1,2,0) IS INDICATED, USE 1 FOR YES
2 FOR NO
0 FOR UNKNOWN

EXTERIOR DAMAGE (During Collision)

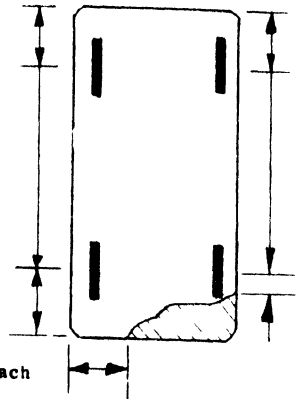
DUPLICATE COLUMNS 1-9 FROM PRECEDING CARD 0 4
10 11

SHEET METAL DAMAGE	PUNCH CODE	CARD COL.
FRONT (1,2,0)* (2) if none	---	12
REAR (1,2,0)*	---	13
LEFT SIDE (1,2,0)*	---	14
RIGHT SIDE (1,2,0)*	---	15
ROOF (1,2,0)*	---	16
OTHER (1,2,0)* _____	---	17
REMARKS: Record <u>only</u> CONTACT or DIRECT DAMAGE Do not include Indirect Damage		
SHEET METAL CRUSH		
TO BE FILLED IN BY INVESTIGATOR INSERT MAXIMUM CRUSH DIMENSION TO THE NEAREST INCH. DIMENSIONS MUST AGREE WITH DIAGRAMS ON FACING PAGE. (INSERT "99", IF UNKNOWN INSERT "98" IF 98 INCHES OR OVER) (00) if none		
FRONT (INCHES)	---	18-19
REAR	---	20-21
LEFT SIDE	---	22-23
RIGHT SIDE	---	24-25
ROOF <u>Downward only</u> Includes Trunk, hood	---	26-27
OTHER:	---	28-29

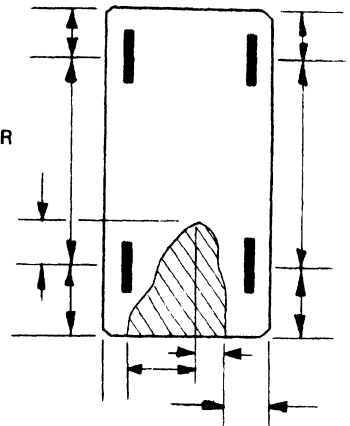
Note

EXAMPLES.

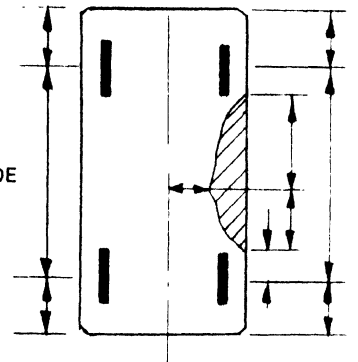
FRONT OR REAR



FRONT OR REAR



SIDE

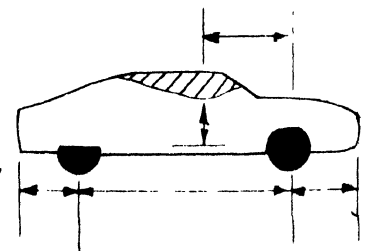


Fill in one per VDI first letter

- with one VDI, fill only one crush
- with two VDI, fill only two crushes
- if more contact impacts, record each

ROOF

(REFERENCE TO TOP OF DOOR SILL OR WINDOW SILL)



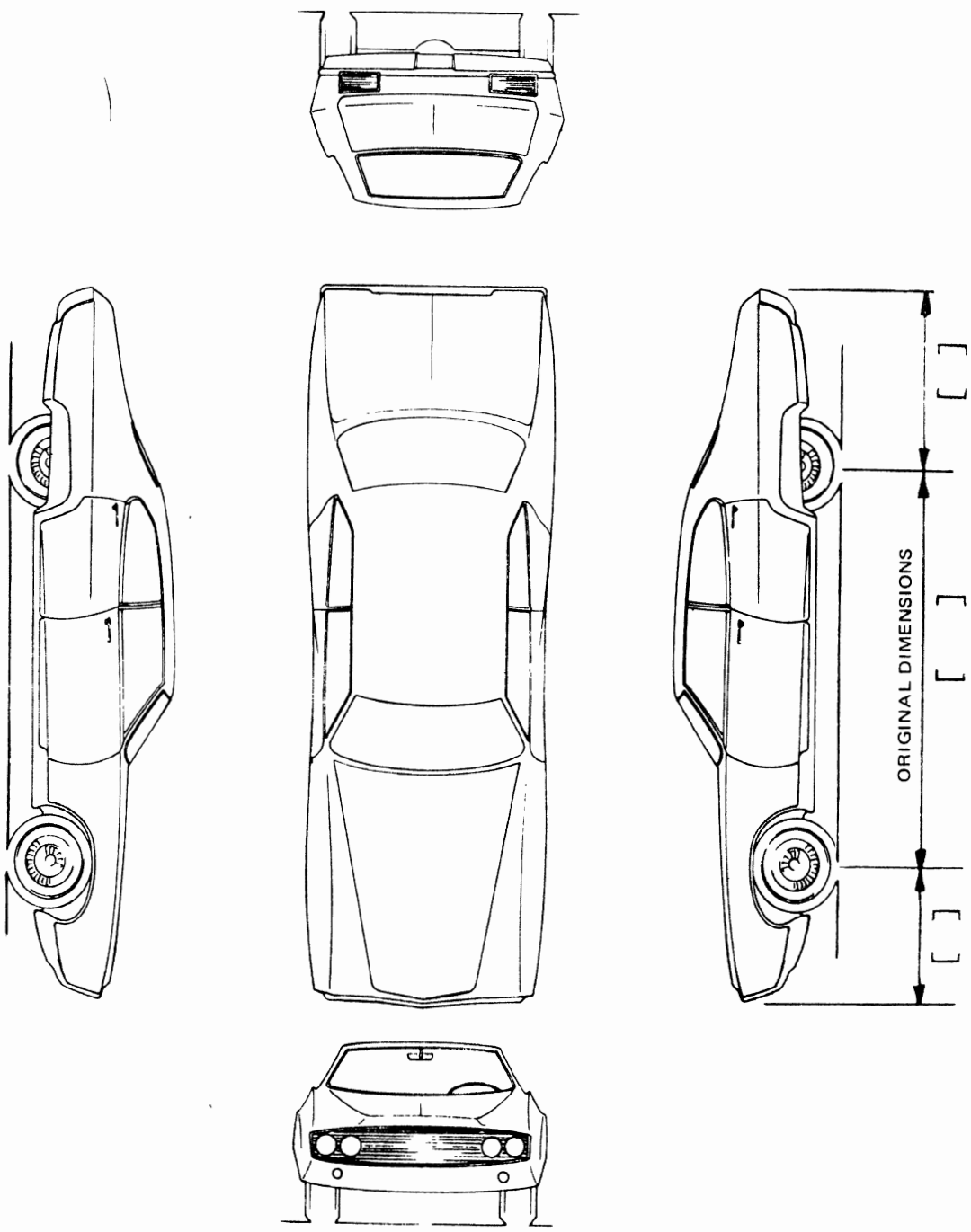
*WHERE (1,2,0) IS INDICATED, USE 1 FOR YES
2 FOR NO

SHEET METAL

EXTERIOR DAMAGE

FIELD INVESTIGATOR INSTRUCTIONS:

1. Indicate crushed areas by outlining new perimeter of vehicle and shading the damaged areas on the large sketch below. Use as many sketches as necessary to completely describe the damage.
2. Enter the dimensions on the sketch(es) measured to the point of maximum penetration by the object(s) contacted. Use the examples on the facing page as a guide.
3. Enter the three dimensions to the center of the wheels (wheelbase, front and rear overhangs) on both sides of the car.
4. Add other dimensions as necessary to completely describe the damage.



VEHICLE SKETCH

WHEELS AND TIRES

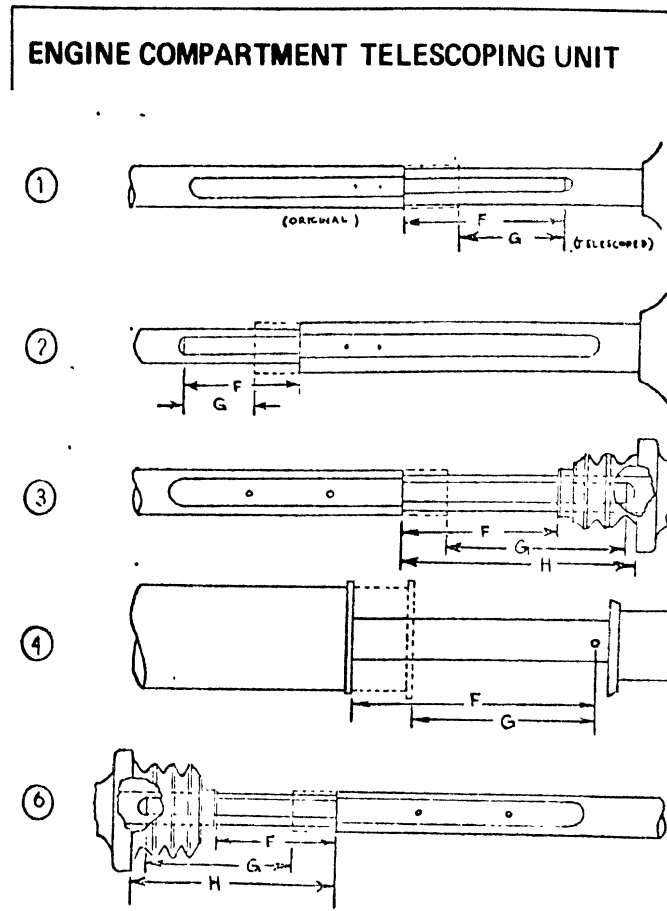
WHEELS & TIRES

WHEELS		PUNCH CODE	CARD COL.	TIRES (CONT'D.)	
ORIGINAL EQUIPMENT TYPE				SIZE	
FRONT (1,2,0)*		___	30	FRONT {	LEFT _____
REAR (1,2,0)*		___	31	RIGHT {	RIGHT _____
DAMAGED (1,2,0)*		___	32	REAR {	LEFT _____
DESCRIBE DAMAGE AND NON O.E. WHEELS				RIGHT {	RIGHT _____
Do not include tire damage				MANUFACTURER	
TIRES				FRONT {	LEFT _____
TREAD TYPE				RIGHT {	RIGHT _____
(4) REGULAR	FRONT	___	33	REAR {	LEFT _____
(5) NON-STUDED SNOW				RIGHT {	RIGHT _____
(6) STUDED SNOW					
(7) 'SLICK'					
(8) LEFT AND RIGHT SIDES DIFFERENT	REAR	___	34	MODEL	
(9) OTHER: _____				FRONT {	LEFT _____
(0) UNKNOWN				RIGHT {	RIGHT _____
TREAD WEAR				REAR {	LEFT _____
(4) LIGHT	FRONT	___	35	RIGHT {	RIGHT _____
(5) MEDIUM					
(6) HEAVY					
(7) BALD					
(8) LEFT AND RIGHT SIDES DIFFERENT	REAR	___	36	CODE	
(9) OTHER: _____				FRONT {	LEFT _____
(0) UNKNOWN				RIGHT {	RIGHT _____
PROFILE				REAR {	LEFT _____
(4) REGULAR 80,78	FRONT	___	37	RIGHT {	RIGHT _____
(5) WIDE OVAL 70,60,50					
(6) LEFT AND RIGHT SIDES DIFFERENT					
(7) OTHER: _____	REAR	___	38	LOAD RANGE	
(0) UNKNOWN				FRONT {	LEFT _____
CARCASS TYPE				RIGHT {	RIGHT _____
(4) BIAS PLY	FRONT	___	39	REAR {	LEFT _____
(5) BELTED-BIAS PLY				RIGHT {	RIGHT _____
(6) RADIAL PLY					
(7) LEFT AND RIGHT SIDES DIFFERENT					
(8) OTHER: _____	REAR	___	40		
(0) UNKNOWN					

*WHERE (1,2,0) IS INDICATED, USE 1 FOR YES
2 FOR NO
0 FOR UNKNOWN

FRONT EXTERIOR

HOOD PERFORMANCE (FRONT OF VEHICLE) (VW front trunk) HOOD LATCH(ES) (3) for Not Applicable	PUNCH CODE	CARD COL.
	—	41
	—	42
RELEASED (1,2,0)* DAMAGED (1,2,0)* JAMMED (1,2,0)*	—	43
HOOD HINGES LEFT { <ul style="list-style-type: none"> DAMAGED (1,2,0)* SEPARATED (1,3,3,4,5,0)* RIGHT { <ul style="list-style-type: none"> DAMAGED (1,2,0)* SEPARATED (1,3,3,4,5,0)* 	—	44
	—	45
	—	46
	—	47
	—	48
	—	49
HOOD REMAINED ON VEHICLE (1,2,0)* (during collision) REAR EDGE OF HOOD ELEVATED (1,2,0)* CONTACTED WINDSHIELD (1,2,0)* PENETRATED WINDSHIELD (1,2,0)* OPTIONAL HOOD INSTALLED (1,2,0)*	—	50
—	51	
—	52	
ENGINE OR TRANSMISSION MOUNT SEPARATION (1,2,0)*	—	53
STEERING COLUMN FLEXIBLE COUPLING EQUIPPED (1,2,0)* SEPARATED (1,2,3,4,5,0)* OTHER DAMAGE (1,2,3,0)* DESCRIBE: <u>Flexible Rubberized Coupling</u> <u>not a pot joint</u>	—	54
	—	55
	—	56
	—	57
	—	58



LOWER TELESCOPING SHAFT

TYPE OF UNIT (5) None Installed (1-6) See Above Sketch (8) Double U Joint (Foreign Imports) (9) Others _____	PUNCH
	NEW CODES
NOTE: IF NONE	57
ORIGINAL LENGTH: (See Table (F) _____ Above)	(888) for None Installed, Not Applicable
TELESCOPED LENGTH (Measure, See (G) _____ Diagrams Above)	
DIFFERENCE (F minus G) _____ (ENTER 99.9 IF UNKNOWN)	58 59 60 END OF CARD 04

HOOD

* USE 1 FOR YES 2 FOR NO 3 FOR NOT APPLICABLE 0 FOR UNKNOWN

(4) Partial Separation
(5) Complete Separation

FIRE

DUPLICATE COLUMNS 1-9 FROM PRECEDING CARD 0 5
10 11

FIRE (Accident View Point)

- (1) Yes - time unknown
- (2) No Fire
- (4) Pre-Crash Fire Start (NEW)
- (5) At-Crash Fire Start (NEW)
- (6) Post-Crash Fire Start (NEW)
- (0) Unknown

PUNCH CODE	CARD COL.
—	12

EXTENT OF FIRE (to Case Vehicle)

- (3) No Fire, Not Applicable
- (4) Minor - easily extinguished
- (5) Major (e.g., entire interior or engine)
- (0) Unknown

PUNCH CODE	CARD COL.
—	13

FIRE ORIGIN (in Case Vehicle)

- (3) No Fire, Not Applicable
- (4) Engine Compartment
- (5) Passenger Compartment
- (6) Luggage Compartment
- (7) Fuel Tank, lines, filler
- (8) Other: _____
- (0) Unknown

PUNCH CODE	CARD COL.
—	14

NOTES ABOUT PILLARS _____

Match Pillar coding to page 7, Body Style

Upper B Pillar:

- (3) for hardtops, soft top convertibles
- (1,2) for roll bars, hard shell convertibles

Upper C Pillar:

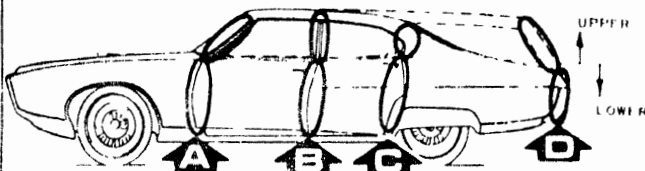
- (3) for soft top convertibles
- (1,2) for hard shell convertibles

C Pillar: any pillar between B and D on Vans, 4 Doors, and Station Wagons
Lower B and C: (3) for jeep style

Lower D Pillar:

- (3) Sedans, Hardtops
- (1,2) pickups, pickup-cars, Station Wagons, Vans

LEFT PILLARS



LEFT EXTERIOR

LEFT PILLARS

If left pillars were not damaged or separated or left roof side rail was not damaged or buckled, place a "1" in code column

Always complete entire page

A-PILLAR

- UPPER { DAMAGED (1,2,0)*
- { SEPARATED (1,2,3,4,5,0)*
- LOWER { DAMAGED (1,2,0)*
- { SEPARATED (1,2,3,4,5,0)*

B-PILLAR (Also Rear Pillar on Pick-Up Truck, Corvette, 70-71 Camaro, 70-71 Firebird)

- UPPER { DAMAGED (1,2,3,0)*
- { SEPARATED (1,2,3,4,5,0)*
- LOWER { DAMAGED (1,2,0)*
- { SEPARATED (1,2,3,4,3,0)*

C-PILLAR

- UPPER { DAMAGED (1,2,3,0)*
- { SEPARATED (1,2,3,4,3,0)*
- LOWER { DAMAGED (1,2,3,0)*
- { SEPARATED (1,2,3,4,3,0)*

D-PILLAR

(Station Wagon & Limousine)

- UPPER { DAMAGED (1,2,3,0)*
- { SEPARATED (1,2,3,4,3,0)*
- LOWER { DAMAGED (1,2,3,0)*
- { SEPARATED (1,2,3,4,3,0)*

LEFT ROOF SIDE RAILS

Includes convertibles if top closed

DAMAGED (1,2,3,0)*

↑ Damaged if buckled

BUCKLED (1,2,3,0)*

PUNCH CODE	CARD COL.
—	15
—	16
—	17
—	18
—	19
—	20
—	21
—	22
—	23
—	24
—	25
—	26
—	27
—	28
—	29
—	30
—	31
—	32
—	33

*WHERE (1,2,0) OR (1,2,3,0) ARE INDICATED, USE 1 FOR YES 2 FOR NO

3 FOR NOT APPLICABLE (4) Partial Separation (0) FOR UNKNOWN

FIRE

LEFT PILLARS

NEW CODES

LEFT EXTERIOR

REAR EXTERIOR

SIDE STRUCTURE – LEFT SIDE		PUNCH CODE	CARD COL.
LEFT BODY MOUNT SEPARATION (1,2,3,0)* ↳ Unitized		—	34
If door hinges and latches were not damaged and doors did not jam or open during collision, and continuity of the side structure was maintained, place a "1" in code column Always complete		—	35
entire page			
DOOR LATCHES	DAMAGED (1,2,3,0)*	—	36
	RELEASED (1,2,3,0)*	—	37
LEFT FRONT	DAMAGED (1,2,3,0)*	—	38
	RELEASED (1,2,3,0)*	—	39
LEFT REAR	DAMAGED (1,2,3,0)*	—	40
	RELEASED (1,2,3,0)*	—	41
Includes Van side doors			
DOOR HINGES	DAMAGED (1,2,3,0)*	—	42
	SEPARATED (1,2,3,4,5,0)*	—	43
LEFT FRONT	DAMAGED (1,2,3,0)*	—	44
	SEPARATED (1,2,3,4,5,0)*	—	45
LEFT REAR	DAMAGED (1,2,3,0)*	—	46
	SEPARATED (1,2,3,4,5,0)*	—	47
CONTINUITY OF SIDE STRUCTURE MAINTAINED (1,2,3,0)* i.e., Is Side Boundary Broken Not restricted to vehicles with reinforced side structure		—	48
DOORS OPENED DURING COLLISION			
LEFT	FRONT (1,2,0)*	—	45
	REAR (1,2,3,0)*	—	46
DOORS JAMMED CLOSED			
LEFT	FRONT (1,2,0)*	—	47
	REAR (1,2,3,0)*	—	48

FUEL TANK AND LINES		PUNCH CODE	CARD COL.
APPROXIMATE FUEL LEVEL AT TIME OF IMPACT (4) LESS THAN 1/2 (5) 1/2 OR MORE (0) UNKNOWN		—	49
TANK RETENTION (4) COMPLETE RETENTION (5) PARTIAL DISENGAGEMENT (6) COMPLETE DISENGAGEMENT (0) UNKNOWN		—	50
TANK DEFORMED (1,2,0)* includes neck		—	51
FUEL LEAKAGE PRESENT (1,2,0)*		—	52
LOCATION OF LEAKS			
FROM THE TANK (1,2,3,0)*		—	53
FROM THE NECK (1,2,3,0)*		—	54
FROM THE LINES (1,2,3,0)*		—	55
TRAILER AND HITCH (1) Yes, Type Unknown (2) No (3) Ball and Socket, Temporary Bumper (e.g., rental clamp-on) (4) Ball and Socket, Bumper only (e.g., light truck) (5) Ball and Socket - Frame Hitch (e.g., frame and bumper) (6) Equalizing, load distributing (7) Ring and Pintle (e.g., double tractor) (8) Fifth Wheel (e.g., semi) (9) Other (e.g., clevis and pin) (0) Unknown		—	56
TRAILER BEING TOWED (AT TIME OF COLLISION) (1) Yes, Type Unknown (2) No (hitch, no trailer) (3) Not Applicable (no hitch) (4) Travel Trailer/Camper (5) Mobile Home (6) Boat/Snowmobile/ATV Trailer (7) Rental/Cargo Trailer (8) Car (9) Other: _____ (0) Unknown		—	57

TRAILER

FUEL TANK

LEFT SIDE STRUCTURE

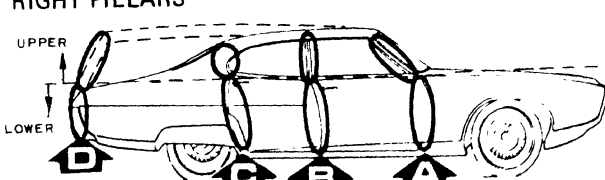
*WHERE (1,2,0) OR (1,2,3,0) ARE INDICATED, USE 1 FOR YES 2 FOR NO 3 FOR NOT APPLICABLE (4) Partial Separation 0 FOR UNKNOWN (5) Complete Separation

REAR EXTERIOR

TRUNK

TAILGATE

LUGGAGE AREA

FILL IN TRUNK LID OR TAILGATE DETAILS AND REST OF PAGE.		PUNCH CODE	CARD COL.	DUPLICATE COLUMNS 1-9 FROM PRECEDING CARD 0 6 10 11	
TAILGATE PERFORMANCE Includes back doors of vans				TRUNK LID PERFORMANCE (REAR OF VEHICLE) (VW engine cover)	
LATCHES				LATCHES	
RELEASED (1,2,0)*		_____	58	RELEASED (1,2,3,0)*	
DAMAGED (1,2,0)*		_____	59	DAMAGED (1,2,3,0)*	
LATCH OR TAILGATE JAMMED (1,2,0)*		_____	60	LATCH OR LID JAMMED (1,2,3,0)*	
HINGES Code 3 hinges for two-way tailgate				HINGES	
BOTTOM LEFT	DAMAGED (1,2,3,0)*	_____	61	LEFT	DAMAGED (1,2,3,0)*
	SEPARATED (1,2,3,4,5,0)*	_____	62		SEPARATED (1,2,3,4,5,0)*
BOTTOM RIGHT	DAMAGED (1,2,3,0)*	_____	63	RIGHT	DAMAGED (1,2,3,0)*
	SEPARATED (1,2,3,4,5,0)*	_____	64		SEPARATED (1,2,3,4,5,0)*
TOP LEFT	DAMAGED (1,2,3,0)*	_____	65	TRUNK AREA (partitioned luggage area) (front of VW, rear of pickup or van) DAMAGED (1,2,3,0)*	
	SEPARATED (1,2,3,4,5,0)*	_____	66	SPARE TIRE SEPARATION (1,2,3,0)* (4) for spare tire not initially attached	
TOP RIGHT	DAMAGED (1,2,3,0)*	_____	67	TRUNK - PASSENGER COMPARTMENT PARTITION DAMAGE (1,2,3,0)*	
	SEPARATED (1,2,3,4,5,0)*	_____	68	BACKLIGHT HEADER (REAR WINDOW TOP FRAME) (none on convertibles) BACKLIGHT HEADER DAMAGED OR BUCKLED (1,2,3,0)*	
EQUIPPED WITH TWO-WAY TAILGATE (1,2,0)*	_____	69	RIGHT PILLARS		
TAILGATE ELECTRIC WINDOW OPERABLE (1,2,3,0)*	_____	70			
		END OF CARD 05			

*WHERE (1,2,0) OR (1,2,3,0) ARE INDICATED, USE 1 FOR YES 2 FOR NO 3 FOR NOT APPLICABLE (4) Partial Separation (5) Complete Separation 0 FOR UNKNOWN

RIGHT EXTERIOR

RIGHT PILLARS	PUNCH CODE	CARD COL.	SIDE STRUCTURE – RIGHT SIDE	PUNCH CODE	CARD COL.
If right pillars were not damaged or separated or right roof side rail was not damaged or buckled, place a "1" in code column Always complete entire page	_____	23	RIGHT BODY MOUNT SEPARATION (1,2,3,0)* ↳ Unitized	_____	43
A-PILLARS			If door hinges and latches were not damaged and doors did not jam or open during collision, and continuity of the side structure was maintained, place a "1" in code column Always complete entire page		
UPPER { DAMAGED (1,2,0)* SEPARATED (1,2,3,4,5,0)*	_____	24	DOOR LATCHES		44
SEPARATED (1,2,3,4,5,0)*	_____	25	RIGHT FRONT { DAMAGED (1,2,3,0)* RELEASED (1,2,3,0)*	_____	45
LOWER { DAMAGED (1,2,0)*	_____	26	RELEASED (1,2,3,0)*	_____	46
SEPARATED (1,2,3,4,5,0)*	_____	27	RIGHT REAR { DAMAGED (1,2,3,0)* RELEASED (1,2,3,0)*	_____	47
B-PILLAR (ALSO REAR PILLAR ON PICK UP TRUCK, CORVETTE, (70-71 Camaro, 70-71 Firebird)			RELEASED (1,2,3,0)*	_____	48
UPPER { DAMAGED (1,2,3,0)*	_____	28	DOOR HINGES Includes Van side doors		
SEPARATED (1,2,3,4,5,0)*	_____	29	RIGHT FRONT { DAMAGED (1,2,3,0)* SEPARATED (1,2,3,4,5,0)*	_____	49
LOWER { DAMAGED (1,2,0)*	_____	30	SEPARATED (1,2,3,4,5,0)*	_____	50
SEPARATED (1,2,3,4,5,0)*	_____	31	RIGHT REAR { DAMAGED (1,2,3,0)* SEPARATED (1,2,3,4,5,0)*	_____	51
C-PILLAR			SEPARATED (1,2,3,4,5,0)*	_____	52
UPPER { DAMAGED (1,2,3,0)*	_____	32	CONTINUITY OF SIDE STRUCTURE MAINTAINED (1,2,3,0)*	_____	53
SEPARATED (1,2,3,4,5,0)*	_____	33	<i>i.e., Is Side Boundary Broken</i> Not restricted to vehicles with reinforced side structure		
LOWER { DAMAGED (1,2,3,0)*	_____	34	DOORS OPENED DURING COLLISION		
SEPARATED (1,2,3,4,5,0)*	_____	35	RIGHT { FRONT (1,2,0)* REAR (1,2,3,0)*	_____	54
D-PILLAR (STATION WAGON & LIMOUSINE)				_____	55
UPPER { DAMAGED (1,2,3,0)*	_____	36	DOORS JAMMED CLOSED		
SEPARATED (1,2,3,4,5,0)*	_____	37	RIGHT { FRONT (1,2,0)* REAR (1,2,3,0)*	_____	56
LOWER { DAMAGED (1,2,3,0)*	_____	38		_____	57
SEPARATED (1,2,3,4,5,0)*	_____	39			
RIGHT ROOF SIDE RAILS Includes convertibles if top closed DAMAGED (1,2,3,0)* ↑ Damaged if buckled BUCKLED (1,2,3,0)*	_____	40			
	_____	41			
WINDSHIELD HEADER Always Fill in DAMAGED OR BUCKLED (1,2,0)*	_____	42			

RIGHT SIDE STRUCTURE

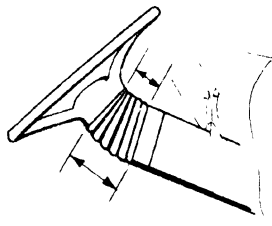
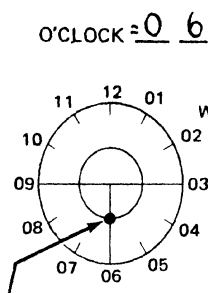
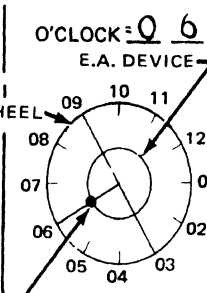
RIGHT PILLARS

*WHERE (1,2,0) OR (1,2,3,0) ARE INDICATED, USE 1 FOR YES 3 FOR NOT APPLICABLE (4) Partial Separation
2 FOR NO 0 FOR UNKNOWN (5) Complete Separation

STEERING WHEEL

STEERING WHEEL

STEERING WHEEL				PUNCH CODE	CARD COL.
TYPE				99	Unknown
GM, Only				---	58-59
NOTES ON NON-ORIGINAL EQUIPMENT STEERING WHEEL:					
STEERING WHEEL RIM					
DAMAGE					
(2) NONE (4) SLIGHTLY DEFORMED (5) SEVERELY BENT (6) BROKEN (0) UNKNOWN				---	60
OCCUPANT CONTACT (1,2,0)*				---	61
STEERING WHEEL SPOKES					
NUMBER OF SPOKES (ENTER "0" IF UNKNOWN)				---	62
DAMAGE					
(2) NONE (4) SLIGHTLY DEFORMED (5) SEVERELY BENT (6) BROKEN (0) UNKNOWN				---	63
OCCUPANT CONTACT (1,2,0)*				---	64
HORN RING, HORN BUTTON(S), OR SPOKE SHROUD					
DAMAGED (1,2,0)*				---	65
OCCUPANT CONTACT (1,2,0)*				---	66
STEERING WHEEL ENERGY ABSORBING DEVICE TABLE					
Corporation	Year	Make	Length		
Chrysler	70	Barracuda Challenger	4.9"		
Ford	70-72	Capri	6" total 3" external		

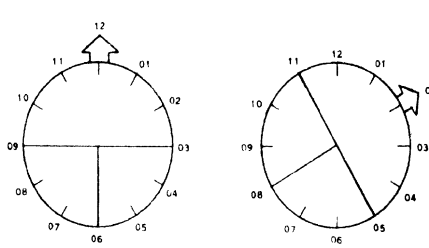
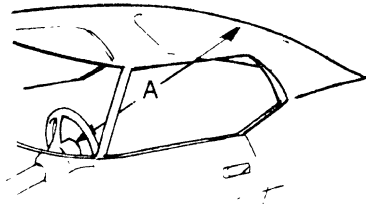
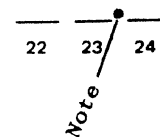
STEERING WHEEL ENERGY ABSORBING DEVICE		PUNCH CODE	CARD COL.
(SEE DRAWING ON PAGE 18 FOR LOCATION)			67
EQUIPPED (1,2,0)*			
ENERGY ABSORBING DEVICE FINAL POSITION			
MEASURE THE MINIMUM AND MAXIMUM OVERALL LENGTH OF THE ENERGY ABSORBING DEVICE (BETWEEN THE STEERING WHEEL AND STEERING COLUMN).			
ENTER THESE LENGTHS BELOW			
			
MAX. = _____ in.; MIN. = _____ in.			
THE E.A. DEVICE ROTATES WITH THE STEERING WHEEL. WE WANT TO KNOW WHERE THIS MINIMUM LENGTH OCCURRED (AROUND THE CIRCUMFERENCE OF THE E.A. DEVICE) WITH RESPECT TO THE SPOKES. RECORD BELOW THE O'CLOCK POSITION AT WHICH THIS MINIMUM LENGTH WAS MEASURED.			
EXAMPLES			
			
MINIMUM LENGTH		MINIMUM LENGTH	
O'CLOCK = 06		O'CLOCK = 06	
(ENTER 00 IF UNKNOWN)		E.A. DEVICE	
---		---	
68		69	
ENERGY ABSORBING DEVICE COMPRESSION			
FOLLOWING TO BE FILLED IN			
(ENTER 99.9 IF UNKNOWN)			
ORIGINAL LENGTH (H)	---	8's for Not Equipped	
(SEE TABLE AT LEFT)			
DAMAGED MAX. LENGTH (X)	---		
DIFFERENCE (H-X)	---		
ORIGINAL LENGTH (H)	---	70	72
(SEE TABLE AT LEFT)			
DAMAGED MIN. LENGTH (Y)	---		
DIFFERENCE (H-Y)	---		
DEVICES EXTENDED	---	73	74 75
(4) X GREATER THAN H (5) X AND Y GREATER THAN H (6) NEITHER (0) UNKNOWN			

76			

1 FOR YES 3 FOR NOT APPLICABLE

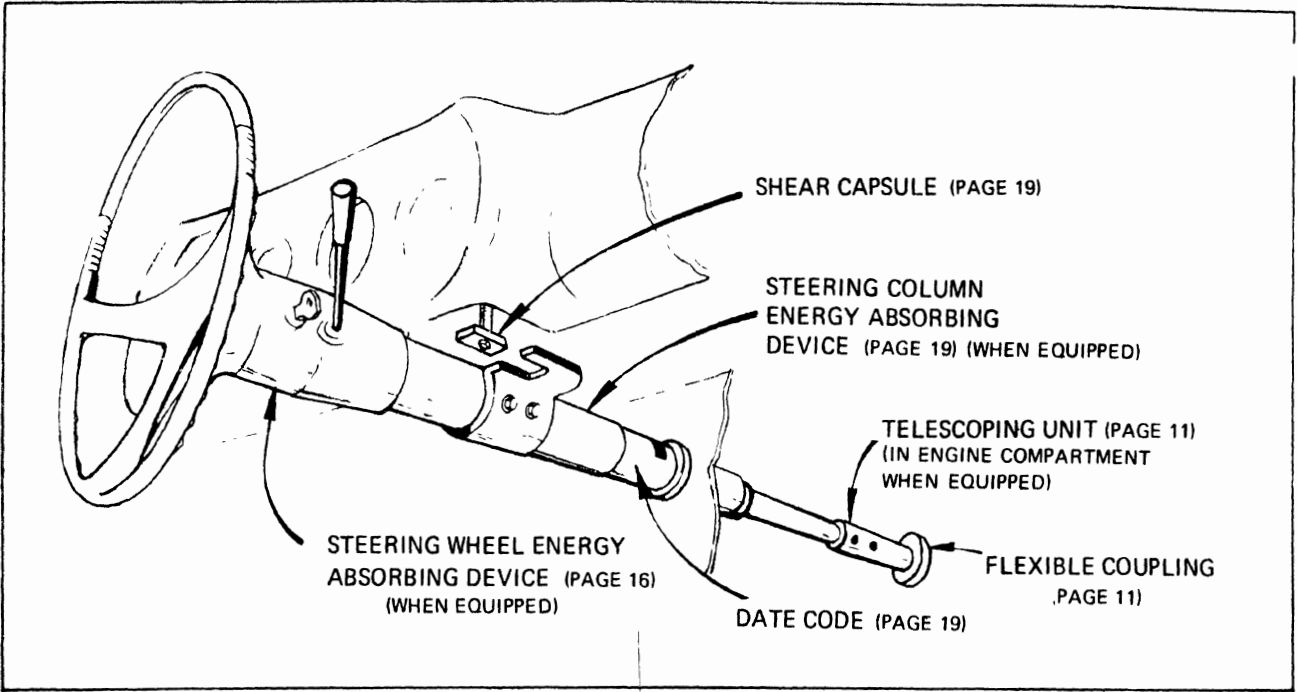
END OF

STEERING WHEEL AND COLUMN

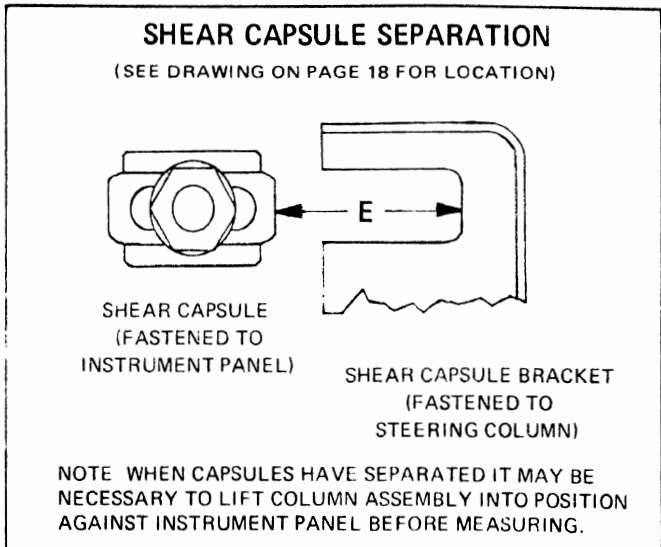
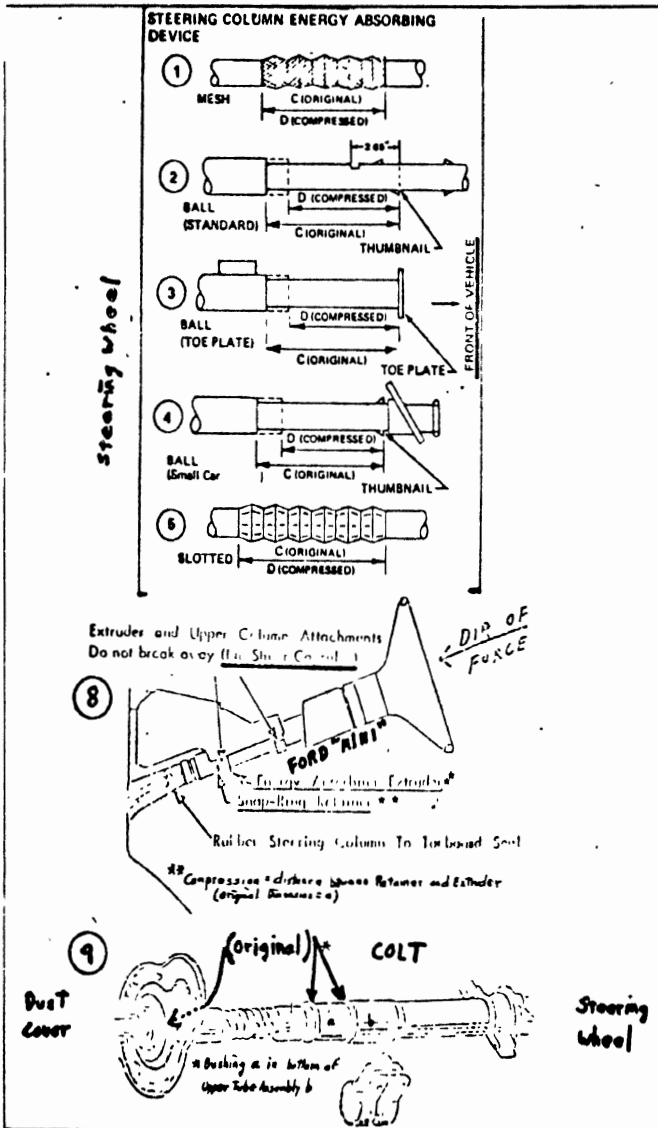
DUPLICATE COLUMNS 1-9 FROM PRECEDING CARD <u>0</u> <u>7</u> 10 11			
STEERING WHEEL POSITION AT TIME OF COLLISION IN WHAT O'CLOCK POSITION WAS THE NORMAL TOP OF THE WHEEL POINTED WHEN THE COLLISION OCCURRED? EXAMPLES O'CLOCK = <u>1</u> <u>2</u> O'CLOCK = <u>0</u> <u>2</u>  (NORMAL STRAIGHT AHEAD) DO NOT EDIT (00) UNKNOWN O'CLOCK = ___ ___ 12-13	PUNCH CODE CARD COL.		
STEERING WHEEL PAD (LOAD DISTRIBUTING MATERIAL) EQUIPPED (1,2,0)* DEFORMED (1,2,3,0)* (PUT NOTES ON FOLD-OUT FLY-LEAF)	___ 14 ___ 15	___ 16 ___ 17	___ 18 ___ 19
TELESCOPING FEATURE EQUIPPED (1,2,0)* FINAL POSITION (3) NOT APPLICABLE (4) NORMAL (5) ABOVE NORMAL (6) BELOW NORMAL (0) UNKNOWN	___ 18 ___ 19	___ 16 ___ 17	___ 18 ___ 19
SWING-AWAY FEATURE EQUIPPED (1,2,0)* FINAL POSITION (3) NOT APPLICABLE (4) NORMAL (5) RIGHT OF NORMAL (0) UNKNOWN		PUNCH CODE CARD COL.	___ 20 ___ 21
FINAL COLUMN POSITION MEASURE THE DISTANCE FROM THE STEERING WHEEL CENTER TO THE TOP OF THE REAR WINDOW GLASS, DIRECTLY BEHIND THE HUB. ("A" IN SKETCH). ENTER THIS DISTANCE IN BLANK "A".  A: _____ INCHES		COLUMN MOVEMENT (strictly) If top or rear window glass is displaced, then use (999) <u>Not</u> a measure of passenger compartment size reduction FROM A CORRESPONDING UNDAMAGED VEHICLE, MAKE A MEASUREMENT SIMILAR TO "A" ABOVE, AND RECORD IT IN BLANK "B", (PLACE TILT STEERING WHEEL IN MID-POSITION AND TELESCOPING COLUMNS IN FULL DOWN POSITION). ORIGINAL DIMENSION (B) _____ IN. DAMAGED VEHICLE DIMENSION (A) _____ IN. DIFFERENCE A-B _____ DIRECTION OF MOTION (4) FORWARD (A GREATER THAN B) (5) REARWARD (A LESS THAN B) (6) NEITHER (0) UNKNOWN	
(999) if Unknown 		22 23 24 Note	
*WHERE (1,2,0) OR (1,2,3,0) ARE INDICATED, USE 1 FOR YES 2 FOR NO 3 FOR NOT APPLICABLE 0 FOR UNKNOWN		25	

STEERING WHEEL AND COLUMN

STEERING COLUMN (CONT'D.)

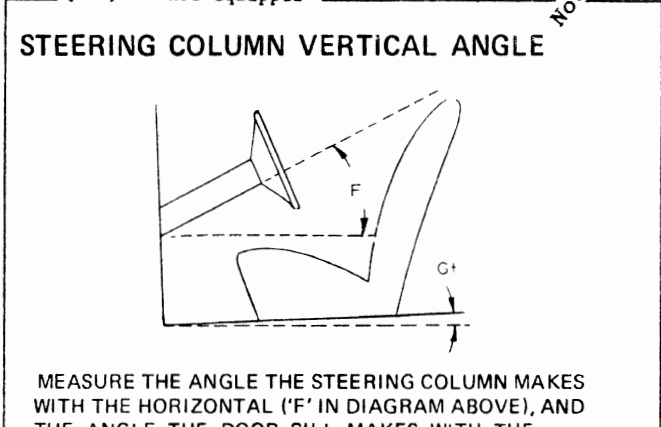


STEERING COLUMN (CONT'D.)



SHEAR CAPSULE SEPARATION DISTANCE ('E' IN DIAGRAM ABOVE) (ENTER 99.9 IF UNKNOWN) (888) if not equipped	PUNCH		
	30	31	32

Note



STEERING COLUMN ENERGY ABSORBING DEVICE TYPE OF DEVICE	PUNCH	
	(7) Not Equipped	
(1) Mesh		
(2) Ball (Standard)		
(3) Ball (with Toe Plate)		
(4) Ball (Vega)		
(5) Slotted		
(6) Other: _____		
(8) Ford Mini-Column NEW CODES		
(9) Collapsible Tube (Colt, European)		
(0) Unknown		
ORIGINAL LENGTH (See Table on Page 18) (C) _____	8's for Not Equipped	
COMPRESSED LENGTH (Measure, See Diagrams above) (D) _____		
COMPRESSION (C minus D) _____ (ENTER 99.9 IF UNKNOWN)		
NOTE: ALL DIMENSIONS IN PUNCH SHOULD BE IN INCHES AND TENTHS.		

COLUMN VERTICAL ROTATION FINAL COLUMN POSITION	PUNCH	
	COLUMN ANGLE (F) _____ (Relative to Ground)	
VEHICLE ANGLE (G) _____		
COLUMN ANGLE (F-G=H) _____ (Relative to Vehicle)		
FROM A CORRESPONDING UNDAMAGED VEHICLE, MAKE A MEASUREMENT SIMILAR TO "H" ABOVE AND RECORD IT IN BLANK "J"		Either + or -
ORIGINAL DIMENSION (J) _____		
DAMAGED VEHICLE DIMENSION (H) _____		
COLUMN ROTATION (H-J) _____ (ENTER 99 IF UNKNOWN) (98) Rotated - Unknown amount (9/72)		

STEERING COLUMN

PASSENGER COMPARTMENT

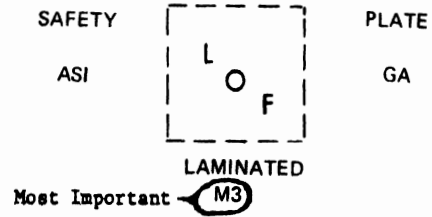
GENERAL INFORMATION

GENERAL INFORMATION	PUNCH CODE	CARD COL.
PASSENGER COMPARTMENT REDUCED IN SIZE (1,2,0)* A	_____	35
EXTERNAL OBJECT INTRUSION (1,2,0)* B DESCRIBE ON FOLD-OUT FLY-LEAF	_____	36
INTERNAL LOOSE OBJECT (1,2,0)* C	_____	37
VERTICAL ROTATION OF INSTRUMENT PANEL (1,2,0)* no buckle alone	_____	38
FIREWALL (COWL) DEFORMATION (1,2,0)*	_____	39
FLOORPAN DEFORMATION (1,2,0)* (INCLUDING TOEPAN)	_____	40
WINDSHIELD		
CRACKED (1,2,3,0)* <i>Cracked if broken</i>	_____	41
BROKEN (1,2,3,0)* (Plastic Interlayer Torn)	_____	42
OCCUPANT CONTACT (1,2,3,0)*	_____	43
CRACKED OR BROKEN BY OCCUPANT CONTACT (1,2,3,0)* <i>If no contact then</i>	_____	44
BOND SEPARATED (1,2,0)* <i>Out of molding?</i> (IF "YES", ESTIMATE PERCENT _____)	_____	45
WINDSHIELD CODE		
_____	_____	46-47 (YY) Unknown

WINDSHIELD MARK

DRAW GLASS MANUFACTURER'S WINDSHIELD MARK WHICH IS LOCATED ALONG THE BOTTOM OF THE WINDSHIELD AT CENTER OR AT ONE CORNER.

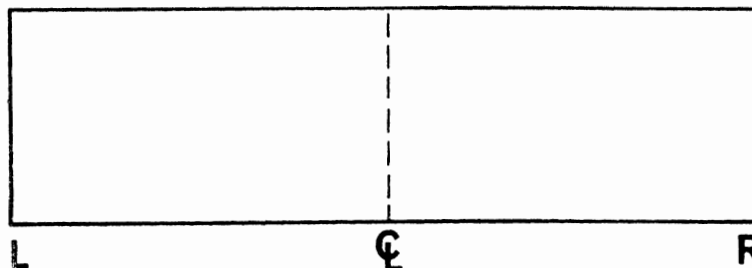
EXAMPLE OF TYPICAL MARK:



- A. Internal boundary of passenger compartment moved inward due to either direct or indirect damage.
- B. Internal boundary of passenger compartment moved inward due to direct damage as in a side collision or rollover, i.e., external object went inside original internal boundary line. Includes, but is not limited to penetration.
Note: The boundary does not have to be broken. If compartment is "opened up" the "continuity of side structure" (page 13, 15) is not maintained.
- C. Code on Internal Loose Object even if not involved, it could have caused injury.

WINDSHIELD

LOCATE AREA OF WINDSHIELD INTEREST OR DAMAGE WITH DIMENSIONS (VERTICAL & HORIZONTAL) ON THIS DIAGRAM OF THE WINDSHIELD AS VIEWED FROM INSIDE.



*WHERE (1,2,3,0) IS INDICATED, USE 1 FOR YES 3 FOR NOT APPLICABLE
2 FOR NO 0 FOR UNKNOWN

PASSENGER COMPARTMENT

Probable Contact
(Need not include injury)

NOTE. IF THERE WERE NO OCCUPANTS,
CIRCLE THIS NOTE AND STOP HERE.

Always complete
entire page

INSTRUMENT PANEL

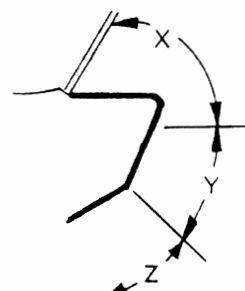
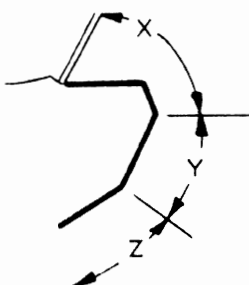
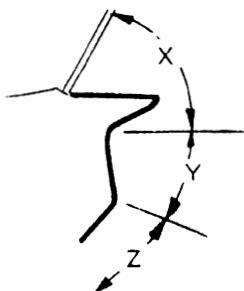
	EQUIPPED (1,2,0)*		DAMAGED (1,2,3,0)*		OCCUPANT CONTACT (1,2,3,0)*	
	PUNCH CODE	CARD COL.	PUNCH CODE	CARD COL.	PUNCH CODE	CARD COL.
UPPER PANEL ("X" IN DIAGRAMS) -----			---	48	---	49
MIDPANEL ("Y" IN DIAGRAMS)-----			---	50	---	51
LOWER PANEL ("Z" IN DIAGRAMS) -----			---	52	---	53
ASHTRAY -----			---	54	---	55
CONTROL KNOBS AND LEVERS -----			---	56	---	57
GLOVE COMPARTMENT AREA -----			---	58	---	59
INSTRUMENTS - OEM only -----			---	60	---	61
PARKING BRAKE RELEASE OR BRACKET -----	---	62	---	63	---	64
AIR CONDITIONING OUTLETS OR UPPER VENTILATION OUTLETS	---	65	---	66	---	67
HEATER OR AIR CONDITIONING DUCTS -----	---	68	---	69	---	70
RADIO -----	---	71	---	72	---	73
OTHER: e.g., package shelf, CB radio, tape deck, add on A.C. _____ (MORE THAN ONE ITEM MAY BE NOTED)			---	74	---	75

USE (3)'s if no item noted

END OF CARD 07

INSTRUMENT PANEL

TYPICAL PANEL DIAGRAMS



*WHERE (1,2,0) OR (1,2,3,0) ARE INDICATED, USE 1 FOR YES 3 FOR NOT APPLICABLE
2 FOR NO 0 FOR UNKNOWN

PASSENGER COMPARTMENT

DUPLICATE COLUMNS 1-9 FROM PRECEDING CARD $\frac{0}{10}$ $\frac{8}{11}$		EQUIPPED (1,2,0)*		DAMAGED (1,2,3,0)*		OCCUPANT CONTACT (1,2,3,0)*	
OTHER INTERIOR ITEMS (FRONT OF VEHICLE)		PUNCH CODE	CARD COL.	PUNCH CODE	CARD COL.	PUNCH CODE	CARD COL.
Always complete entire page							
FOOT CONTROLS	-----				12		13
IGNITION KEYS	-----				14		15
REAR VIEW MIRROR	-----				16		17
SUNVISOR AND FITTINGS	-----				18		19
WINDSHIELD TOP MOLDING	-----				20		21
LEFT A-PILLAR (UPPER OR LOWER)	-----				22		23
RIGHT A-PILLAR (UPPER OR LOWER)	-----				24		25
CONSOLE	-----		26		27		28
TRANSMISSION SELECTOR LEVER							
ON STEERING COLUMN	-----		29		30		31
ON CONSOLE OR FLOOR	-----		32		33		34

OTHER INTERIOR DAMAGE

*WHERE (1,2,0) OR (1,2,3,0) ARE INDICATED, USE 1 FOR YES 3 FOR NOT APPLICABLE
 2 FOR NO 0 FOR UNKNOWN

PASSENGER COMPARTMENT (CONT'D.)

SEATS TYPE OF FRONT SEAT		PUNCH CODE	CARD COL.	POSITION OF SEAT Prior to crash		PUNCH CODE	CARD COL.
3) Drivers Seat Only (9/72)				DRIVER'S SEAT			
(4)		(7)		(4) FORWARD			
(5)		(8)		(5) MIDDLE			
(6)		(9)		(6) REARWARD			
	(0) UNKNOWN		35	(0) UNKNOWN			44
FOLDING BACKS (1,2,0)*			36	RIGHT FRONT PASSENGER'S SEAT			
DELUXE ACCESSORIES (1,2,0)* (any accessories on back of front seat, 2/72)			37	(3) NOT APPLICABLE (No Seat)			
TYPE OF SEAT ADJUSTERS				(4) FORWARD	code the same if bench seat		
(4) MANUAL	Driver's Side			(5) MIDDLE			
(5) POWER				(6) REARWARD			
(6) RIGID				(0) UNKNOWN			45
(7) OTHER				DAMAGE TO FRONT SEAT			
(0) UNKNOWN			38	BACKREST DAMAGE (1,2,0)*			46
TYPE OF SEAT ADJUSTMENT				CUSHION DAMAGE (1,2,0)*			47
(3) NONE (NOT APPLICABLE)				CONTACTED BY REAR OCCUPANT (1,2,3,0)*			48
(4) 2-WAY				If no rear occupant			
(5) 4-WAY	Driver's Side			SEAT CENTER ARMRESTS (FRONT)			
(6) 6-WAY				EQUIPPED (1,2,0)*			49
(7) OTHER				DAMAGED (1,2,3,0)*			50
(0) UNKNOWN			39	HEAD RESTRAINTS Driver's Side (FRONT)			
DAMAGE TO ADJUSTERS (1,2,0)* Include Rigid			40	EQUIPPED (1,2,0)*			51
TYPE OF DAMAGE TO ADJUSTERS (CHOOSE TWO)				REMOVED PRIOR TO COLLISION (1,2,3,0)*			52
(2) None				RETAINED DURING COLLISION (1,2,3,0)*			53
(4) Chucking (some free play)				DAMAGED (1,2,3,0)*			54
(5) Deformed and Released				OCCUPANT CONTACT (1,2,3,0)*			55
(6) Separated	Fill		41	HEAD RESTRAINT Driver's Side ADJUSTMENT AT TIME OF COLLISION			
(0) Unknown	Both		42	(3) Not Applicable, None, Integral			
LOCATION OF SEPARATION				(4) UP from seat top			
(3) NOT APPLICABLE (no 6's above)				(5) DOWN on seat top			
(4) AT FLOOR				(0) Unknown			56
(5) AT ADJUSTER							
(6) AT SEAT							
(0) UNKNOWN			43				

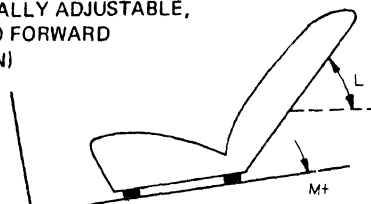
SEATS

PASSENGER COMPARTMENT (CONT'D.)

WINDOWS

SEATS

SEATS (CONT'D)		PUNCH CODE	CARD COL.
FRONT SEAT BACK LOCKS If Non-Folding (col. 36-2), Use (3)'s			
LEFT	EQUIPPED (1,2,3,0)	---	57
	HELD (1,2,3,0)*	---	58
RIGHT	EQUIPPED (1,2,3,0)	---	59
	HELD (1,2,3,0)*	---	60

FRONT SEAT BACK ANGLE	
IF THE VEHICLE WAS REAR IMPACTED, MEASURE THE FRONT SEAT BACK ANGLE AT THE LEFT AND RIGHT SEAT BACK FRAMES. (IF SEAT BACK ANGLE IS NORMALLY ADJUSTABLE, MOVE TO FORWARD POSITION)	
	
MEASURE THE ANGLE THE SEAT BACK MAKES WITH HORIZONTAL (L IN DIAGRAM), AND THE ANGLE THE DOOR SILL MAKES WITH HORIZONTAL (M IN DIAGRAM) AND ENTER BELOW.	
LEFT SIDE	RIGHT SIDE
L ____ DEG. M ____ DEG.	L ____ DEG. M ____ DEG.

SEAT BACK ROTATION		PUNCH CODE	CARD COL.
FINAL SEAT ANGLE (ENTER 99 IF UNKNOWN)		Always complete entire page	
SEAT ANGLE (L) (Relative to Ground)	DEGREES LEFT RIGHT	---	---
VEHICLE ANGLE (M)		---	---
SEAT ANGLE (L-M=P) (Relative to Vehicle)		---	---
FROM A CORRESPONDING UNDAMAGED VEHICLE, MAKE A MEASUREMENT SIMILAR TO "P" ABOVE AND RECORD IT IN BLANK "R" BELOW.			
ORIGINAL ANGLE (R)		---	---
DAMAGED SEAT ANGLE (P)		---	---
DIFFERENCE R-P		---	---
LEFT SEAT ANGLE DIFFERENCE	Either + or -	---	61-62
RIGHT SEAT ANGLE DIFFERENCE		---	63-64

TYPE OF REAR SEAT		PUNCH CODE	CARD COL.
(2) NO SEAT		---	---
(4) NON-FOLDING		---	---
(5) FOLDING		---	---
(0) UNKNOWN		---	65

DUPLICATE COLUMNS 1-9 FROM PRECEDING CARD		0	10	11
DAMAGE TO REAR SEAT		PUNCH CODE	CAR COL.	
BACKREST DAMAGED OR LOOSENED (1,2,3,0)*		---	12	
CUSHION DAMAGED OR LOOSENED (1,2,3,0)*		---	13	
SEAT CENTER ARMRESTS (REAR)				
EQUIPPED (1,2,3,0)*		---	14	
DAMAGED (1,2,3,0)*		---	15	
REAR SEAT BACK LOCKS If Non-Folding (col 65=4), Use (3)'s				
LEFT	EQUIPPED (1,2,3,0)*	---	16	
	HELD (1,2,3,0)*	---	17	
RIGHT	EQUIPPED (1,2,3,0)*	---	18	
	HELD (1,2,3,0)*	---	19	
THIRD SEAT				
EQUIPPED (1,2,0)*		---	20	
BACKREST DAMAGED (1,2,3,0)*		---	21	
CUSHION DAMAGED (1,2,3,0)*		---	22	
BACKLIGHT (REAR WINDOW)				
DAMAGED (1,2,3,0)*		---	23	
OCCUPANT CONTACT (1,2,3,0)*		---	24	
BACKLIGHT HEADER				
DAMAGED (1,2,3,0)*		---	25	
OCCUPANT CONTACT (1,2,3,0)*		---	26	
WINDOWS CLOSED AT TIME OF COLLISION				
LEFT FRONT (1,2,3,0)*	(1) Glass Area 100% Closed	---	27	
LEFT REAR (1,2,3,0)*	(2) Open area	---	28	
RIGHT FRONT (1,2,3,0)*	(3) Solid, no Window	---	29	
RIGHT REAR (1,2,3,0)*		---	30	
BACKLIGHT (1,2,3,0)*		---	31	
ALL SIDE WINDOWS OPERABLE AFTER COLLISION (1,2,3,0)*		---	32	
POWER SIDE WINDOWS EQUIPPED (1,2,0)*		---	33	
(PUT NOTES ON FOLD-OUT FLY-LEAF)				

END OF CARD 08

*WHERE (1,2,0) OR (1,2,3,0) ARE INDICATED, USE 1 FOR YES 3 FOR NOT APPLICABLE
2 FOR NO 0 FOR UNKNOWN

PASSENGER COMPARTMENT (CONT'D.)

Probable Contact
(Need not include injury)

LEFT SIDE INTERIOR		DAMAGED (1,2,3,0)*		OCCUPANT CONTACT (1,2,3,0)*	
		PUNCH CODE	CARD COL.	PUNCH CODE	CARD COL.
FRONT	DOOR -----	---	34	---	35
	HARDWARE -----	---	36	---	37
	ARMREST -----	---	38	---	39
	GLASS -----	---	40	---	41
REAR	DOOR AREA <u>Code (1,2), if rear seat area</u> -----	---	42	---	43
	HARDWARE -----	---	44	---	45
	ARMREST -----	---	46	---	47
	GLASS -----	---	48	---	49
ROOF SIDE RAIL ----- <u>Code (3), if top down or removed</u>		---	50	---	51
B-PILLAR (ALSO REAR PILLAR ON PICK-UP TRUCK, CORVETTE, '71 FIREBIRD & CAMARO) -----		---	52	---	53
C-PILLAR -----	Upper or Lower Pillar -----	---	54	---	55
D-PILLAR (REAR PILLAR ON STATION WAGONS & LIMOUSINES) -----		---	56	---	57
OTHER. ----- <u>USE (3)'s if no item noted</u>		---	58	---	59
				END OF CARD 09	

LEFT SIDE INTERIOR

*WHERE (1,2,0) OR (1,2,3,0) ARE INDICATED, USE 1 FOR YES 3 FOR NOT APPLICABLE
2 FOR NO 0 FOR UNKNOWN

PASSENGER COMPARTMENT (CONT'D.)

RIGHT SIDE INTERIOR

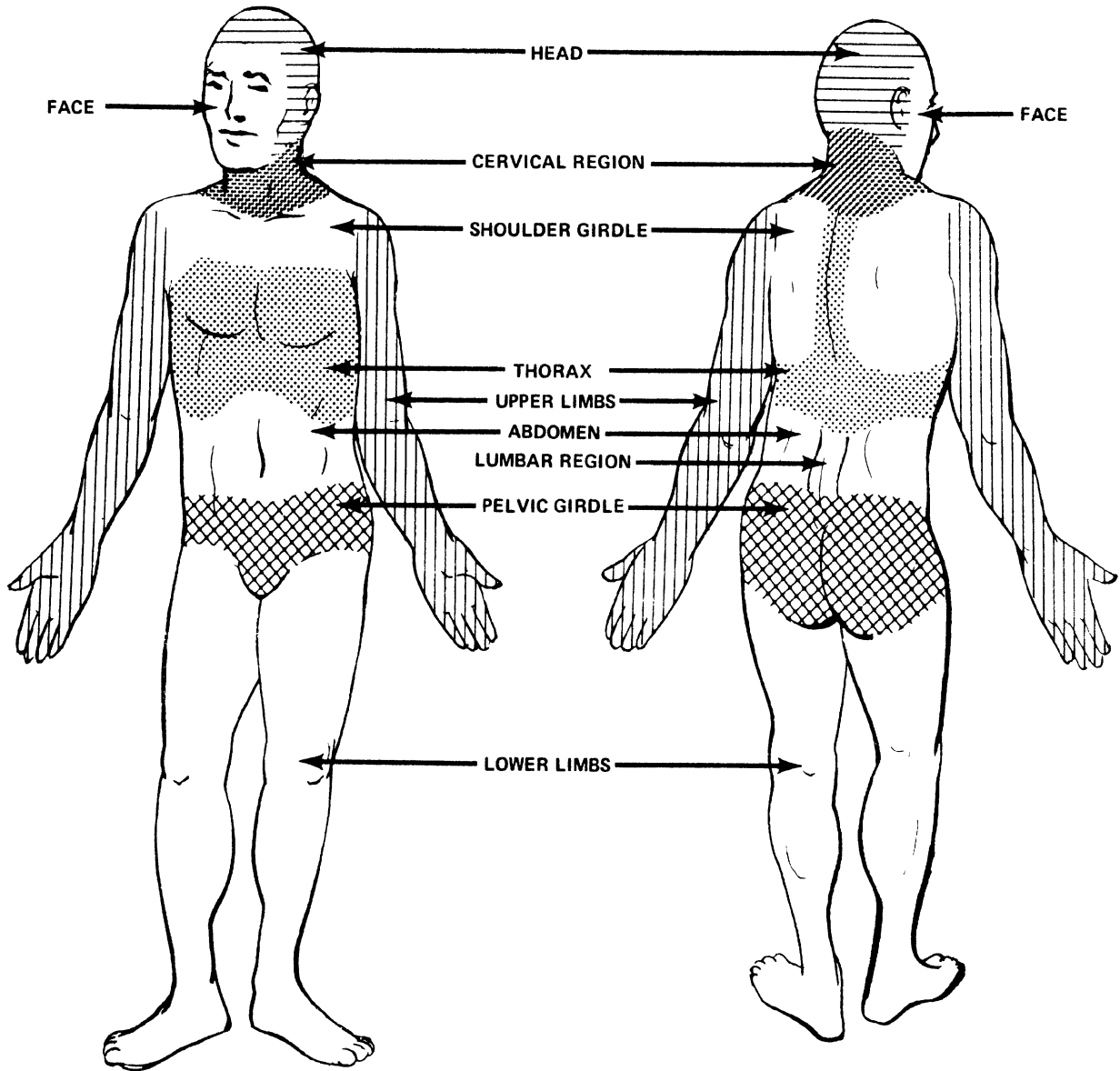
ROOF INTERIOR

DUPLICATE COLUMNS 1-9 FROM PRECEDING CARD		1 0		10 11		DAMAGED (1,2,3,0)*		OCCUPANT CONTACT (1,2,3,0)*	
		PUNCH CODE	CARD COL.	PUNCH CODE	CARD COL.	PUNCH CODE	CARD COL.	PUNCH CODE	CARD COL.
RIGHT SIDE INTERIOR									
FRONT	DOOR	-----	12	-----	13				
	HARDWARE	-----	14	-----	15				
	ARMREST	-----	16	-----	17				
	GLASS	-----	18	-----	19				
REAR	DOOR AREA	Code (1,2), if rear seat area -----	20	-----	21				
	HARDWARE	-----	22	-----	23				
	ARMREST	-----	24	-----	25				
	GLASS	-----	26	-----	27				
	ROOF SIDE RAIL	Code (3), if top down or removed -----	28	-----	29				
	B-PILLAR	(ALSO REAR PILLAR ON PICK-UP TRUCK, CORVETTE, '71 FIREBIRD & CAMARO) -----	30	-----	31				
	C-PILLAR	Upper or Lower Pillar -----	32	-----	33				
	D-PILLAR	(REAR PILLAR ON STATION WAGONS & LIMOUSINES) -----	34	-----	35				
	OTHER:	USE (3)'s if no item noted -----	36	-----	37				
ROOF INTERIOR	HEADLINING	Code (3), if top down or removed -----	38	-----	39				
	ROOF STRUCTURE	Code (3), if top down or removed -----	40	-----	41				
								END OF CARD 10	

*WHERE (1,2,0) OR (1,2,3,0) ARE INDICATED, USE 1 FOR YES 3 FOR NOT APPLICABLE
2 FOR NO 0 FOR UNKNOWN

OCCUPANT INFORMATION SECTION

1. THIS SECTION IS TO BE FILLED IN FOR EACH OCCUPANT, WHETHER INJURED OR NOT.
2. IF THERE ARE MORE THAN THREE OCCUPANTS, USE ADDITIONAL BLANK COPIES OF THIS FORM AND ATTACH OCCUPANT PAGES TO THIS REPORT.
3. THE FOLLOWING FIGURE IS AN EXPLANATION OF THE BODY REGIONS LISTED ON PAGES 31, 35 AND 39.



OCCUPANT

OCCUPANT INFORMATION

OCCUPANT

DUPLICATE COLUMNS 1-9 FROM PRECEDING CARD		10	11	RESTRAINT SYSTEM		PUNCH CODE	CARD COL.
Number each Occupant, starting with (01). Not related to seated position.		PUNCH CODE	CARD COL.	LAP BELT			
OCCUPANT NUMBER COUNTER		___	12-13	EQUIPPED FOR THIS POSITION (1,2,0)*		___	27
SEAT LOCATION				WORN BY OCCUPANT (1,2,3,0)*		___	28
(4) FRONT				WORN SNUGLLY (1,2,3,0)*		___	29
(5) REAR				LOCKING RETRACTOR (1,2,3,0)*		___	30
(6) THIRD				UPPER TORSO RESTRAINT			
(7) OTHER. e.g., rear station wagon floor				EQUIPPED FOR THIS POSITION (1,2,0)*		___	31
(0) UNKNOWN		___	14	WORN BY OCCUPANT (1,2,3,0)*		___	32
POSITION ON SEAT				WORN CORRECTLY (1,2,3,0)*		___	33
(4) LEFT				INERTIA REEL (1,2,3,0)*		___	34
(5) LEFT CENTER				IF ANY PART OF SYSTEM IS NOT ORIGINAL EQUIPMENT BY MANUFACTURER, DESCRIBE SYSTEM ON FOLD-OUT FLY-LEAF.			
(6) CENTER				LAP and/or UPPER TORSO RESTRAINT USAGE CODE		___	35-36
(7) RIGHT CENTER				IF THE LAP BELT WAS WORN, TRACE THE OUTLINE OF THE TAB END HARDWARE ON THE BACK COVER & LABEL IT.			
(8) RIGHT				IF THE SHOULDER BELT WAS WORN TRACE THE OUTLINE OF THE TAB END HARDWARE ON THE BACK COVER & LABEL IT.			
(9) ALL (Lying on seat) (9/72)				TYPE OF SYSTEM USED			
(0) UNKNOWN		___	15	(3) Not Applicable, Not Used			
POSTURE				(4) 3-point			
(1) SITTING ON SEAT				(5) 4-point			
(2) ON LAP OR IN ARMS				(6) Other (Not 2-point)			
(3) STANDING ON SEAT				(0) Unknown		___	37
(4) STANDING ON FLOOR				CHILD RESTRAINT SYSTEM:			
(5) IN BASSINET				NOTE MAKE AND MODEL NUMBER			
(6) IN CHILD SEAT				_____			
(7) LYING ON SEAT				New codes defined as needed			
(8) LYING OR SITTING ON FLOOR (9/72)				CHILD RESTRAINT CODE		___	38-39
(9) EXTERNAL TO PASS. COMP.							
(0) UNKNOWN		___	16				
AGE							
YEARS, OR		___	17-18				
MONTHS (INFANTS) to 24 months		___	19-20				
(ENTER "0" S IF UNKNOWN)							
WEIGHT, LBS.							
(ENTER "0" S, IF UNKNOWN)		___	21-23				
HEIGHT, INCHES							
(ENTER "0" S, IF UNKNOWN)		___	24-25				
SEX							
(4) Male							
(5) Female						___	40
(6) Large Animal (NEW)							
(7) Pregnant Woman (NEW, 2/72)						___	41
(0) Unknown		___	26				

NEW CODES

*WHERE (1,2,0) OR (1,2,3,0) ARE INDICATED, USE 1 FOR YES 3 FOR NOT APPLICABLE
2 FOR NO 0 FOR UNKNOWN

OCCUPANT INFORMATION

EJECTION	PUNCH CODE	CARD COL.
DEGREE OF EJECTION (2) NONE (4) PARTIAL (5) COMPLETE (0) UNKNOWN	---	42
AREA OF EJECTION (3) NOT APPLICABLE (1) WINDOW, LEFT SIDE (2) " , RIGHT SIDE (4) " , REAR (5) DOOR, LEFT SIDE (6) " , RIGHT SIDE (7) TAILGATE (8) WINDSHIELD (9) ROOF OR OPEN CONVERTIBLE (0) UNKNOWN	---	43
TREATMENT/MORTALITY (0) None (1) First Aid - On-scene or outpatient (2) Hospitalized - Observation under 24 hours (3) Hospitalized - Significant Treatment or over 24 hours (4) Fatal - Dead at Scene (5) Fatal - Dead on Arrival at Hospital (6) Fatal - Dead within 24 hours (7) Fatal - Dead 24 hours to 1 year (8) Fatal - Time of Death Unknown (9) Unknown	NEW CODES	---
OVERALL SEVERITY OF INJURIES (Due to crash only, see page S4 for non-crash factors) (00) NONE (01) MINOR (02) NON-DANGEROUS, MODERATE (03) NON-DANGEROUS, SEVERE (04) DANGEROUS, SERIOUS (05) DANGEROUS, CRITICAL (06) FATAL LESIONS IN 1 REGION (07) FATAL LESIONS IN 1 REGION (08) FATAL LESIONS IN 2 REGIONS (09) FATAL LESIONS IN 3 OR MORE REGIONS (98) INJURY UNKNOWN (99) INJURED, SEVERITY UNKNOWN (10) FATAL, details unknown (9/72)	---	45-46
END OF CARD		

*HOSPITALIZED: INJURIES REQUIRING HOSPITAL RECOVERY AND TREATMENT FOR A PERIOD OF AT LEAST ONE DAY. "HELD FOR OBSERVATION ONLY" IS NOT CONSIDERED "HOSPITALIZED" IN THIS DEFINITION.

CODES FOR AREAS OF OCCUPANT CONTACT

(USE THESE CODES ON PAGE 31)

FRONT OF PASSENGER COMPARTMENT

- (05) Instrument Panel
- (09) Steering Assembly
- (12) Windshield
- (02) Glove compartment area
- (03) Hardware items (ashtray, instruments, knobs, etc.)
- (04) Heater or AC Ducts
- (01) Air conditioning or ventilation outlets
- (06) Mirrors
- (07) Parking Brake
- (08) Radio
- (10) Sunvisors & fittings, and/or top molding (header)
- (11) Transmission selector lever
- (53) Parcel Tray (New 7/72)

SIDES

- (20) Surface of side interiors
- (19) Hardware
- (13) Armrests
- (22) Window glass
- (21) Window frames
- (14) A-pillar
- (15) B-pillar
- (16) C-pillar
- (17) D-pillar
- (18) Courtesy lights

INTERIOR

- (29) Front seatbacks
- (33) Restraint system hardware
- (34) Restraint system webbing
- (30) Head restraints
- (32) Other occupants
- (31) Interior loose object
- (50) Rear seat (NEW)
- (51) Front seat cushion (NEW)
- (52) Internal flying glass (NEW)

ROOF

- (26) Roof side rails
- (10) Sunvisors & fittings and/or top molding (header)
- (25) Roof or convertible top
- (24) Coat hooks
- (18) Courtesy Light

FLOOR

- (11) Transmission selector lever
- (40) Floor
- (28) Foot controls
- (27) Console

REAR

- (23) Backlight (rear window)
- (39) Backlight header

EXTERIOR TO PASSENGER COMPARTMENT

- (35) Hood
- (36) Objects exterior to car
- (37) Outside surface of car
- (38) Other: _____

- (98) Impact Force, "Whiplash" Hyperextension/compression
- (00) Contact, but area unknown
- (99) Missing Data

NEW CODES OCCUPANT

CPIR page 31
OCCUPANT INJURY DETAIL

1. This page is only for the occupant just described.
2. Enter occupant number from page 28. (This refers only to the order in which occupant information is entered and is not related to seated position.)
3. Enter severity code (only one per box) for each type of injury to each body region. (Mark boxes with 1-6, 7, 8 only, as instructed inside back cover.)
(x),(y)
4. Do not fill in the boxes where there was no injury.
5. If you are reasonably assured that one or more specific components or areas contacted by this occupant resulted in an associable injury, enter the proper code(s) in the starred (*) section. (See Page 29 for codes.)
6. Do not fill in the boxes where there was no contact.

OCCUPANT

1-9	10-11	12-13	BODY REGION	★ ENTER CODE(S) FOR AREA(S) OF POSSIBLE CONTACT. One 2-digit code per box,				ENTER SEVERITY CODES																	
				14-15	16-17	18-19	20-21	TO BODY REGION	OVERALL INJURY	FRACTURE	LACERATION	CONTUSION	COMPLAINT OF PAIN	ABRASION	CONCUSSION	BURN	HEMORRHAGE	OTHER							
22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45		
	12		INTERNAL ORGANS																						
	13		BRAIN																						
	14		FACE																						
	16		HEAD																						
	16		NECK (CERVICAL REGION)																						
	17		SHOULDER GIRDLE																						
	18		RIGHT UPPER LIMB																						
	19		LEFT UPPER LIMB																						
	20		CHEST & UPPER BACK (THORAX)																						
	21		LOWER BACK (LUMBAR REGION)																						
	22		ABDOMEN																						
	23		PELVIC GIRDLE																						
	24		RIGHT LOWER LIMB																						
	25		LEFT LOWER LIMB																						
	26		WHOLE BODY																						

Enter at least one contact code per body region injured. Use (00) if contact area unknown.

Equal to highest AIS digit to the right

NOT a summary of rows above

KEYPUNCH NOTE Each line represents one card Punch only the lines with handwritten information.

Form Version Number 3

Report Number

Card Number 2 3 - 4 5 6 7 8 - 9
10 11

REPORTING DATA (99999) for Unknown

Date of Field Investigation

MO DAY YEAR

12 13 14 15 16 17
Date Submitted/Published
(inside title page)

18 19 20 21 22 23
Team case number

24 25 26 27 28 29 30 31 32 33 34
HSRI CPIR Editor

- (1) JD (A) DS
- (2) PG (B) Ed B
- (3) BB (C) Ed C
- (4) BP (D) Ed D
- (5) BG (E) Ed E
- (6) SV (F) Ed F
- (7) PK (G) Ed G
- (8) JW (H) Ed H
- (9) AM (I) Ed I
- (0) Unknown

Number of CASE VEHICLES reported
in accident (Completed CPIRs)

35
36

Original Vehicle Report Form

- (0) No Form (MDC)
- (1) CPIR - R1
- (2) CPIR - R2
- (3) CPIR - R3
- (4) NHTSA
- (7) CPIR - Baylor
- (8) UCLA - TRG

37

Recommendations/Conclusions

Matrix Cell

Number
(9) for
"9 or More"

Matrix Cell	Human	Vehicle	Environment	Number
1	Pre-Crash			<u>38</u>
2	Crash			<u>39</u>
3	Post-Crash			<u>40</u>
4	Pre-Crash			<u>41</u>
5	Crash			<u>42</u>
6	Post-Crash			<u>43</u>
7	Pre-Crash			<u>44</u>
8	Crash			<u>45</u>
9	Post-Crash			<u>46</u>

H S
47 48 49 50 51 52 53 54 55 56

P B
57 58 59 60 61 62 63 64 65 66

Other Vehicle CPIR Report No.
If 3 Case Vehicles, link 1 to 2, 2 to 3, and 3 to 1.

67 68 69 70 71 72 73 74

Date Edited

75 76 77 78 79 80

end of card 90

Duplicate Col 1-9 from Preceding, 9 1
10 11

SUPPORTING DATA

- (1) Yes
- (2) No
- (3) Not applicable
- (0) Unknown

Psychological Factors

- Psychological Review
- Any Personal Interviews
- Katz Adjustment Scales (KAS)
- Michigan Alcoholism Screening Test (UM)
- Driver's License Record (Previous Accidents)

Medical Factors (included)

- Medical Examiners/Autopsy
- AFIP Medicolegal Autopsy
- Toxicological/Alcohol Test
Includes Case Driver Only
Breathalyzer
- Medical Report
- Medical Summary/Diagram
- X-Rays (taken or included)
- Medical History

Accident Factors (included)

- Map Location
- Collision Diagram/Sketch
- Site Accident History
- Narrative Description
- Police Report
- Who Estimated Speeds for Case Vehicle
 - (0) No One
 - (1) Investigator
 - (2) Police
 - (3) Driver
 - (4) Witness/Passenger
 - (8) Other: _____
 - (9) Unknown
- Prior to Impact
- At Impact

Code	Col.
—	12
—	13
—	14
—	15
—	16
—	17
—	18
—	19
—	20
—	21
—	22
—	23
—	24
—	25
—	26
—	27
—	28
—	29
—	30

Vehicle Factors

NHTSA Vehicle Condition
And Maintenance Report

↓ If (1) then 1

Mechanical Malfunction
Inspection

Inspection Records

Registration Records

Sheet Metal Crush
Diagram/Sketch

Inches, Coded

Measurements Taken

Telescoping Unit

EA Steering Wheel

A (Column to Rear)

EA Steering Column

VIN Included

VDI Included

VM/M Code Included

Code Col.

— 31

— 32

— 33

— 34

— 35

— 36

— 37

— 38

— 39

— 40

— 41

— 42

— 43

Photographs (number)

Black and white

Color Slides

Site/Location Photos

Vehicle Exterior Photos

Vehicle Interior Photos

Autopsy/Medical Photos

Total Number Photos

(99 Unknown)

(98) over 97

— 44, 45

— 46, 47

— 48, 49

— 50, 51

— 52, 53

— 54, 55

— 56, 57

HIT LAB NUMBER

58 59 60 61 62 63 64

End of Card 91

Duplicate Col. 1-9 from Preceding 9 2
10 11

CASE VEHICLE MALFUNCTION

From CPIR page 2

- (1) yes
- (2) no
- (0) unknown

- (01) Brake System
- (02) Exhaust System
- (03) Steering System
- (04) Suspension System
- (05) Tires
- (06) Electrical System
- (07) Throttle System
- (08) Driver Controls
- (09) Power Train
- (10) Fuel System
- (11) Visibility Items
- (12) Other: _____
- (13) Applicable, but unknown

Primary Item Noted Above

- (01 to 13) from above
- (00) None
- (99) Unknown

Had Routine Maintenance been Performed

Code	Col.
_____	12
_____	13
_____	14
_____	15
_____	16
_____	17
_____	18
_____	19
_____	20
_____	21
_____	22
_____	23
_____	24
_____	25,26
_____	27

CASE VEHICLE DRIVER'S RECORD

Driver Education

- (1) None
- (2) High school
- (3) Commercial
- (4) Informal
- (5) Military
- (6) Professional
- (8) Other: _____
- (9) Yes, Unknown source
- (0) Unknown

_____	28
-------	----

Number* of Previous Moving Violations

Number* of Previous Collisions

Number* of Previous License Suspensions

* Use (8) for "More than 7."
Use (9) for unknown.

Code	Col.
_____	29
_____	30
_____	31

CASE VEHICLE DRIVER'S TRIP PLAN

Origin

- (1) Home
- (2) Work
- (3) Shopping
- (4) Recreation
- (5) Friend/Relatives
- (6) Cocktail Lounge/Bar/Wet Party
- (7) Church
- (8) School
- (9) Other
- (0) Unknown

Destination

Code as above

Route Familiarity (1,2,0)

Area Familiarity (1,2,0)

Route Usage

- (1) Daily
- (2) Weekly (1-4 times)
- (3) Monthly (1-3 times)
- (4) Quarterly (1-2 times)
- (5) Annually (1-3 times)
- (6) Less than annually
- (7) Never
- (0) Unknown

_____	32
_____	33
_____	34
_____	35
_____	36

TIME (2400 hour clock) of:
(99 99 Unknown)

Departure

Impact

Expected Arrival

31 - - - -
41 - - - -

From CPIR page 1

PSYCHOLOGICAL FACTORS (Case Driver)		Code	Col	PHYSIOLOGICAL FACTORS (Case Driver)		Code	Col
<u>Stress That Day</u>				<u>Permanent Physiological Conditions</u>			
(1) Argument with Relations or Friends.				(1) Infirmities (Arthritis, Senility, etc.)			
(2) Argument with Boss or Co-worker				(2) Diabetes			
(3) Loss of Friend or Relative				(3) Brain (Epilepsy, Stroke)			
(4) Financial Difficulty				(4) Cardio-Vascular (Heart failure, Angina, Infection)			
(5) School Problems/ Work Problems				(5) Vision/Hearing Restricted			
(6) Legal/Police Problems				(6) Respiratory Condition			
(7) Social Agency/Consulor Problems				(7) Paralegic, amputee			
(8) Other: _____				(8) Other: _____			
(9) None				(9) None			53
(0) Unknown			44	(0) Unknown			
<u>Marital State</u>				<u>Transient Physiological Condition</u>			
(1) Single				(00) Unknown			
(2) Married				(02) None			
(3) Common Law				(03) Blackouts			
(4) Separated				(04) Dozing			
(5) Divorced				(05) Fatigue			
(6) Widowed				(06) Drunk			
(0) Unknown			50	(07) Drinking Involved			
<u>Occupation(1970 Census Users Guide)</u>				(08) Drug or Medication (See Pa S5)			
(10) White Collar				(09) Flu, Headcold, etc.			
(11) Professional, Technical				(10) Fractured Member			54, 5
(12) Manager, Administrator (except Farm)				(11) Menstrual Period			
(13) Sales workers				(12) Pregnancy			
(14) Clerical, kindred				(13) Hangover			
(20) Blue Collar				(14) Not wearing corrective lenses			56, 57
(21) Craftsmen, kindred				(99) Other: _____			
(22) Operatives, except transport				<u>Non-Impact Medical Condition</u> <small>All Case Occupants Not Just Driver</small>			
(23) Transport equipment operatives(drivers)				(0) None			
(24) Laborers, except farm				(1) Yes - Time and Type Unknown			
(30) Farm Workers				(2) Pre-Crash Fatal (Clinical Death at Wheel)			
(31) Farmers, Farm managers				(3) Pre-Crash Non-Fatal (Prior Injury, Stroke)			
(32) Farm laborers, Farm foreman				(4) Pre-Crash Unknown Type			
(40) Service Workers				(5) Post-Crash Fatal (Drowning)			
(41) Service workers, except below				(6) Post-Crash Non-Fatal			
(42) Private household workers				(7) Post-Crash Unknown Type			
(50) Housewife				(8) Other: _____			58
(60) Student				(9) Unknown			
(70) Military							
(80) Retired							
() Unemployed(over a month)							
(00) Unreported, Unknown			51, 52				

Note: If several jobs, use major time
If temp. unemployed, use last job

Card 92
Continued

Code	Col
	54

Pharmacological Agents Noted
(noted, but not necessarily causal)

- (1) Yes, Unknown or Other: _____
- (2) None noted, No BA test, (000) Below
- (3) Stimulants, Prescriptive/Narcotic
(Amphetamines, cocaine, bennies)
- (4) Stimulants, Over-the-Counter
(Caffeine, 'no doz')
- (5) Depressants, Prescriptive/Narcotics
(Barbiturates, opiates, tranquilizers)
- (6) Depressants, Over-the-Counter
(Alcohol, sleeping compounds)
- (7) Antihistamines
- (8) Hallucinogens
(LSD, DMT, mescaline, psilocybin)
- (9) Marijuana
- (0) Unknown


Blood Alcohol Level (MG %)

66 " 66

- (999) Unknown, No Results
- (000) No Drinking, or "—Results"

CRASH FACTORS

Initial Clock Direction of Rollover
(Case vehicle, horizontal clock)


- (12) — — Over Front End
- (09)  (03) — Over Right
- (06) — — Over Back End
- (00) No Rollover
- (98) Rollover, Direction Unknown
- (99) Unknown if Rollover

POST CRASH FACTORS

Case Vehicle, Final Location

- (1) In Traffic Way
- (2) On Shoulder
- (3) Off-Road, Median
- (4) Off-Road, Side
- (5) In Water Way
- (9) Other: _____
- (0) Unknown

Case Vehicle, Final Attitude
0'Clock Position

- (12) ——— Upright
 - (09)  — (03) On Side
 - (06) ——— Inverted
 - (00) On End
 - (99) Unknown
- 0'Clock =

Post Accident Factors:

- Fire Control used, if fire (1,2,0) —
- Extrication used (1,2,0) —
- Ambulance Service used (1,2,0) —
- Towing Service used (1,2,0) —

Code

61, 64

63

66, 67

69
68
76
71

Duplicate col 1-9 from preceding $\frac{9}{10} \frac{3}{11}$

PRE CRASH PHASE
(Accident Viewpoint)

General Locality

- (1) Freeway (Limit Access)
- (2) Urban
- (3) Urban-Rural (House near road)
- (4) Rural (Fields)
- (9) Unknown

Particular Location

- (01) 1-Lane, Not Intersection
- (02) 2-Lane, Not Intersection
- (03) 3-Lane, Not Intersection
- (04) More than 3-Lane
- (05) Off Road
- (06) Intersection
- (07) Expressway
- (08) Interchange, Main Lanes
- (09) Interchange, Other Lanes (Ramps)
- (10) Bridges, Tunnels, Viaducts
- (11) Parking Lots
- (12) Driveways
- (99) Unknown

Report Numbers of Vehicles Ranked in Order of Responsibility for Causing Collisions

NOTE → All 0's for No Vehicle
All 8's for Non-Case Vehicle
All 9's for Unknown
Fill in all Responses

Most Responsible Vehicle

$\frac{15}{16} \frac{17}{18} \frac{19}{20} \frac{21}{22}$
Second Most Responsible Vehicle

$\frac{23}{24} \frac{25}{26} \frac{27}{28} \frac{29}{30}$
Third Most Responsible Vehicle

$\frac{31}{32} \frac{33}{34} \frac{35}{36} \frac{37}{38}$

Responsibility of Case Vehicle

- (1) Most Responsible
- (2) Second Most Responsible
- (3) Third Most Responsible
- ... Etc.
- (9) Missing Data

Code	Col.
→	12
—	13,14

—	39
---	----

Total Energy Available

(Total Foot-pounds x 10⁶ for first and second most responsible vehicle. See Energy Table. 9999 for unknown.)

$\frac{40}{41} \frac{42}{43}$ (9998) for over 9997

PRE-CRASH MOVEMENT OF MOST RESPONSIBLE VEHICLE

Pre-Crash Basic Movement

- (1) Straight Ahead
- (2) Turning, Curve Following
- (3) U Turn
- (4) Reverse, Backing
- (5) Lane Changing
- (6) Parked, Stopped
- (7) Entering, Leaving Driveway (use 4 if backing)
- (8) Starting to Move
- (9) Unknown

Character of Movement

- (00) Straight Ahead
- (01) Straight Ahead, Road turned to left
- (02) Straight Ahead, Road turned to Right
- (03) Off RHS of Road
- (04) Off RHS of Lane
- (05) Off RHS, and back again
- (06) Veered Right
- (07) Turned Hard Right
- (08) Off LHS of Road
- (09) Off LHS of Lane
- (10) Off LHS, and back again
- (11) Veered Left
- (12) Turned Hard Left
- (13) Vehicle Stopped
- (14) Other
- (99) Unknown

Primary Factor Responsible For Accident

- (1) Driver Omission or Unaware Error
- (2) Driver Commission or Aware Error
- (3) Vehicle Defect
- (4) Trafficway Defect
- (5) Ambience
- (9) Unknown

Code	Col.
—	44
—	45, 46
—	47

Card 93 Continued

Most Responsible Vehicle:

Primary Error

(Pick first and second most significant)

- (00) No Error
- (01) Under Estimation
- (02) Falling Asleep, Blackout, Death-at-Wheel
- (03) Diverted Attention
- (04) Inexperienced Driving or Erratic Driving
- (05) Drunken Driving, Drinking Involved, or Narcotics or Medication
- (06) Right of Way
- (07) Turning Error
- (08) Signalling Error
- (09) Speeding
- (10) Overtaking
- (11) Following too Closely
- (12) Signs, Signals Disobeyed
- (13) Wrong Way into oncoming traffic
- (14) Lack of Lights
- (15) Lack of Brakes
- (16) Other: _____
- (17) Avoidance Maneuver
- (18) Over correction maneuver
- 99) Unknown

Code Col.

---	48 49
---	50 51

Degree of Driver Attention

- (1) No Awareness (e.g. asleep)
- (2)
- (3)
- (4)
- (5) Complete Awareness of all Driving Tasks
- (9) Unknown

52

Driving Complexity

- (1) Complete Familiarity (e.g. Familiar Car, Frequent Route, and Unobstructed Open Country)
- (2)
- (3)
- (4)
- (5) Peak Complexity (e.g. Peak Hour Traffic and Unfamiliar Mid City)
- (9) Unknown

53

Avoidance Maneuvers

- (0) None
- (1) Braking
- (2) Steering
- (3) Braking and Steering
- (4) Acceleration
- (5) Acceleration and Steering
- (6) Brake Release
- (9) Unknown

Most Responsible Vehicle

Second Most Responsible Vehicle

Vehicle Combination

(e.g. 5,6 - Bus, Motorcycle)

- (0) No other Vehicles
- (1) Large Car (> 3800 lbs)
- (2) Medium Car (2800-3800 lbs)
- (3) Small Car (< 2800 lbs)
- (4) Truck
- (5) Bus
- (6) Motorcycle
- (7) Utility or Jeep
- (8) Other: _____
- (9) Unknown

Most Responsible Vehicle

Second Most Responsible Vehicle

Code	Col.
---	54
---	55
---	56
---	57

Movement of Second Most Responsible Vehicle

- (0) No Second Vehicle
- (1) Straight Ahead
- (2) Left Turning
- (3) Right Turning
- (4) Stopped
- (5) Other: _____
- (9) Unknown

58

Hazardous Road Conditions

(Rank by Significance)
Cause Only

- (0) None
- (1) Surface Under Water
- (2) Surface Slippery (oil, ice, water, etc.)
- (3) Shoulders Slippery
- (4) Weather Obstructions (snow, fog, etc.)
- (5) Light (sun, headlight, etc.)
- (6) Obstacle on Road (e.g. car)
- (7) Road Construction, Repair or Disrepair
- (8) Other: _____
- (9) Unknown

59

60

Revision 3

Report Number

Card Type

2 3 4 5 6 7 8 9 10 11

HSRI ANALYSIS

Case Vehicle

MPH at Impact
(999 Unknown)

12 13 14

Primary Damage Index
(99-0000-0 Unknown)

15 16 17 18 19 20 21

Secondary Damage Index

22 23 24 25 26 27 28

Sheet Metal Crush

(98 if over 97 inches)
(99 if unknown)

Front (Inches)

Rear

Left Side

Right Side

Roof

Other

Code	Col.
<u> </u> <u> </u>	29, 30
<u> </u> <u> </u>	31, 32
<u> </u> <u> </u>	33, 34
<u> </u> <u> </u>	35, 36
<u> </u> <u> </u>	37, 38
<u> </u> <u> </u>	39, 40

Other Vehicle

MPH at Impact
(888 for N/A)

41 42 43

Damage Index
(99-0000-0) No Other Vehicle

44 45 46 47 48 49 50

SECTION 3

EDITING PROCEDURE

This section describes the objectives to be accomplished in editing a case, outlines the approach and steps involved in processing cases, and finally details some of the general editing rules applied to all questions.

EDITING OBJECTIVES

While most of the reasons for editing cases are self-evident, it is still instructive to outline the objectives of consistency, correctness, and completeness.

1. Consistency: Whether right or wrong, if the response to a question is not consistently interpreted, none of the response will be of any use in later analysis. It is better to be consistently "wrong" than "right" part of the time and "wrong" the remainder.

1.1 Case Consistency: The computer processed forms should be consistent with the remainder of the case documentation including photographs and other case supporting evidence. Once edited, the data to be keypunched should adequately represent the applicable case documentation.

1.2 Internal Consistency: The data forms should be self-consistent themselves. Many responses are partially dependent upon the answers to other questions. For example, it would be incorrect to have damage to the rear door of a two door car. Internal consistency is obviously critical to the analyst. In comparing one variable with another, he is depending on them being consistently coded. Although many of the inconsistencies have been resolved, it is still possible to find them.

2. Correctness: It is far better to edit ten cases correctly than let one hundred pass through with errors. One must always question something that is not understood. One should not guess, one should find out. While it may seem difficult to establish the most accurate answer, a best answer can be determined and applied to future cases. If, as frequently happens, an even better answer is determined in the future, then that will be applied.

3. Completeness: An attempt should be made to fill in all responses. It is always irritating to query a potentially useful variable in a data file, only to find it empty, i.e., filled with unknown codes. While

some questions exist for which responses can rarely be determined by the post-investigation editor, many of questions left blank by investigators can be filled, based upon the case documentation and photographs.

EDITING PROCEDURE

As new case reports arrive, they are logged, edited, second edited, keypunched, check by an IBM 1800 pre-build program and merged into the computer accident data bank. The data in computer storage is then reviewed and corrections performed. The following discussion outlines these steps in more detail.

LOGGING

All new cases are logged-in upon arrival. MDAI reports received in camera copy form are inventoried with the cover letter enclosed and any discrepancies are documented. The computer based log of camera copy reports is then updated. All other cases are logged in a loose leaf notebook as received.

Only passenger cars and light trucks are processed as case vehicles. Heavy trucks, motorcycles and other special case vehicles are filed separately or returned to NHTSA if in camera copy form.

Once logged-in, a xerox copy of the case summary, CPIR form(s) and Vehicle Condition and Maintenance Report form(s) are produced for the camera copy cases. The editors then make corrections and additions on the xerox copy rather than the original copy. Printed cases not previously processed are placed in the to-be-done file. Printed cases already processed are filed with the completed forms and the DOT-AS number is added to the computer records, during the next file update.

CASE EDITING

There are several approaches to editing a case. Each editor, in time, develops his own procedure. The method described here typifies the most common approach.

1. Case Review, Supplement

To edit a case, one starts by filling in the Supplement. Some of the information for the first page of the Supplement can be found on the title page of the case report (team case number, date submitted).

The accident summary is read to provide information for filling in the rest of the first page of the Supplement and to give the editor an overall view of the accident. The critical events review (who did what to whom and how) is a very important step because this is the information that can be used as a

"triggering device" in trying to find inconsistencies, mistakes, and various other slips. If any information is noticed that differs from what was read in the summary, a look into the main body of text to try and find evidence to resolve the inconsistency may be necessary.

The next step is to scan the narrative and read all interviews and "psychological reviews". This is done mainly because these are the most interesting segments of the reports. It also reveals such things as the occupant's Trip Plan, Driver Education, etc., which are answered on pages 3 and 4 of the Supplement. While doing this, any Black and White photos in the case can be counted.

The editor should peruse the appendices to find out what kind of documented supporting evidence is presented with the case. From this, and from counting the slides, page 2 of the Supplement will be filled out. It is also advisable to page through the CPIR at this point to determine what measurements were made by the investigating team. That finishes pages 1, 2 and partially pages 3 and 4 of the Supplement. Incidentally, malfunctions on page 3 can be filled in at the same time as the measurements on page 2 are looked up. In fact, it may be helpful to fill in the items in the sequence that they appear in the CPIR, i.e., check for malfunctions first, then determine who estimated the speeds, check VIN, VDI, VM/M, followed by inches of crush, crush sketch, etc.

If any personal data has been forgotten or not seen, it may be looked up now, finishing pages 3 and 4. If alcohol was involved, it is usually very prominently reported.

The information for pages 6 and 7 is readily available from either the CPIR or the case summary. One should usually check all weights, VIN's, models, repair costs, etc., for all case vehicles and other vehicles when determining the Total Energy Available.

2. CPIR Form

The editing of the CPIR form is started by checking the report number, date of collision, and state code. Pages 1 and 2 can be checked under "Identification, Ambience, and Highway" in the case summary. Page 3 comes out of Pre-Crash, Crash and Post-Crash in case summary and from the accident schematic. One should make sure all speeds on page 4 look reasonable in relation to damage. Pages 5 and 6 (other vehicle and case vehicle) are filled in from the case summary, reference notebook and Redbook (reference 6). A check of the Vehicle Make/Model Code and Body Style should always be carried out. On page 7, the Crush and Sheet Metal Damage should match the first letter of the editor's VDI's.

On page 10, the tire data should be checked to see if it

appears reasonable, e.g., wear, mileage, profile and carcass type. From here on (pages 11 through 22) all measurements and the damage should be made to appear reasonable. Unless something appears absurd, the editor will generally go along with the investigator; although he may watch for contradictions between narrative and CPIR and/or pictures. One should make sure pillars and doors match Body Style. Passenger compartment data (pages 23-26) can be checked against Interior Damage and Occupant Kinematics.

In Occupant Injury Section (pages 27-33), contact areas for injuries should be checked against other appropriate areas in CPIR for occupant contact. Also the text should be checked against CPIR for correct injury responses. The number of occupant sections should match the Number of Occupants noted on the Case Vehicle page (7.3.45-46).

3. Review

Before the case is submitted for second editing, the entire case should be reviewed as a whole. One determines whether the coded forms adequately represent the unique features of this accident. If there is more than one CPIR form, the forms should be made mutually consistent.

Second Editing

The procedure for second editing concerns itself with four separate yet interrelated tasks; namely, an overview check of the entire accident sequence, a consistency check for internal form discrepancies, a spot check noting outstanding items that are unique to the case, and a list of editing comments concerning the changes made to the form.

One begins with a review of the case by first looking over the case introduction. This usually describes the vehicles involved, the type of accident configuration, greatest severity of injuries received, and any other additional characteristics of the accident, such as drinking involved or fire during crash phase. The slides and accident sketch are reviewed while the case summary is read. The case summary consists of a brief synopsis of the entire case and includes a description of: Ambience; Highway conditions; Vehicles involved; Occupants and the injuries; pre-crash, crash, and post-crash accident details; and Causes and Recommendations by program matrix cells.

After fully understanding the case, the editor begins by checking the VDI's on the supplement to see if they appropriately describe the damage to the vehicles involved. The editor then goes through each page of the supplement noting items retained from reviewing the summary, being particularly sure that the responses, in the supplement concerning the description of vehicles movement and causation factors are properly answered (pages S5-S7). He then turns to the occupant

section to make certain that the number of occupant sections matches the number of vehicle occupants. Then within the occupant section, he checks whether the overall severity of injuries represents a number equal to or greater than individual region AIS numbers.

After completing the CPIR, the comments page is attached to the case; the xeroxed CPIR and Supplements are compiled separately for keypunching.

IBM 1800 Pre-Build Program

The pre-build program on the HSRI IBM 1800 reads the keypunched and key-verified data, checks for over one hundred different invalid/wild codes and internal data inconsistencies, formats the data for file building and merging with the existing data file, and automatically prepares a case summary for HSRI cases investigated for the MVMA.

The program prints out the "allejou" error and its location (case-card-column). Any out of the ordinary coding (e.g., Seat Belts Equipped = "no") is flagged as a potential error even though the code value itself is acceptable. Thus, not all the items printed out are necessarily errors, requiring corrections.

Hardcopy cases in question are pulled from the files for review. Any corrections made are noted on the hardcopy before refileing. Then either the case is repunched and resubmitted, or a correction sheet is filled out for later application to the newly updated master tape file.

Data File Corrections

The processing of an accident report is never quite finished. Any item in the CPIR computer files is always subject to changes or corrections. The editors review marginals (one way frequency distributions) of each variable for invalid/wild codes and unusual frequency distributions. Both HSRI data analysts and other data bank users also discover potential problems and alert the editors. As before, hardcopy cases are reviewed and data file corrections are made. In each instance, an effort is made to determine the cause of the error (e.g., undocumented change in conventions or poor handwriting) in order to avoid further instances of the same problem.

GENERAL RULES

These editing rules apply generally to each case.

1. Check the following questions for proper use of new codes:

1.1.23	Traffic Lanes
2.1.33	Visibility Limitation
2.1.39	Visibility Obstruction
4.1.45	Vehicle to Vehicle, Configuration
4.1.50-57	Objects Contacted
11.4.57	Telescoping Unit Type
12.5.12	Fire, Time of
13.5.56-57	Trailer and Hitch
19.7.26	Steering Column EA Device Type
28.11.15	Position on Seat
28.11.26	Sex
29.11.44	Treatment/Mortality - Always Changed
29.11.45-46	Overall Severity of Injuries
31.12-26.14-21	Areas of Occupant Contact

2. Avoid "Unknown" codes and "Other:" codes. Their use adds little or no information to the data file. The "Unknown" must still be used (rather than leaving a blank) if a reasonable response cannot be developed from case documentation.

Try to avoid "Other:" codes by selecting another appropriate response category or suggest that a new category be added to the list of valid responses.

3. Use only numerics except as noted below. Do not permit any card punch columns to be filled in with letters or special characters such as "+->%". Use only the digits 0 through 9. Be careful of dashes for "unknown". Only the following questions should be answered with alphabetic characters.

1.1.2-3	Team Letters
6.2.12-24	Other Vehicle VIN
7.2.58-71	Other Vehicle VDI
7.3.12-24	Case Vehicle VIN
7.3.47-53	Case Vehicle VDI
20.7.46-47	Windshield Code
51.90.35	CPIR Editor
51.90.24-34	Team's Report Number
51.90.67-74	Other Vehicle CPIR Number

4. Be cautious in assessing collision damage from vehicle photographs not taken on-scene. Post-crash damage often occurs during occupant extrication, vehicle towing or junk yard storage. Doors are ripped open, pillars are cut, fenders and bumpers are distressed, fuel tanks are punctured, windows are broken, original seat positions are changed, tires are switched, accessories are removed and so forth.

5. If inconsistencies between the narrative of the case and its CPIR(s) arise, then choose the best documented choice. This is usually the one found in the narrative version of the case. However, some teams prepare case summaries from the CPIR so then it may be better to leave the CPIR unaltered.

SECTION 4

INTREPRETATION OF QUESTIONS

This section documents how the editor should intrepret each individual question and the extent to which the responses should be technically edited. Questions not to be edited are left to the descretion of the field investigator. The number following each paragrapn heading is a cross-reference number to that question in the CPIR form by page number, card number and column number.

REPORT NUMBER (1.1.2-9)

The first two columns of the report number are taken up by the team letters. These two letter codes are assigned to various investigating teams and are listed under Team Prefix and Case Number in Section 5, Reference Information.

The next five columns are occupied by numbers representing the particular case prepared by the team. These numbers usually fall into two categories: (1) consecutive ascending; and (2) consecutive ascending within a year. An example of the first type would be a case prepared by the University of Miami, whose cases are usually numbered - MI-305, for instance. This will be entered as MI-00305. An example of the second type would be a report prepared by the Cornell Aeronautical Laboratory, whose numbers begin with the year because their case numbers start over from 1 each year. A typical number would be CAL-71-57B. It would be entered in the computer in the form CB-71057.

The report numbers assigned by the editors are to some degree a reflection of the original report number, therefore, a change in the numbering system by the team may necessitate a change in the numbering system used by the editor. See the Reference Section 5 for specific formats.

Column 9 is the serial number. This number is used when there is more than one case vehicle per accident, i.e., there is more than one CPIR per accident. One vehicle is assigned the number (1), another will be assigned the number (2), a third the number (3), and so on, depending on the number of case vehicles to be processed.

An attempt should be made to use the investigators' vehicle number designation, usually the striking vehicle becomes vehicle 1 and the struck vehicle becomes vehicle 2. Numbers should not be skipped for CPIR forms not to be processed, i.e., all forms to be computer processed should be numbered consecutively 1,2,3,....

Column 9 is left blank for single vehicle accidents, i.e., for accidents in which only one of the vehicles qualifies for computer entry, (e.g., car-motorcycle, truck-car) or cases with

only one CPIR supplied. The computer will fill in the blank with zero.

DATE OF COLLISION (1.1.12-17)

The Date of Collision is the responsibility of the investigator. It should be checked with the case documentation, e.g., if it is strange, such as a year of the future entered, then a crosscheck with the narrative can be carried out and any necessary adjustments made. If the date is partially unknown, 9's should be entered for the unknown part only, i.e., if only the month and year of the accident are given, the month (05 for "May" etc.) then (99), and then the year (72 for 1972) should be entered. Zeros are not a valid unknown code for this item. If the date is not readily found, look through the police report or other documentation. The cases from the Maryland Medical Legal Foundation often have the day of the accident missing. It may be found on a special page at the end of the case.

STATE CODE (1.1.18-19)

The state location code is taken from the Federal Information Processing Standards Publication (5-1) and is found under State Codes in the Reference Manual.

AREA/LOCALITY (1.1.20-21)

The area and locality of the accident are given by the investigator and unless the specific accident site is known to the editor, they have to be accepted. In general, there are no unacceptable combinations.

ENVIRONMENTAL CONDITIONS page 1,2

LIMITED ACCESS HIGHWAY (1.1.22)

The Limited Access Highway item is determined by the investigator. The editor should check the photographs, narrative or accident diagram for agreement.

ROAD TOTAL TRAFFIC LANES (1.1.23)

This question refers to the road that the case vehicle is traveling on. If the collision happens at an intersection, choose the roadway that most closely describes his direction of travel; thus, if the case vehicle is traveling on a north-south roadway and completed a left hand turn onto an east-west roadway but is still in the intersection when the collision occurs, the vehicle should be considered traveling the east-west roadway. In the same light if he had not yet completed the turn, he should be considered traveling the north-south roadway.

Parking lanes are not considered as part of the road width unless they have been designated as a turning lane at an

Intersection. Painted medians are not considered as medians for the purpose of determining whether a roadway is divided or not. They are only considered medians if they exceed one car length in width, i.e., they are more than approximately 16 feet wide. Botts Dots also do not constitute a median for the purposes of this question. However, any other physical barriers such as curbs, islands, rumble strips, etc., constitute medians if they parallel the traffic way.

Again, this question is directed toward the case vehicle. If a two case vehicle accident that occurred at an intersection is being edited, then the response to this item may change from one CPIR to the other. It is useful to refer to the accident photographs and diagrams or the environmental data to check this question.

OTHER ROAD TOTAL TRAFFIC LANES (1.1.24)

This question is similar to the previous question. The same type of information is entered here except that it applies to the intersecting roadway in accidents that happen at intersections. The code value (9) is used when the collision did not occur at an intersection.

TYPE OF ROAD SURFACE (1.1.25)

Again, this question is left to the investigator unless scene photographs do not substantiate the investigators claim. Bituminous concrete is another word for "asphalt" (1).

ROAD ALIGNMENT, VERTICAL PLANE (1.1.26)

This again applies to the case vehicle. It is the duty of the investigators to enter the correct response. However, crosschecks with the narrative description may be made. MDAI cases may give the grade, if it exceeds 2%, it is considered a slope. The alignment at the point of first impact should be coded.

ROAD ALIGNMENT, HORIZONTAL PLANE (1.1.27)

Although answers to this question are provided by the investigating team, it can be crosschecked with the accident diagram. Here, too, the alignment should be coded at the point of first impact.

SURFACE COVERING (1.1.28-29)

To attempt to change the answer to this query is dangerous because to determine that a pavement was "damp" (02) rather than "wet" (03) is extremely difficult to do. This type of decision is left up to the investigator. However, gross discrepancies, such as a "dry" (01) pavement when heavy precipitation was noted, should be corrected.

PRECIPITATION (1.1.30)

The type of information called for by this question must be supplied by the investigating team, but the editor may change their response if discrepancies exist or gross irrationalities are created by certain response, e.g., "rain" (2) at temperatures of -15 degrees F.

RATE OF PRECIPITATION (1.1.31)

If the previous item had a response other than (1) "none," then a Rate of Precipitation must be entered here, i.e., responses (4) "light", this includes mist, (5) "moderate", (6) "heavy", or (0) "unknown". If the response to the previous question was (1) "none", then this question must be answered (3) "not applicable". Again, the difference between "light", "moderate", and "heavy" precipitation must be decided by the investigators.

SURFACE SLIPPERY (1.1.32)

No standards have been set that state when a surface is "slippery". Therefore, it is the investigators prerogative to answer this question. However, the editor may change this if it is inconsistent with the case documentation.

SPEED LIMIT (2.1.33)

Speed Limit refers to the legal speed limit for the traffic way the case vehicle is traveling. It also applies to advisory speeds on curves and ramps.

ROAD DEFECTS (2.1.34)

A "yes" answer should be given to this question only if the Road Defect was causative or involved in the accident in some way, i.e., defective street lights are not considered a road defect if the collision occurred during the day. The most common type is the pot hole that causes someone to go out of control. Design deficiencies are not Road Defects, e.g., a pole too close to the road is not a defect.

TEMPERATURE (2.1.35)

This must be reported by the investigator so the editor must, also, accept what is reported, unless the response is highly suspect, e.g., summer temperatures of (1) "below zero".

CROSSWIND (2.1.36)

This question is usually answered (2) "light". Tail or head winds do not count as crosswinds. Determining whether the crosswind was light or strong may present a problem. If crosswind speeds are given, then those of 0-5 mph velocities are considered "calm" or "none" (1), those of 6-14 mph are

considered light (2), and those of 15 mph or over are considered "strong" (3).

TIME OF DAY (2.1.37)

This should be crosschecked with Time of Collision from page (1), of the CPIR.

VISIBILITY LIMITATION/OBSTRUCTION (2.1.38-39)

As of 9/1/72, these items are applied to the accident as a whole, i.e., if one vehicle, even if it isn't a case vehicle, has a dirty windshield (5) "windshield condition" is marked on any CPIR's for that collision. Similarly, if a building blocked the view for one vehicle, then (2) "building" must be entered under Visibility Obstruction for all CPIR's in the accident. (2) "cloudy-dark" is a low, heavy cloud cover making the sky totally overcast, and should not be marked just because the accident occurred at night.

There are two new codes for Visibility Limitation: (8) "rain" and (9) "snow". These are to be used where either the rain or snow is heavy enough to cause a visibility problem. If these two new codes are used, a crosscheck with the Precipitation and Rate of Precipitation on the previous page, should be done.

There are also two new codes for Visibility Obstruction: (8) "vehicle in transport" and (9) "parked vehicle". "Vehicle in transport" means any motor vehicle in a traffic way whether it is moving or not. A non-moving vehicle in a legal parking area with driver and with the engine running is a "parked vehicle" for the purpose of this item. A bus at a bus stop is in transport.

MECHANICAL MALFUNCTION

POSSIBLE MECHANICAL MALFUNCTION (2.1.4)-41)

A malfunction, in connection with this question, means mechanical dysfunction of an item on the case vehicle. The malfunction of that item(s) must somehow be involved in the accident. This question does not ask for alleged malfunctions nor does it ask for investigated malfunctions. Low tire pressure is not a malfunction in most accidents. Tire blow-out is a malfunction.

If an allegation is made that there was a malfunction, e.g., "the throttle stuck", and the investigators did not find a malfunction, then a zero (0) should be entered in column 40 and "yes" (1) in column 41 but throttle controls should not be checked nor should a response other than zero (0) be entered in column 40.

COLLISION CONFIGURATION

VEHICLE TO OBJECT (4.1.42)

Vehicle to Object is coded "yes" (1) only when the object contacted produces damage to the vehicle or injury to an occupant. Pedestrians are objects; other vehicles are not. In the case of a rollover (90 degrees or more) with only ground contact, this is coded "no" (2).

ROLLOVER (4.1.43)

Rollover is defined as any vehicle rotation of 90 degrees or more, about any true horizontal axis. A car on its side is coded "yes" (1). Rollover can occur at any time in the collision sequence and is coded independently of other configuration questions.

RAN OFF THE ROADWAY (4.1.44)

Ran Off the Roadway means that the first impact must occur outside the boundaries of the roadway. Thus, a two vehicle collision where the case vehicle subsequently runs off the road and hits a tree is not a Ran off the Roadway collision.

VEHICLE TO VEHICLE (4.1.45)

Vehicle to Vehicle describes the collision configuration of the vehicles involved. Where a single impact occurs, the first letters of the VDI's should usually correspond to the collision type, for example, where Case Vehicle VDI is 12-FDEW-2 and the Other Vehicle VDI is 09-LPEW-3 the first letters indicate this to be an intersection type collision; the second letter of the Other Vehicle VDI indicates it to be a T-Type (8). "Intersection type" collisions do not have to occur in intersections. A "T type" (8) is into the passenger compartment. An "L type" (4) is into the forward or rear sides of the vehicle.

When the case vehicle contacts more than one other vehicle, the contact producing the first damage should be coded. In this type of collision, the primary VDI's do not have to conform to the collision configuration. "Other" should not be used to code multi-vehicle, or pedestrian accidents.

VEHICLE TO STOPPED/MOVING VEHICLE (4.1.46-47)

Vehicle to Stopped Vehicle and Vehicle to Moving Vehicle are not mutually exclusive providing the case vehicle contacts more than one other vehicle or one other vehicle twice. However, if two vehicles are involved and only one impact occurs, then only one of these two code choices can be coded as "yes" (1).

OTHER (4.1.48)

Other does not include pedestrian accidents; they are

recorded under Vehicle to Object.

VEHICLES INVOLVED (4.1.49)

This question includes all the vehicles contacted in the accident regardless of whether or not the case vehicle contacted them. Non contact vehicles that "caused the accident", e.g., involved as visual obstructions; should not be counted as a vehicle involved.

OBJECTS CONTACTED (4.1.50-57)

Objects Contacted should be coded in the order of contact during the collision and should include only damage or injury producing contacts. If the case vehicle contacts another vehicle more than once, then the other vehicle should be coded more than once. Curbs should not be included unless they produce damage or an injury. In a case where more than 4 objects are contacted, only the most significant ones should be included. "Other" should not be used for more than one object. The "other" code should not be used unless none of the existing codes adequately describe the object in question. Objects Contacted includes only those objects contacted by the case vehicle. Hard packed snowbanks along the edge of the roadway should be coded as "embankments" (09). The addition of new code values for trucks (22-26) and additional objects (40, 50-55) should be noted. All unused responses should be filled with "none" (02).

DRIVER IMPAIRMENT/VIOLATION

CASE VEHICLE DRIVER'S ABILITY TO DRIVE IMPAIRED BY (4.1.58-61)

"Drinking involved" (03) includes unknown amounts and amounts insufficient to be considered drunk by local legal standards but enough to be considered a possible accident causal factor. Insignificant quantities, such as glass of wine with dinner three hours before the accident, should not be included. The "drunk" (04) category is defined by local legal standards. The code "narcotics" (12) includes illegal drugs such as marijuana which is technically not a narcotic. Things such as inattention are often mentioned in the narrative and not coded here; they should be.

TRAFFIC VIOLATION/LEGAL ACTION (4.1.62-63)

Violations should be coded when a violation occurs even if a ticket is not issued. Legal Action is coded only if a citation is issued or litigation is pending. A "yes" (1) should be entered in Traffic Violation if a violation was indicated on a police report and a "no" (2) under Legal Action if there was a violation but no legal action. The editor should not determine that a violation occurred, but should code violations as documented by the investigator.

TYPE OF LOSS (4.1.64-65)

Personal Injury is coded "yes" (1) if anyone sustains any injury. Property Damage includes damage to the case vehicle and is always coded "yes" (1).

VEHICLE SPEEDS page 5

VEHICLE SPEEDS (5.1.66-77)

Speeds should be coded (999) if they are unknown. Other Vehicle Speeds should be coded (888) if it is a single vehicle accident. Ranges of speeds can not be coded, so the median of the reported range should be entered. Speed at Impact is the speed of the first impact, even if only minor damage occurred.

OTHER VEHICLE page 6

Only one Other Vehicle page may be computer processed, even if several Other Vehicle pages have been completed by the investigator. The other vehicle causing the most damage to the case vehicle should be chosen. In multiple vehicle collisions all Other Vehicle pages must be completed. (some MDAI teams leave the page blank when they complete a CIPR form for each vehicle).

Since the Case Vehicle page (card 3) contains all of the responses found on the Other Vehicle page, (card 2) only the Case Vehicle responses will be discussed.

CASE VEHICLE page 7

VEHICLE IDENTIFICATION NUMBER (7.3.12-24)

The VIN is the model and serial number of the vehicle. It usually contains model identifying numbers and letters within the first few digits of the VIN. In most cases, one can obtain make, body style, model year, assembly plant and in some cases (all but American made GM cars) engine type. GM, Chrysler Corporation and AMC have 13 characters with the exception of Cadillac which had only 10 characters before 1971. Ford Motor Company vehicles have 11 characters in the VIN. The serial number portion of the VIN should be filled in with 9's until it is the proper length. If no VIN has been provided, leave the entire field blank.

With the information gained from the VIN, one can check the Number of Cylinders, Body Style, and Model Year coded elsewhere on the page. Check the VIN Summary in section 5 for an outline of VIN formats and contents. If an inconsistency is discovered, a crosscheck with the narrative resolves the differences. More detailed VIN information can be found in the "Motor Vehicle

Identification Manual (reference 7) and references 3 thru 6.

MAKE/MODEL CODE (7.3.25-29)

This code is used to identify the country, corporation, division and model of the vehicle. See the Make/Model Codes portion of the Reference Information Section 5.

Whenever any part of the Make/Model Code is unknown, it should be denoted by zeros not nines. Since some of the cases that are edited include only a CPIR form, short narrative, and police report, explicit data as to the make and model of the other vehicle may not be known. The police report may include the car name and type such as, Chevrolet coach. This means that the make/model code would be (113) for the first three digits, (USA, GM, Chevrolet) but the body type is unknown (coach is not specific enough) thus, a (00) would be inserted as the last two digits. The five digit code for this example is (11300).

MODEL YEAR (7.3.30-31)

This question is self explanatory, but it should be mentioned that the "unknown" code is (99) not (00). This sometimes becomes confusing since the unknown codes for the questions immediately surrounding model year are zeros. The year should coincide with the year indicated by the VIN. If not, and the narrative/photos also differ from the VIN year, the entire VIN should be deleted.

SHIPPING WEIGHT OF VEHICLE, LBS. (3.3.32-35)

The Shipping Weight is defined as the weight of "the vehicle as built to production parts list, plus engine oil, coolant to capacity and 3 gallons of gasoline, less optional equipment." (reference 8). (see MVMA Supplements, references 3-5). If the investigator has added weight to account for optional equipment, do not make changes. The shipping weight can be found in the Red Book (reference 6) for most cars and trucks. The unknown code is (0000). For weights of over 10,000 lbs., (9999) should be entered.

ODOMETER READING (7.3.36-40)

Mileage is taken from the vehicle at the time of collision. Here, too, the "unknown" is (00000) and "over 100,000 miles" is (99999). Sometimes a close look at a 35mm slide of the instrument panel will reveal the odometer reading. If the odometer was disconnected or broken before the collision, the reading should not be entered and the damage should be noted next to the CPIR question.

BODY STYLE (7.3.41)

The vehicle portion of the narrative, VIN, photographs and slides, are all used to determine Body Style. Some of the

difficulties found in determining the difference between hardtops and sedans have been eliminated by definition: any type of upper B-pillar, however thin, is entered as a coupe or sedan, whereas a hardtop has no physical upper B-pillar whatsoever. This then categorizes Plymouth Dusters, Dodge Demons, and Lincoln Continentals as "Coupes" (2). Cars like Pinto, Gremlin, and Vega are entered as "2-door sedans" (2). The hatchback is always considered a tailgate, not a door. Due to the placement of the upper second pillar and the lack of rear windows, most Corvettes, and 70-72 Firebirds and Camaros, are considered "coupes" (2), with no upper C-pillars. A note should be made that pick-up cars (e.g., Ranchero, El Camino) are classified under "station wagons" (5).

Hard shell or removable hardtops are entered as "convertibles" (5). Cars with sun roofs (any top that has a pillared structure, side rails, and a portion of the roof which can provide an opening into the passenger compartment), are classified as "sedans" (2,4). Cars with soft or removable hard shell tops and a roll bar are considered as convertibles with upper B-pillars, e.g., Porsche Targa.

BODY STRUCTURE (7.3.42)

The Body Structure chart in the Reference Information (Section 5) gives the structure of most USA and imported cars. One of the more common errors found here is the assumption that all small foreign cars are unitized. This is not true for VW's which is body and frame (except for the unitized 411). It should also be noted that body mounts exist on both "integral-stub" and "body and frame" structures. Body Mount Separation comes up later in the CPIR form and should be encoded consistently with the answer provided in Body Structure.

NUMBER OF CYLINDERS (7.3.43)

This question is answered by the investigator upon examination of the car. The answer should be checked with the information provided in the VIN or Red Book to see if the entry is correct.

HIGH PERFORMANCE (7.3.44)

This question is a problem since no mutually agreeable criteria has been established. In the past, if the horsepower of the engine and the weight of the car were known, a 10.5 weight to horsepower ratio was used as the dividing line for high performance. Usually the investigator's decision is accepted. Do not accept High Performance based solely on the car's "fast" image or fancy facade.

NUMBER OF OCCUPANTS (7.3.45-46)

This refers to the total number of persons being transported by the case vehicle at the time of the accident, and

must match the number of occupant sections included in the CPIR. It includes as occupants, people in the rear of pickup trucks. A driver standing beside his unoccupied case vehicle is coded as (00) occupants.

VEHICLE LOADING (7.3.47)

For passenger cars "full rated load" is with all designated seated positions filled plus 200 lbs cargo. For pickup trucks, panel trucks, sports vans, etc., the GVW is used. Since the three categories in this question are quite general, the investigators' decision is usually accepted.

EQUIPMENT OPTIONS (7.3.48-52)

Equipment Options includes Transmission Type, Steering Type, Brakes, Brake Type, and Brake Anti-Lock Device. Although the questions are answered by the investigator, Section 5 has information about Brake Anti-Lock Devices and Brake Types useful in checking responses.

TOP POSITION AT TIME OF COLLISION (7.3.53)

Convertibles, sun roofs, and removable hardshell tops are the only cars that don't receive a "not applicable" (3) for this question. It should be noted that hard shell means solid metal or fiberglass roof whereas soft top means cloth type roof. Three new codes, (6), (7), and (8), have been added.

CASE VEHICLE REPAIR OR REPLACEMENT COST (7.3.54-57)

One can find vehicle cost for "totaled" vehicles in the Red Book (reference 6). Teams should make an effort to obtain repair costs if the car has not been totaled. Note that the "unknown" code is (9999).

CASE VEHICLE DAMAGE INDEX (7.3.58-71)

The VDI (or Collision Deformation Classification) consists of seven characters, three numeric and four alphanumeric, arranged in a specific order. Each character describes specific deformation detail concerning the direction, location, size of the area, and extent, which combined together form a descriptive composite of the vehicle damage. It is an indicator of direct damage (contact deformation) only, and should not represent indirect (induced) type damage.

The first two columns of the VDI/CDC concerned with the direction of principal force at impact. The principal force is that force which caused the crush and sheet metal displacement on the damaged vehicle. The direction of the principal force is determined by the resultant of forces acting on the vehicle at the point of application. The direction of the principal force is designated by reference to hour sectors on a conventional clock face positioned over the point of application, in the

horizontal plane. The accident configuration, the speeds and weights of the vehicles involved should be taken into consideration if known. Thus, a "twelve o'clock" principal force indicates a direct frontal collision, and a "six o'clock" principal force indicates a direct rear end collision. The entry of (00) is used for all non-horizontal impacts, which includes all rollover VDI's. The entry (99) indicates an "unknown" clock direction or "not applicable" clock. In the case where there is no secondary VDI/CDC and (99-0000-0) is entered.

Column 3 represents the general location of damage and point of contact. It broadly defines which projected area of the vehicle containing the deformation. Angle impacts at 45 degrees to the front or rear corner may be difficult to classify. These impacts should be classified as "F" or "B" if the deformation area at the front or rear of the vehicle exceeds the deformation area at the side; "L" (or "R") should be used if the deformation area at the side is larger. Similar consideration should be given to top versus side deformation in rollover; if the deformation area on the top is greater than on the side, use "F". If the side deformation is greater, use "L" (or "R"). If the damage falls into the "e" or "s" category in column 6, the side or end with the major area damage may not coincide with the general direction of force that caused that damage. In these cases, the letter in column 3 should indicate that general direction, relative to the vehicle, of the force that caused the damage (see definitions and examples below).

In determining whether undercarriage is the appropriate response for describing the general area, the following explanation and examples should be noted. Cases where the bumper has been contacted and rolled back and up, and then severe undercarriage damage along the length of the vehicle occurs, an "F" should be entered in column 3, with the extent number in column 7 explaining how far back the undercarriage was damaged. For example, if a post or tree is contacted by the lower edge of the bumper and then the post or tree bends, and the car continues over it causing undercarriage damage, a single VDI/CDC describing one continuous impact is the appropriate entry, (in this case an "F" in column 3 and an "L" in column 5 would be entered). In some cases, though, where two distinct types of damage occur as a result of the contact with a single object (e.g., car impacts a stop sign leaving an impression in the front grill area before bending and continuing under the car causing undercarriage damage), it is permissible to represent the damage with two VDI/CDC's

The next column, number 4, designates the specific horizontal location of damage. Variations in vehicles require that some special definitions be given as guidelines for the classification code "P", as follows:

A. Passenger cars - from the windshield to the rear of the rear-most seat.

B. Station wagons - from the windshield to the rear of the

second seat.

C. Vans - from the front-seat back-rest to the center of the rear wheel.

D. Pickups - from the windshield to the rear of the cab.

"F" and "B" are side deformation areas forward and rearward of "P", respectively. Column 4 has meaning only in connection with Column 3; i.e., it is a suffix of Column 3 rather than being independent of it. The classifications "R", "C" and "L" should not be used for vehicles with top deformation ("T" in Column 3). Only "F, P, B, Y, Z", and "D" are allowable.

Overlapping damage areas are covered by the letters "Y" and "Z". A narrow deformation ("N" in the sixth column) area may be coded in conjunction with a "Y" or "Z" in cases where the damage falls on a borderline between two specific horizontal regions.

Column number 5 is used to classify the vertical aspect of the damage. In frontal impacts, the contact damage to the bumper can aid in determining the distinction between "E, M", and "L": "E" - Full height of bumper and sheet metal above had contact damage; "M" - Bumper essentially over-ridden by other object; "L" - Lower portion of bumper had contact damage.

In undercarriage damage, the "X" in Column 5 is used because the Column 3 "U" already defines the vertical location of damage.

On unitized bodies with no frame, the division between "M" and "L" for side impacts is taken to be along the door sill line.

Column 6 defines the general type of damage distribution through the following letter guidelines:

"A" - Damage resulting from underriding an overhanging structure, or being overridden by an overhanging structure (such as rear end of a truck or loading dock).

"S" - Damage resulting from contacting an object with a corner of the vehicle, then sideswiping a portion of the vehicle or pure sideswipe.

Examples:

1. FRES - Contacting front, then sideswiping side, without involving suspension system (usually less than or equal to 4").

2. RFES - Contacting right side at front, then sideswiping front without contacting frame (usually less than or equal to 4", but can take bumper off).

3. RYES - Pure sideswipe.

"E" - Damage resulting from contacting an object with a corner of the vehicle that involves approximately 5" - 16".

Examples:

1. FREE - Contacting front right, forward of or involving the suspension area but not the frame.

2. RFEE - Contacting right side at front and involving frame horn area.

"O" - Any damage resulting from rollover, or non-horizontal impact.

"N" - Damage which is narrow, but does not fall into the "S" or "E" classifications. This damage can be less than or equal to 16" wide horizontally, or less than or equal to 6" wide vertically, or a rectangular area which is less than or equal to the perimeter of a 16" square.

"W" - Any damage not falling into one of the above categories, and is considered a wide area of damage.

The final column, 7, is a numeric code used to describe the extent of the damage. Extent zones are applied to front, rear, side, top or undercarriage deformation and should be selected so that they are compatible with the principal damage selection in column three.

In order to achieve uniformity, the deformation extent guide has been established in relation to specific points on the vehicle.

If the passenger compartment is involved in "Top" damage, then the extent number should reflect the extent of damage to the passenger compartment. This is true even if the hood or deck lid are involved.

If the distance from the rear-most point of the vehicle to the top of the rear window is greater than the distance from the top of the rear window to the front door latch pillar (start of zone 9) then use the "passenger car" deformation rear extent zone guide for classifying rear deformation. Other vehicles are classified using the rear extent guide for station wagons and vans.

THE EXTENT NUMBER SHOULD NOT BE USED AS A TOOL FOR DETERMINING THE COLLISION SEVERITY OR ENERGY REQUIRED TO DUPLICATE THE DAMAGE. FOR VEHICLES OF THE SAME BASIC TYPE, IT DOES SERVE AS A TOOL FOR GATHERING TOGETHER VEHICLES WHICH HAVE SIMILAR DAMAGE CHARACTERISTICS.

The "unknown" code for the total VDI/CDC is (99-0000-0). This code is also used to indicate no damage or no secondary VDI/CDC. It is also used as the VDI/CDC for the other vehicle in

single vehicle accidents.

When there is more than one VDI/CDC's for the case vehicle, the investigator and editor should agree on a primary and secondary VDI/CDC. There are three major considerations that act as a guideline for choosing a primary VDI/CDC. They are listed below in order of importance:

1. The impact that caused the most severe injuries.
2. The impact that caused the greatest intrusion into the passenger compartment.
3. The impact that appears to have done the most damage to exterior of the vehicle.

Note that the extent code on a VDI/CDC is not a valid consideration and should not be used as a criteria for judging primary and secondary damage.

EXTERIOR DAMAGE page 8

SHEET METAL DAMAGE (8.4.12-17)

As noted in the CPIR form, this damage represents direct (contact) damage only and should correspond one for one, area of damage with the first letter of the VDI/CDC's. In cases where more than two VDI/CDC's exist, the first letter of those subsequent VDI/CDC's should also be represented as a positive response in the correct car region. Thus, if there are two VDI/CDC's, 10-FLEW-2 and 04-RPAN-1, then both Front and Right Side should receive positive responses.

SHEET METAL CRUSH (8.4.18-29)

The crush should always correspond one to one with the Sheet Metal Damage. The measurement of this crush should be made from the original outside contour of the vehicle. When these responses are left blank, the inches of crush should be determined from the damage diagram. The difference in overhang between the damaged and undamaged vehicles for front and rear collisions along with wheel base shortening can be used to determine the number of inches of crush. Another guideline for figuring out the inches of crush is that usually the speed at which the vehicle was impacted corresponds to the inches of direct crush, i.e., 5 mph at impact corresponds closely to 5 inches front crush. (Note, this relationship is not as accurate for side collisions). Roof damage is restricted to downward crushing, and includes trunk lid and hood damage. The code value (99) is used for crush of "unknown" amount. Vehicle regions not sustaining direct damage should be filled with (00).

WHEELS AND TIRES page 10

WHEELS ORIGINAL EQUIPMENT TYPE (10.4.3)-32)

This question is left almost totally to the investigator's judgement. Wheel Damage is sometimes changed to be consistent with the contents of the narrative and the slides. Damaged rims should be looked for, if the car struck the curb. Tire damage is not to be included. "Mag" wheels never come as original equipment on USA manufactured vehicles. Do not confuse with fake hub cap versions.

FIRES (10.4.33-40)

Responses concerning Tread Wear, Tread Type and Carcass Type are entered by the investigator, and are usually accepted except where personal experience dictates otherwise. Tire profile can be checked if the tire size model numbers have been included in the CPIR. Tires with numbers containing 50, 60, or 70 are "wide oval" (5) and 78's are indicative of "regular" (4). For example, E70-14 are wide oval and 378-15 are regular profile tires. Tires with three digit model numbers (e.g., 6.85-14) cannot be used to determine profile.

FRONT EXTERIOR page 11

HOOD LATCHES (11.4.41-43)

Latch damage is taken on the word of the investigator. The latch cannot be both jammed and released. If there are two latches and the first releases but the safety catch jams, code the latches as jammed but not released. hoods also include front trunk covers, as on the VW.

HOOD HINGES (11.4.44-47)

If the rear edge of the hood elevates and contacts the windshield, the hood hinges should be coded as Damaged "yes" (1). Separated now includes new codes for "partial separation" (4) and "complete separation" (5). If there is no damage, there can be no separation and both are coded as "no" (2).

HOOD REMAINED ON VEHICLE (11.4.48)

If the hood latch(es) release and both hinges separate but the hood remains in place due to sheet metal deformation, the hood is considered as having remained on the vehicle. In all other cases if the hinges have completely separated, the latches released and the hood completely separated from the vehicle during the collision, then the hood did not remain on the vehicle.

REAR EDGE OF HOOD (11.4.49-51)

If the rear edge of the hood moves above its normal pre-crash position, it is considered elevated. If the rear edge of the hood hits any part of the windshield at any time during the collision, even if it pulls away again, Contacted Windshield

should be coded "yes" (1). This contact may not necessarily be damage producing. If the hood tears or causes a break in the laminate of the windshield, the hood is considered to have penetrated the windshield. This does not necessarily mean the hood has entered the passenger compartment.

OPTIONAL HOOD (11.3.52)

Any non-standard structural change in the hood is considered an Optional Hood. Optional hood can be a factory or non-factory installed model. Things such as functional or non-functional hood scoops may qualify as optional hood depending on whether they are standard equipment or not. Painted racing stripes and blacked-out hoods do not qualify as optional hoods.

ENGINE OR TRANSMISSION MOUNT SEPARATION (11.4.53)

This includes any or all mounts and includes complete, or partial separation and cracking. The entry made by the investigator is usually accepted, unless a discrepancy between the CIPR and the narrative exists. In the case of partial separation, partial should be written in the margin.

STEERING COLUMN FLEXIBLE COUPLING (11.4.54-56)

If there is no Steering Column Flexible Coupling (a flexible rubberized coupling, not a pot joint), then the Separated and Other questions become "not applicable" (3). If there is a Flexible Coupling, the investigators entries are usually accepted. Separated should be coded as either "complete" (5) or "partial" (4) separation.

ENGINE COMPARTMENT TELESCOPING UNIT (11.4.57-60)

The entry provided by the investigator for the damaged unit is usually accepted, but a check to insure proper coding of type and original length should be made. See Section 5, Telescoping Unit. This is especially true in the case where the hood is jammed and the investigator had difficulty in determining the type or presence of a telescoping unit.

When there is "no unit" installed, columns 58-60 should be coded with (888), if the type is "unknown" (999) should be used. If the difference in length is known, it should be rounded off and recorded in tenths of an inch.

FIRE page 12

FIRE (12.5.12-14)

The first question on fire is taken from the accident viewpoint. If a fire has started in either vehicle, Fire should be coded. There are three new codes denoting the time the fire started; (4) "pre-crash", (5) "at-crash", and (6) "post-crash".

If there is a fire but the starting time is unknown, use "yes - time unknown" (1).

The Extent of Fire and Fire Origin questions apply to the case vehicle only, thus, fires that do damage to another vehicle but not the case vehicle are coded as "not applicable" (3). The distinction between a major and minor fire is subjective, however the following guidelines prevail: major fires will probably require fire department services. Minor fires may burn themselves out or are easily extinguished.

The Fire Origin question is self-explanatory. In cases where the fire begins in the other vehicle and not in the case vehicle, the "other:" (8) category is filled with "other vehicle" and coded as (8).

It should also be noted that any damage due to fire is not coded as impact damage throughout the CPIR form. For example, if a fire starts in the passenger compartment and burns the seat cushion, Seat Cushion Damage is not coded "yes" (1) on CPIR page 23.

LEFT EXTERIOR pages 12, 13

LEFT PILLARS NOT DAMAGED (12.5.15)

If the left pillars were not damaged or separated or left roofside rail was not damaged or buckled, a (1) should be placed in column 15. The entire remainder of CPIR page 12 should be completely filled in.

LEFT PILLARS (12.5.16-31)

Pillars are coded much the same as Hood Hinges. There are new codes; (4) and (5) designating "partial" and "complete" separation and (1) being "separation type unknown". If the pillar is not damaged, then there can be no separation and the proper coding is (2) "no" for Damaged and (2) "no" for Separated. If the pillar is damaged and not separated, the correct coding is Damaged "yes" (1), Separated "no" (2). If there is no pillar, both Damaged and Separated are coded "not applicable" (3).

In deciding which codes are appropriate responses to each of the pillar questions, consideration must be given to the Body Style of the case vehicle (CPIR page 7, column 41). Two door hardtops have lower A, B, and C and upper A and C pillars only. Two and four door sedans have both upper and lower A, B and C pillars. Small compacts with hatchbacks such as the Vega, Gremlin, and Pinto are coded as above but are considered to have tailgates and not trunk lids. More of this is detailed in the section about trunks and tailgates. Sedan type cars are not coded as having lower D pillars. Lower D-pillars are only present on station wagons, vans, and pickup trucks.

Station wagons have both upper and lower A, B, C and D pillars. In the case of small two-door wagons with only three sets of pillars, code A, B, and D pillars. An excellent example of this is the Vega wagon. When in doubt as to whether a car is a hatchback sedan or small wagon, a good rule of thumb is: If the rear most pillar is at an angle such that it looks like the C-pillar of a sedan, then it should be coded as a hatchback; whereas, if the last pillar is close to a vertical angle, then code it as a station wagon.

Convertibles - soft or hard shell are the most difficult vehicles to discern pillar arrangements for. In general, soft top convertibles have lower A, B, and C pillars and upper A pillars only. If there is a roll bar installed, it is coded as an upper B pillar while the B pillar that is part of the main body structure, i.e., the door jamb is coded as the lower B pillar. It should be noted that cars with sunroofs are not considered convertibles.

Editing cars with removable hardtops is tricky, because their pillar arrangement depends upon the particular car. Some removable tops take out just the top and side rails leaving the jacklight header and rear pillars intact. In this case, upper pillars are coded. The Porsche 911 is an example of this. Installed hard shell tops are coded as having only upper A-pillars and siderails, with the upper B and C-pillars being "not applicable" (3).

Vans have upper and lower A, B, C, and D-pillars. Pickup trucks have upper and lower A and B pillars as well as lower D pillars because of their tailgate. Jeeps and some other vehicles must be coded the way they are built. Kaiser Jeeps (American Motors) have a "bathtub" design and have no pillars rearward of the A pillars, unless there is a tailgate which gives it lower D pillars. If the jeep has a fold down windshield in the down position, there are no upper A pillars. If it has a roll bar, then a C or B-pillar is considered present depending on its placement.

LEFT ROOF SIDE RAIL (12.5.32-33)

The roof side rails can be either damaged or buckled. Buckled is a hard word to define in this context. The difference between damaged and buckled is the same as that between dented and bent, if the roof rail is buckled then it must also be damaged and coded as Damaged "yes" (1), Buckled "no" (2). Convertibles with the top in place have side rails. The same goes for removable hardtops. Cars with sun roofs always have roof side rails irregardless of their top position.

LEFT BODY MOUNT SEPARATION (13.5.34)

Integral-stub frame cars do have body mounts. (For type of body structure, see page 7 of the CPLR). Unitized cars do not have body mounts and are coded as "not applicable" (3).

LEFT DOOR HINGES/LATCHES NOT DAMAGED (13.5.35)

If door hinges and latches were not damaged and doors did not jam or open during collision, and continuity of the side structure was maintained, a (1) should be placed in column 35. The entire remainder of CPIR page 13 should always be completed.

DOOR LATCHES, LEFT (13.5.36-39)

Door Latches can be damaged without being released and vice versa. Released means totally released from the catch. If there is no door, the question is "not applicable" (3). The side door of a van is considered as a rear door and has a latch.

DOOR HINGES, LEFT (13.5.40-43)

Door Hinges are coded the same as Hood Hinges, including (4) for "partial" and (5) for "complete" separation. If the hinges have Separated, they are Damaged.

CONTINUITY OF SIDE STRUCTURE MAINTAINED (13.5.44)

This question should be looked at from an occupant ejection standpoint. If there is damage, such that all or part of the occupant could make contact with an exterior object to cause injury, the continuity is not maintained. This could be due to pillar separation; the door opening or external object intrusion through the side panel. It does not include open or damaged windows. Complete separation of passenger compartment pillars means the continuity is not maintained.

DOORS OPENED DURING COLLISION (13.5.45-46)

If the door opens at any time during the collision, it is coded "yes" (1). This is true even if the door becomes jammed later in the collision sequence.

DOORS JAMMED CLOSED (13.5.47-48)

If the door cannot be moved except with the use of tools or only with great difficulty, then the door is jammed closed. While rare, it is possible to have a door opened "yes" (1) and later jammed closed "yes" (1).

REAR EXTERIOR pages 13, 14

FUEL TANK AND LINES (13.5.49-55)

These questions are mainly the province of the field investigator. It is next to impossible for the editor to determine the fuel level or tank damage unless there are specific photos. However, if there is complete disengagement of the fuel tank, there must, out of necessity, be fuel leakage

present. Fuel tank neck deformation is included as Tank Deformation equal "yes" (1). If there are no leaks in the tank, then questions on location of leaks should be coded with "not applicable" (3).

TRAILER HITCH INSTALLED (13.5.56)

There are several new codes here:

- (3) Temporary Bumper
- (4) Bumper
- (5) Frame
- (6) Load Distributing
- (7) Ring and Pintle
- (8) Fifth wheel
- (9) Other:

The "temporary bumper" type (3) is a clamp on unit as featured at many trailer rental companies. It can be installed or removed in a few minutes. The "bumper" type (4) is a ball fixed directly to a bumper as on the back of some pickup trucks. The "frame" type (5) is permanently attached (welded, bolted) to the bumper and frame. (see Trailer Hitches, Reference Information, Section 5 for drawings.)

The "load distributing" type (6) has a load distribution mechanism such as sway bars. They can frequently be identified by the square part sticking out below the bumper. The "ring and pintle" type (7) has a horizontal ring that drops over an upright pivotal member. A "fifth wheel hitch" (8) is like that used on tractor semi-trailer combinations. "other" types (9) include anything else, such as clevis and pin.

TRAILER BEING TOWED (13.5.57)

If there is no hitch on the vehicle, this question should be coded not applicable (3).

Here as in Type of Hitch, there are several new codes:

- (4) Camper
- (5) Mobile Homes
- (6) Boat/Snowmobile, etc.
- (7) Rental/Cargo Trailer
- (8) Car
- (9) Other

TAILGATE PERFORMANCE (14.5.58-70)

This section is filled in for station wagons and vans with rear doors, pickups and any car with a hatchback. A hatchback is a rear deck lid that opens up into the passenger compartment.

The questions on latches and hinges for tailgates are coded identically to those for doors on CPIR page 13. The exception to this is the question Latch or Tailgate Jammed. The tailgate may be jammed in any position; jammed being defined as any time tools or excessive force is needed to move the gate. Also if the vehicle is equipped with a two way (sometimes termed dual-action) tailgate, three sets of hinges should be coded. "partial" and "complete" Separation codes (4, 5) should be used when needed. If there is no Electric Tailgate Window, code that question as "not applicable" (3).

TRUNK LID PERFORMANCE (14.6.12-18)

The trunk lid is the lid in the back of the car that opens into a trunk or engine compartment such as in a VW. The VW van has both a trunk lid and a tailgate. These questions are coded the same as those in Tailgate Performance on the same page.

LUGGAGE AREA/CARGO AREA (14.6.19-21)

The luggage area is defined as a partitioned area where luggage is carried. It can be either the front and/or the rear of the vehicle. If it is in the front, then the "firewall" is part of the Trunk-Passenger Compartment Partition. The rear of a station wagon is considered part of the passenger compartment. If a vehicle has two luggage areas such as the VW fast or squareback, and if either one is damaged, Damaged should be coded "yes" (1). There is no luggage area in station wagons except for the rear "well". The rear box of a pickup is considered a Cargo Area. There is no partial separation coded for the spare tire.

BACKLIGHT HEADER (14.6.22)

If the header is buckled, it must be damaged, thus, both questions should be coded "yes" (1). Soft top convertibles don't have backlight headers, however, removable hardtops may, depending on design. If there is no header, "not applicable" (3) should be used.

RIGHT EXTERIOR page 15

Right Exterior, CPIR page 15, is coded the same way as Left Exterior, pages 12 and 13.

WINDSHIELD HEADER (15.6.42)

This question is coded the same way as Backlight Header (14.6.22) all vehicles have windshield headers except Jeeps with the windshield folded down.

STEERING WHEEL pages 16, 17

STEERING WHEEL TYPE (16.6.58-59)

The Steering Wheel Type is presently used for GM cars only, (see the Reference Section 5, under Steering Wheel Types). All others should be coded unknown (99).

STEERING WHEEL RIM/SPOKES/RING/SHROUD (16.6.60-66)

Damage to the steering wheel is left to the investigators discretion and crosschecked with the photographs. Occupant contact includes both probable contact and non-injury producing contacts. Since the driver is generally holding the steering wheel rim, this should not be considered as a contact unless loading of the rim occurs.

STEERING WHEEL ENERGY ABSORBING DEVICE (16.6.67-76)

There are very few cars equipped with this device. If the vehicle is not equipped with a steering wheel EA device then column 67 should be (2) and device then column 67 should be (2) and columns 68-76 should be filled with 8's for "not applicable". Column 67 should always be filled in. (See Steering Wheel EA Device in Section 5).

STEERING WHEEL POSITION (17.7.12)

This question is left to investigators discretion. Fill with (00) if "unknown".

STEERING FEATURES (17.7.14-21)

The Pad, Tilt, Telescoping and Swing-Away Features are left to the investigator, unless they look unreasonable, such as a Falcon with a Swing-Away Feature. Few cars have true Load Distributing Steering Wheel Pads (see Section 5).

COLUMN MOVEMENT (17.7.22-25)

The "A" dimension should be coded as "unknown" (999) if the backlight header is buckled, the steering column is broken loose, or the vehicle has no backlight header. Otherwise, the investigators measurements are assumed to be accurate. If the investigator has included the original dimension, it should be checked under A Dimensions in the Reference Section 5. Direction of Motion (column 25) is sometimes erroneously coded (0) for no movement. Check to be sure that the proper code is used here.

STEERING COLUMN ENERGY ABSORBING DEVICE (19.7.26-29)

There are several new codes for the question. The Ford "mini column" is an (8) and a collapsible tube such as on the Dodge Colt, is a (9). If the vehicle is not equipped with an E.A. Device (7), the compressed length is "not applicable" (888).

The editor cannot check the compressed length but a check of the type and original length should be made in Section 5.

SHEAR CAPSULE SEPARATION (19.7.30-31)

The amount of shear capsule separation cannot be determined by the editor, however, if there is no shear capsule such as in the Ford "mini column", this question is coded "not applicable" (888). If the amount of separation is "unknown", the coding becomes (999). There are no shear capsules unless there is a Column EA Device.

COLUMN VERTICAL ROTATIONS (19.7.33-34)

As in the previous two questions, the measurement to the damaged dimension is left to the investigator. The original angle can be checked in the Reference Information, Section 5. This code is a two digit non-decimal code and can be either plus or minus. However, the plus or minus is not coded. The new code "rotated - unknown amount" (98) should be used when applicable.

PASSENGER COMPARTMENT - GENERAL WINDSHIELD, page 20

PASSENGER COMPARTMENT REDUCED IN SIZE (20.7.35)

The passenger compartment is considered as reduced in size when the internal boundary of passenger compartment moved inward due to either direct or indirect damage.

EXTERNAL OBJECT INTRUSION (20.7.36)

There is External Object Intrusion when the internal boundary of passenger compartment is moved inward due to direct damage as in a side collision, i.e., an external object went inside original internal boundary line. This question includes, but is not limited to, penetration.

Note: The boundary does not necessarily have to be broken. (If compartment is opened up the Continuity of Side Structure (13.5.44) is not maintained.)

INTERNAL LOOSE OBJECT (20.7.37)

All Internal Loose Objects are coded even if not involved. They could have caused injury.

VERTICAL ROTATION OF INSTRUMENT PANEL (20.7.38)

This is rotation in a vertical plane about a horizontal axis due to any type of causative factor. Buckling in the center of the panel is not included.

FIREWALL/FLOORPAN DEFORMATION (20.7.39)

The firewall is the partition between the engine and passenger compartment. The Firewall and Floor Pan Deformation question are self-explanatory and generally left up to the investigator. Floorpan includes the toe board. Floor pan inward deformation always means passenger compartment size reduction.

WINDSHIELD CODE (20.7.46-47)

Illustrations of windshield codes are found in the Reference Information, Section 5 under Windshield Codes. The partial windshield codes for "float unknown type" and "PPG-float" etc., are only applicable for GM windshield glazing marks. They are used when the model number cannot be identified. There are two codes - (YK) and (YL) for "unknown" Carlite and Chrysler model numbers respectively. If nothing is known about the windshield or if the glazing monogram is not identifiable, then (YY) is used for "unknown".

PASSENGER COMPARTMENT, FRONT INTERIOR pages 21, 22

INSTRUMENT PANEL (21.7.48-75)

Although it is up to the investigators to provide the editors with the proper information, there are some things that might help the editor perform any necessary crosschecking with the narrative or slides. If any listed item is not a part of the original equipment of the car, then "not applicable" (3) should be entered for all applicable responses for that item. If the Equipped column is present, that should be answered as "no" (2) and the other applicable columns "not applicable" (3). For example, there is no ashtray in the car, damaged becomes "not applicable" (3) and occupant contact becomes "not applicable" (3). If there is no parking brake release or bracket, then the response for the equipped column should be "no" (2) and for damaged and occupant contact "not applicable" (3).

The Glove Compartment Area question refers to the area not to the glove compartment itself. Therefore, if there is no glove compartment, that does not mean that that question could necessarily be marked with "not applicable" (3). The parking brake question also refers to parking brakes mounted between or next to seats.

The Other category is marked with "not applicable" (3) if there are no other items. Other items include non-original add-on items such as CB radios, tape players, and tachometers (unless they are factory installed).

OTHER FRONT INTERIOR ITEMS (22.8.12-34)

The Console (columns 26-28) refers to anything on the floor or hump between the front two seats on which an occupant could receive any injury. The tunnel or rubber boot on a floor mounted manual transmission selector lever, are not included as

consoles. The engine covers sometimes found in Vans are considered as consoles.

PASSENGER COMPARTMENT; SEATS/WINDOWS pages 23, 24

TYPE OF FRONT SEAT (23.8.35-36)

The seat type codes presently used are inadequate. However, they do come close to describing most basic seat types. Therefore, seat types should be coded according to their basic style. For instance, the center divided front seat available in some Mercury models with center armrests for both sides is basically a type (5), a split bench seat. It might be noted that the availability of a center armrest is not a factor in coding a specific seat type. A new code exists for "drivers seat only" (3) for use instead of "bucket seats" (9) for single seat vehicles.

DELUXE SEAT ACCESSORIES (23.8.37)

Deluxe Accessories include any accessories on the back of the front seat, such as ash trays, map pockets, etc.

TYPE OF SEAT ADJUSTERS/ADJUSTMENT (23.8.38-39)

In the case of divided seats, the seat adjuster questions apply to the driver's side only.

ADJUSTER DAMAGE/SEAT SEPARATION (23.8.40-43)

Location of separation should be coded "not applicable" (3) if neither types of Damage to Adjuster include "separated" (6). Conversely, if "separated" (6) is included as a type of damage, then (3) for Location of Separation should not be used.

If the seat adjuster has "release", e.g., the seat freely moves back and forth on the track, the Type of Damage should be coded "deformed" (5). "Chucking" (4) can result in the seat having free play over a short distance. "Separation" (6) means total disengagement, e.g., the seat has free vertical movement. The Locations of Separation of "floor" (4), "adjuster" (5) and "seat" (6) are self-explanatory.

POSITION OF SEAT (23.8.44-45)

Position of Adjustable Seat should still be coded for rigid seats. For instance, if the driver's seat is adjustable and the passenger's seat is not, the position of the passenger's seat can still be determined by comparing it to the driver's seat. "Not applicable" (3) is used only when no seat is present.

DAMAGE TO FRONT SEAT (23.8.46-48)

The question Contacted by Rear Occupant is coded "not

applicable" (3) if there are no rear seat occupants. The front seat damage questions are left to the discretion of the investigator but may be checked against the slides.

HEAD RESTRAINTS (23.8.51-56)

In the Head Restraint section, columns 52, 53, and 56 are "not applicable" (3) for integral head restraints. If the head restraints are removed prior to the collision, then the rest of this section is "not applicable" (3).

FRONT SEAT BACK LOCKS (24.8.57-60)

The Front Seat Back Locks section should be "not applicable" (3) if the seat backs are non-folding. A consistency check should be made between this question and Front Folding seats to insure correct responses.

SEAT BACK ROTATION (24.8.61-64)

A new code has been added to seat back rotation. It is "angle changed unknown amount" (98). This should be used when there is obviously rotation and original dimensions are not available, as in the case of a vehicle with numerous position reclining seatbacks and no way of determining the original position. It should not be used in place of a measurement when original dimensions can be obtained. (see Seat Back Angles, Reference Information, Section 5.)

TYPE OF REAR SEAT (24.8.65)

This question refers to folding seat backs on rear seats, as in station wagons.

REAR SEAT DAMAGE/ARM RESTS (24.9.12-15)

These questions are left to the investigator's discretion and should be checked with slides and narrative for consistency.

REAR SEAT BACK LOCKS (24.9.16-22)

Equipped should be coded (3), "not applicable" if the rear seat is non-folding (24.8.65).

BACKLIGHT/BACKLIGHT HEADER (24.9.23-26)

Cars with zip-out rear windows (e.g., soft shell convertibles) do not have backlight headers, therefore, Damaged and Contact should be coded "not applicable" (3). Added rollbars are not considered backlight headers, no matter where they are situated.

WINDOWS CLOSED AT TIME OF COLLISION (24.9.27-33)

The glass area must be completely (100%) closed to be coded

"yes" (1). Any degree of opening is coded "no" (2). If the area is solid, i.e., no windows, then "not applicable" (3) is entered.

PASSENGER COMPARTMENT:INTERIOR SIDES pages 25, 26

LEFT SIDE INTERIOR (25.9.34-59)

These questions are left to the discretion of the investigator, but should be checked with the slides and narrative for consistency. If a vehicle is not equipped with any of the listed items, such as armrests, these blanks should be coded as "not applicable" (3). If there is a rear seat, there is a Rear Door Area. This should not be coded as "not applicable" (3) unless there is definitely no rear passenger area. It should be noted that convertibles with the top on have roof rails, a head lining, and a roof structure. Occupant Contact should not be coded as "not applicable" (3) in the rear area when there are no rear seat occupants. The front seat occupants can be thrown into the rear of the vehicle and contact items in the rear seat area. Other should be coded "not applicable" (3) unless some added item is listed there.

RIGHT SIDE INTERIOR (26.10.12-41)

See Left Side Interior.

OCCUPANT INFORMATION: GENERAL page 28, 29

OCCUPANT NUMBER (28.11.12-13)

Occupants should be numbered sequentially rather than according to seat position, beginning with (01).

SEAT LOCATION/POSITION (28.11.14-15)

The Position On Seat should be coded according to actual position even if the occupant is not actually on a seat. For instance, an occupant sitting between bucket seats would be coded as "center" (6). A new code has been added; "all" (9) for occupants lying across the seat.

POSTURE (28.11.16)

This question is self-explanatory. The code "sitting on floor" (8) has been expanded to include "sitting or lying on floor".

AGE (28.11.17-20)

The occupants Age is coded in months or years, leaving the other response blank. Children over 24 months are coded in years.

WEIGHT/HEIGHT (28.11.21-25)

A check for consistency between narrative and CIPR should be made. The occupant's Height should be recorded in inches, not feet.

SEX (28.11.26)

The new codes for "pregnant woman" (7) and "large animal" (6) should be used where applicable. There are no code values (1, 2, 3) for this question.

RESTRAINT SYSTEM (28.11.27-34)

Lap Belt Equipped is answered "yes" (1) only if there is a restraint available for the seat position and the occupant is sitting on the seat or sitting in a child restraint. If he is in any other posture (e.g., lying) and not wearing a lap belt equipped is answered "no" (2). Lap belts completely below/behind seat cushions are also coded "no" (2).

Examples of lap belt not equipped include: rear center seats on some small cars (e.g., Vega), babies on laps, children standing on seat, anyone lying down, sitting on console or across bucket seats.

Lap Belt Worn is coded "yes" (1) or "no" (2) when equipped for this position. Otherwise "not applicable" (3) is coded for

usage when no belt was available. The Inertia Reel and Locking Retractor questions should never be coded as "not applicable" (3) unless the vehicle is not equipped with lap and/or shoulder restraints.

RESTRAINT SYSTEM USAGE CODE (28.11.35-36)

Restraint Usage Code is coded "not used" (00) unless the restraints are worn by the occupant. The first digit refers to lap belt usage and the second digit refers to upper restraint usage. Either digit is coded (9) if the restraint used is of "unknown type". (See Restraint System: Usage Codes, Reference Information, Section 5.)

TYPE OF SYSTEM USED (28.11.37)

If the upper restraints are not used, then the Type of System Used is "not applicable" (3). Use of two-point systems, such as a lap belt, is coded "not applicable" (3), and "no" (2).

CHILD RESTRAINT CODE (28.11.38-39)

New codes should be added to the Reference Information list as new types are documented in case reports. (See Restraint Systems: Child Restraints, Reference Information, Section 5.)

EJECTION (28.11.42-43)

These questions are answered by the investigator and should be checked with the case documentation for consistency.

TREATMENT/MORTALITY (28.11.44)

The Treatment/Mortality Codes have been expanded, and completely changed. Thus each case must be recoded. The two fatal categories "dead at scene" and "dead on arrival at hospital" cannot always be determined by the time at which death was pronounced. If an occupant dies in the 5 hours before being found, transported, and pronounced dead at the hospital, they should be coded "dead at scene" (4). The case documentation of injuries should be carefully examined to determine the actual time period of death.

OVERALL SEVERITY OF INJURIES (28.11.45-46)

The Overall Severity of Injuries should reflect the injuries in the matrix. It should never be lower than the highest injury in column 22 of the matrix. It can, however, be higher. In the case of fatalities, the head and brain are one body region. If an occupant dies of something other than an injury, such as asphyxiation of gastric contents, then he is not fatally injured. The severity code should be as high as his worst injury other than asphyxiation, and the fatality is coded under the Treatment/Mortality section.

OCCUPANT INJURY DETAIL MATRIX (31.12-25.12-31)

The Matrix is a way of detailing the injuries of an occupant in a vehicle by body region, type of injury, and areas of contact that may have caused the injury. Horizontal columns correspond to Body Region, and each is represented by a IBM card.

OCCUPANT NUMBER (31.12-26.12-13)

It is important to enter the occupant number (same as top of page 28) under the vertical column with that heading as it identifies the card. The occupant number must consist of two digits and is entered if that Body Region was injured, i.e., if there is no injury, then no occupant number should be entered.

CARD NUMBER	OCCUPANT NO.	BODY REGION	★ ENTER CODE(S) FOR AREA(S) OF POSSIBLE CONTACT								ENTER SEVERITY CODES																	
			14-15	16-17	18-19	20-21	22	23	24	25	26	27	28	29	30	31												
12	1	INTERNAL ORGANS																										
13		BRAIN																										
14		FACE																										
15		HEAD																										
16		NECK (CERVICAL REGION)																										
17	01	SHOULDER GIRDLE	20	19						22		1		1														

wrong
(no injuries)
(one digit)

right

BODY REGION CONTACT AREAS (31.12-26.14-21)

On the surface, it may seem that the various body regions need not be explained, however, since there is some overlap between some of the regions, it may be helpful to list the body parts that are and some that are not included in each region.

<u>Body Region</u>	<u>Included</u>	<u>Not Included</u>
Internal Organs	Heart Lungs Kidneys Liver Pancreas Spleen Ovaries Aorta Gall Bladder	Testicles - Penis Brain

	Bladder	
Brain	Brain Meninges Pituitary Medulla Oblongata Pons Optic Nerve	Spinal Cord Eyes
Face	Nose Chin Jaw (mandible) Forehead Below Scalp Line Eyes Teeth Tongue Internal Mouth External Mouth Sinuses Zygomatic Arch	Ears Scalp (not Facial)
Head	Cranium Scalp Ears	Vertebra Zygomatic Arch Teeth Forehead Jaw Nose Mouth Eyes Brain
Neck (Cervical Region)	Cervical Vertebra Cervical Spinal Column Larynx Trachea Esophagus	Lower Chin
Shoulder Girdle	Clavicle Scapula	Spinal Column First Rib
Right Upper Limb	Right Hand Right Wrist Right Arm Right Forearm	
Left Upper Limb	Left Hand Left Wrist Left Arm Left Forearm	
Chest Upper Back (thorax)		

	First - Eleventh Rib	Lungs
	Thoracic Vertebra	Heart
	Thoracic Spinal Cord	
	Thorax (without Content)	Aorta
	Sternum	Pleura
Lower Back Lumbar Region		
	Lumbar Vertebra	Kidneys
	Lumbar Spinal Cord	
	Lower Back	
	Regio Lumbalis	
Abdomen	Peritoneum	Kidneys
	Intestine	Liver
	Diaphragm	Spleen
		Pancreas
		Stomach
Pelvic Girdle	Pelvis	Ovaries
	Testicles - Penis	Intestine
	Sacrum	
Right Lower Limb		
	Right Thigh	
	Right Calf	
	Right Foot	
	Right Ankle	
Left Lower Limb		
	Left Thigh	
	Left Calf	
	Left Foot	
	Left Ankle	

The Body Region designated "whole body" is used when it becomes too difficult to single out the individual injuries. This category is most often used with burn victims or when the injured person has contusions and abrasions literally all over his body. The cut-off point for using the "whole body" region is around 50%. The "whole body" region should not be used as a summary for all injuries and contact areas, nor, should other body regions repeat what has been entered under "whole body".

Wrong
(this should not review all injuries)

CARD NUMBER	OCCUPANT NO.	BODY REGION	★ ENTER CODE(S) FOR AREA(S) OF POSSIBLE CONTACT				ENTER SEVERITY CODES									
							TOOTH/HEAD/NECK	FRACURE	LACERATION	CONTUSION	OF FACE	OF LIMBS	ABRASION	CONCUSSION	BURN	HEMORRHAGE
1-9	10-11	12-13	14-15	16-17	18-19	20-21	22	23	24	25	26	27	28	29	30	31
	12	INTERNAL ORGANS														
D U P L I C A T E D F R O M P R E C E D I N G C A R D	13	BRAIN														
	14	FACE														
	16	01 HEAD	10				1			1	1					
	18	01 NECK (CERVICAL REGION)	98				1			1						
	17	01 SHOULDER GIRDLE	20	19			2	2		1	1					
	18		RIGHT UPPER LIMB													
	19		LEFT UPPER LIMB													
	20		CHEST & UPPER BACK (THORAX)													
	21		LOWER BACK (LUMBAR REGION)													
	22		ABDOMEN													
23		PELVIC GIRDLE														
24	01	RIGHT LOWER LIMB	07				3	3								
26		LEFT LOWER LIMB														
28	01	WHOLE BODY	07	20	19	98	3		3	1	1	1				

AREA(S) OF POSSIBLE CONTACT (31.12-26.14-21) -

Contact Codes are entered in the four vertical columns just to the right of the Body Regions. Two digit codes are entered in the appropriate boxes to identify possible injury causing objects and areas. These codes are defined on page 29 of the SPIR. There are five new codes that should be noted. They are as follows: "front seat cushion" (51), "parcel tray or shelf" (53), "rear seat" (50), "internal flying glass" (52), and "impact force" (98). If only one contact code is noted, it should be placed in the first position, (Columns 14-15) If two contact codes are noted, then they should be placed in the first and second columns (the ones labeled 14-15 and 16-17). This is done

For up to four contact codes. No more than four contact codes can be used.

CARD NUMBER	OCCUPANT NO.	BODY REGION	* ENTER CODE(S) FOR AREA(S) OF POSSIBLE CONTACT				ENTER SEVERITY CODES										
			14-15	16-17	18-19	20-21	TO BODY REGION	FRACURE	LACERATION	CONTUSION	COMPLAINT OF PAIN	ABRASION	CONCUSSION	BURN	HEMORRHAGE	OTHER	
12	01	INTERNAL ORGANS			07	20	2	/	2	1						1	
13		BRAIN						/									
14		FACE											/				
15	01	HEAD	07	20			2		2	1						1	
16		NECK (CERVICAL REGION)											/				

Wrong (in wrong columns)

Right

The types of injuries made by the various contact areas usually becomes fairly obvious after a few cases are edited, e.g., the "steering assembly" (09) is responsible for many injuries to the thorax, lungs, and heart; the "windshield wiper" and "sun visors" tend to be responsible for injuries to the head for front seat unbelted occupants, etc.

However, some of the new contact codes should be explained in regards to types of injuries they produce. The "front seat cushion" (51) has produced contusions and abrasions to the back (lumbar) region and the sides (flank). They usually occur when the front seat occupants are unbelted at "third impact" or in rollover accidents. The "parcel tray" (53) is usually found as a contact area in leg injuries in new compacts. "Rear seat" (50) caused injuries that usually involve the rear occupants of the vehicle. "Internal flying glass" (52) is more elusive since it is not so much a case of an occupant contacting the glass as it is the glass contacting the occupant. It is usually used when there are lacerations and/or abrasions without window contact, for example, a frontal collision (occupants, move forward) in which a side window shatters. Eye injuries are sometimes traceable to flying glass.

"Impact force" (98) has many names: hyper-extension, flexion-torsion, whiplash. It refers to a phenomenon in which forces transmitted during the collision cause a pain or injury because they pass through the body of an occupant although no definite contacts are made. "Impact force" (98) is usually associated with "complaint of pain" or "strain" injuries in the neck and/or lower back (lumbar region). Occasionally, it causes a headache.

It is useful to note that the "other" category (38) in

general since occasionally the investigator will code "other" for something for which a contact code exists. Common examples of this include; the examples for "impact force" already mentioned; ground or intruding objects such as bridge piers instead of "objects exterior to car" (36); and "other" for passenger or occupant instead of "other occupants" (32).

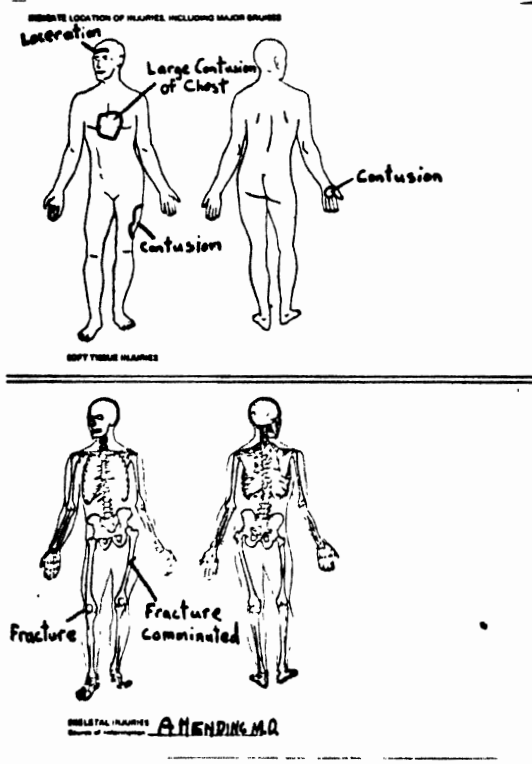
The contact codes "hood" (35) and "outside surface of car" (37) refer only to the case vehicle. Surfaces of any other vehicle are coded as "objects exterior to car" (36).

INJURY SEVERITY CODES (28.12-26.22-31)

The last portion of the matrix consists of the vertical columns under the general instruction "Enter Severity Codes". These columns represent types of injuries and entries are made under them in the horizontal row that corresponds to the body region in which the injury occurs. The single digit entry is based on the AIS rated severity as given on the inside of the back cover of the CIPR and under AIS in Section 5, Reference information. There are, of course, no AIS (7, 8, or 9) code values used in the columns 22-31, however, (9) and (8) are used in place of "X" (99) and "Z" (98) respectively. All unused cells should be left blank, i.e., no dashes.

This is an example of a bruised lung and an incorrect way of showing a scraped elbow (right arm).

Last is an example of an actual injury matrix before and after editing. First is a diagram of the injuries as reported by the investigator, followed by the injury matrix prepared by the investigator. Next is the matrix with all editing marks; this is what the keypunchers see.



CARD NUMBER	OCCUPANT NO.	BODY REGION	* ENTER CODE(S) FOR AREA(S) OF POSSIBLE CONTACT	ENTER SEVERITY CODES													
				INTERNAL ORGANS	BRAIN	FACE	HEAD	NECK (CERVICAL REGION)	SHOULDER GIRDLE	RIGHT UPPER LIMB	LEFT UPPER LIMB	CHEST & UPPER BACK (THORAX)	LOWER BACK (LUMBAR REGION)	ABDOMEN	PELVIC GIRDLE	RIGHT LOWER LIMB	LEFT LOWER LIMB
10-11	12-13			14-16	16-17	18-19	20-21	22	23	24	25	26	27	28	29	30	31
		INTERNAL ORGANS															
		BRAIN															
		FACE	20					1	-	1	1	1	-		-	-	-
		HEAD															
		NECK (CERVICAL REGION)															
		SHOULDER GIRDLE															
		RIGHT UPPER LIMB	05					1	-	-	1	1	-		-	-	-
		LEFT UPPER LIMB															
		CHEST & UPPER BACK (THORAX)	09					4	-	-	4	-	-		-	-	-
		LOWER BACK (LUMBAR REGION)															
		ABDOMEN															
		PELVIC GIRDLE															
		RIGHT LOWER LIMB	05					2	2	-	1	1	-		-	-	-
		LEFT LOWER LIMB						3	3		2	1	-		-	-	-
		WHOLE BODY	09 05					4	1	4	1	-	-		-	-	-

CARD NUMBER	OCCUPANT NO.	BODY REGION	* ENTER CODE(S) FOR AREA(S) OF POSSIBLE CONTACT	ENTER SEVERITY CODES													
				INTERNAL ORGANS	BRAIN	FACE	HEAD	NECK (CERVICAL REGION)	SHOULDER GIRDLE	RIGHT UPPER LIMB	LEFT UPPER LIMB	CHEST & UPPER BACK (THORAX)	LOWER BACK (LUMBAR REGION)	ABDOMEN	PELVIC GIRDLE	RIGHT LOWER LIMB	LEFT LOWER LIMB
10-11	12-13			14-16	16-17	18-19	20-21	22	23	24	25	26	27	28	29	30	31
		INTERNAL ORGANS															
		BRAIN															
	01	FACE	20 05					1	4	1	1	1	1	1	1	1	1
		HEAD															
		NECK (CERVICAL REGION)															
		SHOULDER GIRDLE															
	01	RIGHT UPPER LIMB	05 20					1	4	1	1	1	1	1	1	1	1
		LEFT UPPER LIMB															
	01	CHEST & UPPER BACK (THORAX)	09					2	2	1	1	1	1	1	1	1	1
		LOWER BACK (LUMBAR REGION)															
		ABDOMEN															
		PELVIC GIRDLE															
	01	RIGHT LOWER LIMB	05 20					2	2	1	1	1	1	1	1	1	1
	01	LEFT LOWER LIMB	20 05					3	3		2	1	1	1	1	1	1
		WHOLE BODY	09 05					4	1	4	1	-	-		-	-	-

On examination of the above examples, there were two major types of editing changes made. The first type concerns the following of editing (or format) conventions. These are the kind of "mistakes" discussed before and can be seen in the deletions of the entries in card 26 (Whole Body), and of the dashes, etc.

The second major type can be called the substantive changes. These changes concern the content of the matrix and can be again divided into two types of mistakes. The mistake of omission, the first type, involves the lack (omission) of data that may have been mentioned in the narrative or elsewhere in the case. An example of this would be the added contact code in card 18 (right upper limb). The mistake of ignorance, the second type, involves a lack of knowledge concerning reasonable data entries. An example of this would be the contusion to the chest that was given a severity code of "4" AIS, when a superficial contusion cannot be more severe than "3" AIS.

SUPPLEMENT TO CPIR pages S1-S8

The Supplement contains questions not coded in the CPIR concerning primarily administrative and collision precrash data.

REPORT NUMBER (S1.90.2-9)

The Report Number is the same number as that found in the CPIR, page 1.

REPORTING DATA page S1

DATE OF FIELD INVESTIGATION (S1.90.12-17)

This date is usually found in the top right block on page 1 of the CPIR and indicates the time between the accident occurrence and vehicle investigation.

DATE SUBMITTED/PUBLISHED (S1.90.18-23)

This date is found on the title page of the case report.

TEAM CASE NUMBER (S1.90.24-34)

This response should represent the team's version of their case numbers. For example, a Miami case numbered MIAMI-72-205 is coded MIAMI72-205. See Team Prefix and Case Numbers in Section 5, Reference Information.

ASRI CPIR EDITOR (S1.90.35)

This indicates who has edited the case.

NUMBER OF CASE VEHICLES CPIR'S (S1.90.36)

This question refers to the number of case vehicle CPIR forms completed for computer processing.

ORIGINAL VEHICLE REPORT FORM (S1.90.37)

This indicates the original report form prepared by the team. Code (0), for "no form".

RECOMMENDATIONS/CONCLUSIONS - MATRIX CELL (S1.90.38-46)

The number to be coded in columns 38-46 is the sum of individual statements at the end of the MDAI case summary. If a cell has more than 8 statements listed, then the code "9 or more" (9) is used. Cells should be left blank for MVMA sponsored teams.

DOT-HS-NUMBER (S1.90.47-56)

Columns 47-56 refer to the DOT-HS report number. This

number is found on the cover page of the published MDAI case reports.

PB NUMBER (S1.90.57)

Columns 57-66 refer to the pb numbers found on the cover page of old published MDAI reports.

OTHER VEHICLE CPIR REPORT NUMBER (S1.9).67-74)

This number links all case vehicles in the same accidents to each other. If there are three case vehicles in the accident, link 1 to 2, 2 to 3, and 3 to 1. In single vehicle accidents, these columns are left blank.

DATE EDITED (S1.90.75-80)

This is the date of first editing.

SUPPORTING DATA (PAGE S2)

All of the following questions refer to the information included in the team report. All responses will be (1, 2, 3).

PSYCHOLOGICAL REVIEW (S2.91.13)

This question refers to the inclusion of a detailed evaluation of the case vehicle driver's mental condition prior to the collision. It is generally included on the body of the case report and is never "not applicable" (3).

ANY PERSONAL INTERVIEWS (S2.91.13)

This refers to any witness' (including driver's) account of the accident or interviews with friends or relatives of the drivers involved. The code "Not applicable" (3) should not be used.

KATZ ADJUSTMENT SCALE (S2.91.14)

This is a quantitative personality chart which is not usually found in case reports. Codes used are (1) or (2).

MICHIGAN ALCOHOLISM SCREENING TEST (UM) (S2.91.15)

This test is used by some teams to determine if alcohol was involved in an accident. It is seldom included in reports.

DRIVER'S LICENSE RECORD (S2.91.16)

In order for this question to receive a positive response, the team must include the Secretary of State issued driver license record or the investigating team's researched number of driver involved accidents.

MEDICAL EXAMINERS/AUTOPSY (S2.91.17)

This refers to the medical examiners descriptive autopsy report on a case accident fatality. It can include pedestrians, passengers and drivers of all vehicles involved. If there are no fatalities, then it should be coded "not applicable" (3).

AFIP MEDICOLEGAL AUTOPSY (S2.91.18)

This is the Airforce autopsy computer form (usually in green ink). It is usually included in conjunction with the Medical Examiners report. Again, if there are no fatalities, it should be coded "not applicable" (3).

TOXICOLOGICAL/ALCOHOL TEST (S2.91.19)

For a positive response, any toxicological test (breathalyzer, blood serum, urine, etc.,) given on the case vehicle driver for determining alcohol consumption must be included. Percent of alcohol should be filled in on page S5.

MEDICAL REPORT (S2.91.20)

This refers to an extensive medical record on collision caused injuries of any occupant in the accident. It must include more than just a listing of injuries. If a listing includes injuries with related body contacts, then it should be considered a medical report (e.g., the injury lists in Cornell A cases). A Medical Examiners Autopsy report or AFIP Medicolegal autopsy report constitutes a medical report.

MEDICAL SUMMARY/DIAGRAM (S2.91.21)

This is coded "yes" (1) if a listing of accident related injuries of case vehicle occupants is included; or the CPIR occupant injury diagram is completed. If no injuries are involved in case vehicle, "not applicable" (3) should be coded.

X-RAYS (S2.91.22)

This question should be coded "yes" (1) if x-rays were taken as noted through the case report, or were included as a note on the CPIR injury diagram for any case vehicle occupants. If x-rays were not taken, but bones were broken, then it should be coded "unknown" (0). The "not applicable" (3) code is not used for this question.

MEDICAL HISTORY (S2.91.23)

In order for this to receive a positive response "yes" (1), the team must include background documentation or detailed medical information on the case vehicle driver, which explains his or her mental or physical limitations resulting in an accident or injury severity causation factor.

MAP LOCATION (S2.91.24)

A general area map, (e.g., city map, state map) with accident site indicated must be included to be coded "yes" (1). This map is more than just the collision diagram, it is a separate map with no vehicle configurations.

COLLISION DIAGRAM/SKETCH (S2.91.25)

This refers to the accident vehicle collision diagram showing vehicle trajectories prior to and after contact with another vehicle or object.

SITE ACCIDENT HISTORY (S2.91.26)

This question is coded "yes" (1) if a summary of the number and/or types of accidents occurring at the case's accident location is given within the body of the report. It is usually found in the summary under road condition.

NARRATIVE DESCRIPTION (S2.91.27)

This is the investigating team's accident description, including prior vehicle movement, crash movements, and post crash events. Most case reports include some type of narrative description.

POLICE REPORT (S2.91.28)

The report must include a county, city or state police accident report of the case accident to receive a positive response "yes" (1). The report may be a standardized form or a separate police officer's report.

WHO ESTIMATED SPEEDS (S2.91.29-30)

If the speeds of the case vehicle were estimated by anyone, that person is acknowledged with the appropriate response in this question. This includes persons estimating the speeds prior to impact and at impact. If more than one person has estimated the speeds, give credit to the one whose estimate was most valid according to the investigating team.

NHTSA VEHICLE CONDITION AND MAINTENANCE REPORT (S2.91.31)

This refers to an enumerative post-crash inspection done on the case vehicle. It usually consists of a single page with the title "Vehicle Condition and Maintenance Report". Although, the format has changed several times, the items included are similar and should be easily recognized.

MECHANICAL MALFUNCTION INSPECTION (S2.91.32)

A malfunction inspection report is any document that describes or lists items on the case vehicle that have been

checked by the investigating team. The report may, or may not be due to an alleged malfunction, since many teams include a vehicle inspection as a normal part of their accident investigation. A NHTSA Vehicle Condition and Maintenance Report implies a mechanical Malfunction Inspection.

INSPECTION RECORDS (S2.91.33)

A state, city, or county required motor vehicle inspection form or acknowledgement of such an inspection must be included to warrant a "yes" (1) response. Usually this is indicated at the end of the NHTSA Vehicle Condition and Maintenance Report.

REGISTRATION RECORDS (S2.91.34)

This refers to the specific document: State Motor Vehicle registration record. Usually, this is not included in the accident reports.

SHEET METAL CRUSH (S2.91.35-36)

If the diagram/sketch (diagram on page 9 of the CPIR) is completed showing all damage resulting from the accident, then it is coded "yes" (1). Similarly, if the Inches Coded (vehicle crush dimensions on page 8 of CPIR) are filled in, then this too is coded "yes" (1). Of CPIR.

TELESCOPING UNIT (S2.91.37)

This is coded "yes" (1) only if the investigator has measured the telescoping unit after the collision. If no telescoping unit was installed, then it should be coded "not applicable" (3).

SA STEERING WHEEL (S2.91.38)

This is coded "yes" (1) only if the investigator has measured the energy absorbing device compression (CPIR page 16). This question only refers to 1970-1972 Plymouth Barracuda, Dodge Challenger, 1970-1972 Mercury Capri and some Ford Cortinas. All others are coded "not applicable" (3).

SA (COLUMN TO REAR) (S2.91.39)

This is coded "yes" (1) if the measurement from the steering wheel center to the top of rear window glass has been taken by the investigating team. This refers to the Column Movement question coded on page 17 of the CPIR. The code value "not applicable" should not be used here.

SA STEERING COLUMN (S2.91.40)

This is coded "yes" (1) if the team has measured the length of the steering column energy absorbing device. This refers to the Steering Column Energy Absorbing Device on page 19 of the

CPIR. If the vehicle is not equipped with this device, it should be coded "not applicable" (3).

VIN INCLUDED (S2.91.41)

If the team filled in the VIN on page 7 of the CPIR (Case Vehicle page), then this is coded "yes" (1).

VDI INCLUDED (S2.91.42)

This refers to the Case Vehicle Damage Index from page 7 of the CPIR. It receives a positive response "yes" (1) if the team has included the VDI/CDC in their CPIR or report.

VEHICLE MODEL/MAKE CODE INCLUDED (S2.91.43)

This is coded "yes" (1) if the Make/Model Code was inserted by the investigating team on page 7 of the CPIR (Case Vehicle page).

BLACK AND WHITE PHOTOGRAPHS (S2.91.44-45)

This number should represent the total number of black and white photographs included with the case report.

COLOR SLIDES (S2.91.46-47)

This number should represent the total number of 35mm color slides included with the case report.

SITE/LOCATION PHOTOS (S2.91.48-49)

The number of black and white and color slide photographs that were taken of/at the scene of the accident should be coded.

VEHICLE EXTERIOR PHOTOS (S2.91.50-51)

The number of black and white plus color slides of the exterior of all vehicles involved, should be coded.

VEHICLE INTERIOR PHOTOGRAPHS (S2.91.52-53)

The number of black and white and color slides of vehicle interiors which were included in the report should be coded.

AUTOPSY/MEDICAL PHOTOS (S2.91.54-55)

The number of black and white photographs and color slides pertaining to occupant injuries that were included in the case report should be coded. Photographs of injury diagrams are counted.

TOTAL NUMBER OF PHOTOGRAPHS (S2.91.56-57)

The sum of all photographs and slides included with the

Case report should be coded.

MIT LAB NUMBER (S2.91.58-64)

The number code here refers to the Highway Safety Research Institute cross reference number to the Washtenaw County police report for that case.

SUPPLEMENT: VEHICLE MALFUNCTION page S3

CASE VEHICLE MALFUNCTION (S3.92.12-24)

This question refers to items checked in the investigation of the possibility of mechanical malfunction on page 2 of the CIPR.

PRIMARY MALFUNCTION (S3.92.25-26)

This number indicates the most causative item from the list of malfunctions checked in the preceding portion of the supplement. If there are no items checked, then it should be coded "none" (00).

HAD ROUTINE MAINTENANCE BEEN PERFORMED (S3.92.27)

For the most part, this question is left to the discretion of the investigating team. A few guidelines to follow in discerning the proper response are: If the case vehicle has a NHTSA Vehicle Condition and Maintenance Report with a recent lubrication sticker (i.e., 3,000 miles prior to accident), then it is coded "yes" (1). New cars with less than 10,000 miles or only 10 months old prior to the accident are considered to have had previous maintenance which is coded "yes" (1).

CASE VEHICLE DRIVER'S RECORD

DRIVER EDUCATION (S3.92.28)

If the case vehicle driver took driver education, then the mode of instruction should be coded here. The case text under human factors should be checked for the information.

NUMBER MOVING VIOLATIONS/COLLISIONS/SUSPENSIONS (S3.92.29-31)

The next three questions refer to the number of moving violations, collisions and suspensions received by the case vehicle driver. All of these above are usually found in the case vehicle driver's record or possibly in the case text. Interviews are not reliable source of information in answer to these questions.

ORIGIN/DESTINATION (S3.92.32-33)

These two items refer to the places where the case vehicle driver began his trip and where he intended to go.

ROUTE FAMILIARITY (S3.92.34)

The driver's familiarity with the road traveled is generally left up to the discretion of the investigating team. It is usually found in the narrative portion of the case report under driver pre-crash information.

AREA FAMILIARITY (S3.92.35)

This question, too, is usually answered in the narrative report and is obtained for interviews with the driver. It should be coded as the team has reported it.

ROUTE USAGE (S3.92.35)

The number of times the route was traveled prior to the accident is encoded here.

TIME (S3.92.37-48)

A 24-hour clock is used for all question concerned with time. Departure Time refers to the time at which the driver left his place of origin. The Time of Impact is found on page 1 of the CPIR form and entered here. The driver's Expected Time of Arrival refers to the time at which he was to reach his final destination. The teams usually include these times, if they are known, in the Occupant portion of the narrative.

PSYCHOLOGICAL FACTORS page S4

Only the Case Vehicle Driver is considered in the following five questions.

STRESS THAT DAY (S4.92.49)

This question is intended to indicate the type of mental stress which might have precipitated the accident. The problems listed are to be coded as actual problems not connective measures. Distractions just prior to collision are not included in this question. Only the case vehicle driver is considered here.

MARITAL STATE (VS4.92.50)

This information has to be hunted for as it is not documented in any standard place. Most often, though, it is part of the pre-crash human section of the narrative.

OCCUPATION (S4.92.51-52)

The case driver's occupation should be classified in the

given list. Items (10, 20, 30, 40) are general classifications. If the case vehicle driver is working at several jobs, the one in which he spends the most time should be coded.

PHYSIOLOGICAL FACTORS page S4

PERMANENT PHYSIOLOGICAL CONDITIONS (S4.92.53)

This question is intended to indicate the type of permanent physiological condition that could limit the driver's physical ability to handle the case vehicle. A person who wears corrective lenses is coded to have a vision restriction. If more than one permanent condition exists, the most contributory should be coded.

TRANSIENT PHYSIOLOGICAL (S4.92.54-57)

This question attempts to indicate some transitory physiological condition which might have contributed directly or indirectly to the driver's ability to maintain normal unimpeded control over his vehicle.

NON-IMPACT MEDICAL CONDITION (S4.92.58)

This question refers to all case vehicle occupants not just the case vehicle driver. Any permanent physiological condition that may have been contributory, or increased the severity of injuries should be picked up in this question. Also, physiological conditions can be coded here if the condition complicates accident caused injury, e.g., emphysema with a chest injury.

PHARMACOLOGICAL AGENTS NOTED (S5.92.59)

The response to this question should indicate the type of drug that had been ingested prior to the collision by the case vehicle driver and noted in either the CIPR or case report. In cases where more than one drug was noted, choose the one that the investigating team felt was more causative to the accident. When alcohol and some other drug were both noted to be ingested, then priority of response goes to the other drug since alcohol use is recorded in the next question.

BLOOD ALCOHOL LEVEL (S5.92.60-62)

If a blood alcohol test was administered to the case vehicle driver, the test results (MG%) should be coded. If a BA test was not given but drinking was suspected, it should be coded "unknown" (999). When no drinking was noted in the above question and none suspected, it should be coded "none" (000). The editor should never guess the BA level.

INITIAL DIRECTION OF ROLLOVER (S5.92.63-64)

When the case vehicle is involved in a rollover accident, then the direction of initial rollover is to be indicated. Otherwise it is coded "no rollover" (0). This question is to be coded with respect to a clock in the horizontal plane. For example, an initial rollover on the right side of the case vehicle would be coded (03). Intermediate clock positions might also be appropriate.

POST-CRASH FACTORS CASE VEHICLE page 5

CASE VEHICLE, FINAL LOCATION (S5.92.65)

This question refers to the final case vehicle rest position following an accident. If any portion of the vehicle remained in the roadway, then "on roadway" is coded (1). All other responses necessitate the vehicle being entirely within the particular boundary conditions.

CASE VEHICLE, FINAL ATTITUDE O'CLOCK POSITION (S5.92.66-67)

The final vehicle attitude o'clock position should be coded with the point of reference being a clock in the vertical plane. Thus, if the final rest position was on the roof, (06) would be coded. Intermediate o'clock positions can also apply.

POST-CRASH FACTORS, ACCIDENT page 55

With each of the following four questions, "not applicable" (3) is never a choice

FIRE CONTROL USED (S5.92.68)

If a fire was a result of the accident and an attempt was made by any means to extinguish it, then "yes" (1) should be coded. Actions taken to prevent a fire (e.g., hosing roads) are not counted.

EXTRICATION USED (S5.92.69)

If any attempt with the use of tools is made to aid in gaining access to the occupants for removal from a vehicle, then "yes" (1) should be coded.

AMBULANCE SERVICE USED (S5.92.70)

Any ambulance or rescue service which actually transports occupants to the hospital is coded "yes" (1). If such service is available but not used, it should be coded "no" (2).

TOWING SERVICE USED (S5.92.71)

Any vehicle physically removed from the accident site by the use of a wrecker type truck, is coded "yes" (1).

PRE-CRASH PHASE page S6

The following questions are answered from the accident point of view.

GENERAL LOCALITY (S6.92.12)

Indicate the accident site general locality. An undeveloped area with houses near road is coded "urban-rural" (3).

PARTICULAR LOCATION (S6.93.13-14)

The type of roadway the accident occurred on is the main consideration. If a vehicle was not on a prescribed roadway, then use "off road" (5) as the appropriate response.

RESPONSIBLE VEHICLE - FIRST/SECOND/THIRD (S6.93.15-38)

These three items rank the vehicles involved in order of responsibility for causing the accident. The report numbers as recorded on page S1, should be coded.

RESPONSIBILITY OF CASE VEHICLE (S6.93.39)

The responsibility of the case vehicle in the accident causation should be indicated.

TOTAL ENERGY AVAILABLE (S6.93.40-43)

This question is intended to record the total energy of the two impacting vehicles having the greatest kinetic energy. Frequently, this is the energy of the first impact. Each vehicle energy is calculated by using the weights and impact speeds. The two values are then added for the Total Energy rear-end configurations do not indicate that the energies be subtracted. All configurations are calculated in the same manner.

PRE-CRASH BASIC MOVEMENT (S6.93.44)

This question focuses on the most responsible driver's/vehicle's movements immediately preceding the crash. It is the general movement rather than the specific action taken for the impending collision, which is coded.

CHARACTER OF MOVEMENT (S6.93.45-46)

This is the specific movement just prior to the realization of the point of no return preceding the collision.

A vehicle is on a straight roadway and enters a curve but continues straight, i.e., tangential to the curve. The vehicle then hits a tree on the side of the roadway. Before the vehicle runs off the road it is still going straight. Therefore, the Pre-Crash Basic movement is "straight" (1) and the character of movement is "straight ahead, road turned to left" (01).

Example 2

In this example, a vehicle is following the initial road curvature and then runs off the road. The Pre-Crash basic movement is "curve following" (2) and the character of the movement is "on the right hand side of the road" (03).

Example 3

In this example, vehicle A (the case vehicle) is making a left hand turn while vehicle B is going straight, prior to impact. The pre-crash basic movement is "turning" (2). Even though the actual vehicle movement might not be a circular arc. The character of movement is "turned and left" (12).

PRIMARY FACTOR RESPONSIBLE FOR ACCIDENT (S6.93.47)

The response to this question should be determined through an evaluation of the narrative report and supplementary material, especially the matrix cells. Teams usually indicate the causal factor or factors they feel were most responsible for the accident. This should be used as a guideline for coding the appropriate response. In the case where either driver's omission, or commission is the most responsible accident factor, it may be difficult to discern which of the two is the more appropriate response. As a general rule, accidents in which the case vehicle driver had been drinking, was dozing or was inattentive are usually considered unaware type errors. On the other hand, accidents in which the case vehicle driver is knowingly creating a hazardous situation, such as speeding or passing through an intersection on an amber light changing to red are usually coded as aware errors.

PRIMARY ERROR (S7.93.48-51)

The specific driver's actions relating to the primary factor responsible for the action is indicated here. The narrative portion of the case report under conclusion, or the police report, usually attempts to answer this question. Both should be consulted in determining the most significant error. When more than one error is indicated, the most significant should be coded first. A consistency check should be made with CIPR page 4.

DEGREE OF DRIVER ATTENTION (S7.93.52)

This question is highly subjective. If the most responsible driver had a primary error coded as (02), "falling asleep, blackout, or death-at-wheel", then code Degree Of Driver Attention as "no awareness" (1). All other responses represent intermediate degrees of attention, with a code of "complete awareness" (5) representing the other extreme where the driver, although most responsible, was in complete control of the vehicle; but could not have avoided the collision situation.

DRIVING COMPLEXITY (S7.93.53)

Codes (1-5) represent degrees of driving complexity. Variables considered under this question are: driver familiarity with the vehicle, the route frequency, the general locality, the particular location and the traffic density. Extremes in these variables determine how complex the driver situation was (e.g., "complete familiarity" (1) would include a familiar car, a frequent route, and unobstructed open country, "peak complexity" (5) would include peak hour traffic and unfamiliar mid city).

AVOIDANCE MANUEVERS (S7.93.54-55)

Coded here are the driver actions in an attempt to avoid the impending collision. The most responsible and second most responsible vehicle actions should be coded. "Brake release" (6) refers to driver braking actions after sighting impending damage, then releasing the brakes.

VEHICLE COMBINATION (S7.93.56-57)

The two responses for this question are recorded to generally classify the types of vehicles involved in the collision. If the case is a single vehicle accident, the second response is coded "no other vehicle" (1).

MOVEMENT OF SECOND MOST RESPONSIBLE VEHICLE (S7.93.58)

This question should be approached from a very general point of view, similar to Basic Pre-Crash Movement. The code value "other" (5) should be avoided if possible.

HAZARDOUS ROAD CONDITION (S7.93.59-60)

Any hazardous conditions, which might have been contributory to the accident are coded here. Ambience, road surface conditions, obstacles and weather obstructions might all be significant, so a choice must be made which indicated the two most causative.

HSRI ANALYSIS, page 58

This page indicates the HSRI editor's estimation of the

collision. Impact Speeds, VDI/CDC's and Sheet Metal Crush. This is no way to attempt to second guess the investigators, but is an attempt to unbiasedly present the accident damage with some degree of consistency.



SECTION 5

REFERENCE INFORMATION INTRODUCTION

The reference information in this section is generally restricted to passenger vehicles and light trucks, such as pickups and sport vans. All model years and foreign vehicles for which information was available have been included. A more comprehensive annual compilation of vehicle dimensions and VIN information for cars and all types of trucks sold by domestic vehicle manufacturers is available in the MVMA published Supplement (references 3, 4, 5). That information is, therefore, not reproduced here.

The following material is organized alphabetically by the descriptors underlined in the Table of Organization. The vehicle manufacturer and model year are used where necessary to suffix a descriptor page heading.

SECTION 5
REFERENCE INFORMATION
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(9/72)

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AMC
CHRYSLER
FORD
GM
IMPORTS

AIS, ABBREVIATED INJURY SCALE (31.12-26, 22-31)

BODY MODEL CHARTS (7.3-25-29 AND 7.3.41):

CHRYSLER
FORD
GM
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BODY STRUCTURE (7.3.42)

BRAKE OPTIONS:

BRAKE ANTI-LOCK DEVICE (7.3.52)
BRAKE TYPES (7.3.51)

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(SEE AMA SUPPLEMENT FOR DETAILED REFERENCE)

ENERGY TABLE, KINETIC (8.9.3-40-43)

MAKE/MODEL CODES (7.3.25-29) - SEE ALSO BODY MODEL CHARTS

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CHRYSLER
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STEERING COLUMN VERTICAL ANGLES (19.7.33-34):

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GM
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STEERING COLUMN EA DEVICE (19.7.26-29)

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VIN SUMMARY - SEE ALSO AMA SUPPLEMENT (7.3.12-24)

VM/M CODE - SEE MAKE/MODEL CODES

WINDSHIELD CODES (20.7.46-47)

STEERING WHEEL HUB TO REAR WINDOW HEADERORIGINAL "A" DIMENSIONS

1971-72 AMC CARS

<u>Model</u>	<u>2-Door</u>	<u>4-Door</u>	<u>Wagon</u>
Hornet	62.25	61.75	81.70
Gremlin	60.10	---	---
Matador	61.25	64.20	105.5
Ambassador	61.25	64.20	105.5
Javelin, AMX	54.25	---	---

70-72 CHRYSLER

STEERING WHEEL HUB TO BACKLIGHT HEADER DIMENSIONS

VEHICLE	BODY STYLE	DIMENSION (INCHES)	FEATURE TILT ONLY	FEATURE TILT & TELESCOPE
Chrysler - All	2-Dr H/T	63"		61"
Chrysler - All	4-Dr Sd	66"		64 1/2"
Chrysler - All	4-Dr H/T	66 1/2"		65"
Dodge Dart	4-Dr Sd	64"		
Dodge Dart Swinger	2-Dr H/T	59"		
Dodge Challenger	2-Dr H/T	54 1/2"		
Dodge Challenger (sm.backlite)	2-Dr H/T	56"		
* Dodge Charger	2-Dr H/T	62"		
* Dodge Coronet	2-Dr Sd & 2 Dr H/T	60"		
* Dodge Coronet	4-Dr Sd	65"		
Dodge Polara & Monaco	2-Dr H/T	63"		
Dodge Polara & Monaco	4-Dr H/T	68 1/2"	66"	
Dodge Polara & Monaco	4-Dr Sd	66 1/2"	64"	
Imperial - Crown	2-Dr H/T	63"		62"
Imperial - Crown	4-Dr H/T	66"		65"
Imperial - Lebaron	2-Dr H/T	66"		65"
Imperial - Lebaron	4-Dr H/T	71"		70"
Plymouth Barracuda	2-Dr H/T	54 1/2"		
* Plymouth Belvedere	2-Dr Sd & 2-Dr H/T	60"		
* Plymouth Belvedere	4-Dr Sd	65"		
Plymouth Fury (etc.)	4-Dr Sd	66 1/2"	64"	
Plymouth Fury (etc.)	2-Dr Sd	68 1/2"	66"	
Plymouth Fury	Formal 2-Dr H/T	68 1/2"	66"	
Plymouth Fury (etc.)	4-Dr H/T	68 1/2"	66"	
Plymouth Fury (etc.)	2-Dr H/T	63"	61"	
Plymouth Valiant	4-Dr Sd & 2-Dr H/T	65"		
Plymouth Valiant Duster	2-Dr H/T	59 1/2"		

* Dimension for 1970 only, 70-71 dimensions unknown

A DIMENSIONS: CHRYSLER

1968 Ford Steering Wheel Hub To Backlight Header Dimensions

	2-Dr & 4-Dr Sedans	1-Dr Hardtop	2-Dr Hardtop	2-Dr Fastback	2-Dr Convertible	4-Dr Sta. Wagon	Ranchero
<u>Ford</u>							
Custom, Galaxie, LTD	63.8	63.2	63.2	61.0	61.5	108.6	-
Fairlane, Torino Falcon, Futura	63.8	-	61.5	59.0	59.8	100.5	32.6
<u>Mercury</u>							
Monterey, Montclair, Parklane, Marquis	65.2	63.2	61.4	61.0	61.5	108.6	-
Montego, Cyclone Comet	63.8	-	61.5	59.0	59.8	100.5	-
<u>Mustang</u>	-	-	53.2	46.7	53.2	-	-
<u>Cougar</u>	-	-	56.7	-	-	-	-
<u>Thunderbird</u>	-	68.2	68.7	-	-	-	-
<u>Lincoln</u>	70.1	-	66.2	-	-	-	-
<u>Mark III</u>	-	-	68.5	-	-	-	-

1969 Ford Steering Wheel Hub To Backlight Header Dimensions

<u>1969 MODEL</u>	<u>4-Dr* Sedans</u>	<u>4-Dr Sedans</u>	<u>4-Dr Hardtop</u>	<u>2-Dr Sedans</u>	<u>2-Dr Hardtop</u>	<u>2-Dr Fastback</u>	<u>2-Dr Convertible</u>	<u>4-Dr Station Wagon</u>	<u>Rancho</u>
<u>FORD</u>									
Custom, Galaxie, LTD	-	67.1	69.8	67.1	65.3	64.0	61.8	112.5	-
Fairlane, Torino Falcon, Futura	-	65.4	-	-	63.1	60.8	59.9	102.4	32.7
<u>MERCURY</u>									
Monterey, Marauder, Marquis, Brougham	69.8	67.1	69.8	-	65.3	64.0	61.8	112.5	-
Montego, Cyclone	-	65.4	-	-	63.1	60.8	59.9	102.4	-
<u>MUSTANG</u>	-	-	-	-	53.8	48.0	54.3	-	-
<u>COUGAR</u>	-	-	-	-	57.2	-	54.3	-	-
<u>THUNDERBIRD</u>	-	-	65.1	-	65.1	-	-	-	-
<u>LINCOLN</u>	67.5	-	-	-	63.2	-	-	-	-
<u>MARK III</u>	-	-	-	-	64.8	-	-	-	-

* No Door Frame around glass.

1970 Ford Steering Column Hub To Backlight Header Dimensions

MODEL & YEAR _____
 SERIES # _____

STEERING COLUMN HUB TO
 BACKLIGHT UPPER D.L.O.:

MAVERICK - 1970		MUSTANG G - 1970			COUGAR - 1970	
62		65	63	76	65	75
60.6		55.3	49.4	56.8	55.3	56.2

MODEL & YEAR _____
 SERIES # _____

STEERING COLUMN HUB TO
 BACKLIGHT UPPER D.L.O.:

TORINO - 1970		MONTEGO - 1970												
54	57	62	63	65	66	71	76	54	57	62	65	71	76	
63.1	*	60.8	60.6	60.2	32.4	100.2	62.5	60.1	*	60.2	60.2	60.2	60.2	60.2

MODEL & YEAR _____
 SERIES # _____

STEERING COLUMN HUB TO
 BACKLIGHT UPPER D.L.O.:

FORD - 1970		MERCURY - 1970											
54	57	62	63	65	71	76	54	53	57	65	63	76	71
65.0	57.6	55.0	62.0	63.3	110.8	64.5	65.0	A	67.6	62.0	62.0	64.5	64.5

MODEL & YEAR _____
 SERIES # _____

STEERING COLUMN HUB TO
 BACKLIGHT UPPER D.L.O.:

THUNDERBOLT		MARK III		LINCOLN	
65	57			65	
62.7	62.5		62.8	64.8	63.1

ALL DIMENSIONS REFLECT CURB ATTITUDE
 * - SAME AS BASE MODEL

SERIES NO.

BODY STYLE

4-dr. Sedan (Concealed "B"-Pillar)
 4-dr. Sedan
 4-dr. Hardtop
 2-dr. Sedan
 2-dr. Hardtop (Fastback)

SERIES NO.

BODY STYLE

65 2-dr. Hardtop
 66 2-dr. Pickup Type Car (Ranchero)
 71 4-dr. Station Wagon
 76 2-dr. Convertible

1971 Ford Steering Column Hub Backlight Header Dimensions

VEHICLE ACCIDENT INVESTIGATION DIMENSIONS

Model & Year Series #	Maverick '71 52-54	Comet '71 52-54	Pinto '71 67	Mustang '71 65-63-76	Conquest '71 65-76	Mustang '71 54-57-53	Mustang '71 55	Mustang '71 71	Mustang '71 54-55	Mustang '71 71				
Steering Column Hub to Backlight Upper D.L.O.	61.5	66.9	59.2	57.9	58.9	57.9	62.9	62.2	34.7	102.4	64.5	65.2	62.2	102.4

* Dimensions as Filed - Accidents

+ Same as Base Model

Model & Year Series #	Mustang '71 54-53-57-57	Mustang '71 54-53-57-57	Mustang '71 54-53-57-57	Mustang '71 54-53-57-57	Mustang '71 54-53-57-57	Mustang '71 54-53-57-57	Mustang '71 54-53-57-57	Mustang '71 54-53-57-57	Mustang '71 54-53-57-57	Mustang '71 54-53-57-57	Mustang '71 54-53-57-57	Mustang '71 54-53-57-57	Mustang '71 54-53-57-57	Mustang '71 54-53-57-57
Steering Column Hub to Backlight Upper D.L.O.	64.9	65.2	65.1	67.8	72.2	72.2	66.7	66.9	66.7	66.9	66.7	66.9	66.7	66.9

SERIES NO.

BODY STYLE

SERIES NO.

BODY STYLE

53	4-dr. Sedan (Concealed "B"-Pillar)	65	2-dr. Hardtop
54	4-dr. Sedan	66	2-dr. Pickup Type Car (Ranchero)
57	4-dr. Hardtop	71	4-dr. Station Wagon
62	2-dr. Sedan	76	2-dr. Convertible
63	2-dr. Hardtop (Fastback)		

A DIMENSIONS: FORD 72

1972 Ford Steering Column Hub To Backlight Header Dimensions

Model and Year	Maverick--1972		Comet--1972		Pinto--1972		
Series Number	62	54	62	54	62	64	73
Steering Column Hub to Backlight Upper D.L.O.	61.5	66.9	61.5	66.9	58.8	60.7	87.6

Model and Year	Thunderbird--1972	Mark IV--1972
Series Number	65	65
Steering Column Hub to Backlight Upper D.L.O.	66.2	66.2

Model and Year	Lincoln--1972		Capri--1970-1972
Series Number	65	53	
Steering Column Hub to Backlight Upper D.L.O.	65.8	70.8	54.6

Model and Year	Torino--1972					Montego--1972				
Series Number		53	63	65	97	71	53	65	63	71
Steering Column Hub to Backlight Upper D.L.O.		68.5	65.3	65.4	35.5	107.3	68.5	65.3	65.4	107.3

Model and Year	Mustang--1972			Cougar--1972	
Series Number	65	63	76	65	76
Steering Column Hub to Backlight Upper D.L.O.	57.9	58.9	57.0	59.0	58.0

Model and Year	Ford--1972						Mercury--1972				
Series Number	54	53	57	65	76	71		65	53	57	71
Steering Column Hub to Backlight Upper D.L.O.	67.8	72.2	72.2	66.7	66.9	113.2		66.7	72.2	72.2	113.2

SERIES NO.	BODY STYLE	SERIES NO.	BODY STYLE
53	4-dr. Sedan (Concealed "B"-Pillar)	65	2-dr. Hardtop
54	4-dr. Sedan	66	2-dr. Pickup Type Car (Ranchero)
57	4-dr. Hardtop	71	4-dr. Station Wagon
62	2-dr. Sedan	76	2-dr. Convertible
63	2-dr. Hardtop (Fastback)		

STEERING COLUMN TO FRONT WINDOW DIMENSIONS

1968 GENERAL MOTORS PASSENGER CARS

A DIMENSIONS: GM 68

MAKE	MODEL	2DS			2DHT			4DS			4DHT			4DSW			
		Std.	Dlx.	Opt.	Std.	Dlx.	Opt.	Std.	Dlx.	Opt.	Std.	Dlx.	Opt.	Std.	Dlx.	Opt.	
CHEVROLET	Corvaire (All Models)				53.1	53.2	53.2 W										
	Camaro				59.5	59.3	59.6 W										
	Chevy II (All Models)	61.7	61.6	61.9 W				65.9	65.8	66.0 W							
	Chevelle (All Models)	62.4	62.8	63.1 W	62.4	62.8	63.1 W	66.8	67.2	67.5 W	66.8	67.2	67.5 W	104.3	104.6	105.6 W	
	Biscayne Bel Air	67.5	68.0	68.2 W	66.2	66.6	66.9 W	67.5	68.0	68.2 W	67.9	68.3	68.6 W	103.7	109.1	109.4 W	
	Impala Caprice				66.5	66.9	67.2 W	67.5	68.0	68.2 W	67.9	68.3	68.6 W	108.7	109.1	109.4 W	
	Corvette				38.8												
	Firebird				58.9	57.0											
	Tempest (All Models)	62.7	62.1		62.7	62.1		67.1	66.5		67.1	66.5		105.2	104.6		
	Catalina Executive Bonneville	67.7	67.7		66.4	66.4		67.7	67.7		68.1	68.1		108.9	108.9		
Grand Prix				64.8	64.8												
PONTIAC																	

STEERING COLUMN TO REAR WINDOW DIMENSIONS
1969 GENERAL MOTORS PASSENGER
CARS

MODEL	STEERING WHEEL	2DS	2DHT	4DS	4DHT	4DSW
CHEVROLET						
CORVAIR	STD.		52.8			
	DLX.		52.9			
	TELESCOPE		53.1			
NOVA	DLX.	60.5		64.5		
	SPORT	60.5		64.5		
CAMARO	DLX.		57.9			
	SPORT		57.9			
CHEVELLE	DLX.	61.9	61.9	66.1	66.1	104.3
	SPORT	61.9	61.9	66.0	66.0	104.2
BISCAYNE BEL AIR	DLX.	69.3		69.3		107.5
	SPORT	69.2		69.2		107.4
IMPALA IMPALA S.S.	DLX.		65.8	69.3	67.0	107.5
	SPORT		65.7	69.2	66.9	107.5
IMPALA CUSTOM IMPALA CUSTOM SS	DLX.		63.8			
	SPORT		63.7			
CAPRICE	DLX.		63.8		67.0	107.5
	SPORT		63.7		66.9	107.4
EL CAMINO	DLX.	35.6				
	SPORT	35.5				
CORVETTE	STD.	37.5				
	TELESCOPE	39.3				
PONTIAC						
FIREBIRD	STD.		57.8			
	DLX.		58.0			
	SPORT		57.8			
TEMPEST	STD.	61.6	61.6	65.7	65.7	104.4
	DLX.	61.8	61.8	65.9	65.9	104.6
	SPORT	61.7	61.7	65.8	65.8	104.4
CATALINA VENTURA EXECUTIVE BONNEVILLE	STD.		65.2	68.7	66.5	107.0
	DLX.		65.4	68.9	66.7	107.2
	SPORT		65.3	68.8	66.5	107.1

STEERING COLUMN TO REAR WINDOW DIMENSIONS
1969 GENERAL MOTORS PASSENGER
CARS

A DIMENSIONS: GM 69

MODEL	STEERING WHEEL	2DS	2DHT	4DS	4DHT	4DSW
PONTIAC (cont')						
GRAND PRIX	STD.		61.9			
	DLX.		62.1			
	SPORT		61.9			
OLDSMOBILE						
F-85	STD.	61.1	61.1	65.2	65.2	103.9
	DLX.	61.0	61.0	65.0	65.0	103.7
	SPORT	61.5	61.5	65.6	65.6	104.4
VISTA CRUISER	STD.					108.9
	DLX.					108.7
	SPORT					109.4
DELTA 88 DELTA 88 CUSTOM DELTA ROYALE	STD.		64.4	67.9	65.7	
	DLX.		64.2	67.7	65.5	
	SPORT		64.8	68.4	66.1	
	T&T		63.9	67.4	65.2	
NINETY-EIGHT	STD.		66.9	70.5	66.9	
	DLX.		66.5	70.3	66.6	
	SPORT		67.3	70.9	67.3	
	T&T		66.3	70.0	66.3	
TORONADO	STD.		59.2			
	SPORT		59.9			
	T&T		58.9			
BUICK						
SPECIAL	STD.	65.0	60.8	65.0	60.8	103.7
	DLX.	65.1	60.9	65.1	60.9	103.8
	SPORT	65.8	61.6	65.8	61.6	104.5
SPORTWAGON	STD.					103.7
	DLX.					103.8
	SPORT					109.5
LESABRE WILDCAT	STD.		64.5	68.1	65.8	
	DLX.		64.7	68.3	66.0	
	SPORT		65.2	68.8	66.5	

STEERING COLUMN TO REAR WINDOW DIMENSIONS
 1969 GENERAL MOTORS PASSENGER
 CARS

A DIMENSIONS: GM 69

MODEL	STEERING MODEL	2DS	2DHT	4DS	4DHT	4DSW
BUICK (cont')						
ELECTRA	STD.		66.9	70.5	66.9	
	DLX.		67.1	70.7	67.1	
	SPORT		67.6	71.2	67.6	
RIVIERA	STD.		60.7			
	SPORT		61.2			
CADILLAC						
CALAIS DE VILLE	STD.		67.8	71.6	67.8	
	T&T		67.8	71.6	67.8	
FLEETWOOD SIXTY SPECIAL (133" wheelbase)	STD.			76.5		
	T&T			76.5		
FLEETWOOD 75 LIMOUSINE (150" wheelbase)	STD.			95.4		
	T&T			95.4		
ELDORADO	STD.		61.2			
	T&T		61.2			

STEERING COLUMN TO REAR WINDOW DIMENSIONS

1970 GENERAL MOTORS PASSENGER CARS

A DIMENSIONS: GM 70

Model	Steering Wheel	2 Dr Cp	2 Dr HT	4 Dr S	4 Dr HT	4 Dr SW
CHEVROLET						
Nova	Std.	60.5		64.5		
	Sport	60.4		64.4		
Camaro	Std.		57.4			
	Sport		57.7			
Chevelle	Std.		61.6	66.0	66.0	103.9
	Sport		61.6	65.8	65.8	103.8
Biscayne Bel Air Impala	Std.		66.0	69.2	66.9	
	Sport		65.9	69.1	66.9	
Impala Custom Impala Custom SS	Std.		63.6			
	Sport		63.5			
Caprice	Std.		63.6		66.9	
	Sport		63.5		66.9	
Monte Carlo	Std.		61.6			
	Sport		61.6			
Brookwood Townsmen Kingswood	Std.					107.6
	Sport					107.5
El Camino	Std.	36.1				
	Sport	36.0				
Corvette	Std.	37.5				
	T & T	39.3				
PONTIAC						
Firebird	Std.		57.6			
	Deluxe		57.8			
	Sport		57.6			
	Formula		55.5			
Tempest	Std.	61.4	61.4	65.8	65.8	104.3
	Deluxe	61.6	61.6	66.0	66.0	104.2
	Sport	61.3	61.3	65.7	65.7	103.9
	Formula	59.2	59.2	63.6	63.6	101.8

A DIMENSIONS: GM 70

Model	Steering Wheel	2 Dr Cp	2 Dr HT	4 Dr S	4 Dr HT	4 Dr SW
PONTIAC (CONTINUED)						
Catalina Executive Bonneville	Std.		65.1	68.6	66.4	107.1
	Deluxe		65.3	68.8	66.5	107.3
	Sport		65.0	68.5	66.2	106.7
	Formula		62.9	66.4	64.1	104.6
Grand Prix	Std.		61.6			
	Deluxe		61.8			
	Sport		61.5			
	Formula		59.4			
OLDSMOBILE						
Cutlass	Std.	60.9	60.9	65.1	65.1	103.6
	Deluxe	60.7	60.7	64.9	64.9	103.4
	Sport	61.6	61.6	65.7	65.7	104.3
Cutlass Supreme	Std.		60.7			
	Deluxe		60.5			
	Sport		61.4			
Vista Cruiser	Std.					108.7
	Deluxe					108.4
Delta 88	Std.		64.0	67.6	65.3	
	Deluxe		63.8	67.5	65.1	
Ninety Eight	Deluxe		66.6	70.3	66.6	
	T & T		65.7	69.4	65.7	
Tornado	Deluxe		59.2			
	T & T		58.3			
BUICK						
Skylark	Std. I	60.8	60.8	64.8	64.8	103.3
	Std. II	60.9	60.9	64.9	64.9	103.4
	Deluxe	60.5	60.5	64.6	64.6	103.0
	Sport	61.6	61.6	65.6	65.6	104.1

Model	Steering Wheel	2 Dr Cp	2 Dr HT	4 Dr S	4 Dr HT	4 Dr SW
BUICK (CONTINUED)						
Le Sabre Wildcat	Std. II		64.3	67.8	65.6	
	Std. III		64.4	68.0	65.7	
	Deluxe		64.0	67.6	65.3	
Estate Wagon	Std. II					104.8
	Std. III					106.4
	Deluxe					105.9
Electra	Std. III		66.8	70.4	66.8	
	Deluxe		66.3	69.9	66.3	
Riviera	Std. III		61.0			
	Deluxe		60.5			
CADILLAC						
Calais DeVille	Std.		67.8	71.6	67.8	
Fleetwood Sixty Special & Brougham	Std.			76.5		
Fleetwood 75 Limousine (150" Wheelbase)	Std.			95.4		
Eldorado	Std.		61.2			

STEERING WHEEL TO REAR WINDOW DIMENSIONS
1971 GENERAL MOTORS PASSENGER CARS

MODEL	STEERING WHEEL	2DR CP	2DR HT	4DR S	4DR HT	4DR SW
CHEVROLET						
NOVA	STD	58.4		62.5		
	SPORT	58.9		63.0		
	OPT	58.4		62.5		
CAMARO	STD		55.7			
	SPORT		56.2			
	OPT		55.7			
CHEVELLE	STD		59.6	63.9	63.9	102.0
	SPORT		60.1	64.4	64.4	102.5
	OPT		59.6	63.9	63.9	102.0
BISCAYNE, BEL AIR, IMPALA	STD		61.8	64.8	65.7	
	OPT		61.8	64.8	65.7	
IMPALA CUSTOM	STD		64.1			
	OPT		64.1			
CAPRICE	STD		64.1		65.7	
	OPT		64.1		65.7	
MONTE CARLO	STD		59.8			
	SPORT		60.3			
	OPT		59.8			
BROOKWOOD TOWNSMAN KINGSWOOD	STD					103.3
	OPT					103.3
EL CAMINO	STD	36.1				
	SPORT	36.6				
	OPT	36.1				
CORVETTE	STD	37.5				
	T & T	39.3				
VEGA	STD	56.0	59.1			80.3*
	SPORT	59.3	56.2			80.5*
PONTIAC						
FIREBIRD	STD		55.7			
	DLX		56.1			
	SPORT		55.7			
	FORMULA		53.6			
TEMPEST, GTO	STD	59.4	59.4	63.8	63.8	102.0
	DLX	59.8	59.8	64.2	64.2	102.4
	SPORT	59.3	59.3	63.7	63.7	101.5
	FORMULA	57.2	57.2	61.6	61.6	99.4
CATALINA BONNEVILLE SAFARI	STD		61.8	64.8	65.7	103.3
	DLX		62.2	65.2	66.1	103.7
	SPORT		61.7	64.7	65.5	102.9
	FORMULA		59.6	62.6	63.4	100.8
GRAND PRIX	STD		59.8			
	DLX		60.2			
	SPORT		59.7			
	FORMULA		57.3			

* VEGA 2DR SW and Pickup Delivery

MODEL	STEERING WHEEL	2DR CP	2DR HT	4DR S	4DR HT	4DR SW
PONTIAC						
GRANDVILLE	STD		61.8		65.7	
	DLX		69.0		66.1	
	SPORT		61.7		65.6	
	FORMULA		59.3		63.2	
OLDSMOBILE						
CUTLASS	STD	60.2	60.2	64.5	64.5	102.6
	DLX	60.2	60.2	64.5	64.5	102.6
	SPORT	60.7	60.7	65.0	65.0	103.1
CUTLASS SUPREME	STD	60.2	60.2	64.5	64.5	
	DLX	60.2	60.2	64.5	64.5	
	SPORT	60.7	60.7	65.0	65.0	
VISTA CRUISER	STD					107.4
	DLX					107.4
DELTA 88	STD		61.8	64.8	65.7	
ROYALE	STD		62.7			
NINETY EIGHT	STD		67.8		68.7	
	T & T		67.4		68.3	
TORONADO	STD		61.6			
	T & T		61.2			
BUICK						
SKYLARK	STD I	59.5	59.5	63.7	63.7	102.3
	STD II	59.0	59.0	63.2	63.2	101.8
	OPT	59.1	59.1	63.3	63.3	101.9
	SPORT	60.0	60.0	64.2	64.2	
LE SABRE, CENTURION	STD II		61.8	64.8	65.7	
	STD III		61.7	64.7	65.6	
	OPT		61.9	64.9	65.8	
ESTATE WAGON	STD II					103.3
	STD III					103.2
	OPT					103.4
ELECTRA	STD III		67.8		68.7	
	OPT		68.0		68.9	
RIVIERA	STD III		63.9			
	OPT		64.1			
CADILLAC						
BROUGHAM	STD			76.6		
CALAIS, DEVILLE	STD		69.4		70.2	
ELDORADO	STD		62.5			
75 LIMOUSINE	STD			93.8		

STEERING WHEEL TO BACKLIGHT DIMENSION :

CHEVROLET

72 GM

MODEL	WHEEL CODE		2DS	2DHT	4DS	4DHT	STA. WGN.	PICK-UP DELIVERY
NOVA	01		58.4		62.5			
	02		58.4		62.5			
	20		58.9		63.0			

CAMARO	01			55.7				
	20			56.2				

CHEVELLE EL CAMINO	01			59.6	63.9	63.9	102.0	36.1
	02			59.6	63.9	63.9	102.0	36.1
	20			60.1	64.4	64.4	102.5	36.6

MONTE CARLO	01			59.8				
	02			59.8				
	20			60.3				

BISC., BELAIR IMPALA	01			61.8	64.8	65.7	103.3	
	02			61.8	64.8	65.7	103.3	

IMPALA CUST CAPRICE	01			64.1		65.7		
	02			64.1		65.7		

CORVETTE T & T	03		37.5					
	03		39.3					

(Hatchback)

VEGA	04		59.1	56.0			80.3	
	20		59.3	56.2			80.5	

BUICK

A DIMENSIONS: GM 72

MODEL	WHEEL CODE		2DS	2DHT	4DS	4DHT	STA. WGN.	PICK-UP DELIVERY
SKYLARK	12		59.5	59.5	63.7	63.7	102.3	
	14		59.0	59.0	63.2	63.2	101.8	
	15		60.0	60.0	64.2	64.2	102.8	
LESABRE CENTURION ESTATE WGN	14			61.8	64.8	65.7	103.3	
	16			61.7	64.7	65.6	103.2	
ELECTRA	16			67.8		68.7		
RIVIERA	16			63.9				
OPEL	--	NCT AVAILABLE						

CADILLAC

MODEL	WHEEL CODE		2DS	2DHT	4DS	4DHT	STA. WGN.	PICK-UP DELIVERY
BROUGHM	18				76.6			
CALAIS DEVILLE	18			69.4		70.2		
	18			69.4		70.2		
ELDORADO	18			62.5				
75 LIMOUSINE	18				93.8			

PONTIAC

MODEL	WHEEL CODE		2DS	2DHT	4DS	4DHT	STA. WGN.	PICK-UP DELIVERY
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VENTURA II	05		60.2		64.8			
	06		60.6		65.2			

FIREBIRD	05			55.7				
	06			56.1				
	07							
	19							

TEMPEST	05		59.4	59.4	63.8	63.8	102.0	
	06		59.8	59.8	64.2	64.2	102.4	
	07							
	19							

CATALINA BONNEVILLE GRANDVILLE	05			61.8	64.8	65.7	103.3	
	06			64.2	65.2	66.1	103.7	

GRAND PRIX	06			59.8				
	19							

OLDSMOBILE

MODEL	WHEEL CODE		2DS	2DHT	4DS	4DHT	STA. WGN.	PICK-UP DELIVERY
CUTLASS	08		60.2	60.2	64.5	64.5	102.6	
	10		60.7	60.7	65.0	65.0	103.1	
	11		60.8	60.8	64.9	64.5	N.A.*	
VISTA CRUISER	08						107.4	
	10						107.5	
	11						107.6	
DELTA 88	11			61.8	64.8	65.7	103.3	
ROYALE	11			62.7	N.A.*	N.A.*		
98	11			67.8		68.7		
	13			67.4		68.3		
TORONADO	11			61.6				
	13			61.2				

* N.A. - NOT AVAILABLE

	'72 IMPORTS	"A" DIMENSIONS
AUDI	90 Sedan	59
	100 LS	64
DATSUN	1200 2-Dr Sedan	59
	1200 2-Dr Sport Coupe	53.62
	1600 Pickup	31
	510 2-Dr Sedan	58.5
	510 4-Dr Sedan	58.25
	510 Station Wagon	84.5
	240 Z	42.5
DODGE COLT	2-Dr Coupe	57.5
	2-Dr H/T	57.5
	4-Dr Sedan	61
	4-Dr Station Wagon	84
FIAT	850 Spider Convertible	N/A
FORD	Capri	57
	1900	54.25
OPEL	1900 Wagon	77.25
	Rallye	53.87
	G.T.	47.5 (past side of head rest)
	PLYMOUTH	Cricket 4-Dr Sedan
PORSCHE	911	47
	914	38.5
TOYOTA	Carina 2-Dr Sedan	58.62 (approx.)
	Corona 4-Dr Sedan	59 (approx.)
	Corona 2-Dr H/T	53 (approx.)
	Corolla 2-Dr Coupe	53.25 (approx.)
	Corolla 2-Dr Sedan	58.75 (approx.)
	Corolla Station Wagon	80.62 (approx.)
	Celica 2-Dr H/T	54.5 (approx.)
V W	Beetle	60
	Fastback	61.5
	Squareback	87.5
	411 2-Dr and 4-Dr	68
	411 3-Dr Hatchback	90

SEVERITY CODE	SEVERITY CATEGORY/INJURY DESCRIPTION	POLICE CODE
0 Zero	NO INJURY	0 or D
1	MINOR	C
<p>GENERAL</p> <p>---Aches all over.</p> <p>---Minor lacerations, contusions, and abrasions (first aid--simple closure).</p> <p>---All 1° or small 2° or small 3° burns.</p> <p>HEAD AND NECK</p> <p>---Cerebral injury with headache, dizziness, no loss of consciousness.</p> <p>---"Whiplash" complaint with no anatomical or radiological evidence.</p> <p>---Abrasions and contusions of ocular apparatus (lids, conjunctiva, cornea, uveal injuries), vitreous or retinal hemorrhage.</p> <p>---Fracture and/or dislocations of teeth.</p> <p>CHEST</p> <p>---Muscle ache or chest wall stiffness.</p> <p>ABDOMINAL</p> <p>---Muscle ache, seat belt abrasion, etc.</p> <p>EXTREMITIES</p> <p>---Minor sprains and fractures and/or dislocation of digits.</p>		
2	MODERATE	B
<p>GENERAL</p> <p>---Extensive contusions, abrasions, large lacerations, avulsions (less than 3" wide).</p> <p>---10-20% body surface 2° or 3° burns.</p> <p>HEAD AND NECK</p> <p>---Cerebral injury with or without skull fracture, less than 15 minutes unconsciousness, no post-traumatic amnesia.</p> <p>---Undisplaced skull or facial bone fractures or compound fracture of nose.</p> <p>---Lacerations of the eye and appendages, retinal detachment.</p> <p>---Disfiguring lacerations.</p> <p>---"Whiplash" - severe complaints with anatomical or radiological evidence.</p> <p>CHEST</p> <p>---Simple rib or sternal fractures.</p> <p>---Major contusions of chest wall without hemothorax or pneumothorax or respiratory embarrassment.</p> <p>ABDOMINAL</p> <p>---Major contusion of abdominal wall.</p> <p>EXTREMITIES AND/OR PELVIC GIRDLE</p> <p>---Compound fractures of digits.</p> <p>---Undisplaced long bone or pelvic fractures.</p> <p>---Major sprains of major joints.</p>		
3	SEVERE (Not Life-Threatening)	B
<p>GENERAL</p> <p>---Extensive contusions, abrasions, large lacerations involving more than two extremities, or large avulsions (greater than 3" wide).</p> <p>---20-30% body surface 2° or 3° burns.</p> <p>HEAD AND NECK</p> <p>---Cerebral injury with or without skull fracture, with unconsciousness more than 15 minutes, without severe neurological signs, brief post-traumatic amnesia (less than 3 hours).</p> <p>---Displaced closed skull fractures without unconsciousness or other signs of intracranial injury.</p> <p>---Loss of eye, or avulsion of optic nerve.</p> <p>---Displaced facial bone fractures or those with antral or orbital involvement.</p> <p>---Cervical spine fractures without cord damage.</p> <p>CHEST</p> <p>---Multiple rib fractures without respiratory embarrassment.</p> <p>---Hemothorax or pneumothorax.</p> <p>---Rupture of diaphragm.</p> <p>---Lung contusion.</p> <p>ABDOMINAL</p> <p>---Contusion of abdominal organs.</p> <p>---Extraperitoneal bladder rupture</p> <p>---Retroperitoneal hemorrhage</p> <p>---Avulsion of ureter</p> <p>---Laceration of urethra</p> <p>---Thoracic or lumbar spine fractures without neurological involvement</p> <p>EXTREMITIES AND/OR PELVIC GIRDLE</p> <p>---Displaced simple long-bone fractures, and/or multiple hand and foot fractures</p> <p>---Single open long-bone fractures</p> <p>---Pelvic fracture with displacement</p> <p>---Dislocation of major joints</p> <p>---Multiple amputations of digits</p> <p>---Lacerations of the major nerves or vessels of extremities</p>		

SEVERITY CODE	SEVERITY CATEGORY/INJURY DESCRIPTION	POLICE CODE
4	SERIOUS (Life-Threatening, Survival Probable)	B
<p>GENERAL</p> <p>---Severe lacerations and/or avulsions with dangerous hemorrhage</p> <p>---30-50% surface 2° or 3° burns</p> <p>HEAD AND NECK</p> <p>---Cerebral injury with or without skull fracture, with unconsciousness of more than 15 minutes, with definite abnormal neurological signs, post-traumatic amnesia 3-12 hours</p> <p>---Compound skull fracture</p> <p>CHEST</p> <p>---Open chest wounds, flail chest, pneumomediastinum, myocardial contusion without circulatory embarrassment, pericardial injuries</p> <p>ABDOMINAL</p> <p>---Minor laceration of intra-abdominal contents (to include ruptured spleen, kidney, and injuries to tail of pancreas)</p> <p>---Intraperitoneal bladder rupture</p> <p>---Avulsion of the genitals</p> <p>---Thoracic and/or lumbar spine fractures with paraplegia</p> <p>EXTREMITIES</p> <p>---Multiple closed long-bone fractures</p> <p>---Amputation of limbs</p>		
5	CRITICAL (Survival Uncertain)	A
<p>GENERAL</p> <p>---Over 50% body surface 2° or 3° burns.</p> <p>HEAD AND NECK</p> <p>---Cerebral injury with or without skull fracture with unconsciousness of more than 24 hours, post-traumatic amnesia more than 12 hours, intracranial hemorrhage, signs of increased intracranial pressure (decreasing state of consciousness, brady-cardia under 60, progressive rise in blood pressure or progressive pupil inequality).</p> <p>---Cervical spine injury with quadriplegia.</p> <p>---Major airway obstruction.</p> <p>CHEST</p> <p>---Chest injuries with major respiratory embarrassment (laceration of trachea, hemomediastinum, etc.).</p> <p>---Aortic laceration.</p> <p>---Myocardial rupture or contusion with circulatory embarrassment.</p> <p>ABDOMINAL</p> <p>---Rupture, avulsion or severe laceration of intra-abdominal vessels or organs, except kidney, spleen or ureter.</p> <p>EXTREMITIES</p> <p>---Multiple open limb fractures.</p>		
6	FATAL (Within 24 Hours)	K
<p>---Fatal lesions of single region of body, plus injuries of other body regions of severity Code 3 or less.</p> <p>---Fatal from burns regardless of degree.</p>		
7	FATAL (Within 24 Hours)	K
<p>---Fatal lesions of single region of body, plus injuries of other body regions of Severity Code 4 or 5</p>		
8	FATAL	K
<p>---2 fatal lesions in 2 regions of body.</p>		
9	FATAL	K
<p>---3 or more fatal injuries.</p> <p>---Incineration by fire.</p>		
99	X SEVERITY UNKNOWN	
<p>---Injured, but severity not known</p>		
98	Z PRESENCE UNKNOWN	
<p>---Presence of injury not known.</p>		

* Developed by the American Medical Association Committee on Medical Aspects of Automotive Safety, in cooperation with physicians representing medical specialties most involved in the diagnosis, care and treatment of crash injuries, and General Motors Corporation

CHRYSLER

1971 MODEL CHART

BODY MODELS: CHRYSLER 71

NOTE The code for any specific model consists of the car line and series code with the body style code
 Example JH23 is the designation for a Challenger (JH) 2-door hardtop (23)

			2 Door	2-Door	Convertible	2-Door	4-Door	4 Door	Station Wagons	
			Coupe	Hardtop	Coupe	Special	Sedan	Hardtop	2-Seat	1 Seat
			21	23	27	29	41	43	45	46
BUICK										
CHALLENGER COUPE	JL	Six	•							
CHALLENGER COUPE		V-8	•							
CHALLENGER	JH	Six		•	•					
CHALLENGER				•	•					
CHALLENGER T/A	JM	V-8	•							
CHALLENGER R/T	JS			•						
DART SPECIAL		Six		•						
DART SPECIAL		V-8		•						
DART	LL	Six					•			
DART		V-8					•			
DEMON		Six				•				
DEMON		V-8				•				
DEMON 340	LM	V-8				•				
DART CUSTOM		Six					•			
DART CUSTOM		V-8					•			
SWINGER	LH	Six		•						
SWINGER		V-8		•						
CHARGER COUPE		Six	•							
CHARGER COUPE		V-8	•							
CORONET	WL	Six					•		•	
CORONET		V-8					•		•	
SUPER BEE	WM			•						
CORONET CUSTOM		Six					•		•	
CORONET CUSTOM		V-8					•		•	•
CHARGER	WH	Six		•						
CHARGER				•						
CHARGER 500				•						
CHARGER SE	WP	V-8				•				
CORONET BROUGHAM							•			
CORONET CRESTWOOD									•	•
CHARGER R/T	WS			•						
POLARA	DE	Six		•			•	•	•	•
POLARA				•			•	•	•	•
POLARA CUSTOM	DL	V-8		•			•	•	•	•
POLARA BROUGHAM	DM			•			•	•	•	•
MONACO	DH			•			•	•	•	•
PLYMOUTH										
BARRACUDA COUPE	BL	Six	•							
BARRACUDA COUPE		V-8	•							
BARRACUDA	BH	Six		•	•					
BARRACUDA				•	•					
GRAN COUPE	BP	V-8		•						
'CUDA	BS			•	•					
VALIANT		Six					•			
VALIANT		V-8					•			
VALIANT DUSTER	VL	Six				•				
VALIANT DUSTER						•				
DUSTER 340	VS	V-8				•				
VALIANT SCAMP	VH	Six		•						
VALIANT SCAMP		V-8		•						
SATELLITE COUPE		Six	•							
SATELLITE COUPE		V-8	•							
SATELLITE	RL	Six					•		•	
SATELLITE		V-8					•		•	
ROAD RUNNER	RM			•						
SATELLITE CUSTOM		Six					•		•	•
SATELLITE CUSTOM		V-8					•		•	•
SATELLITE SEBRING	RH	Six		•						
SATELLITE SEBRING				•						
SATELLITE BROUGHAM							•			
SATELLITE REGENT	RP	V-8							•	•
SATELLITE SEBRING "PLUS"				•						
GTX	RS			•						
FURY I	PE	Six	•				•			
FURY I		V-8	•				•			
FURY II	PL	Six		•			•			
FURY II		V-8		•			•		•	•
FURY III	PM	Six		•			•		•	•
FURY III		V-8		•		•	•	•	•	•
SPORT FURY	PH	V-8		•						
SPORT FURY C1	PP			•						
CHRYSLER										
CHRYSLER NEWPORT ROYAL	CG			•			•	•		
CHRYSLER NEWPORT	CE			•			•	•		
NEWPORT CUSTOM	CL	V-8		•			•	•		
300	CS			•			•	•		
NEW YORKER	CH			•			•	•		
TOWN AND COUNTRY	CP								•	•
IMPERIAL										
IMPERIAL LE BARON	YM	V-8		•						

CHRYSLER

1972 MODEL CHART

SALES NAME	CAR LINE CODE	BASE ENGINE CODE	SERIES (PRICE CLASS)	BODY TYPE							
				21	23	29	41	43	45	46	
Challenger	J	24	H		23						
Challenger		44	H		23						
Challenger		44	S		23						
Swinger Special	L	22 (a)	L		23						
Swinger Special		44	L		23						
Dart		22 (a)	L				41				
Dart		44	L				41				
Dart Demon		22	L			29					
Dart Demon		44	L			29					
Dart Demon 340		55	M			29					
Dart Custom		22	H				41				
Dart Custom		44	H				41				
Swinger		22	H			23					
Swinger	44	H			23						
Charger Coupe	W	24	L	21							
Charger Coupé		44	L	21							
Coronet		24	L				41				
Coronet		44	L				41		45		
Coronet Custom		24	H				41				
Coronet Custom		44	H				41		45	46	
Charger		24	H			23					
Charger		44	H			23					
Charger SE		44	P				29				
Coronet Crestwood		44	P						45	46	
Polara	D	44	L		23		41	43	45		
Polara Custom		44	M		23		41	43	45	46	
Monaco		57	P		23		41	43	45	46	
Barracuda	B	24	H		23						
Barracuda		44	H		23						
'Cuda		55	S		23						
Valiant	V	22	L				41				
Valiant		44	L				41				
Duster		22	L			29					
Duster		44	L			29					
Valiant Scamp		22 (a)	H		23						
Valiant Scamp		44	H		23						
Duster 340	55	S			29						
Satellite	R	24	L	21			41				
Satellite		44	L	21			41		45		
Road Runner		68	M		23						
Satellite Custom		24	H				41				
Satellite Custom		44	H				41		45	46	
Satellite Sebring		24	H		23						
Satellite Sebring		44	H		23						
Satellite Regent		44	P						45	46	
Satellite Sebring Plus		44	P		23						
Fury I	P	44	L				41				
Fury II		44	M		23		41				
Suburban		44	M						45	46	
Fury III		44	H		23	29	41	43			
Custom Suburban		44	H						45	46	
Fury Gran Coupe		44	P		23	29					
Fury Gran Sedan		44	P					43			
Spot Suburban		44	P						45	46	
Newport Royal	C	57	L		23		41	43			
Newport Custom		63	M		23		41	43			
New Yorker		85	H		23		41	43			
Town and Country		63	P						45	46	
New Yorker Brougham		85	S		23		41	43			
Imperial LeBaron	Y	85	M		23			43			

ENGINE CODES (Only Base Engines Included)	
22	198 CID 6-Cylinder
24	225 CID 6-Cylinder
44	318 CID V-8
55	340 CID V-8
57	360 CID V-8
63	400 CID V-8 1, 2-V
68	400 CID V-8 1, 4-V
85	440 CID V-8

BODY TYPE	
21	2-Door Coupe
23	2-Door Hardtop
29	2-Door Special
41	4-Door Sedan
43	4-Door Hardtop
45	2-Seat Station Wagon
46	3-Seat Station Wagon

SERIES (PRICE CLASS)	
L	Low
M	Medium
H	High
P	Premium
S	Special

(a) 198 CID not available in California

1970-1972 FORD MODEL CHART

<u>SERIES NO.</u>	<u>BODY STYLE</u>
53	4-dr. Sedan (Concealed "B"-Pillar)
54	4-dr. Sedan
57	4-dr. Hardtop
62	2-dr. Sedan
63	2-dr. Hardtop (Fastback)
65	2-dr. Hardtop
66	2-dr. Pickup Type Car (Ranchero)
71	4-dr. Station Wagon
76	2-dr. Convertible

71 GM BODY STYLE CHART

Style	Description	Price
05 Delivery - 2 Dr.	36 Sta. Wag. - 4 Dr. - 2 Seat - Dual Act. T/G	69.87
11 Std. - 2 Dr.	37 Cpe. - 2 Dr. - Notch Back - Hardtop	36.69
15 Sta. Wag. - 2 Dr.	39 Std. - 4 Dr. - Notch Back - Hardtop 4 Wdo.	39.57
21 Cpe. - 2 Dr.	45 Sta. Wag. - 4 Dr. - 3 Seat	67.87
23 Cpe. - 2 Dr.	46 Sta. Wag. - 4 Dr. - 3 Seat - Dual Act. T/G	56.66
27 Cpe. - 2 Dr.	47 Cpe. - 2 Dr. - Notch Back - Hardtop	
31 Cpe. - 2 Dr.	49 Std. - 4 Dr. - Notch Back - Hardtop	
33 Cpe. - 2 Dr.	55 Sta. Wag. - 4 Dr. - 2 Seat - Dual Act. T/G	
	57 Cpe. - 2 Dr. - Notch Back - Hardtop	
	50 Short Sill Cowl	
	90 Short Sill Cowl	
	F-85 (Sport Option for 87)	
A	Culliss	
A	Culliss Supreme	
A	"442"	
A-EX	Vista Cruiser	
B	Delta 88 (Custom Trim Option)	
B	Delta 88 Custom	
B	Delta 88 Royale	
B	Delta 88 Cruiser	
C	Ninety Eight	
C	Ninety Eight Luxury	
C	Short Sill Cowl	
C	Toronado	
E	Toronado Deluxe	
E		
A	Skyline (Custom Trim Option)	27.37
A	GS (36 Sport Wagon) & Custom Trim Option for 37 & GSX Option	36.37
A	Skyline Custom	37.39
B	Le Sabre	39.57
B	Le Sabre Custom	39.57
B	Estate Wagon (Wood Grain & Custom Trim Options)	35.45
B	Centurian	39.47
C	Electra "225"	37.39
C	Electra "225" (Custom Trim Option)	37.39
E	Riviera (Custom Trim Option)	87
C	Fleetwood Brougham	69
A	Calais	37.49
C	DaVile	47.49
C	Short Sill Cowl	40.50
L		
L	Eldorado	47.67
L		
C	Fleetwood "75" Limousine	23.33

BODY MODELS: GM 71

1971 BODY STYLE NAME CHART		1971 BODY STYLE
ORIGINAL RELEASE DATED 5/8/75		
REVISED 7-6-75		
23546 ADDED & SALES HAVE CHANGED TO GMC PRINT FOR 534-5282 & T-37 FOR 23222		
NOTE: No Right Hand Drive Styles Available.		
*Canadian Series Built only in Canada.		
**Canadian Series Built only in U.S.A.		
FISHER BODY ENGINEERING ACTIVITY		
F	124	87
H	141	05-11-15-77
X	114	27.69
A	132	36
A	134	36.37-46-69-80
A	136	36-37-39-45-67-69-80
V	A	138
R	ASP	133
O	A	534
D	A	536
L	A	83
E	B	154
E	B	155
E	B	156
E	B	164
E	B	165
Chevrolet Camaro (Custom, Rally Sport & SS Custom)		
Chevrolet Vega (Custom Option for 11-15-77 & Sport Option for 77)		
Chevrolet Nova (Custom Option for 27-69 & SS Option for 27)		
Chevrolet Nova		
Chevrolet (35-46 Greenbrier & 80 El Camino)		
Chevrolet Nova (136-46 Concours, 80 El Camino) & SS Option for 37-67-80		
Chevrolet (Concept Estate)		
Monte Carlo (SS Option)		
GMC Sprint		
GMC Sprint		
Chevrolet Bicayne (35 Bicayne)		
Chevrolet Bel Air (35-45 Toronado)		
Chevrolet Impala (35-45 Kingswood & 47 Impala Custom)		
Chevrolet Caprice (35-45 Kingswood Estate)		
Acadian (Custom Option for 27-69 & SS Option for 27)		
Frebird (Custom, Sprint & 400 Cplants)		
Name N/A		
T-37 (Decor Option)		
Tempest Le Mans (Wood Grain Option for 36-46 & Decor Option for 27-37-39-69)		
Tempest Le Mans Sport (Decor Option)		
GYO (Decor Option)		
Grand Prix (Custom & Decor Options)		
Catalina (35-45 Safari) & Wood Grain Option for 35-45		
Catalina Brougham		
Bonneville (35-45 Grand Sedan, 40-90 Short Sill Cowl) & Wood Grain Option for 35-45		
Grand Ville (Custom Option for 47-49)		
Laurentian		
Patriot		

Body	Series	Model	2-Door			4-Door		Station Wagons		Pickup Del.
		No.	Pillar	H/T	Conv.	Pillar	H/T	2-S	3-S	
H	<u>VEGA 2300</u>	141	11	77				15		05
X	<u>NOVA</u>	113-4	27			69				
F	<u>CAMARO</u>									
	Custom, Rally Sport, Super Sport	123-4		87						
A	<u>CHEVELLE</u>									
	Nomad	131-2						36		
	Chevelle Greenbriar and El Camino	133-4		37		69		36	46	80
	Malibu, Concours & El Camino Cust.	135-6		37	67	69	39	36	46	80
	Concours Estate	138						36	46	
A-Sp.	Monte Carlo	138		57						
B	<u>CHEVROLET</u>									
	Biscayne Brookwood	153-4 154				69		35		
	Bel Air Townsmen	155-6 156				69		35	45	
	Impala Impala Custom, Kingswood	163-4 164		57 47	67	69	39	35	45	
	Caprice, Kingswood Estate	166		47		69	39	35	45	
Sp	<u>CORVETTE</u>									
	Stingray	194		37	67					

1972 PONTIAC

Body	Series	Model No.	2-Door			4-Door		Station Wagons	
			Pillar	H/T	Conv.	Pillar	H/T	2-S	3-S
X	<u>VENTURA II</u>	213-4	27			69			
F	<u>FIREBIRD</u>								
	Custom & 400	223		87					
A	<u>LE MANS</u>								
	Le Mans	235	27	37		69		36	46
	Le Mans Sport	238		37	67				
	Le Mans Luxury	244		37			39		
(G) A-Sp.	<u>GRAND PRIX</u>	276		57					
B	<u>PONTIAC</u>								
	Catalina & Safari	252		57	67	69	39	35	45
	Catalina Brougham	258		57		69	39		
	Grand Safari	262						35	45
B-Ext	Bonneville	262		57		69	39		
	Grand Ville	268		47	67		49		

1972 OLDSMOBILE

A	<u>F-85</u>								
	F-85	331-2		87		69			
	Cutlass	335-6	77	87		69		36	
	Cutlass Supreme	342		57	67		39		
A-Ext	Vista Cruiser	348						56	66
B	<u>DELTA 88</u>	354		57		69	39		
	Royale	364		57	67	69	39		
	Custom Cruiser	368						35	45
C	<u>98</u>	384		37			39		
	98 Luxury	386		37			39		
E	<u>TORONADO</u>								
	Toronado Deluxe	396-8		57					

BODY STRUCTURE: IMPORTS

	'72 IMPORTS	BODY STRUCTURE
AUDI	90 Sedan	Unitized
	100 LS	Unitized
DATSUN	1200 2-Dr Sedan	Unitized
	1200 2-Dr Sport Coupe	Unitized
	1600 Pickup	Body-frame
	510 2-Dr Sedan	integral-stub
	510 4-Dr Sedan	integral-stub
	510 Station Wagon	integral-stub
	240 Z	integral-stub
DODGE COLT	2-Dr Coupe	Unitized
	2-Dr H/T	Unitized
	4-Dr Sedan	Unitized
	4-Dr Station Wagon	Unitized
FIAT	850 Spider Convertible	Unitized
FORD	Capri	Unitized
OPEL	1900	Unitized
	1900 Wagon	Unitized
	Rallye	Unitized
	G.T.	Unitized
PLYMOUTH	Cricket 4-Dr Sedan	Unitized
PORSCHE	911	Unitized
	914	Unitized
TOYOTA	Carina 2-Dr Sedan	Unitized
	Corona 4-Dr Sedan	Unitized
	Corona 2-Dr H/T	Unitized
	Corolla 2-Dr Coupe	Unitized
	Corolla 2-Dr Sedan	Unitized
	Corolla Station Wagon	Unitized
	Celica 2-Dr H/T	Unitized
V W	Beetle	Body-frame
	Fastback	Body-frame with stub
	Squareback	Body-frame with stub
	411 2-Dr and 4-Dr	Unitized
	411 3-Dr Hatchback	Unitized

BODY STRUCTURE (3/72)

Corporation (1) Body & Frame		(2) Utilized	(3) Integral-Stub Frame
AMC		ALL	
Chrysler		<p>A BODIES</p> Valiant (68-72) Dart (68-72) Duster (70-72) Demon (71-72) Barracuda (68-70) Challenger (70-72)	<p>B BODIES</p> Satellite (68-72) Roadrunner (70-72) G T X Coronet (68-72) Charger (68-72) Belvedere (68-72)
Ford	Ford (70-72) Lincoln (70-72) Mercury (70-72) Thunderbird (70-72) Continental (70-72) Torino (72) Montego (72)	Torino (70-71) Pinto (71-72) Mustang (70-72) Cougar (70-72) Maverick (70-72) Montego (70-71) Rancho (70-72)	<p>C BODIES</p> Fury (68-72) Suburban (68-72) Polara (68-72) Monaco (68-72) Newport (68-72) New Yorker (68-72) Town & Country (68-72) Imperial (68-72)
GM	Most	Vega Opel	Firebird Camaro, Ventura II Chevy II, Nova
VW	ALL		

ANTI-LOCK BRAKE SYSTEMS

	Optional	Standard
1969	T-Bird & Mark III	N/A
1970	T-Bird, Continental, Riviera, Toronado, Eldorado (Mark III until 1/6/70)	Mark III after 1/6/70
1971	T-Bird, Continental, Riviera, Toronado, Eldorado	Mark III
1972	Continental, Mercury with 429 or 460 CID Engines, Imperial, Eldorado, Toronado	Mark IV & T-Bird

Ford System is limited to (2) wheels.

1972 BRAKE TYPES

C. BRAKE TYPE

Full-sized cars

AMC AMBASSADOR SST V8	Drum
BUICK LeSABRE V8	Disc/ drum
CHEVROLET IMPALA V8	Disc/ drum
CHRYSLER NEWPORT V8	Disc/ drum
DODGE MONACO V8	Disc/ drum
DODGE POLARA V8	Drum
FORD GALAXIE 500 V8	Drum
MERCURY MARQUIS V8	Disc/ drum
MERCURY MONTEREY V8	Disc/ drum
OLDSMOBILE DELTA 88 V8	Disc/ drum
PLYMOUTH FURY III V8	Drum
PONTIAC BONNEVILLE V8	Disc/ drum
PONTIAC CATALINA V8	Disc/ drum

Full-sized, luxury cars

BUICK ELECTRA 225 V8	Disc/ drum
CADILLAC DeVILLE V8	Disc/ drum
CHRYSLER NEW YORKER V8	Disc/ drum
IMPERIAL V8	Disc/ drum
LINCOLN CONTINENTAL V8	Disc/ drum
OLDSMOBILE NINETY-EIGHT V8	Disc/ drum

Specialty cars

AMC JAVELIN 6	Drum
AMC JAVELIN V8	Drum
BUICK RIVIERA V8	Disc/ drum

C. BRAKE TYPE

SPECIALTY CARS continued

CADILLAC ELDORADO V8	Disc/ drum
CHEVROLET CAMARO 6	Disc/ drum
CHEVROLET CAMARO V8	Disc/ drum
CHEVROLET MONTE CARLO V8	Disc/ drum
DODGE CHALLENGER 6	Drum
DODGE CHALLENGER V8	Drum
FORD MUSTANG 6	Drum
FORD MUSTANG V8	Drum
FORD THUNDERBIRD V8	Disc/ drum
LINCOLN CONTINENTAL MARK IV V8	Disc/ drum
MERCURY CAPRI 2000 4	Disc/ drum
MERCURY COUGAR V8	Drum
OLDSMOBILE TORONADO V8	Disc/ drum
PLYMOUTH BARRACUDA 6	Drum
PLYMOUTH BARRACUDA V8	Drum
PONTIAC FIREBIRD 6	Disc/ drum
PONTIAC FIREBIRD V8	Disc/ drum
PONTIAC GRAND PRIX V8	Disc/ drum

1972 BRAKE TYPES

C. BRAKE TYPE

Subcompact cars

AMC GREMLIN 6	Drum
CHEVROLET VEGA 4	Disc/ drum
DATSUN 1200 4	Disc/ drum
DATSUN 510 4	Disc/ drum
DODGE COLT 4	Disc/ drum
FIAT 124B 4	Disc
FORD PINTO 4	Drum
OPEL 1900 4	Disc/ drum
PEUGEOT 304 4	Disc/ drum
PLYMOUTH CRICKET 4	Disc/ drum
TOYOTA COROLLA 1200 4	Disc/ drum
TOYOTA CORONA 4	Disc/ drum
TOYOTA CORONA MARK II 4	Disc/ drum
VOLKSWAGEN BEETLE 4	Drum
VOLKSWAGEN TYPE 3 4	Disc/ drum

Compact cars

AMC HORNET 6	Drum
AMC HORNET V8	Drum
AUDI 100LS 4	Disc/ drum
CHEVROLET NOVA 6	Drum
CHEVROLET NOVA V8	Drum
DODGE DART 6 (for standard engine see Plymouth Valiant 6)	Drum
DODGE DART V8	Drum
FORD MAVERICK 6	Drum
FORD MAVERICK V8	Drum
MERCURY COMET 6	Drum

C. BRAKE TYPE

COMPACT CARS continued

MERCURY COMET V8	Drum
PEUGEOT 504 4	Disc
PONTIAC VENTURA II 6	Drum
PONTIAC VENTURA II V8	Drum
PLYMOUTH VALIANT 6	Drum
PLYMOUTH VALIANT V8	Drum
SAAB 99E 4	Disc
VOLKSWAGEN 411 4	Disc/ drum
VOLVO 144 4	Disc

Intermediate cars

AMC MATADOR 6	Drum
AMC MATADOR V8	Drum
BUICK SKYLARK V8	Drum
CHEVROLET CHEVELLE 6	Drum
CHEVROLET CHEVELLE V8	Drum
DODGE CORONET 6	Drum
DODGE CORONET V8	Drum
FORD TORINO 6	Disc/ drum
FORD TORINO V8	Disc/ drum
MERCURY MONTEGO 6	Disc/ drum
MERCURY MONTEGO V8	Disc/ drum
OLDSMOBILE CUTLASS V8	Drum
PLYMOUTH SATELLITE 6	Drum
PLYMOUTH SATELLITE V8	Drum
PONTIAC LeMANS 6	Drum
PONTIAC LeMANS V8	Drum

FRONT DISK BRAKES

GM	<u>Optional 1967-to date</u>	<u>Standard</u>	<u>Standard in 72</u>
	Buick Riveria Special Eldorado Chevrolet Camaro Chevelle Chevy II Oldsmobile Toronado F-85 Pontiac Tempest Skylark Firebird Nova Ventura II	Corvette	Chevrolet Pontiac Oldsmobile Cadillac Toronado Eldorado Gran Prix Monte Carlo
Chrysler	<u>Optional 1967 to date</u>	<u>Optional Previous to 1967-to date</u>	<u>Standard 1967-to date</u>
	Dodge Coronet Dodge Charger Plymouth Belvedere Challenger Barracuda	Chrysler Dodge Polara Dodge Dart Plymouth Fury Plymouth Valiant	Imperial
Ford	<u>Optional 1967 to date</u>	<u>Optional Previous to 1967-to date</u>	<u>Standard Previous to 1967-to date</u>
	Falcon Fairlane Comet Cougar	Ford Mustang Mercury	Thunderbird Lincoln
	<u>Standard 1972</u>		
	Riviera		
AMC	Optional previous to 1967: Ambassador, American, Rebel, Marlin		
	Optional in 1972: Gremlin, Hornet, Matador, Javelin		

OVERALL DIMENSIONS - 1971
(Figures in Inches)

Models	Wheelbase L101	Overall Length L103	Overall Width W103	Overall Height H101	Minimum Running Ground Clearance H156
AMERICAN MOTORS CORPORATION					
Ambassador	122.0	209.7 - 210.8	77.2	54.9 - 56.7	6.3 - 7.0
Matador	118.0	205.0 - 206.0	77.2	53.8 - 56.4	5.2 - 6.6
Hornet, Javelin	108.0 - 110.0	179.3 - 191.8	70.6 - 75.2	50.9 - 52.9	5.2 - 5.7
Gremlin	96.0	161.3	70.6	51.8	5.0
CHEVROLET MOTORS CORPORATION					
Checker	120.0 - 129.0	202.0	76.0	62.8	6.5
CHRYSLER CORPORATION					
Chrysler	122.0 - 124.0	224.6 - 224.8	79.0 - 79.1	54.8 - 57.4	5.9
Dodge	122.0	220.2 - 223.5	79.2 - 79.3	54.5 - 57.1	5.7
Coronet, Charger	115.0 - 118.0	205.4 - 213.4	76.9 - 78.7	52.3 - 56.4	4.7
Dart, Challenger	108.0 - 111.0	191.3 - 196.2	69.7 - 76.1	50.6 - 53.9	4.3 - 5.5
Imperial	127.0	229.7	79.0 - 79.1	55.6 - 56.1	6.7
Plymouth	115.0 - 122.0	203.2 - 220.2	78.6 - 79.6	52.0 - 57.1	4.4 - 6.1
Valiant, Barracuda	108.0	186.6 - 188.4	71.1 - 74.9	50.6 - 54.0	5.1 - 5.7
FORD MOTOR COMPANY					
Ford	121.0	216.2 - 219.2	79.3 - 79.7	53.0 - 57.0	4.5 - 6.5
Torino	114.0 - 117.0	206.2 - 209.0	75.4 - 76.8	51.0 - 56.7	4.2 - 6.5
Maverick, Mustang	103.0 - 109.9	179.4 - 189.5	70.5 - 74.1	50.1 - 53.1	4.6 - 6.1
Thunderbird	114.7 - 117.2	212.5 - 215.0	77.4 - 78.0	51.9 - 53.7	4.5 - 4.8
Pinto	94.0	163.0	69.4	50.1	5.1
Lincoln	127.0	225.0	79.6	54.5 - 55.5	4.9 - 5.3
Mercury	121.0 - 124.0	220.4 - 224.7	79.3 - 79.4	53.2 - 56.9	4.9 - 6.2
Montego, Mark III	114.0 - 117.2	209.9 - 216.1	75.4 - 79.4	52.5 - 56.1	4.2 - 5.4
Cougar	112.1	196.7	75.0	50.5 - 50.8	4.6
Comet	103.0 - 109.9	181.7 - 188.6	70.6 - 70.7	53.0 - 53.1	6.1
GENERAL MOTORS CORPORATION					
Buick	124.0 - 127.0	220.7 - 226.2	79.7	53.6 - 54.9	5.5 - 5.6
Riviera	122.0	217.4	79.9	54.0	5.5
Skylark	112.0 - 116.0	203.2 - 207.2	77.3	53.3 - 54.3	5.3 - 5.8
Cadillac	126.3 - 133.0	221.6 - 225.8	79.8	53.9 - 56.5	5.8 - 6.3
Chevrolet	121.5 - 125.0	216.8 - 223.2	79.5	53.4 - 54.1	5.7 - 6.6
Chevvelle, Monte Carlo	112.0 - 116.0	197.5 - 206.5	75.4 - 75.6	52.7 - 54.4	4.6 - 6.2
Chevy Nova	111.0	189.4	72.4	52.5 - 53.9	4.9
Camaro	108.0	188.0	74.4	49.1	4.2
Corvette	98.0	182.5	69.0	47.8 - 47.9	4.5 - 4.8
Vega	97.0	169.7	65.4	50.0 - 52.0	4.8
Oldsmobile	121.0 - 127.0	218.3 - 226.1	76.8 - 79.5	53.4 - 58.5	5.3 - 6.7
Toronado	122.3	219.9	79.8	54.7	5.0
F-85	112.0 - 116.0	203.6 - 207.6	76.3 - 76.8	52.7 - 53.5	4.2 - 4.7
Pontiac	118.0 - 126.0	212.9 - 224.2	76.4 - 79.5	52.0 - 54.3	4.2 - 5.6
LeMans, GTO	112.0 - 116.0	203.3 - 206.8	76.7	52.0 - 54.5	4.3 - 5.3
Firebird	108.0	191.6	73.4	50.4	4.6
JEEP CORPORATION					
Jeepster, Jeep Wagoneer	101.0 - 110.0	175.3 - 183.7	65.2 - 75.6	62.8 - 63.8	7.5 - 7.8

FRONT OF CAR DIMENSIONS - 1971
(Figures in Inches)

REAR OF CAR DIMENSIONS - 1971
(Figures in Inches)

Models	LENGTH			WIDTH		LENGTH		WIDTH	
	Front of Car to Cowl Point L131	Upper Structure L123	Overhang Front L104	Track* W101	Track* W102	Overhang, Rear L105	Track* W102	Track* W102	Track* W102
AMERICAN MOTORS CORPORATION									
Ambassador	64.9	104.4 - 135.9	35.7	59.7 - 59.9					
Matador	60.4	104.4 - 135.9	34.9	59.7 - 59.9		52.1 - 53.1		60.0	
Hornet, Javelin	54.4 - 63.8	96.1 - 118.0	33.3 - 42.3	57.2 - 59.7		52.1 - 53.1		60.0	
Gremlin	54.4	94.4	33.3	57.5		38.0 - 39.5		56.6 - 60.0	
CHEVROLET MOTORS CORPORATION									
Checker	56.0	108.9	32.8	63.6		32.0		57.0	
CHRYSLER CORPORATION									
Chrysler	67.0	104.5 - 113.9	40.7	62.1					
Dodge	65.8	100.9 - 104.5	39.4	62.1		59.9 - 62.1		62.0 - 63.4	
Coronet, Charger	64.0 - 68.3	99.1 - 102.7	37.3 - 41.8	59.7 - 60.1		58.8 - 62.1		62.0 - 63.4	
Dart, Challenger	59.9 - 64.4	92.0 - 99.7	35.3 - 38.5	57.4 - 60.7		48.6 - 58.1		61.6 - 63.4	
Imperial	70.8	109.4 - 113.9	41.5	62.4		42.8 - 49.9		55.5 - 61.6	
Plymouth	61.6 - 65.8	99.1 - 109.4	35.3 - 39.3	59.7 - 62.1		61.2		62.0	
Valiant, Barracuda	55.8 - 63.2	91.4 - 99.7	31.2 - 37.3	57.4 - 60.7		48.9 - 62.1		61.6 - 63.4	
FORD MOTOR COMPANY									
Ford	66.0	104.4 - 142.6	40.6	63.3		54.6 - 57.6		64.3	
Torino	66.5	100.7 - 129.0	39.9	60.5		49.3 - 55.1		60.0	
Maverick, Mustang	59.7 - 68.3	86.3 - 102.6	34.3 - 40.0	56.5 - 61.5		40.5 - 42.1		56.5 - 61.0	
Thunderbird	74.4 - 74.6	96.0 - 100.9	45.0	62.3		52.8		62.3	
Pinto	52.0	93.5	34.6	55.0		34.4		55.0	
Lincoln	69.4	107.0 - 108.9	40.7	64.3		57.3		64.3	
Mercury	67.3 - 67.4	103.7 - 142.6	41.9	63.3		58.8		64.3	
Montego, Mark III	69.3 - 74.1	92.8 - 129.0	42.7 - 44.2	60.5 - 62.3		50.2 - 55.1		60.0 - 62.3	
Cougar	65.7	85.8 - 94.0	37.6	61.5		47.0		61.0	
Comet	62.0	93.9 - 102.2	36.6	56.5		42.1		56.5	
GENERAL MOTORS CORPORATION									
Buick	67.1 - 67.4	---	40.2	63.6		57.1 - 59.0		64.0	
Riviera	73.3	---	43.2	63.6		52.3		64.0	
Skylark	68.4	---	41.5	59.0 - 59.4		49.7		59.0	
Cadillac	---	101.2 - 112.7	39.0 - 42.2	63.6		56.8		63.3	
Chevrolet	64.7	96.8 - 111.0	39.8	64.1		55.5 - 58.4		64.0	
Chevvelle, Monte Carlo	64.7 - 71.6	---	37.8 - 41.7	59.3 - 60.2		41.7 - 53.0		59.2 - 59.9	
Chevy Nova	58.5	95.4 - 95.8	29.8	59.0		48.6		58.9	
Camaro	67.8	94.1	38.1	61.3		41.9		60.0	
Corvette	79.7	55.6	40.6	58.7		43.9		59.4	
Vega	55.1	91.7 - 106.3	31.5	55.1		41.2		54.1	
Oldsmobile	---	107.3 - 146.5	40.2 - 41.8	59.7 - 64.1		56.0 - 58.9		64.0	
Toronado	---	101.5	43.7	63.5		54.2		63.6	
F-85	---	96.6 - 103.8	42.1	59.7		49.5		59.0	
Pontiac	---	93.9 - 146.5	40.8 - 42.3	62.0 - 64.0		54.5 - 55.9		60.0 - 64.0	
LeMans, GTO	---	94.9 - 130.8	41.5 - 42.0	61.0		49.3		60.0	
Firebird	---	93.9	40.3	61.3		43.3		60.0	
JEEP CORPORATION									
Jeepster, Jeep Wagoneer	52.8 - 59.6	86.8 - 119.5	23.0 - 28.7	50.0 - 57.0		45.0 - 51.3		50.0 - 57.0	

OVERALL DIMENSIONS - 1972
(Figures in inches)

Models	Wheelbase L101	Overall Length L102	Overall Width W103	Overall Height H101	Minimum Running Ground Clearance H156
AMERICAN MOTORS CORPORATION					
Ambassador	122.0	209.7 - 211.1	77.2	54.9 - 56.7	6.3 - 7.0
Matador	115.0	205.0 - 206.1	77.2	53.8 - 55.4	5.2 - 6.6
Hornet, Javelin	108.0 - 110.0	179.3 - 191.8	70.6 - 75.2	50.9 - 52.9	5.2 - 5.7
Gremlin	96.0	161.3	70.6	51.8	5.0
CHEVROLET CORPORATION					
Chevrolet	120.0 - 129.0	202.0	76.0	62.8	6.5
CHRYSLER CORPORATION					
Chrysler	122.0 - 124.0	224.1 - 224.8	79.4	54.4 - 57.4	5.9 - 7.1
Dodge	122.0	219.4 - 222.8	79.2 - 79.6	54.5 - 57.6	6.3 - 7.7
Coronet, Charger	115.0 - 118.0	205.4 - 213.4	76.9 - 78.7	52.1 - 56.4	4.5 - 6.6
Dart, Challenger	105.0 - 111.0	191.3 - 196.2	69.6 - 76.3	50.9 - 54.0	5.0 - 5.8
Imperial	127.0	229.5	79.6	55.4 - 56.0	6.7
Plymouth	115.0 - 122.0	203.0 - 212.0	78.6 - 79.9	52.1 - 57.6	4.5 - 7.7
Valiant, Barracuda	108.0 - 111.0	186.6 - 192.1	71.0 - 74.9	50.9 - 54.3	5.0 - 5.8
FORD MOTOR COMPANY					
Ford	121.0	218.4 - 221.4	79.2 - 79.8	53.0 - 57.0	4.5 - 6.5
Torino	114.0 - 118.0	203.7 - 216.0	79.0 - 79.3	51.8 - 55.0	---
Maverick, Mustang	103.0 - 109.0	179.4 - 183.5	70.6 - 74.1	50.1 - 53.1	4.6 - 5.2
Thunderbird	120.4	216.0	79.3	52.1	5.4
Pinto	94.2	163.0	69.4	50.1	4.8
Lincoln	120.4 - 127.0	220.1 - 225.0	79.2 - 79.6	52.4 - 55.5	4.9 - 6.9
Mercury	121.0 - 124.0	220.4 - 224.8	79.3 - 80.0	53.2 - 56.9	4.7 - 6.5
Cougar, Montego	112.1 - 118.0	195.7 - 215.4	75.1 - 79.6	50.5 - 55.0	4.6
Conet	103.0 - 109.9	181.7 - 198.6	70.6	53.0 - 53.1	5.0 - 5.2
GENERAL MOTORS CORPORATION					
Buick	124.0 - 127.0	221.9 - 228.3	80.0	53.6 - 57.3	5.5 - 5.6
Riviera	122.0	218.3	80.0	54.0	5.5
Skylark	112.0 - 116.0	203.3 - 213.7	76.8	53.5 - 54.8	5.4 - 5.5
Cadillac	126.3 - 133.0	222.7 - 229.9	79.8	53.9 - 55.5	5.8 - 6.3
Chevrolet	121.5 - 125.0	219.9 - 225.2	79.5	53.4 - 57.1	5.7 - 6.6
Chevelle, Monte Carlo	112.0 - 116.0	197.5 - 206.8	75.4 - 75.6	52.7 - 54.4	4.6 - 6.2
Nova	111.0	189.4	72.4	52.5 - 53.9	4.9
Camaro	108.0	188.0	74.4	49.1	4.7
Corvette	98.0	162.5	69.0	47.8 - 47.9	4.5 - 4.8
Vega	97.0	169.7	65.4	50.0 - 52.0	4.8
Oldsmobile	121.0 - 127.0	218.3 - 227.2	76.8 - 79.6	53.4 - 58.5	5.1 - 6.7
Toronado	122.0	220.3	79.8	54.7	4.6
F-85	112.0 - 116.0	203.5 - 213.3	76.3 - 76.8	52.9 - 54.4	4.9 - 5.2
Pontiac	115.0 - 127.0	213.6 - 227.2	76.4 - 79.3	52.0 - 54.4	4.2 - 5.6
LeMans	112.0 - 116.0	203.2 - 211.3	76.7	52.0 - 54.2	4.3 - 5.0
Firebird, Ventura	108.0 - 111.0	191.6 - 194.5	72.4 - 73.4	50.4 - 53.9	4.6 - 4.9
JEEP CORPORATION					
Jeepster, Jeep Wagoneer	104.0 - 110.0	174.5 - 183.7	65.2 - 75.6	62.4 - 65.3	7.5 - 7.8

Models	LENGTH		WIDTH	
	Upper Structure L123	Overhang Front L104	Track ^a W101	
AMERICAN MOTORS CORPORATION				
Ambassador	104.4 - 135.9	35.7	59.9	
Matador	104.4 - 135.9	34.9	59.9	
Hornet, Javelin	96.1 - 118.0	33.3 - 42.3	57.5 - 59.7	
Gremlin	94.4	33.3	57.2 - 57.5	
CHEVROLET CORPORATION				
Chevrolet	108.9	32.6	63.6	
CHRYSLER CORPORATION				
Chrysler	106.1 - 113.9	40.7	62.1	
Dodge	106.1 - 109.4	38.7	62.1	
Coronet, Charger	99.1 - 107.7	37.3 - 41.8	59.7 - 60.1	
Dart, Challenger	91.2 - 99.7	35.3 - 38.5	57.4 - 60.2	
Imperial	106.1 - 113.3	41.4	62.4	
Plymouth	99.1 - 108.5	35.3 - 39.3	59.7 - 62.1	
Valiant, Barracuda	91.2 - 99.7	31.2 - 37.2	57.4 - 60.2	
FORD MOTOR COMPANY				
Ford	104.4 - 142.6	42.8	63.3	
Torino	58.2 - 134.9	39.9 - 43.5	62.8 - 63.9	
Maverick, Mustang	86.3 - 102.6	34.3 - 40.0	56.5 - 61.5	
Thunderbird	104.5	45.2	63.0	
Pinto	93.5 - 95.3	34.6	55.0	
Lincoln	104.6 - 105.9	40.7 - 46.4	63.0 - 64.3	
Mercury	103.7 - 142.6	41.9 - 42.0	63.3	
Cougar, Montego	35.8 - 135.1	37.6 - 43.9	61.5 - 63.4	
Conet	93.9 - 102.2	36.6	56.5	
GENERAL MOTORS CORPORATION				
Buick	---	41.6	63.6	
Riviera	---	43.5	63.6	
Skylark	---	41.8	59.3	
Cadillac	101.2 - 112.7	40.1 - 43.3	63.6 - 63.7	
Chevrolet	96.8 - 146.5	41.9 - 42.3	64.1	
Chevelle, Monte Carlo	59.2 - 130.8	37.8 - 41.7	59.3 - 60.2	
Nova	95.4 - 95.8	29.8	59.0	
Camaro	94.1	38.1	61.3	
Corvette	55.6	40.6	55.7	
Vega	91.7 - 106.3	31.5	55.1	
Oldsmobile	100.3 - 146.5	41.5 - 41.8	59.3 - 63.6	
Toronado	101.5	44.0	63.7	
F-85	96.0 - 130.8	41.0 - 42.1	59.3	
Pontiac	93.9 - 146.5	40.7 - 43.9	62.0 - 64.0	
LeMans	95.4 - 130.8	42.0 - 43.9	61.0	
Firebird, Ventura	93.9 - 95.8	34.9 - 40.3	59.0 - 61.7	
JEEP CORPORATION				
Jeepster, Jeep Wagoneer	86.8 - 119.5	26.1 - 28.7	51.5 - 57.0	

Models	LENGTH		WIDTH	
	Overhang, Rear L105	Track ^a W102		
AMERICAN MOTORS CORPORATION				
Ambassador	52.1 - 53.5	64.0		
Matador	52.1 - 53.1	60.0		
Hornet, Javelin	38.0 - 39.5	56.6 - 59.9		
Gremlin	32.0	56.6 - 57.0		
CHEVROLET CORPORATION				
Chevrolet	46.8	63.0		
CHRYSLER CORPORATION				
Chrysler	59.4 - 62.1	63.4		
Dodge	58.7 - 62.1	63.4		
Coronet, Charger	46.6 - 58.1	62.0 - 63.4		
Dart, Challenger	42.8 - 49.9	55.6 - 61.6		
Imperial	61.1	53.4		
Plymouth	48.7 - 62.1	62.0 - 63.4		
Valiant, Barracuda	41.3 - 43.9	55.6 - 61.6		
FORD MOTOR COMPANY				
Ford	54.6 - 57.4	64.3		
Torino	49.8 - 54.5	62.9 - 64.3		
Maverick, Mustang	40.5 - 42.1	56.5 - 61.0		
Thunderbird	50.4	63.1		
Pinto	34.2	55.0		
Lincoln	53.3 - 57.3	61.1 - 64.3		
Mercury	57.6 - 58.8	64.3		
Cougar, Montego	47.0 - 53.6	61.0 - 61.5		
Conet	42.1	56.5		
GENERAL MOTORS CORPORATION				
Buick	56.3 - 59.6	64.0		
Riviera	52.8	64.0		
Skylark	49.5 - 55.8	59.3		
Cadillac	53.1 - 56.8	63.3 - 63.6		
Chevrolet	55.5 - 57.7	64.0		
Chevelle, Monte Carlo	47.4 - 53.0	57.2 - 59.9		
Nova	48.6	58.9		
Camaro	41.9	60.0		
Corvette	43.9	59.4		
Vega	41.2	54.1		
Oldsmobile	55.5 - 59.3	59.2 - 64.0		
Toronado	54.6	63.6		
F-85	49.5 - 55.5	59.0 - 59.2		
Pontiac	54.4 - 58.3	60.3 - 64.0		
LeMans	49.3 - 53.4	62.0		
Firebird, Ventura	43.3 - 48.6	58.9 - 60.4		
JEEP CORPORATION				
Jeepster, Jeep Wagoneer	44.4 - 45.0	50.0 - 57.0		

KINETIC ENERGY TABLE

ENERGY TABLE

Total Available Energy (foot-pounds x 10³)
 Sum of individual vehicle energies at
 impact without regard to vector angles,
 i.e., undirected sum of magnitudes.
 (9999) Unknown, (9998) over 9997

Vehicle Weight (600-4,200 lbs.)

	600	1,200	1,800	2,100	2,400	2,700	3,000	3,300	3,600	3,900	4,200
5	0	1	1	2	2	2	2	3	3	3	3
10	2	4	6	7	8	9	10	11	12	13	14
15	4	9	13	16	18	20	22	25	27	29	31
20	8	16	24	27	32	36	40	44	48	51	55
25	12	25	37	43	49	56	62	68	74	80	87
30	18	36	53	62	71	80	89	98	107	116	125
35	24	49	73	85	97	109	121	133	146	158	170
40	32	63	95	111	127	143	158	174	190	206	222
45	41	80	120	140	160	180	200	221	241	261	281
50	50	99	149	173	198	223	248	272	297	322	347
55	61	120	180	210	240	270	299	329	359	389	419
60	72	143	214	249	285	321	356	392	428	463	499
65	83	167	251	293	335	376	418	460	502	544	586
70	97	194	291	349	388	437	485	534	582	631	679
75	111	223	334	390	446	501	557	613	668	724	780
80	127	253	380	444	507	570	634	697	760	824	887
85	143	286	429	501	572	644	715	787	858	930	1001
90	160	321	481	561	641	721	802	882	962	1042	1122
95	179	357	536	625	715	804	893	983	1072	1162	1251

Vehicle Weight (4,500-120,000 lbs.)

	4,500	5,000	6,000	8,000	10,000	20,000	30,000	50,000	70,000	90,000	120,000
5	4	4	5	7	8	17	25	41	58	74	99
10	15	17	20	26	33	66	99	165	231	297	396
15	33	37	45	59	74	149	223	371	520	668	891
20	59	66	79	106	132	264	396	660	924	1188	1584
25	93	103	124	165	206	413	619	1031	1444	1856	2475
30	134	149	178	238	297	594	891	1485	2079	2673	3564
35	182	202	242	323	404	809	1213	2021	2830	3638	4851
40	238	264	317	422	528	1056	1584	2640	3969	4572	6336
45	301	334	401	535	668	1337	2005	3341	4678	6014	8019
50	371	413	495	660	825	1650	2475	4125	5775	7425	9900
55	449	499	599	799	998	1997	2995	4991	6988	8984	*
60	535	594	713	950	1188	2376	3564	5940	8316	*	
65	627	697	837	1115	1394	2789	4183	6971	9760	*	
70	728	809	970	1294	1617	3234	4851	8085	*		
75	835	928	1114	1485	1856	3713	5569	9281	*		
80	950	1056	1267	1690	2112	4224	6336	*			
85	1073	1192	1431	1907	2384	4769	7153	*			
90	1202	1337	1603	2138	2673	5346	8019	*			
95	1340	1489	1787	2383	2978	5957	8935	*			

Country, Corporation, Division (1/72)

1	USA	
11	General Motors Corp.	4
111	Buick	419
112	Cadillac	42
113	Chevrolet	434
114	Oldsmobile	45
115	Pontiac	451
116	GMC Truck and Coach	452
117	Electromotive, GMC	453
12	Ford Motor Co.	454
121	Ford	455
122	Lincoln-Mercury	456
13	Chrysler Corp.	48
131	Chrysler	
132	Dodge	
133	Imperial	
134	Plymouth	
135	Desoto	
14	American Motors Corp.	
141	American Motors	
15	Other USA Corporations	
151	Checker	5
152	Kaiser-Jeep	531
153	International	551
154	Studebaker/Avanti	561
16	USA Truck Corp.	58
160	USA Truck Unknown Corp.	
161	Brockway	
162	Diamond-Rco	
163	FWD	
164	Kenworth	
165	Wack	
166	Peterbilt	
167	White (Autocar, Freight Liner)	
168	Other USA Truck Corp.	
17	USA Special	
171	Fixible	
172	Freuhaut	
2	Canada	
21	GM Canada*	
22	Ford Canada*	
3	Australia	
317	GM(Holden)*	
000	Unknown, Missing Data	

* Corporation codes 1 to 4 (b) are always the same from country to country, e.g., 12 = USA/Ford and 42 = England/Ford. Codes 5-9 have different definitions in each country.

Passenger Cars

01	Intermediate (GM A Body)	
02	Standard/Full Size (B Body)	
03	Luxury (C Body)	
04	Limousine (D Body)	
05	Personal Luxury (E Body)	
06	Specialty/Pony (F Body)	
07	Grand Prix (69 A-SP Body)	
08	Compact (X Body & Y Body)	
09	Sub-compact/Mini-Imported (VW)	
10	Super Sport (Corvette)	
17	Pickup-Car (Ranchero)	
18	Sub-compact/Mini-USA (H Body)	
19	European Sports Cars (MG)	

Size

Mini	09, 18	19
Compact	08	10
Intermediate	01, 17	--
Standard	02	--
Luxury Sedan	03	--
Limousine	04	--

Multipurpose Passenger Vehicle

14	Utility (Jeep, Bronco)	
15	Carryall/panel Truck	
16	Pickup-Camper (Canopy, Shell)	
17	Pickup-Car (Ranchero)	
20	Unknown Multipurpose	
22	Slide-in Camper	
23	Motor Home	
31	Chassis-mounted Camper	

Truck

11	Van	
12	Pickup	
(13)	(Trucks to 1½ ton - Dropped Used 30's)	
15	Carryall/Panel Truck	
16	Pickup-Camper (Canopy, Shell)	
22	Slide-in Camper	
(26)	(Trucks over 1½ ton - use below)	
30	Unknown Truck Type	
31	Chassis-mounted Camper	
33	Van Walk-in	
34	Straight truck	
35	Truck-Tractor	
36	Chassis-Cab	
37	Chassis Indeterminant	
38	Tractor-Trailer Combination (Semi)	

Bus

40	Unknown Bus Type
41	School Bus
42	Intra City (between)
43	Intra City (within)

Motorcycles

50	Unknown Motorcycle Type
52	0-125cc
53	126-250cc
54	251-500cc
55	501-750cc
56	751+cc
57	3-wheels

Special Purpose Vehicles

60	Unknown special
61	Snowmobile
62	ATV, All Terrain Vehicles
63	Amphibious Vehicle
64	Farm Vehicles
65	Construction Vehicles
66	Trailer-Private (carper)
67	Trailer-Commercial (cargo)
90	Train
91	Locomotive, Switcher
00	Unknown Vehicle Type

VEHICLE MAKE MODEL (ABCDE): (1/72)

AMERICAN MOTORS

14101 Classic, Rebel, Matador
 14102 Ambassador
 14106 Marlin, Javelin, Javelin AMX (71-)
 14108 American, Hornet
 14110 AMX (to 70)
 14118 Gremlin

CHRYSLER CORPORATION (1960 to-date)

Chrysler
 13102 Newport, Chrysler 300, New Yorker, Town & Country (66-)
 Windsor (60,61), Saratoga (60)
 Dodge
 13201 Coronet (65-), Super bee (67-69), Charger (71-)
 Dart (62), Polara (62-64)
 13202 Polara (60,61,65-), Monaco (65-), 880 (62-65),
 Dart (60,61), Matador (60)
 13206 Charger (66-70), Challenger (70-), R/T
 13208 Dart (63-), GTS, Swinger (69-), Custom (69), Demon,
 Lancer (61,62)
 13211 Van
 13212 Pickup, D100, D200, D300
 13215 Carryall
 13233 Van walk-in
 13234 Straight truck
 13235 Truck tractor
 13236 Tractor-trailer combination (semi)
 (83209) Colt

Imperial

13305 Imperial, LeBaron, Crown, Custom (60-63)

Plymouth

13401 Fury (62-64), Savoy (62-64), Belvedere (62-), Savoy
 (62-64), Belvedere, Satellite (65-), Sebring, Road
 Runner, GTX (67-)
 13402 Fury (-61) 65-, Suburban (68-), VIP (66-69),
 Belvedere (60,61)
 13406 Barracuda (67-), Grand Coupe (70-)
 13408 Valiant, Barracuda (64-66), Signet (62-69), Duster (70-)
 (43409) Cricket

DeSoto

13502 DeSoto (61), Fireflite (60), Adventurer (60)

FORD MOTOR COMPANY

Ford

12101 Fairlane, Torino, Cobra, Falcon (70 1/2-)
 12102 Custom, Galazie, XL, LTD, Country Squire, Ranch Wagon
 12105 Thunderbird, Landau
 12106 Mustang, Mach 1, Grande, Boss, Mach 1
 12108 Falcon (to 70), Maverick, Futura
 12111 Econoline, E100, Station Bus
 12112 Pick-up, F100 to F350
 12114 Bronco
 12117 Ranchero
 12118 Pinto
 12133 Van Walkin (P Series)
 12134 Straight Truck (C, F, L Series 500 and over)
 12135 Truck-Tractor (C Series, L Series, W Series)
 12138 Tractor-Trailer Combinations (Semi)
 12141 School Bus (B Series)
 Lincoln-Mercury
 12201 Comet (67-68) Calliente (67-68)
 Montego (68-), Voyager, Villager, Cyclone (67-)
 12202 Mercury Monterey, Montclair, Park Lane, Marauder,
 Marquis, Colony Park
 12203 Lincoln Continental
 12205 Continental Mark III
 12206 Cougar (67-)
 12208 Comet (65, 66, 71-)
 (62209) Capri (Germany)

FORD OF CANADA, LTD.

Lincoln-Mercury
 22202 Meteor

GENERAL MOTORS CORPORATION

Buick
 11101 Special (64-), Skylark, GS, Sportwagon
 11102 LeSabre, Wildcat, Centurion
 11103 Electra 225
 11105 Riviera
 11108 Special (to 63)
 (61809) Opel Kadett, 1900, Rallye
 (61819) Opel GT

Cadillac
 11203 Calais, DeVille, Sixty Special, Brougham
 11204 Seventh Five, Limousine
 11205 Eldorado

Chevrolet
 11301 Chevelle, Malibu, Nomad, Greenbrier
 11302 Townsman, Kingswood
 11306 Camaro
 11307 Monte Carlo
 11308 Chevy II, Nova, Corvair, Monza
 11310 Corvette, Sting Ray
 11311 Van, Sport Van, G10, G20, G12
 11312 Pick-up, C10, C20, C30
 11314 Blazer
 11315 Carryall
 11317 El Camino
 11318 Vega
 11333 Van Walkin
 11334 Straight truck
 11335 Truck-tractor
 11338 Tractor-trailer combination (semi)

Oldsmobile
 11401 F-85 (64-), Cutlass, Vista-Cruiser, 442
 11402 Delmont 88, Delta 88, Starfire, Rocket 88, 88, Jetstar
 Dynamic 88, Jetstar 88
 11403 98
 11405 Toronado
 11408 F-85 (to 63)

Pontiac
 11501 Tempest (64-), LeMans, GTO, Safari (to 69)
 11502 Catalina, Ventura, Executive, Bonneville, Grand Ville
 Grand Prix (to 68), Brougham, Star Chief, Safari (71-)
 11506 Firebird
 11507 Grand Prix (69-),
 11508 Tempest (to 63), Ventura II

GMC truck and coach
 11611 Sportvan
 11612 Pick-up
 11614 Jimmy
 11615 Carryall
 11617 GMC Sprint
 11633 Van Walk-in
 11634 Straight truck
 11635 Truck-tractor
 11638 Tractor-trailer combination (semi)

GENERAL MOTORS OF CANADA, LTD.

Chevrolet
 21301 Chevelle, Chevrolet, Acadian

Oldsmobile
 21401 Oldsmobile

Pontiac
 21501 Beaumont
 21502 Pontiac, Parisienne, Grand Parisienne (to 69)

KAISER MOTORS (JEEP)

15201 Wagoneer, J-100
 15214 Jeep, Jeepster, GJ5
 15212 Pick-up

CHECKER

15102 Checker, Marathon

INTERNATIONAL HARVESTER

15315 Travelall
 15312 Pick-up
 15314 Scout
 15333 Van Walk-in
 15334 Straight truck
 15335 Truck tractor
 15338 Tractor trailer combination (semi)

STUDEBAKER

15405 Avanti II

IMPORTED CARS - by code (1/72)

<u>Australia</u>			
31708	Holden		
<u>England</u>			
41908	Vauxhall		
42209	Ford Anglia, Cortina		
42401	Ford Zephyr		
43409	Plymouth Cricket, Leyland		
45---	British Leyland		
45108	Austin Maxi, A60, 1800		
45109	Austin Mini, Mini Cooper, America, 1300		
45219	Austin Healy Sprite, 300		
45319	VGA, MGB, MGC, MG, MIDGET, MGT/CT, MGC/GT		
45409	Morris Mini		
45503	Jaguar 420, XJ6		
45510	Jaguar E type (XKE)		
45608	Triumph Herald		
45609	Triumph Herald		
45619	Triumph Spitfire, GT6, TR3, TR4, TR250, TR6, GT6+, Stag		
46---	Rootes		
46109	Hillman Imp		
46209	Singer		
46319	Sunbeam Alpine, Tiger, Rapiet		
48110	Aston Martin DB5, DB6, DBS		
48219	Lotus Elan, Elite, +2s, super 7, Europa		
48319	Morgan		
48403	Rolls Royce (shadow)		
48404	Rolls Royce (limo)		
48610	Jensen		
<u>France</u>			
53109	Simca 1204, GLS		
55101	Citroen 21, ID20, DS21		
55108	Citroen GS		
55109	Citroen 2CV, Dyane, Ami		
55110	Citroen SM		
56108	Renault 16		
56109	Renault 8, 10		
57108	Peugot 504		
57109	Peugot 204, 304, 404, 403		
<u>Germany</u>			
61809	Opel Kadett, 1900, Rallye		
61819	Opel GT		
62209	Ford Capri		
65101	Mercedes Benz 200, 190, 220, 230, 250, 280, 300, except SL		
65104	Mercedes 600 limo		
65110	Mercedes Benz 280 SL, 250SL, 300SL, 190SL, 350SL, 450SL		
66108	VW 411		
66109	VW 1300, 1500, 1600, "beetle"		
66119	Karmann-Ghia		
66210	Porsche 911, 914-6		
66219	Porsche 912, 914, 355B, 356B, 1600S.		
67108	BMW 2500/2800/3000 sedans, Bavaria		
67109	BMW 1600, 2002, 1800, 2002tii, 1602		
67110	BMW 2800cs, 2800 ca, 3000 cs, 3000ca		
68108	Audi 100LS, Super 90		
68119	Audi 100 Coupe		
68309	NSU 1000, 1200		
68301	NSU Ro80		
<u>Italy</u>			
75108	Alfa Romeo 1750 Berlina, Guila		
75110	Alfa Romeo Montreal		
75119	Alfa Romeo 1750 & 1600 GTV, Spyder		
76109	Fiat 500, 650, 850, 124 sedans		
76110	Fiat Dino		
76119	Fiat 850, 124, coupe and spyder, 1500 spyder		
77110	Ferrari		
78110	Maserati		
78208	Lancia Berlina 4 door		
78219	Lancia 2 door		
78310	De Tomaso Mangusta, Pantera		
78410	Lamborghini		
<u>Japan</u>			
83209	Dodge Colt		
85109	Mazda (except cosmo)		
85110	Mazda Cosmo		
86109	Datsun 1000, Sunny, 1200, PL510		
86119	Datsun 1600, 2000, 240z		
87108	Toyota Corona, Crown		
87109	Toyota Corolla, Sprinter		
87110	Toyota 2000GT		
88109	Honda		
88209	Subaru		
88309	Suzuki		
884---	Kawasaki		
885---	Yamaha		
<u>Other (Sweden)</u>			
95108	Saab 95, 96, 99		
95115	Saab Sonnett		
95208	Volvo 122, 142, 144, 145, 164, 522		
95219	Volvo P1800		

IMPORTED CARS - BY NAME (1/72)

75108	Alfa Romeo 1750 Berlina, Guila	78410	Lamborghini
75110	Alfa Romeo Montreal	78208	Lancia Berlina 4 door
75119	Alfa Romeo 1750 & 1600 GTV, Spyder	78219	Lancia 2 door
48110	Aston Marin DB5, DB6, DBS	48219	Lotus Elan, Elite, +2s, super 7, Europa
68108	Audi 100LS, Super 90	48210	Lotus Europa
68119	Audi 100 Coupe	78110	Maserati
45219	Austin Healy Sprite	85109	Mazda (except cosmo)
45219	Austin Healy 3000	85119	Mazda Cosmo
45108	Austin Maxi, A60, 1800	65101	Mercedes Benz 200, 190, 220, 230, 250, 280, 300 except SL
45109	Austin Mini, Mini Cooper, America, 1300	65104	Mercedes 600 limo
15403	Avanti II	65110	Mercedes Benz 280 SL, 250SL, 300SL, 190SL, 350SL, 450SL
67108	BMW 2500/2800/3000 sedans, Bavaria	45319	MGA, MGB, MCC, MG, MIDGET, MGB/GT, MGC/GT
67109	BMW 1600, 2002, 1800, 1602, 2002tii	45409	Morris Mini
67110	BMW 2800cs, 2800ca, 3000cs, 3000ca	48319	Morgan
62209	Capri, Ford	68309	NSU 1000, 1200
55101	Citroen 21, ID20, DS21	68301	NSU Ro80
55108	Citroen GS	61809	Opel Kadett, 1900, Rallye
55109	Citroen 2CV, Dyane, Ami	61819	Opel GT
55110	Citroen SM	57108	Peugot 504
83209	Colt, Dodge	57109	Peugot 204, 304, 404, 403
43409	Cricknet, Plymouth	66210	Porsche 911, 914-6
		66219	Porsche 912, 914
86109	Datsun 1000, Sunny, 1200, PL510	56108	Renault 16
86119	Datsun 1600, 2000, 240Z	56109	Renault 8, 10
76310	DeTomaso Mangusta, Pantera	48403	Rolls Royce (shadow)
83209	Dodge Colt	48404	Rolls Royce (limo)
77110	Ferrari	48508	Rover
76109	Fiat 500, 650, 850, 124 sedans	95108	Saab 95, 96, 99
76110	Fiat Dino	95119	Saab Sonnett
76119	Fiat 850, 124, coupe and spyder, 1500 spyder	53109	Simca 1204, GLS
42209	Ford Anglia, Cortina	46209	Singer (automobile)
62209	Ford Capri	88209	Subaru
42401	Ford Zephyr	46319	Sunbeam Alpine, Tiger, Rapier
		88309	Suzuki (automobile)
46109	Hillman Imp	45609	Triumph Herald
31708	Holden	45608	Triumph 2000
88109	Honda	45619	Triumph Spitfire, GT6, TR3, TR4, TR250, TR6, GT6+, Stag
45503	Jaguar 420, XJ6	87108	Toyota Corona, Crown
45510	Jaguar E type (XKE)	87109	Toyota Corolla, Sprinter
48610	Jensen	87110	Toyota 2000GT
		41908	Vauxhall
		95208	Volvo 122, 142, 144, 145, 164, 522
		95219	Volvo P1800
		66108	VW 411
		66109	VW 1300, 1500, 1600, "beetle"
		66119	VW Kaimann Ghia

RESTRAINT SYSTEM: BELT AVAILABILITY

Standard Lap Belt Equipment

	<u>GM</u>	<u>Chrysler</u>	<u>Ford</u>	<u>AMC</u>
Two front-seat Lap Belts	1965 Model yr.	January 4, 1964	Jan. 1, 1964	Jan. 1, 1964
Two rear-seat Lap Belts	1966 Model yr.	April 1, 1965	1966 Model yr.	1966 Model yr.
All 6 Seated Positions (Mandatory Jan. 1, 1968)	1968 Model yr.	January 1, 1968	Jan. 1, 1968	Jan. 1, 1968

Optional Shoulder-Belt Equipment

	<u>GM</u>	<u>Chrysler</u>	<u>Ford</u>	<u>AMC</u>
Shoulder Belts (Front seat)	1967	1967	Became option in 1967	Became option in 1967

RESTRAINT SYSTEM: CHILD RESTRAINTS

CHILD RESTRAINT CODES

(Will be uniquely assigned as they occur in reports)

00	Unknown type
01	GM Standard #993502
02	GM Deluxe #987499
03	Sears (GM made)
04	GM Infant Carrier #0993970
05	Ford Tot Guard
99	Not applicable

RESTRAINT SYSTEM: HEAD RESTRAINT AVAILABILITY

Standard Head Restraint Equipment

(Mandatory January 1, 1969)

GM	1969 Model Year
Chrysler	January 1, 1969
Ford	January 1, 1969
AMC	1969 Model Year

Optional Head Restraint Equipment

GM	Before 1967
Chrysler	1967
Ford	1967
AMC	Before 1967

RESTRAINT SYSTEM: LOCKING RETRACTORS, USA

LOCKING SEAT BELT RETRACTOR AVAILABILITY (1/72)

<u>CORPORATION</u>	<u>YEAR</u>	<u>AVAILABILITY</u>
Chrysler	1969	Standard on Option C-Body Imperial
	1970	None Standard
	1971	Standard on Imperial, Others Optional
	1972	All
Ford	1970	All Standard, Except Maverick (no option)
	1971	All Standard, Except Maverick (optional) Comet (optional) Pinto (no option)
VW	All	None

RESTRAINT SYSTEM: LOCKING RETRACTORS, IMPORTS

Restraint System

	'72 IMPORTS	Type	Lap Retractor	Shoulder Retractor
AUDI	90 Sedan	3 pt	One Inertia Reel	for Both
	100 LS	3 pt	One Inertia Reel	for Both
DATSUN	1200 2-Dr Sedan	3 pt	Locking	None
	1200 2-Dr Sport Coupe	3 pt	Locking	None
	1600 Pickup	3 pt	None	None
	510 2-Dr Sedan	3 pt	None	None
	510 4-Dr Sedan	3 pt	Locking	None
	510 Station Wagon	3 pt	Locking	None
	240 Z	3 pt	Locking	None
DODGE COLT	2-Dr Coupe	3 pt	Locking	None
	2-Dr H/T	3 pt	Locking	None
	4-Dr Sedan	3 pt	None	None
	4-Dr Station Wagon	3 pt	Locking	None
FIAT	850 Spider Convertible	2 pt	Locking	N/A
FORD	Capri	3 pt	Inertia Reel	None
OPEL	1900	3 pt	Locking	None
	1900 Wagon	3 pt	Locking	None
	Rallye	3 pt	Locking	None
	G.T.	3 pt	Locking	None
PLYMOUTH	Cricket 4-Dr Sedan	3 pt	Locking	None
PORSCHE	911	3 pt	None	None
	914	3 pt	One Inertia Reel	for Both
TOYOTA	Carina 2-Dr Sedan	3 pt	Locking	None
	Corona 4-Dr Sedan	3 pt	Locking	None
	Corona 2-Dr H/T	3 pt	Locking	None
	Corolla 2-Dr Coupe	3 pt	Locking	None
	Corolla 2-Dr Sedan	3 pt	Locking	None
	Corolla Station Wagon	3 pt	Locking	None
	Celica 2-Dr H/T	3 pt	Locking	None
V W	Beetle	3 pt	One Inertia Reel	for Both
	Fastback	3 pt	One Inertia Reel	None
	Squareback	3 pt	One Inertia Reel	None
	411 2-Dr and 4-Dr	3 pt	None	None
	411 3-Dr Hatchback	3 pt	None	None

RESTRAINT SYSTEM USAGE CODE

<u>FIRST COLUMN</u>		<u>SECOND COLUMN</u>	
<u>Lap Belt</u>		<u>Upper Torso Restriant</u>	
<u>Code</u>	<u>Description</u>	<u>Code</u>	<u>Description</u>
0	None Used	0	None Used
1	Non-Locking Retractor, Used	1	Non-Locking Retractor, Used
2	Inline Retractor, Used	2	Inline Retractor, Used
3	Automatic Locking Retractor, Used	3	Automatic Locking Retractor, Used
4	Inertia Retractor, Used	4	Inertia Retractor, Used
5	No Retractor, Used	5	No Retractor, Used
6	Competition Type (3" webbing)	6	Competition Type (Double Strap)
7		7	
8	Used, Type Unknown or Other	8	Used, Type Unknown or Other
9	Unknown Useage	9	Unknown Useage

USE OF RESTRAINT CODES

<u>Code</u>	<u>When to Use</u>
1-7	Use these codes only if the particular lap-belt or shoulder belt was used. If lap-belt only was used, then use "0" in 2nd column
8	Use when restraint was <u>used but type unknown</u> or other than 1-7
0	Use this if restraint was <u>not used</u> , even if it was not available for use or availability is not known.
9	Use this if usage is unknown, even if type available is known.

TYPICAL COMBINATIONS

- 10 Lap-Belt only used (Standard, Front Seat)
- 15 Lap-Shoulder Belt Used (Standard, Front Seat)
- 20 Lap-Belt only used (Standard, Rear Seat)

1972 CHRYSLER FRONT SEAT BACK ANGLES

All Models $25.5^{\circ} \pm 1^{\circ}$

1970 Ford Front Seat Back Angles

MODEL & YEAR ———
 SERIES # ———

MAVERICK - 1970		MUSTANG - 1970			COURAGE - 1970		
62		65	63	76	65	75	
68°		68°	*	*	68°	*	

FRONT SEAT BACK (BENCH)
 ANGLE TO HORIZONTAL (BUCKET)

MODEL & YEAR ———
 SERIES # ———

TORINO - 1970		MONTEGO - 1970											
54	57	62	63	65	66	71	76	54	57	62	65	71	76
66.5	*	66.8	*	66.8	68°	67.5	*	66.5	*	66.8	66.8	67.5	*
		*	*	66.8	68°	66.8						66°	66

FRONT SEAT BACK (BENCH)
 ANGLE TO HORIZONTAL (BUCKET)

MODEL & YEAR ———
 SERIES # ———

FORD - 1970		MERCURY - 1970										
54	57	62	63	65	71	76	54	53	57	65	76	71
66°	*	*	*	*	65°	67°	68°	*	*	*	*	67°
-	-	-	65°	-	-	65°	-	-	-	-	65°	65

FRONT SEAT BACK (BENCH)
 ANGLE TO HORIZONTAL (BUCKET)

MODEL & YEAR ———
 SERIES # ———

THUNDERBIRD - MARK III		LINCOLN		
65	57	65	65	53
67.5	67°	68°	67°	
67.5				69°

FRONT SEAT BACK (BENCH)
 ANGLE TO HORIZONTAL (BUCKET)

- NOTE: - ALL DIMENSIONS REFLECT CURB ATTITUDE
 * - SAME AS BASE MODEL
 L - SAME AS MODEL - 57
- | | |
|------------|------------------------------------|
| SERIES NO. | BODY STYLE |
| 53 | 4-dr. Sedan (Concealed "B"-Pillar) |
| 54 | 4-dr. Sedan |
| 57 | 4-dr. Hardtop |
| 62 | 2-dr. Sedan |
| 63 | 2-dr. Hardtop (Fastback) |
| 65 | 2-dr. Hardtop |
| 66 | 2-dr. Pickup Type Car (Ranchero) |
| 71 | 4-dr. Station Wagon |
| 76 | 2-dr. Convertible |

1971 Ford Front Seat Back Angles

VEHICLE ACCIDENT INVESTIGATION DIMENSIONS

Model & Year Series #	Maverick '71		Comet '71		Pinto '71	Mustang '71			Cougar '71		Torino '71				Montego '71						
	62	54	62	54	62	65	63	76	65	76	54	57	63	65	66	71	76	54	57	65	71
Front Seat Back* (Bench) Angle to Horizontal	66.2°	66.2°	66.2°	66.2°	-						66.5°	+	66.8°	68°	67.5°	+		66.5°	+	66.8°	67.5°
(Bucket)	70.2°	-	70.2°	-	71°	70°	+	+	70°	+	-	+	66.0°	68°	-	66.8°	-	+	+	66.0°	

*Dimensions at Curb Attitude

+ Same as Base Model

Model & Year Series #	T-Bird '71		Mark III '71		Ford '71					Mercury '71			Lincoln '71			
	65	57	65	57	54	53	57	65	76	71	65	53	57	71	65	53
Front Seat Back* (Bench) Angle to Horizontal	67.5°	67°	68°		65.5°	+	+	66°	65.5	66.5	66°	65.5°	65.5°	66.5°	67.5°	68°
(Bucket)	67.5°							68.5°	68.5		68.5°					

SERIES NO.	BODY STYLE	SERIES NO.	BODY STYLE
53	4-dr. Sedan (Concealed "B"-Pillar)	65	2-dr. Hardtop
54	4-dr. Sedan	66	2-dr. Pickup Type Car (Ranchero)
57	4-dr. Hardtop	71	4-dr. Station Wagon
62	2-dr. Sedan	76	2-dr. Convertible
63	2-dr. Hardtop (Fastback)		

SEAT BACK ANGLES: FORD 71

1972 Ford Front Seat Back Angles

Model and Year	Maverick--1972		Comet--1972		Pinto--1972		
Series Number	62	54	62	54	62	64	73
Front Seat Back** (Bench)	66.2°	66.2°	66.2°	66.2°			
Angle to Horizontal (Bucket)	70.2°		70.2°		71.3°	71.3°	70.0°
Door Sill Angle** to Horizontal	-0.5°	-0.5°	-0.5°	-0.5°	-0.6°	-0.6°	0.0°

Model and Year	Thunderbird--1972	Mark IV--1972
Series Number	65	65
Front Seat Back** (Bench)	68.5°	63°
Angle to Horizontal (Bucket)		
Door Sill Angle** to Horizontal	0.5°	0.5°

Model and Year	Lincoln--1972	Capri--1970-1972
Series Number	65	53
Front Seat Back** (Bench)	67.5°	68°
Angle to Horizontal (Bucket)		64°
Door Sill Angle** to Horizontal	0.5°	0°

Model and Year	Torino--1972					Montego--1972			
Series Number	53	63	65	97	71	53	65	63	71
Front Seat Back** (Bench)	64°	64°	64°	64°	64°	64°	64°	64°	64°
Angle to Horizontal (Bucket)	68.5°	68.5°	68.5°	68.5°	68.5°	68.5°	68.5°	68.5°	68.5°
Door Sill Angle** to Horizontal	0.5°	0.0°	0.0°	0.0°	0.5°	0.5°	0.0°	0.0°	0.5°

- * same as model 54
- \$ same as model 71
- # same as model 65
- 0 same as model 53

Model and Year	Mustang--1972			Cougar--1972	
Series Number	65	63	76	65	76
Front Seat Back** (Bench)					
Angle to Horizontal (Bucket)	70°	*	*	70°	*
Door Sill Angle** to Horizontal	0.5°	*	*	0.5°	*

Model and Year	Ford--1972						Mercury--1972			
Series Number	54	53	57	65	76	71	65	53	57	71
Front Seat Back** (Bench)	63.3°	*	*	66°	*	66.5°	#	*	*	#
Angle to Horizontal (Bucket)				68.5°	#		#	*	*	#
Door Sill Angle** to Horizontal	0.3°	*	*	0.2°	*	*	#	*	*	*

SERIES NO.	BODY STYLE	SERIES NO.	BODY STYLE
53	4-dr. Sedan (Concealed "B"-Pillar)	65	2-dr. Hardtop
54	4-dr. Sedan	66	2-dr. Pickup Type Car (Ranchero)
57	4-dr. Hardtop	71	4-dr. Station Wagon
62	2-dr. Sedan	76	2-dr. Convertible
63	2-dr. Hardtop (Fastback)		

1970-1972 GM FRONT SEAT BACK ANGLES *

Division	Body Type	1970-1971	1972
Chevrolet	H	71°	64°
Chevrolet	X	68°	65°
Chevrolet	F	65°	64°
Chevrolet	A, A wagon & SP-A	67°	A-64° A-SP-62°
Chevrolet	B	69°	63.5°
Pontiac	F	65°	64°
Pontiac	A	67°	64°
Pontiac	G	66°	62.5°
Pontiac	B & B wagon	67°	64.5°
Oldsmobile	A & A wagon	67°	64°
Oldsmobile	B	67°	64.5°
Oldsmobile	C	67°	64.5°
Oldsmobile	E	68°	64.5°
Buick	A	67°	64°
Buick	B	67°	64.5°
Buick	C	67°	64.5°
Buick	E	68°	64.5°
Cadillac	C	69°	64.5°
Cadillac	D	69°	64.5°
Cadillac	E	69°	64.5°

* Body Type Chart on Following Page

GM BODY STYLE CHART

Style	Description		F-85 (Sport Option for 87)			
O	36 Sts. Wag. - 4 Dr. - 2 Seat - Dual Act. T/G 37 Cps. - 2 Dr. - Notch Back - Hardtop 39 Sed. - 4 Dr. - Notch Back - Hardtop 4 Wdo.	69-87 36-69-77-87 39-67-67	Cutlass Cutlass Supreme "442"			
L	45 Sts. Wag. - 4 Dr. - 3 Seat 46 Sts. Wag. - 4 Dr. - 3 Seat - Dual Act. T/G	332 336 337 344 348	Vista Cruiser			
D	47 Cps. - 2 Dr. - Plain Back - Hardtop 47 Cps. - 2 Dr. - Notch Back - Hardtop 48 Cps. - 2 Dr. - Pick-Up Delivery	354 355 356 357	Delta 88 (Custom Trim Option)			
S	50 Short Sill Cowl 51 Short Sill Cowl	358 359	Delta ES Royale Delta 88 Cruiser			
M	52 Sts. Wag. - 4 Dr. - 2 Seat - Dual Act. T/G 53 Sts. Wag. - 4 Dr. - 2 Seat - Notch Back - Hardtop	363 364 365 366	Ninety Eight Ninety Eight Luxury Short Sill Cowl			
W		373 374 375 376	Tornado Tornado Deluxe			
O		377 378 379				
B		380 381 382				
I		383 384 385				
L		386 387 388				
L		389 390 391				
E		392 393 394				
E		395 396 397				
E		398 399 400				
A		401 402 403				
A		404 405 406				
C		407 408 409				
C		410 411 412				
K		413 414 415				
B		416 417 418				
U		419 420 421				
I		422 423 424				
I		425 426 427				
C		428 429 430				
C		431 432 433				
K		434 435 436				
B		437 438 439				
U		440 441 442				
I		443 444 445				
I		446 447 448				
C		449 450 451				
C		452 453 454				
K		455 456 457				
B		458 459 460				
U		461 462 463				
I		464 465 466				
I		467 468 469				
C		470 471 472				
C		473 474 475				
K		476 477 478				

1971 BODY STYLE
A.O. NAME CHART
ORIGINAL RELEASE
DATED 5-5-73
REVISED 7-5-73
23545-ADDED & SALES
NAME CHANGED TO
GMC SERIES AT FOR
335-55203, 137
FOR 23545

*Canadian Series Built only in Canada
**Canadian Series Built only in U.S.A.
NOTE: No Right Hand Drive Styles Available.

**FISHER BODY
ENGINEERING ACTIVITY**

Body Style	1971		Description
	F	H	
C	124	87	Cherolt Camaro (Custom, Rally Sport & SS Custom)
H	141	05-11-15-77	Chevrolet Vega (Custom Option for 11-15-77 & Sport Option for 77)
X	114	27-63	Chevy II Nova (Custom Option for 27-63 & SS Option for 27)
A	132	36	Chevrolet Astro-33
A	134	36-37-46-69-80	Chevrolet 35-46 Greenbrier & 60 El Camino
E	136	36-37-39-45-67-69-80	Chevrolet Malibu (36-46 Contour, 60 El Camino) & SS Option for 37-67-80
V	138	36-46	Chevrolet (Contour Estate)
R	ASP	57	Monte Carlo (SS Option)
O	A	80	GMC Sprint
L	A	535	GMC Sprint
E	B	154	Chevrolet Blazer (35-Blackwood)
L	B	155	Chevrolet Bel Air (35-45 Turnpike)
E	B	164	Chevrolet Impala (35-45 Kingswood & 47 Impala Custom)
T	B	166	Chevrolet Caprice (35-45 Kingswood Estate)
A	X	**714	Acadian (Custom Option for 27-63 & SS Option for 27)
F	223	87	Firebird (Custom, Sprint & 400 Options)
X	214	27-69	Name N/A
A	233	27-37-69	T 37 (Decor Option)
A	235	27-36-37-39-46-69	Tempest Le Mans (Wood Grain Option for 36-46 & Decor Option for 27-37-39-69)
A	237	37-39-67	Tempest Le Mans Sport (Decor Option)
A	242	37-67	GTO (Decor Option)
ASP	276	57	Grand Prix (Custom & Decor Options)
B	252	35-39-45-57-67-69	Catalina (35-45 Sedan) & Wood Grain Option for 35-45
B	258	39-57-69	Cadillac Brougham
B	262	35-39-40-45-57-69-90	Bonneville (35-45 Grand Sedan, 40-50 Short Sill Cowl) & Wood Grain Option for 35-45
B	268	47-49-67	Grand Viste (Custom Option for 47-49)
B	**756	35-45-57-69	Laurelian
B	**764	39-57-69	Paladiana

SEAT BACK ANGLES: IMPORTS 72

	'72 IMPORTS	SEATBACK ANGLE
AUDI	90 Sedan	74°
	100 LS	95°
DATSUN	1200 2-Dr Sedan	*
	1200 2-Dr Sport Coupe	*
	1600 Pickup	73°
	510 2-Dr Sedan	70°
	510 4-Dr Sedan	82° up
	510 Station Wagon	82° up
	240 Z	110° up
DODGE COLT	2-Dr Coupe	*
	2-Dr H/T	*
	4-Dr Sedan	*
	4-Dr Station Wagon	*
FIAT	850 Spider Convertible	67°
FORD	Capri	67° up
OPEL	1900	*
	1900 Wagon	*
	Rallye	*
	G.T.	72°
PLYMOUTH	Cricket 4-Dr Sedan	65°
PORSCHE	911	80°
	911	67.5° up 60° back
TOYOTA	Carina 2-Dr Sedan	*
	Corona 4-Dr Sedan	70°
	Corona 2-Dr H/T	*
	Corolla 2-Dr Coupe	*
	Corolla 2-Dr Sedan	*
	Corolla Station Wagon	*
	Celica 2-Dr H/T	*
V W	Beetle	71° up 61° back
	Fastback	71.5° up 62.5° back
	Squareback	71.5° up 62.5° back
	411 2-Dr and 1-Dr	*
	411 3-Dr Hatchback	*

SEAT BACKS

	'72 IMPORTS	Folding Seatbacks	
		Front	Rear
AUDI	90 Sedan	2	2
	100 LS	2	2
DATSUN	1200 2-Dr Sedan	1	2
	1200 2-Dr Sport Coupe	1	1 (locks on both sides)
	1600 Pickup	1	3
	510 2-Dr Sedan	1	2
	510 4-Dr Sedan	1	2
	510 Station Wagon	1	1 (locks on both sides)
	240 Z	1	3
DODGE	2-Dr Coupe	1	2
	2-Dr H/T	1	2
COLT	4-Dr Sedan	1	2
	4-Dr Station Wagon	1	1 (locks on both sides)
FIAT	850 Spider Convertible	1	3
FORD	Capri	1	2 (rear seat armrest)
OPEL	1900	1	2
	1900 Wagon	1	1 (locks on both sides)
	Rallye	1	2
	G.T.	1	3
PLYMOUTH	Cricket 4-Dr Sedan	2	2
PORSCHE	911	1	1 (strap&snap both sides)
	914	2	3
TOYOTA	Carina 2-Dr Sedan	1	2
	Corona 4-Dr Sedan	2	2
	Corona 2-Dr H/T	1	1 (locks on both sides)
	Corolla 2-Dr Coupe		
	Corolla 2-Dr Sedan	1	2
	Corolla Station Wagon	1	1 (locks on both sides)
	Celica 2-Dr H/T	1	2
V W	Beetle	1	1 (locks on both sides)
	Fastback	1	2
	Squareback	1	1 (locks on both sides)
	411 2-Dr and 4-Dr	1	2
	411 3-Dr Hatchback	1	1 (locks on both sides)

Front Seat Back Locks

GM	Standard 1967
Chrysler	Standard 1968
Ford	Standard 1968
AMC	Standard 1968

STATE CODES (FIPS 5-2)

<u>Name</u>	<u>Code</u>	<u>Name</u>	<u>Code</u>
Alabama	01	Montana	30
Alaska	02	Nebraska	31
Arizona	04	Nevada	32
Arkansas	05	New Hampshire	33
California	06	New Jersey	34
Colorado	08	New Mexico	35
Connecticut	09	New York	36
Delaware	10	North Carolina	37
District of Columbia	11	North Dakota	38
Florida	12	Ohio	39
Georgia	13	Oklahoma	40
Hawaii	15	Oregon	41
Idaho	16	Pennsylvania	42
Illinois	17	Rhode Island	44
Indiana	18	South Carolina	45
Iowa	19	South Dakota	46
Kansas	20	Tennessee	47
Kentucky	21	Texas	48
Louisiana	22	Utah	49
Maine	23	Vermont	50
Maryland	24	Virginia	51
Massachusetts	25	Washington	53
Michigan	26	West Virginia	54
Minnesota	27	Wisconsin	55
Mississippi	28	Wyoming	56
Missouri	29	Non-USA	90
		Unknown	00

Federal Information Processing Standards
Publication 5-1, NBS, June 15, 1970.

STEERING COLUMN ANGLES: AMC 71-72

71-72 AMC Steering Column Angles

<u>Series</u>	<u>Column Type</u>	<u>Column Angle (degrees)</u>
Hornet Gremlin	All	19
Javelin Javelin AMX	All	18
Matador	All	(71) 20, (72) 19
Ambassador	All	(71) 20, (72) 18

71-72 Chrysler Steering Column Angles

A Body Cars

22 (degrees)

B Body Cars

19 (degrees)

C Body Cars

21 (degrees)

Chrysler Body Type Chart

A Bodies

Valiant

Dart

Duster

Demon

Barracuda

Challenger

B Bodies

Satellite

Roadrunner

G T X

Coronet

Charger

Belvedere

C Bodies

Fury

Suburban

Polara

Monaco

Newport

New Yorker

Town & Country

Imperial

1970 Ford Steering Column Angles

MODEL & YEAR
SERIES #

STEERING COLUMN ANGLE
TO HORIZONTAL

DOOR SILL ANGLE
TO HORIZONTAL

MAVERICK		MUSTANG			COUGAR			MONTEGO - 1970				
62		65	63	76	65	75	54	57	62	65	71	76
24°		20.3°	*	*	20.3°	*	24.3°	*	*	*	25.0°	*
0.5°		0.5°	*	*	0.5°	*	0.5	*	0.3°	0.5°	0.5°	0.5

MODEL & YEAR
SERIES #

STEERING COLUMN ANGLE
TO HORIZONTAL

DOOR SILL ANGLE
TO HORIZONTAL

TORINO - 1970											
T-BIRD			MARK III			LINCOLN					
54	57	62	63	65	66	71	76	65	57	65	53
24.3°	*	*	25.5°	*	*	25.0°	24.5°	23.5°	23.8°	23.4°	23.1°
0.5°	*	0.3°	0.5°	0.3°	0.3°	0.5°	0.5°	0.5°	0.3°	0°	-0.3°

MODEL & YEAR
SERIES #

STEERING COLUMN ANGLE
TO HORIZONTAL

DOOR SILL ANGLE
TO HORIZONTAL

FORD - 1970						MERCURY - 1970							
54	57	62	63	65	71	76	54	53	57	65	63	76	71
24.6°	25°	Δ	Δ	Δ	24.3°	*	24.6°	Δ	25°	Δ	Δ	Δ	24.5
0°	0.3°	Δ	Δ	Δ	Δ	Δ	0°	Δ	0.3°	Δ	Δ	Δ	Δ

NOTE: ALL DIMENSIONS REFLECT CURB ATTITUDE SERIES NO.
* - SAME AS BASE MODEL
Δ - SAME AS MODEL-57.

BODY STYLE

- 53 4-dr. Sedan (Concealed "B"-Pillar)
- 54 4-dr. Sedan
- 57 4-dr. Hardtop
- 62 2-dr. Sedan
- 63 2-dr. Hardtop (Fastback)
- 65 2-dr. Hardtop
- 66 2-dr. Pickup Type Car (Ranchero)
- 71 4-dr. Station Wagon
- 76 2-dr. Convertible

STEERING COLUMN ANGLES: FORD 71

1971 Ford Steering Column Angles

Model & Year Series #	Maverick '71		Comet '71		Pinto '71		Mustang '71		Cougar '71		Torino '71		Montego '71	
	62	54	62	54	62	54	65	63	65	66	71	76	54	57
Steering Column Angle* to Horizontal	24°	24°	24°	24°	23°	22.5°	+	22.5°	+	22.5°	+	24.3°	+	24.3°
Door Sill Angle*to Horizontal	-0.5°	-0.5°	-0.5°	-0.5°	-0.8°	0.5°	+	0.5°	+	0.5°	+	0.5°	+	0.5°

*Dimensions at Curb Attitude

+ Same as Base Model

Model & Year Series #	T-Bird '71		Mark III '71		Ford '71		Mercury '71		Lincoln '71					
	65	57	65	65	54	53	57	53	65	65				
Steering Column Angle* to Horizontal	23.5°	23.8°	23.8°	23.8°	26°	+	+	26°	26°	26.5°	26°	26°	26.5°	23°
Door Sill Angle*to Horizontal	0.5°	0.8°	0.8°	0.8°	0.3°	+	+	0.2°	0.3°	0.3°	0.3°	0.3°	0.3°	0.5°

SERIES NO.	BODY STYLE	SERIES NO.	BODY STYLE
53	4-dr. Sedan (Concealed "B"-Pillar)	65	2-dr. Hardtop
54	4-dr. Sedan	66	2-dr. Pickup Type Car (Ranchero)
57	4-dr. Hardtop	71	4-dr. Station Wagon
62	2-dr. Sedan	76	2-dr. Convertible
63	2-dr. Hardtop (Fastback)		

STEERING COLUMN ANGLES: FORD 72

1972 Ford Steering Column Angles

Model and Year	Maverick--1972		Comet--1972		Pinto--1972		
Series Number	62	54	62	54	62	64	73
Steering Column Angle** to Horizontal	24°	24°	24°	24°	23°	23°	23.3°
Door Sill Angle** to Horizontal	-0.5°	-0.5°	-0.5°	-0.5°	-0.6°	-0.6°	0.0°

Model and Year	Thunderbird--1972	Mark IV--1972
Series Number	65	65
Steering Column Angle** to Horizontal	19.9°	19.9°
Door Sill Angle** to Horizontal	0.5°	0.5°

Model and Year	Lincoln--1972		Capri--1970-1977
Series Number	65	53	
Steering Column Angle** to Horizontal	23°	23.5°	24.6°
Door Sill Angle** to Horizontal	0.5°	0°	0.6°

Model and Year	Torino--1972					Montego--1972			
Series Number	53	63	65	97	71	53	65	63	71
Steering Column Angle** to Horizontal	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
Door Sill Angle** to Horizontal	0.5°	0.0°	0.0°	0.0°	0.5°	0.5°	0.0°	0.0°	0.5°

- * same as model 54
- \$ same as model 71
- # same as model 65
- 0 same as model 53

Model and Year	Mustang--1972			Cougar--1972	
Series Number	65	63	76	65	76
Steering Column Angle** to Horizontal	22.5°	*	*	22.5°	*
Door Sill Angle** to Horizontal	0.5°	*	*	0.5°	*

Model and Year	Ford--1972						Mercury--1972			
Series Number	54	53	57	65	76	71	65	53	57	71
Steering Column Angle** to Horizontal	26°	*	*	*	*	26.5°	*	*	*	\$
Door Sill Angle** to Horizontal	0.3°	*	*	0.2°	*	*	*	*	*	*

SERIES NO.	BODY STYLE	SERIES NO.	BODY STYLE
53	4-dr. Sedan (Concealed "B"-Pillar)	65	2-dr. Hardtop
54	4-dr. Sedan	66	2-dr. Pickup Type Car (Ranchero)
57	4-dr. Hardtop	71	4-dr. Station Wagon
62	2-dr. Sedan	76	2-dr. Convertible
63	2-dr. Hardtop (Fastback)		

70-72 GM Steering Column Angles

<u>Vehicle Body</u>	<u>Column Angles (degrees)</u>		
	<u>70</u>	<u>71</u>	<u>72</u>
A Body	19	19	19
A-Sp Body - Chev	--	19	19
B Body	26	20	20*
C Body - Buick, Olds	26	20	20
C Body - Cadillac	27	24	24
E Body - Buick, Olds	23	20	20
E Body - Cadillac	23	24	24
F Body	18	17	18
G Body	19	19	19
H Body	--	17	18
X Body	26	25	25
Corvette	14	14	14

71 GM BODY STYLE CHART

Style	Description	35 Sta. Wagon - 4 Dr. - 2 Seat - Dual Act. T/G	37 Cpe. - 2 Dr. - Notch Back - Hardtop	39 S44 - 4 Dr. - Notch Back - Hardtop	41 Sta. Wagon - 4 Dr. - 3 Seat - Dual Act. T/G	43 Cpe. - 2 Dr. - Notch Back - Hardtop	45 Sta. Wagon - 4 Dr. - 3 Seat - Dual Act. T/G	47 Cpe. - 2 Dr. - Notch Back - Hardtop	49 S44 - 4 Dr. - Notch Back - Hardtop	51 Sta. Wagon - 4 Dr. - 2 Seat - Dual Act. T/G	53 Cpe. - 2 Dr. - Notch Back - Hardtop
A	332	69 87	F-85 (Sport Option for 87)	Cultass	Delta 88 (Custom Trim Option)	Ninety Eight	Ninety Eight	Ninety Eight	Toronado	Toronado Deluxe	
A	336	36 69 77 87	Cultass Supreme	Vista Cruiser	Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
A	342	39 57 67			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
L	A	344			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
D	ALEX	348			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
B	354	39 57 69			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
B	354	39 57 69			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
M	B	354			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
M	B	354			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
O	B	353			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
O	B	353			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
C	354	37 39			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
C	325	37 39			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
L	C	388			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
E	E	396			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
E	E	358			Delta 88 Custom	Delta ES Royale	Delta 88 Cruiser	Ninety Eight	Ninety Eight	Ninety Eight	
A	433	27 37 69	Skyhawk (Custom Trim Option)	Skyhawk (Custom Trim Option)	Skyhawk (Custom Trim Option)	Skyhawk (Custom Trim Option)	Skyhawk (Custom Trim Option)	Skyhawk (Custom Trim Option)	Skyhawk (Custom Trim Option)	Skyhawk (Custom Trim Option)	
A	424	36 37 67	GS (35 Sport Wagon) & Custom Trim Option for 37 & GSX Option for 37	Skyhawk Custom	Skyhawk Custom	Skyhawk Custom	Skyhawk Custom	Skyhawk Custom	Skyhawk Custom	Skyhawk Custom	
A	444	37 39 67 69	Skyhawk Custom	Skyhawk Custom	Skyhawk Custom	Skyhawk Custom	Skyhawk Custom	Skyhawk Custom	Skyhawk Custom	Skyhawk Custom	
B	452	35 57 69	Le Sabre	Le Sabre	Le Sabre	Le Sabre	Le Sabre	Le Sabre	Le Sabre	Le Sabre	
B	454	39 57 67 69	Le Sabre Custom	Le Sabre Custom	Le Sabre Custom	Le Sabre Custom	Le Sabre Custom	Le Sabre Custom	Le Sabre Custom	Le Sabre Custom	
B	450	35 45	Estate Wagon (Wood Grain & Custom Trim Options)	Estate Wagon (Wood Grain & Custom Trim Options)	Estate Wagon (Wood Grain & Custom Trim Options)	Estate Wagon (Wood Grain & Custom Trim Options)	Estate Wagon (Wood Grain & Custom Trim Options)	Estate Wagon (Wood Grain & Custom Trim Options)	Estate Wagon (Wood Grain & Custom Trim Options)	Estate Wagon (Wood Grain & Custom Trim Options)	
B	466	39 47 67	Centurion	Centurion	Centurion	Centurion	Centurion	Centurion	Centurion	Centurion	
C	482	37 39	Electra "225"	Electra "225"	Electra "225"	Electra "225"	Electra "225"	Electra "225"	Electra "225"	Electra "225"	
C	484	37 39	Electra "225" (Custom Trim Option)	Electra "225" (Custom Trim Option)	Electra "225" (Custom Trim Option)	Electra "225" (Custom Trim Option)	Electra "225" (Custom Trim Option)	Electra "225" (Custom Trim Option)	Electra "225" (Custom Trim Option)	Electra "225" (Custom Trim Option)	
E	494	87	Riviera (Custom Trim Option)	Riviera (Custom Trim Option)	Riviera (Custom Trim Option)	Riviera (Custom Trim Option)	Riviera (Custom Trim Option)	Riviera (Custom Trim Option)	Riviera (Custom Trim Option)	Riviera (Custom Trim Option)	
CSP	681	69	Fleetwood Brougham	Fleetwood Brougham	Fleetwood Brougham	Fleetwood Brougham	Fleetwood Brougham	Fleetwood Brougham	Fleetwood Brougham	Fleetwood Brougham	
C	682	47 49	Calais	Calais	Calais	Calais	Calais	Calais	Calais	Calais	
C	633	47 49	DeVille	DeVille	DeVille	DeVille	DeVille	DeVille	DeVille	DeVille	
C	698	40 50 90	Short Sill Cowl	Short Sill Cowl	Short Sill Cowl	Short Sill Cowl	Short Sill Cowl	Short Sill Cowl	Short Sill Cowl	Short Sill Cowl	
E	693	47 67	Eldorado	Eldorado	Eldorado	Eldorado	Eldorado	Eldorado	Eldorado	Eldorado	
D	697	23 33	Fleetwood "75" Limousine	Fleetwood "75" Limousine	Fleetwood "75" Limousine	Fleetwood "75" Limousine	Fleetwood "75" Limousine	Fleetwood "75" Limousine	Fleetwood "75" Limousine	Fleetwood "75" Limousine	

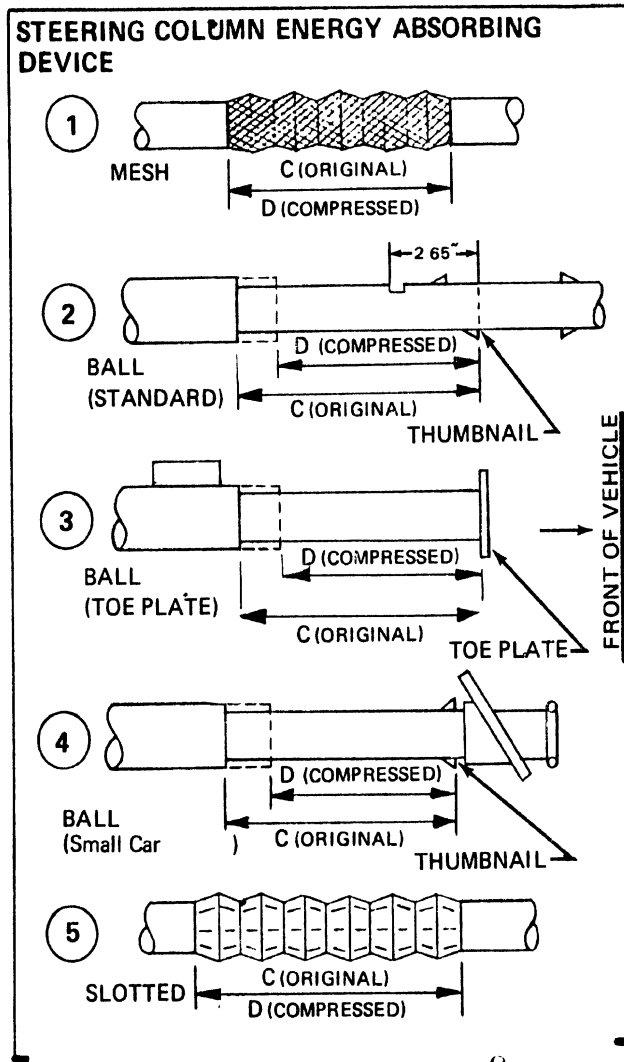
1971 BODY STYLE AYC		NAME CHART ORIGINAL RELEASE DATED 5 872		REVISED 7 673		NAME CHANGED TO GMC SERIAL FOR 534-5343 & 137 FOR 20000	
FISHER BODY ENGINEERING ACTIVITY		NOTE: No Right Hand Drive Styles Available.		**Canadian Series Built only in Canada		**Canadian Series Built only in U.S.A.	
C	F	124	87	Chevrolet Camaro (Custom, Rally Sport & SS General)	27 69	Acadian (Custom Option for 27 69 & SS Option for 27)	
H	X	141	05 11 15 77	Chevrolet Vega (Custom Option for 11 15 77 & Sport Option for 27)	27 69	Firebird (Custom, Sprint & 400 Options)	
H	X	114	27 69	Grey II Nova (Custom Option for 27 69 & SS Option for 27)	27 69	Name N/A	
H	A	132	36 37 46 69 80	Grey II Nova (Custom Option for 27 69 & SS Option for 27)	27 69 69	T 37 (Decor Option)	
E	A	136	36 37 39 45 67 69 80	Chevrolet Nova (30-46 Greenbrier & 60 El Camano) & SS Option for 37 67 80	36 46	Tempest Le Mans (Wood Grain Option for 36 46 & Decor Option for 27 37 39 69)	
V	A	138	36 46	Chevrolet Nova (30-46 Greenbrier & 60 El Camano) & SS Option for 37 67 80	57	Tempest Le Mans Sport (Decor Option)	
R	ASP	139	36 46	Chevrolet Nova (30-46 Greenbrier & 60 El Camano) & SS Option for 37 67 80	80	GTO (Decor Option)	
O	A	534	80	Chevrolet Nova (30-46 Greenbrier & 60 El Camano) & SS Option for 37 67 80	83	Grand Prix (Custom & Decor Option)	
L	A	536	83	Chevrolet Nova (30-46 Greenbrier & 60 El Camano) & SS Option for 37 67 80	154	Catalina (35 45 Sedan) & Wood Grain Option for 35 45	
E	B	154	35 69	Chevrolet Nova (30-46 Greenbrier & 60 El Camano) & SS Option for 37 67 80	156	Catalina Brougham	
T	B	164	35 39 45 47 57 67 69	Chevrolet Nova (30-46 Greenbrier & 60 El Camano) & SS Option for 37 67 80	164	Bonneville (35 45 Grand Sedan, 40 50 Short Sill Cowl) & Wood Grain Option for 35 45	
	B	166	35 39 45 47	Chevrolet Nova (30-46 Greenbrier & 60 El Camano) & SS Option for 37 67 80	166	Grand Ville (Custom Option for 47 49)	
				Chevrolet Nova (30-46 Greenbrier & 60 El Camano) & SS Option for 37 67 80		Laurentian	
				Chevrolet Nova (30-46 Greenbrier & 60 El Camano) & SS Option for 37 67 80		Paragon	

STEERING COLUMN ANGLES: IMPORTS 72

	'72 IMPORTS	Shear Capsule Equipped (1,2,3,0)	Steering Column Angle
AUDI	90 Sedan	2	*
	100 LS	2	*
DATSUN	1200 2-Dr Sedan	1	31°
	1200 2-Dr Sport Coupe	1	34°
	1600 Pickup	2	22°
	510 2-Dr Sedan	2	27°
	510 4-Dr Sedan	2	27°
	510 Station Wagon	2	27°
	240 Z	2	22°
DODGE COLT	2-Dr Coupe	2	30° up 25° down
	2-Dr H/T	2	30° up 25° down
	4-Dr Sedan	2	30° up 25° down
	4-Dr Station Wagon	2	30° up 25° down
FIAT	850 Spider Convertible	2	28.5°
FORD	Capri	2	25°
OPEL	1900	1	28°
	1900 Wagon	1	28°
	Rallye	1	28°
	G.T.	1	16°
PLYMOUTH	Cricket 4-Dr Sedan	2	33°
PORSCHE	911	2	*
	914	2	*
TOYOTA	Carina 2-Dr Sedan	1	26°
	Corona 4-Dr Sedan	1	23°
	Corona 2-Dr H/T	1	24°
	Corolla 2-Dr Coupe	1	30°
	Corolla 2-Dr Sedan	1	27°
	Corolla Station Wagon	1	29°
	Celica 2-Dr H/T	1	22°
V W	Beetle	2	25°
	Fastback	2	25°
	Squareback	2	25°
	411 2-Dr and 4-Dr	2	*
	411 3-Dr Hatchback	2	*

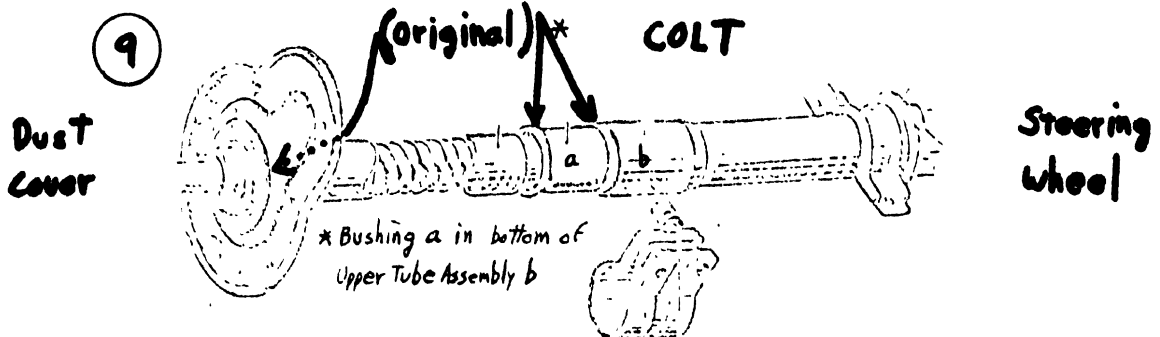
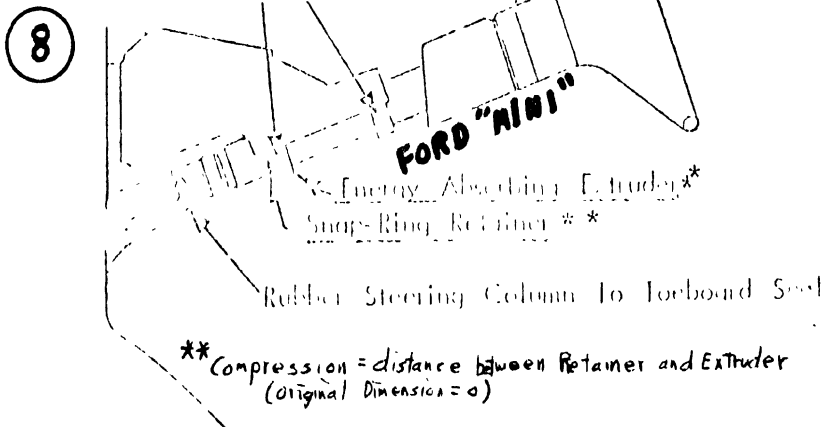
* Shroud Makes it Impossible to Measure.

Steering wheel



Extruder and Upper Column Attachments
Do not break away (No Shear Capsules).

DIR. OF FORCE



STEERING COLUMN EA: IMPORTS

Steering Column E.A.D.

	'72 IMPORTS	Type (7=not equipped)	Dimension
AUDI	90 Sedan	1	6.4
	100 LS	1	6.4
DATSUN	1200 2-Dr Sedan	1	10.5
	1200 2-Dr Sport Coupe	1	10.5
	1600 Pickup	7	N/A
	510 2-Dr Sedan	6	8
	510 4-Dr Sedan	6	8
	510 Station Wagon	6	8
	240 Z	6	9.5
DODGE COLT	2-Dr Coupe	9	7.0
	2-Dr H/T	9	7.0
	4-Dr Sedan	9	7.0
	4-Dr Station Wagon	9	7.0
FIAT	850 Spider Convertible	2 U-Joints	N/A
FORD	Capri	7	N/A
OPEL	1900	1	10.375
	1900 Wagon	1	10.375
	Rallye	1	10.375
	G.T.	7	N/A
PLYMOUTH	Cricket 4-Dr Sedan	9 (?)	Unknown
PORSCHE	911	1	6.4
	914	1	6.4
TOYOTA	Carina 2-Dr Sedan	1	10.74
	Corona 4-Dr Sedan	1	10.74
	Corona 2-Dr H/T	1	10.74
	Corolla 2-Dr Coupe	1	10.74
	Corolla 2-Dr Sedan	1	10.74
	Corolla Station Wagon	1	10.74
	Celica 2-Dr H/T	1	10.74
V W	Beetle	1	6.4
	Fastback	1	6.4
	Squareback	1	6.4
	411 2-Dr and 4-Dr	1	6.4
	411 3-Dr Hatchback	1	6.4

STEERING COLUMN

STEERING COLUMN ENERGY ABSORBING DEVICE TABLE (1/72)					
CORPORATION	MODEL YEAR	MAKE	STEERING COLUMN TYPE	E.A. DEVICE TYPE	ORIGINAL LENGTH C
GENERAL MOTORS	69-72	ALL GM MAKE - COLUMN COMBINATIONS OTHER THAN THOSE LISTED BELOW		2	8.25
		CORVETTE	ALL TYPES	3	8.25
		CAMARO CHEVELLE FIREBIRD TEMPEST, GTO F-85, CUTLASS, VISTA-CRUISER SPECIAL, SKYLARK, SPORTWAGON, GS-400	STANDARD	2	8.25
			TILT	2	7.8
		CADILLAC (EXCEPT ELDORADO)	TILT-TELESCOPE	2	7.8
	71-72	GM VEGA	STANDARD	4	8.1
	67-72	OPEL	ALL TYPES	1	10.3
	67-69	CORVAIR	ALL TYPES	1	10.3
	67-68	ALL (EXCEPT CORVAIR & OPEL)	ALL TYPES	1	9.7
FORD	68-72	ALL MAKE - COLUMN COMBINATIONS - EXCEPT BELOW		5	9.5
	71-72	71 PINTO, 72 PINTO, TORINO, MONTEGO, FORD, MARK IV		8	0.0
CHRYSLER	67-69	ALL MAKE - COLUMN COMBINATIONS		1	9.7
	70-72	ALL (EXCEPT BARRACUDA & CHALLENGER & COLT)		1	9.7
		BARRACUDA & CHALLENGER		NONE	See page 16
		COLT		9	7.0
AMC	67-69	ALL MAKE - COLUMN COMBINATIONS		1	9.7
	70-72	ALL MAKE - COLUMN COMBINATIONS EXCEPT TILT COLUMN IN 71+72		2	8.25
	72	ALL MAKE - COLUMN COMBINATIONS	TILT	2	7.8

CORPORATION	MODEL YEAR	MAKE	STEERING COLUMN TYPE	E.A. DEVICE TYPE	ORIGINAL LENGTH C
INTERNATIONAL	71 & 72	SCOUT II	STANDARD	2	8.12"
	69 70 71 72	1000 THRU 1500 SERIES	STANDARD	1	9.72"

STEERING WHEEL CODES: GM CODES

GM STEERING WHEEL CODES

<u>CODES</u>				
<u>69</u>	<u>70</u>	<u>71</u>	<u>72</u>	
				<u>CHEVROLET</u>
02	02	01	01	<u>Standard</u> (All models except Camaro & Corvette)
--	03	--	--	<u>Sport</u> (Optional all models)
03	03	03	03	<u>Sport</u> (Corvette Standard and T & T)
01	01	--	--	<u>Standard Camaro</u> (Camaro only)
--	--	04	04	<u>Standard II</u> (Vega only)
--	--	02	02	<u>Optional</u> (All models except Vega and Corvette)
--	--	20	20	<u>Sport</u> (Optional all models except full size Chevrolet and Corvette)
51	--	--	--	<u>Corvair Std.</u>
52	--	--	--	<u>Corvair Dlx.</u>
53	--	--	--	<u>Chevy Sport Option</u> (except corvair & corvette)
				<u>PONTIAC</u>
--	05	--	--	<u>Standard</u> (Firebird, Catalina, Tempest)
05	--	05	05	<u>Standard</u> (All models)
--	06	--	--	<u>Deluxe</u> (Standard GTO, Grand Prix, Executive, Bonneville)
06	06	06	06	<u>Deluxe</u> (All models)
19	19	19	19	<u>Sport</u> (Optional all models)
--	07	07	07	<u>Formula</u> (Optional all models)
				<u>OLDSMOBILE</u>
08	08	--	--	<u>Standard</u> (Vistacruiser, Delta 88)
--	08	08	08	<u>Standard</u> (Cutlass only)
09	09	--	--	<u>Deluxe</u> ([Rim or Pad below] All models; Standard Toronado & 98)
--	--	09	--	<u>Deluxe</u> (Cutlass only)
11	11	13	13	<u>T & T</u> (Toronado, 98, with T & T Column)
--	10	10	10	<u>Sport</u> (Optional Cutlass)
--	--	11	11	<u>Standard II</u> (Delta 88, 98 & Toronado)
54	--	--	--	<u>Oldsmobile Sport Option</u> (All models)
				<u>BUICK</u>
12	12	12	12	<u>Standard I</u> (Standard Skylark, Sportwagon)
13	13	--	--	<u>Standard II</u> (Standard Le Sabre, Wildcat; Optional Skylark, Sportwagon)
--	--	14	14	<u>Standard II</u> (Centurion, Le Sabre, Delux Skylark, Sportwagon)
14	14	--	--	<u>Standard III</u> (Standard Riviera, Electra; Optional Le Sabre, Wildcat)
--	--	16	16	<u>Standard III</u> (Standard Riviera, Electra, Delux Centurion, Le Sabre)
--	16	--	--	<u>Deluxe</u> (Optional all models)
--	15	15	15	<u>Sport</u> (Optional Skylark)
--	--	17	--	<u>Optional</u> (All models)
15	--	--	--	<u>Buick Sport Option</u> (All models)
				<u>CADILLAC</u>
17	17	18	18	<u>Standard</u> (All models)
--	99	99	99	All other models unknown

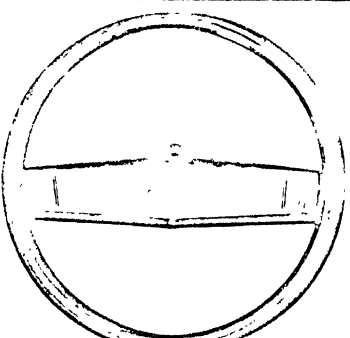
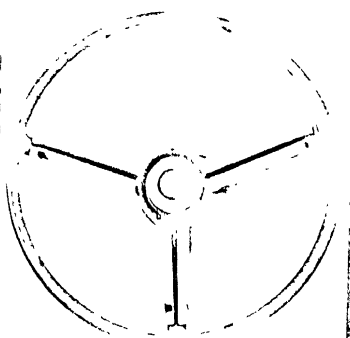
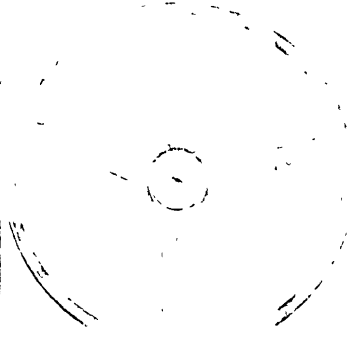
1969 GENERAL MOTORS STEERING WHEELS

PASSENGER CARS

CHEVROLET 51

52

01



CORVAIR STD.

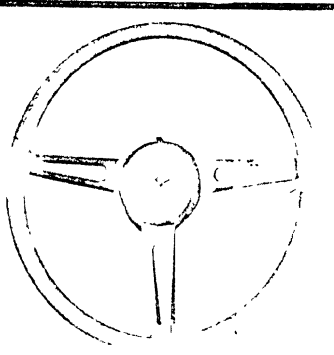
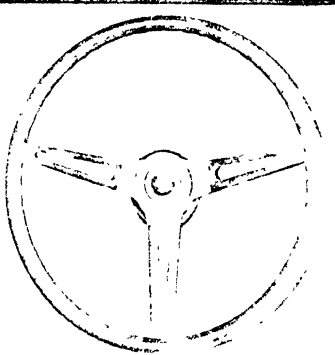
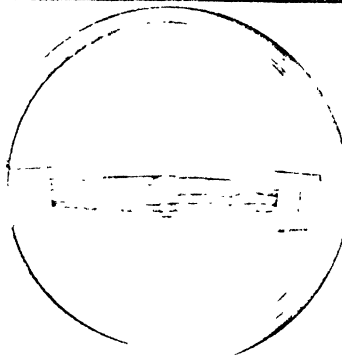
CORVAIR DLX.
CORVAIR TELESCOPE

CHEVROLET DLX.
(ALL MODELS EXCEPT
CORVAIR & CORVETTE)

02

53

03



CHEVROLET DLX.
(ALL MODELS EXCEPT
CORVAIR & CORVETTE)

CHEVROLET SPORT OPT.
(ALL MODELS EXCEPT
CORVAIR & CORVETTE)

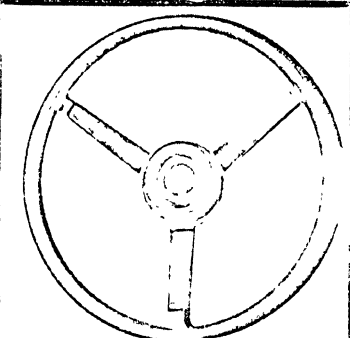
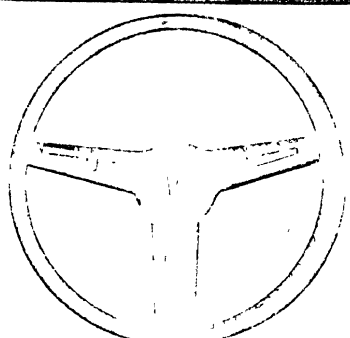
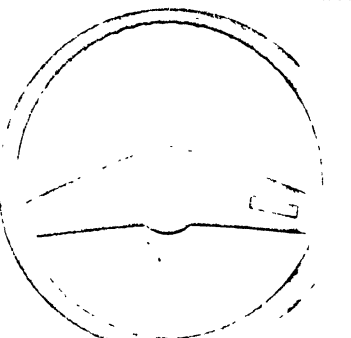
CORVETTE STD.
CORVETTE TELESCOPE

PONTIAC

05

06

19



PONTIAC STD.
(ALL MODELS)

PONTIAC DLX.
(ALL MODELS)

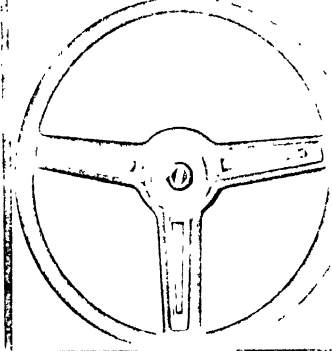
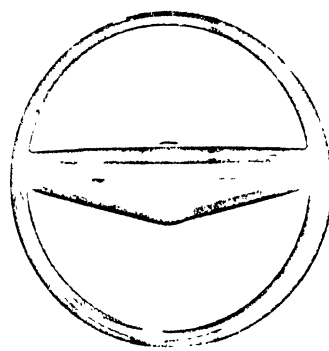
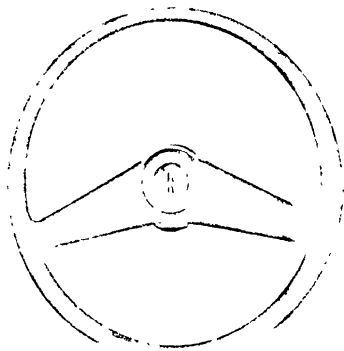
PONTIAC SPORT OPT.
(ALL MODELS)

1969 GM STEERING WHEELS (PASS. CARS)

OLDSMOBILE *08*

09

54



P-85 & VISTA-CRUISER STD.
DELTA 88 STD.
DELTA 88 CUSTOM & ROYALE STD.
NINETY EIGHT STD.

OLDSMOBILE DLX.
(ALL MODELS EXCEPT
TORONADO)

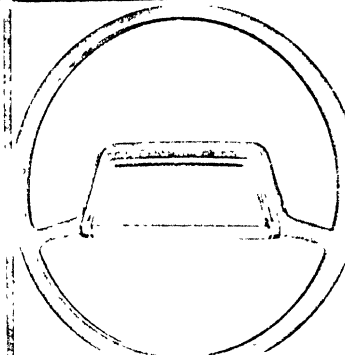
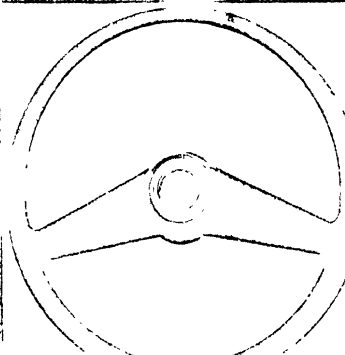
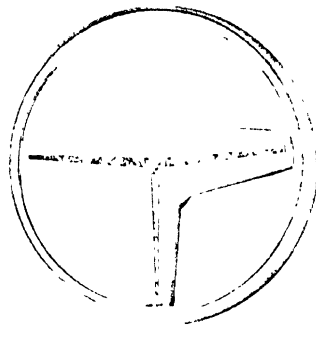
OLDSMOBILE SPORT OPT.
(ALL MODELS)

11

BUICK

12

13



DELTA 88 T&T
DELTA 88 CUSTOM & ROYALE T&T
NINETY EIGHT T&T
TORONADO T&T

SPECIAL STD.
SPORTWAGON STD.

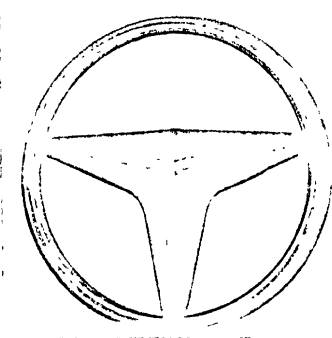
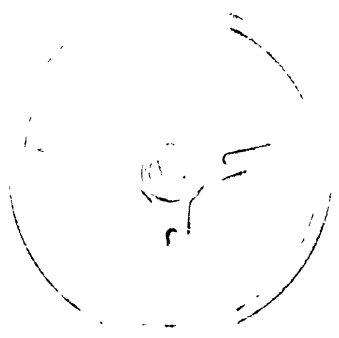
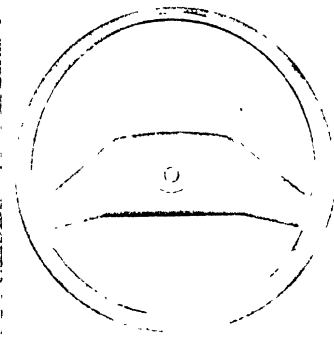
LESABRE & WILDCAT STD.
ELECTRA STD.
SPECIAL DLX.
SPORTWAGON DLX.

14

15

CADILLAC

17



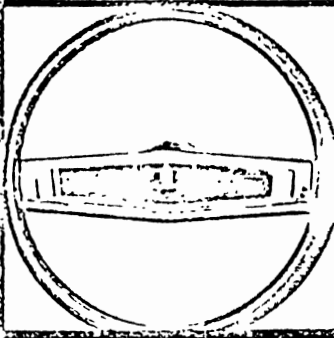
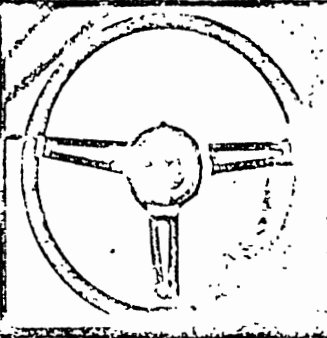
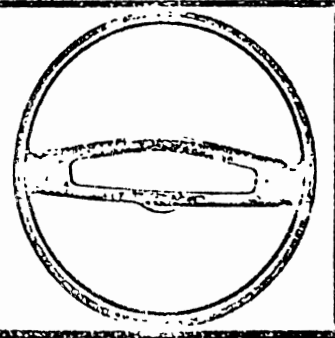
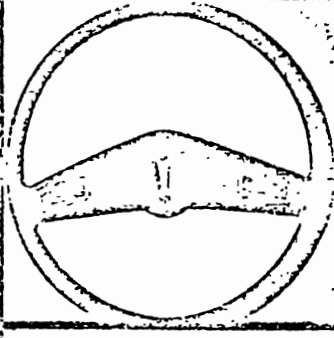
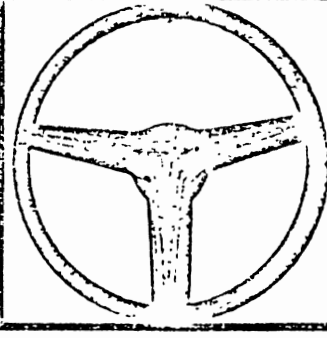
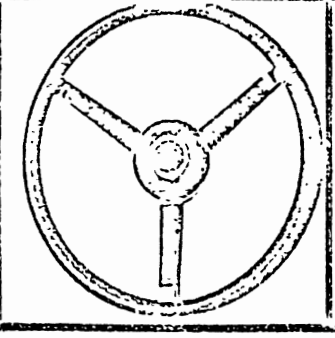
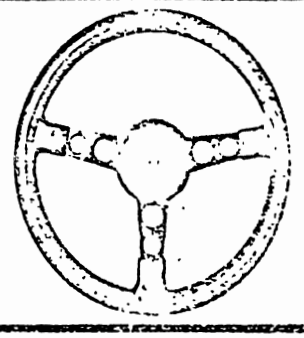
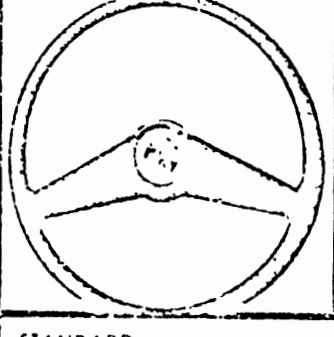
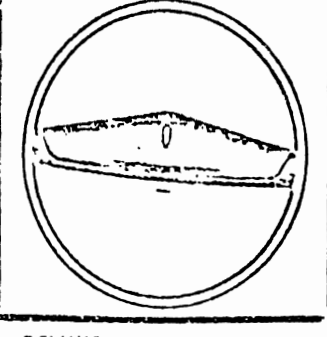
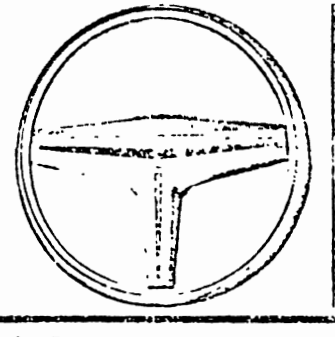
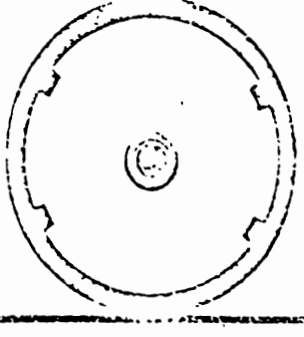
RIVIERA STD.
LESABRE & WILDCAT DLX.
ELECTRA DLX.

BUICK SPORT OPT.
(ALL MODELS)

CADILLAC STD.
CADILLAC T&T

1970 GENERAL MOTORS STEERING WHEELS PASSENGER CARS

INDIVIDUAL STEERING WHEELS MAY HAVE TRIM FEATURES DIFFERENT FROM THOSE ILLUSTRATED. THE BASIC WHEEL DESIGN REMAINS THE SAME HOWEVER.

CHEVROLET			
02	03	01	
			
STANDARD (ALL MODELS EXCEPT CAMARO & CORVETTE)	SPORT (OPTIONAL ALL MODELS; CORVETTE STANDARD & T & T)	STANDARD CAMARO (CAMARO ONLY)	
PONTIAC			
05	06	19	07
			
STANDARD (FIREBIRD, CATALINA, TEMPEST)	DELUXE (ALL MODELS; STANDARD GTO, GRAND PRIX, EXECUTIVE, BONNEVILLE)	SPORT (OPTIONAL ALL MODELS)	FORMULA (OPTIONAL ALL MODELS)
OLDSMOBILE			
08	09	11	10
			
STANDARD (CUTLASS, VISTACRUISER, DELTA 63)	DELUXE (RIM OR PAD BLOW) (ALL MODELS, STANDARD TORONADO & 93)	T & T (TORONADO & 98 WITH T & T COLUMN)	SPORT (OPTIONAL CUTLASS)

THESE ILLUSTRATIONS REPRESENT INFORMATION AVAILABLE AS OF 3-1-70.

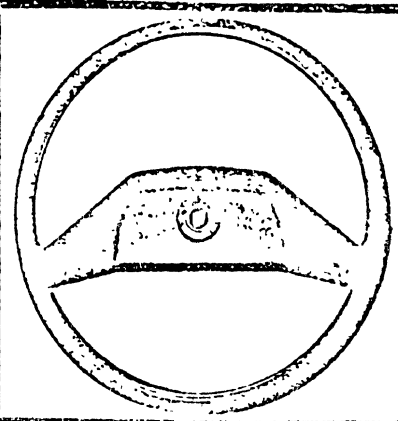
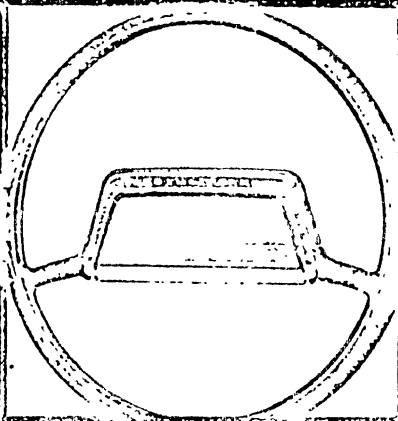
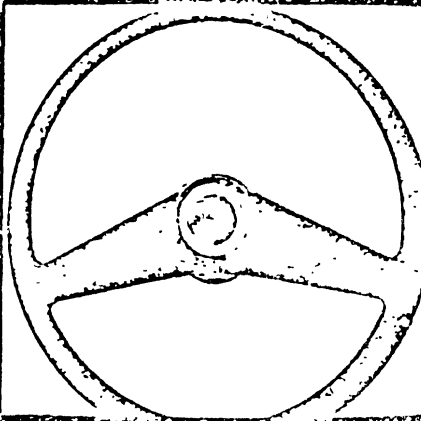
1970 GM STEERING WHEELS (PASS. CARS)

BUICK

12

13

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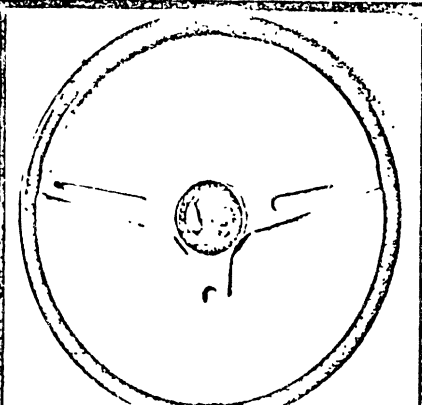
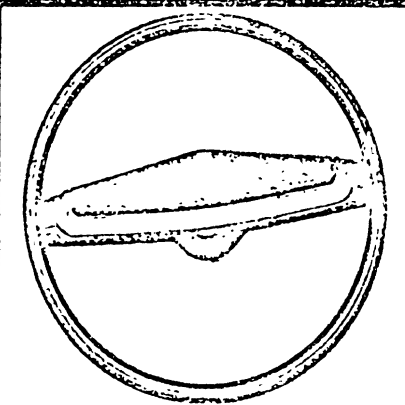
STANDARD I
(STANDARD SKYLARK,
SPORTWAGON)

16

STANDARD II
(STANDARD LESABRE, WILDCAT;
OPTIONAL SKYLARK,
SPORTWAGON)

15

STANDARD III
(STANDARD RIVIERA, ELECTRA;
OPTIONAL LESABRE, WILDCAT)

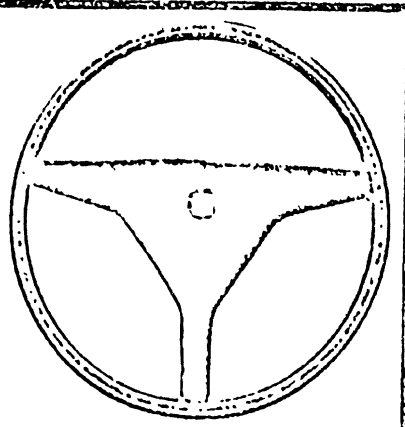


DELUXE
(OPTIONAL ALL MODELS)

SPORT
(OPTIONAL SKYLARK)

CADILLAC

17

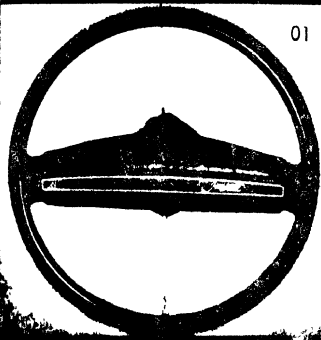


STANDARD
(ALL MODELS)

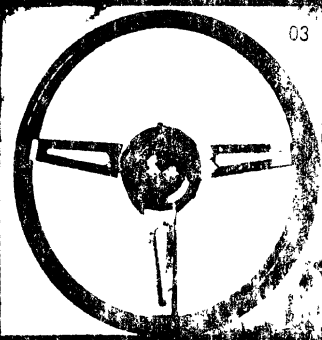
1971 GENERAL MOTORS STEERING WHEELS PASSENGER CARS

INDIVIDUAL STEERING WHEELS MAY HAVE TRIM FEATURES DIFFERENT FROM THOSE ILLUSTRATED. THE BASIC WHEEL DESIGN REMAINS THE SAME HOWEVER.

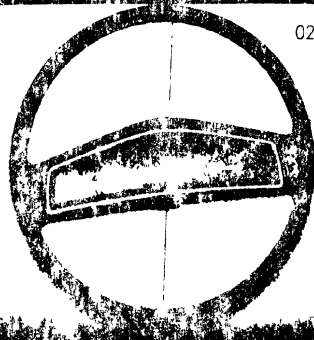
CHEVROLET



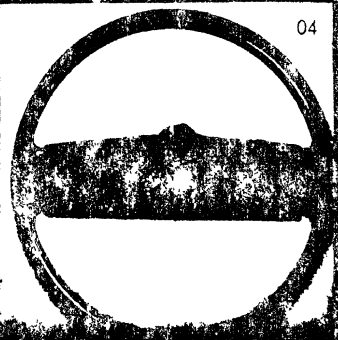
01



03



02



04

STANDARD

(ALL MODELS EXCEPT VEGA & CORVETTE)

SPORT

(CORVETTE STANDARD & T & I)

OPTIONAL

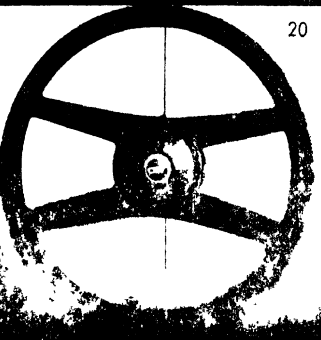
(ALL MODELS EXCEPT VEGA & CORVETTE)

STANDARD II

(VEGA ONLY)

CHEVROLET

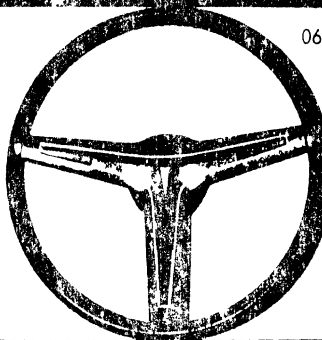
PONTIAC



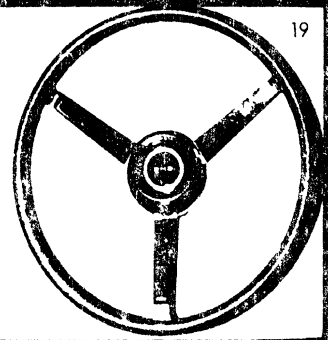
20



05



06



19

SPORT

(OPTIONAL ALL MODELS EXCEPT FULL SIZE CHEVROLET & CORVETTE)

STANDARD

(ALL MODELS)

DELUXE

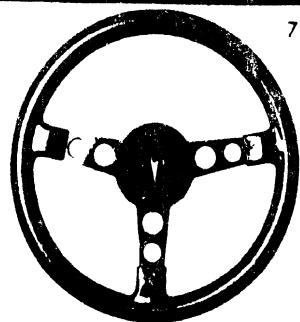
(ALL MODELS)

SPORT

(OPTIONAL ALL MODELS)

PONTIAC

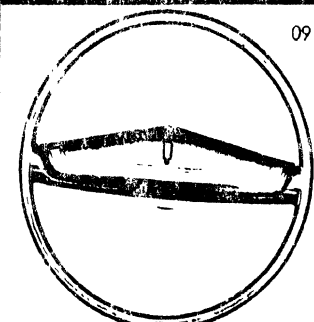
OLDSMOBILE



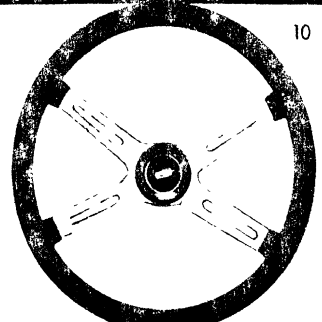
7



08



09



10

FORMULA

(OPTIONAL ALL MODELS)

STANDARD

(CUTLASS ONLY)

DELUXE

(CUTLASS ONLY)

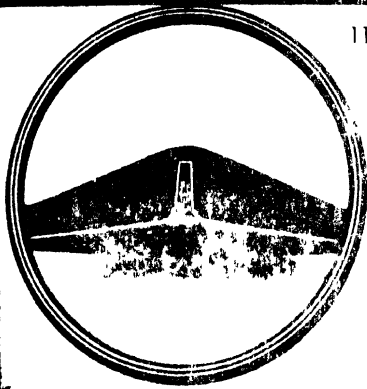
SPORT

(OPTIONAL CUTLASS)

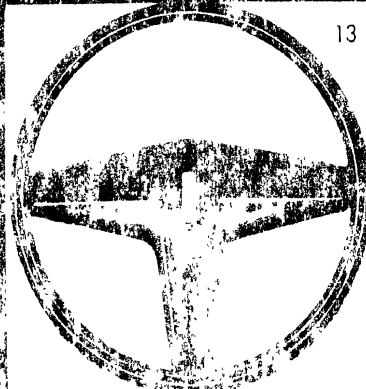
1971 GM STEERING WHEELS (PASS. CARS)

OLDSMOBILE

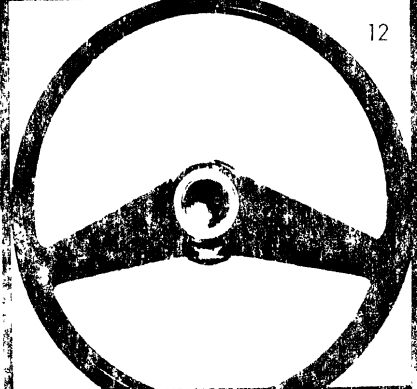
BUICK



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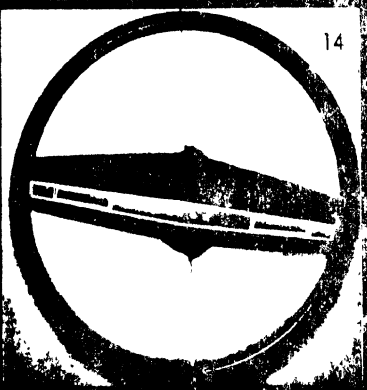
12

STANDARD II
(DELTA 88, 98 &
TORONADO)

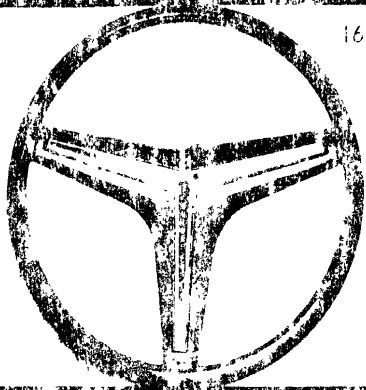
1 & 2 OPTION
(98 & TORONADO)

STANDARD I
(STANDARD SKYLARK,
SPORTWAGON)

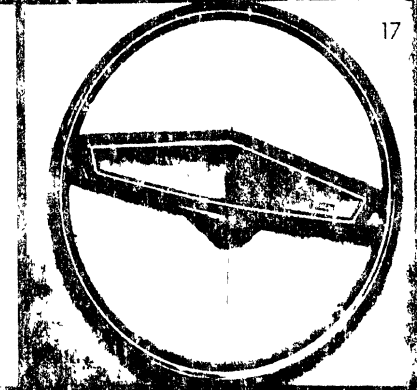
BUICK



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16



17

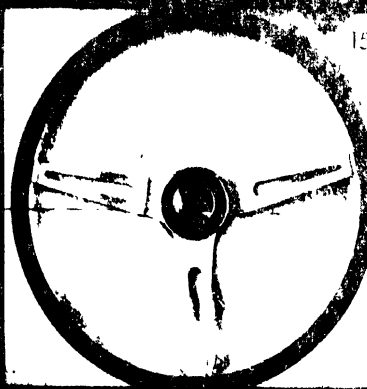
STANDARD II
(CENTURION, LESABRE;
DELUXE SKYLARK, SPORT-
WAGON)

STANDARD III
(STANDARD RIVIERA, ELECTRA;
DELUXE CENTURION, LESABRE)

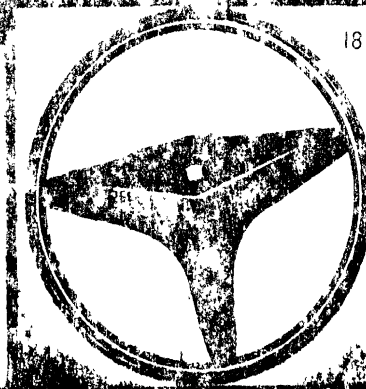
OPTIONAL
(ALL MODELS)

BUICK

CADILLAC



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18

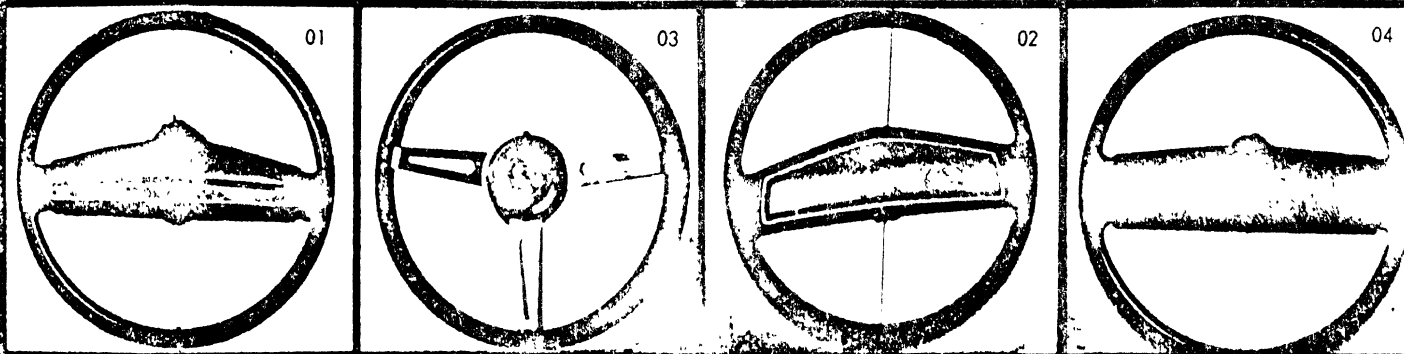
SPORT
(OPTIONAL SKYLARK)

STANDARD
(ALL MODELS)

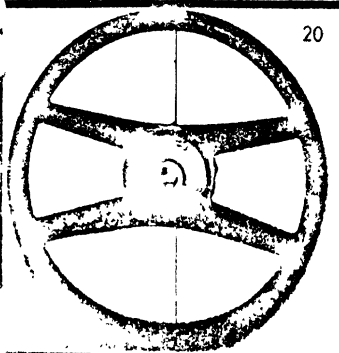
1972 GENERAL MOTORS STEERING WHEELS PASSENGER CARS

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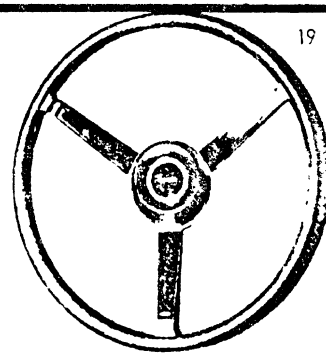
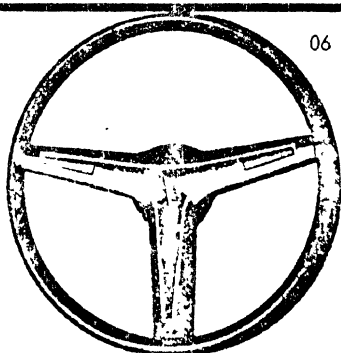
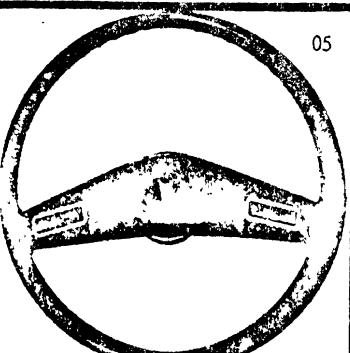
CHEVROLET



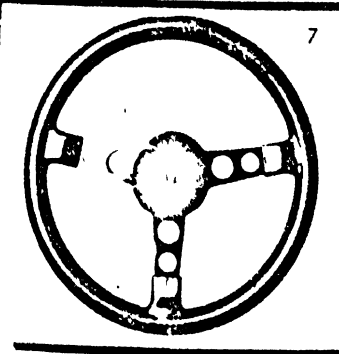
CHEVROLET



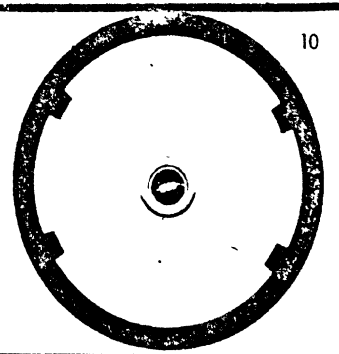
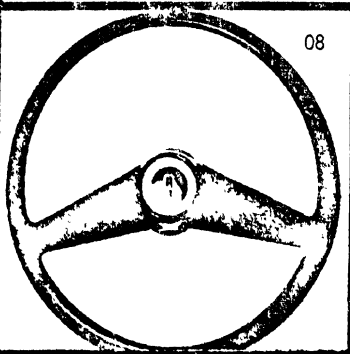
PONTIAC



PONTIAC



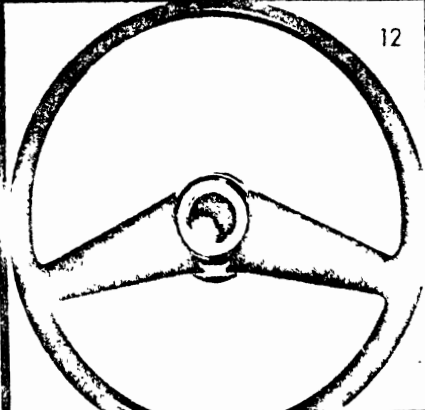
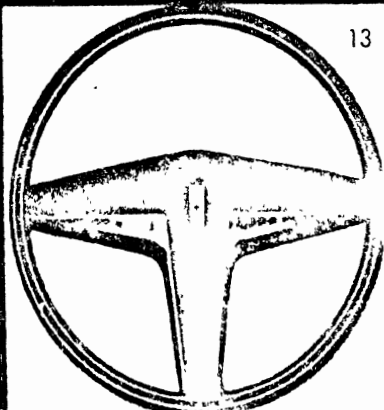
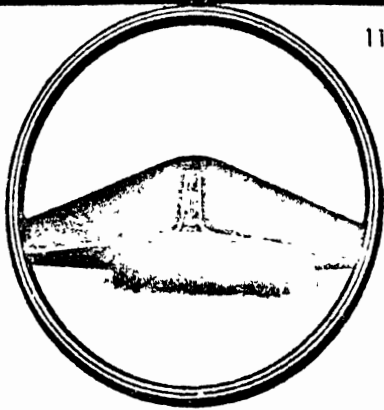
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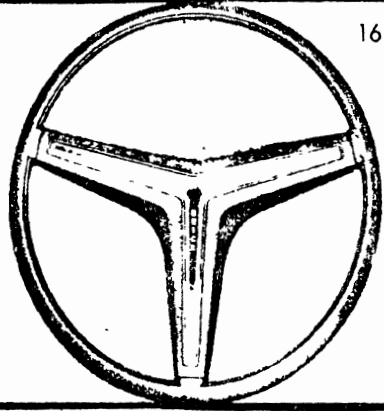
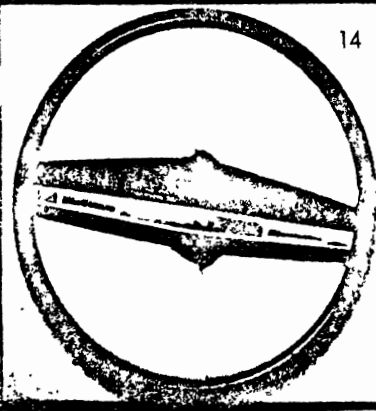
1972 GM STEERING WHEELS (PASS. CARS)

OLDSMOBILE

BUICK

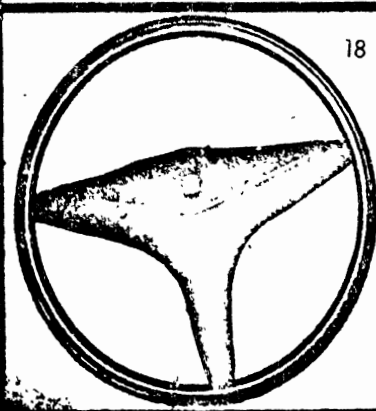
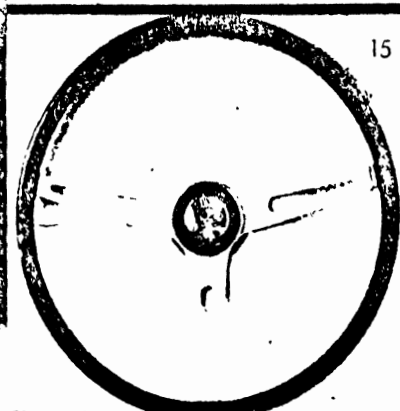


BUICK



BUICK

CADILLAC



STEERING WHEEL EA DEVICE: IMPORTS 72

Steering Wheel E.A.D.

	'72 IMPORTS	Type (3-N/A)	Dimension (3-N/A)
AUDI	90 Sedan	Mesh (Inside Hub)	3.75"
	100 LS	Mesh (Inside Hub)	3.75"
DATSUN	1200 2-Dr Sedan	3	3
	1200 2-Dr Sport Coupe	3	3
	1600 Pickup	3	3
	510 2-Dr Sedan	3	3
	510 4-Dr Sedan	3	3
	510 Station Wagon	3	3
	240 Z	3	3
DODGE COLT	2-Dr Coupe	3	3
	2-Dr H/T	3	3
	4-Dr Sedan	3	3
	4-Dr Station Wagon	3	3
FIAT	850 Spider Convertible	3	3
FORD	Capri	Barracuda Type	3" Exposed (Total Unk)
OPEL	1900	3	3
	1900 Wagon	3	3
	Rallye	3	3
	G.T.	3	3
PLYMOUTH	Cricket 4-Dr Sedan	3	3
PORSCHE	911	Mesh (Inside Hub)	3.75"
	914	Mesh (Inside Hub)	3.75"
TOYOTA	Carina 2-Dr Sedan	3	3
	Corona 4-Dr Sedan	3	3
	Corona 2-Dr H/T	3	3
	Corolla 2-Dr Coupe	3	3
	Corolla 2-Dr Sedan	3	3
	Corolla Station Wagon	3	3
	Celica 2-Dr H/T	3	3
V W	Beetle	Mesh (Inside Hub)	3.75"
	Fastback	Mesh (Inside Hub)	3.75"
	Squareback	Mesh (Inside Hub)	3.75"
	411 2-Dr and 4-Dr	Mesh (Inside Hub)	3.75"
	411 3-Dr Hatchback	Mesh (Inside Hub)	3.75"

Steering Wheel Energy Absorbing Device Table

<u>Corporation</u>	<u>Year</u>	<u>Make</u>	<u>Length</u>
Chrysler	70	Barracuda	4.9 (in)
		Challenger	4.9 (in)
Ford	71-72	Capri	6.0 (in)

Also included as a Steering Wheel Energy Absorbing Device is the Steering Wheel Pad (17.7.14). The cars below are the only ones with pads that serve that purpose.

Cricket- All year models

Fords- 67

Mercury Cougar- 67

TEAM PREFIX & CASE NUMBERS

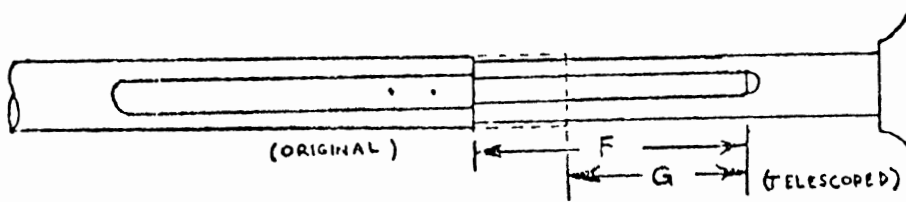
MDAI INVESTIGATOR CODES

Report Prefix V2	Report Number V3	Team Number V5	Team* Sponsor V6	Team Case Number V16	Team
AA-	00105	1	1	AA-105	Ann Arbor, HSRI-III
BA-	00012	2	1	MVD-12,4ME31	Baylor College of Medicine
BU-	70017	3	1	BU-70-17	Boston University
CA-	71063	4	3	CAL-71-63A	Cornell Aeronautical Lab-IIIA
CB-	71016	5	3	CAL-71-16B	Cornell Aeronautical Lab-IIIB
DT-	71027	6	4	DTS-027-71	Ministry of Transport, Ottawa, Canada
GI-	00071	7	1	GIT-71	Georgia Institute of Technology
HS-	00131	8	2	HS-131	Highway Safety Research Institute
IU-	69013	9	1	MCR-69-13	Indiana University
MG-	71021	10	4	MAC1P021-71, MGU-028-71	McGill University, Montreal
MI-	00121	11	1	MI-697002	University of Miami
ML-	70008	12	1	MMF-70-8	Maryland Medical/Legal Foundation
MU-	71016	13	4	EPM-016-71	University of Montreal, Ecole Poly- technique
NB-	71009	14	4	UNB-009-71	University of New Brunswick
NM-	00039	15	1	UNM-39	University of New Mexico
OK-	00010	16	2	OK-10	Oakland County, HSRI-III
OS-	00012	17	1	OSU-12	Ohio State University
RT-	00032	18	1	RTI-32	Research Triangle Institute
RU-	00099	19	1	RAI-99	University of Rochester
SC-	00006	20	1	USC-71-6	University of Southern California
SI-	00002	21	1	SRI-2-002	Stanford Research Institute (2)
SR-	00081	22	1	SRI-0081	Stanford Research Institute (1)
SU-	00019	23	1	SU-019	Stanford University
SW-	69003	24	1	SWRI-6903	Southwest Research Institute
TR-	01143	25	1	UC-1143D	Trauma Research Group, UCLA
TU-	00013 71005	26	1	TU-13B2970 TU-71-5	Tulane University
UC-	00450	27	2	UC-450	University of California (Siegel)
UH-	00002	28	1	HOU-2	University of Houston
UK-		29	1		University of Kentucky
UM-	00513	30	2	UM-513-71	University of Michigan (Huelke)
UO-		31	1		University of Oklahoma
UT-	71023	32	4	TOR23-08-71	University of Toronto
UU-	70013	33	1	Utah-013-70	University of Utah

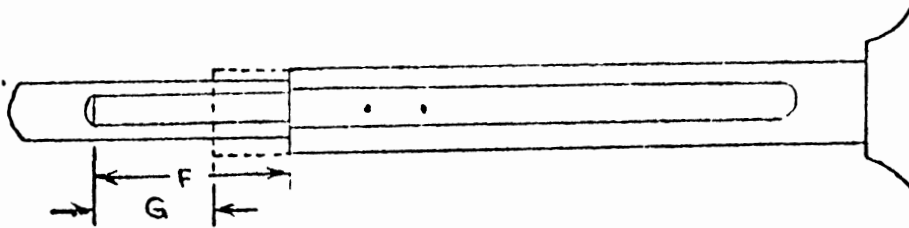
- * Sponsor Number:
1. NHTSA/DOT
 2. AMA
 3. Joint AMA, NHTSA
 4. Ministry of Transport, Canada

ENGINE COMPARTMENT TELESCOPING UNIT

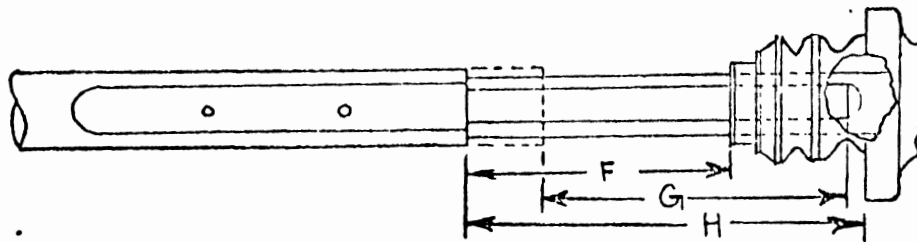
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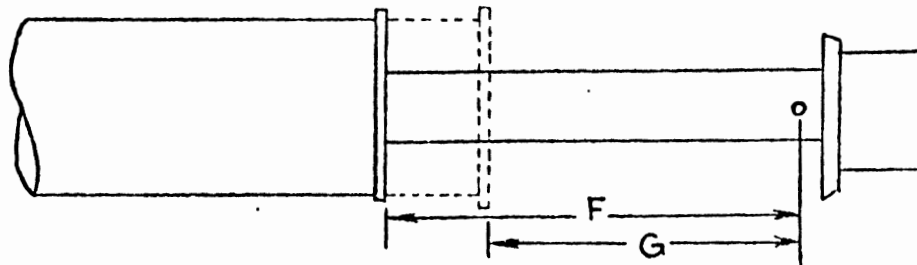
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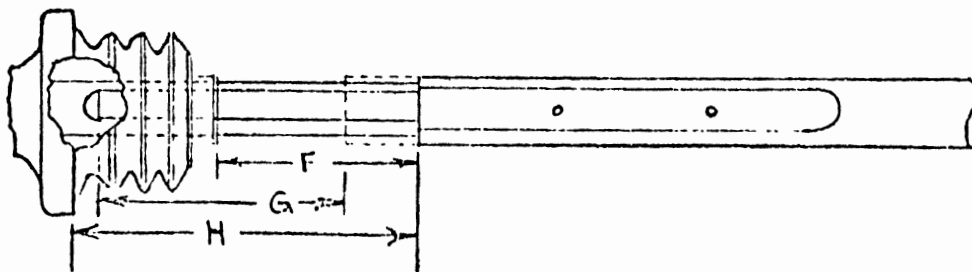
③



④



⑥



TELESCOPING UNIT: IMPORTS

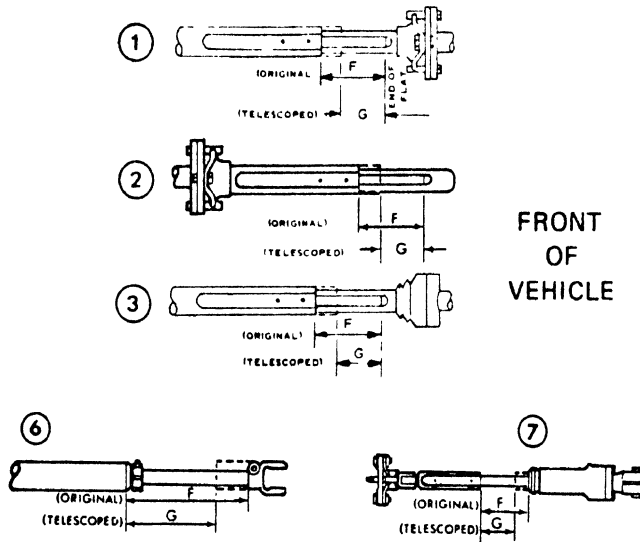
Engine Compartment Telescoping Unit

	'72 IMPORTS	Steering Column Flex. Coup. Equipped	Type	Dimension
AUDI	90 Sedan	1	N/A	N/A
	100 LS	1	N/A	N/A
DATSUN	1200 2-Dr Sedan	2	N/A	N/A
	1200 2-Dr Sport Coupe	2	N/A	N/A
	1600 Pickup	2	N/A	N/A
	510 2-Dr Sedan	1 (U-Joint)	N/A	N/A
	510 4-Dr Sedan	1 (U-Joint)	N/A	N/A
	510 Station Wagon	1 (U-Joint)	N/A	N/A
	240 Z	1*	N/A	N/A
DODGE COLT	2-Dr Coupe	2	N/A	N/A
	2-Dr H/T	2	N/A	N/A
	4-Dr Sedan	2	N/A	N/A
	4-Dr Station Wagon	2	N/A	N/A
FIAT	850 Spider Convertible	2	U-Joint	N/A
FORD	Capri	2**	N/A	N/A
OPEL	1900	1	N/A	N/A
	1900 Wagon	1	N/A	N/A
	Rallye	1	2	7.5
	G.T.	1	U-Joint	N/A
PLYMOUTH	Cricket 4-Dr Sedan	2	N/A	N/A
PORSCHE	911	2	N/A	N/A
	914	2	N/A	N/A
TOYOTA	Carina 2-Dr Sedan	1	N/A	N/A
	Corona 4-Dr Sedan	1	N/A	N/A
	Corona 2-Dr H/T	1	N/A	N/A
	Corolla 2-Dr Coupe	2	N/A	N/A
	Corolla 2-Dr Sedan	2	N/A	N/A
	Corolla Station Wagon	2	N/A	N/A
	Celica 2-Dr H/T	1	N/A	N/A
V W	Beetle	1	N/A	N/A
	Fastback	1	N/A	N/A
	Squareback	1	N/A	N/A
	411 2-Dr and 4-Dr	1	N/A	N/A
	411 3-Dr Hatchback	1	N/A	N/A

* Flex Coup & U-Joint

** Disk Coupling

ENGINE COMPARTMENT TELESCOPING UNIT



CORP.	MAKE	MODEL YEAR	TYPE UNIT	ORIG. LENGTH (F)	
				MANUAL	POWER
IHC	1000 Series	69 & Up	2	6.75"	5.50"
		1100 1200			
	1300	69 & Up		7.00"	6.75"
	1100 (4x4) 1200 (4x4)				
	1300 (4x4)				
	1500	69 & Up	7	7.30"	5.80"
	Scout 800 Scout II	69-71 71 & Up	3 6	5.90" 9.75"	- 9.75"
GMC	CHEV & GMC	68	1	5.70"	5.70"
		69	1	5.70"	5.70"
		70	1	5.70"	5.70"
		71	1	5.70"	5.70"

TELESCOPING UNIT: USA

ENGINE COMPARTMENT TELESCOPING UNIT DIMENSIONS

Corporation	Make	Model Year	Type	Original Length		
				F	H (+/- .6 in.)	
GM	Chevelle El Camino Tempest	'67	1	8.45	-	
	F-85 Vista Cruiser	'68-'70	2	5.74	-	
	Special Sport Wagon	'71-'72	2	5.69	-	
	Camaro	'70	2	5.74	-	
	Firebird	'71-'72	6	-	8.18	
	Grand Prix	'69-'70	2	5.79	-	
		'71-'72	6	-	8.74	
	Monte Carlo	'70	2	6.53	-	
		'71-'72	6	-	8.70	
	Vega	'71-'72	3	-	7.65 manual 4.46 power	
	Biscayne Brookwood Bel Air Townsmen Impala Kingswood Caprice	Chev	'71-'72	6	-	6.21
	Catalina Bonneville Grand Safari	P	'71-'72	6	-	7.20
	Delta 88 Ninety Eight	O				
	LeSabre Estate Wagon Centurion Electra 225	B				
	Grandville Riviera	P B	'71-'72	6	-	8.45
Chevy II - CII Eldorado - C Cadillac Toronado - O Buick Opel Ford Cortina		Thru '71	Not Equip.	-	-	

Corporation	Make	Model Year	Unit Type	Original Length F
AMC	Hornet	71	1	8.25
	Gremlin	72	1	6.56
	Javelin	71-72	1	7.53
	Javelin AMX			
	Matador	71-72	2	6.28
	Ambassador	67	1	8.4
		68-69	2	6.1
70		2	7.7	
71-72		2	7.62	
Chrysler	Barracuda	70-72	4	10.2 (Manual)
	Challenger			9.0 (Power)

Tips on tire selection, care,
safety and mileage



TIRE INDUSTRY SAFETY COUNCIL

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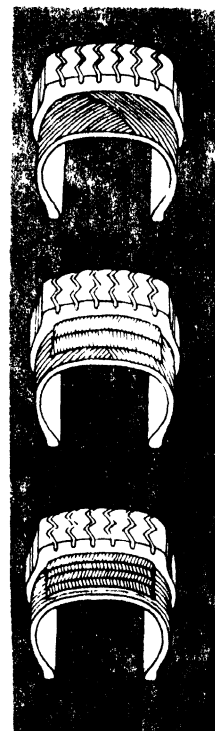
TIRE INDUSTRY SAFETY COUNCIL

Bias		Bias and Belted Bias			Metric	Radial	
1968-On	Pre-1968	'78 Series'	'70 Series'	'60 Series'		'78 Series'	'70 Series'
6 00-13					165 R 13	AR 78 13	AR 70 13
6 50-13		A78-13	A70-13		175 R 13	BR 78 13	BR 70 13
		B78-13	B70-13			CR 78 13	CR 70 13
7 00-13		C78-13	C70-13		165 R 13	DR 78 13	DR 70-13
			D70-13		195 R 13	ER 78 13	ER 70 13
			E70-13		155 R 14		
6 45-14			A70-14		165 R 14		AR 70 14
6 95-14	6 00-14	B78-14	B70-14		175 R 14	BR 78 14	BR 70 14
	6 50-14	C78-14	C70-14			CR 78 14	CR 70 14
		D78-14	D70-14			DR 78 14	DR 70 14
7 35-14	7 00-14	E78-14	E70-14		185 R 14	ER 78 14	ER 70 14
7 75-14	7 50-14	F78-14	F70-14		195 R 14	FR 78 14	FR 70 14
8 25-14	8 00-14	G78-14	G70-14		205 R 14	GR 78 14	GR 70 14
8 55-14	8 50-14	H78-14	H70-14		215 R 14	HR 78 14	HR 70-14
8 85-14	9 00-14	J78-14	J70-14		225 R 14	JR 78 14	JR 70-14
	9 50-14		K70-14			KR 70 14	
			L70-14			LR 70 14	

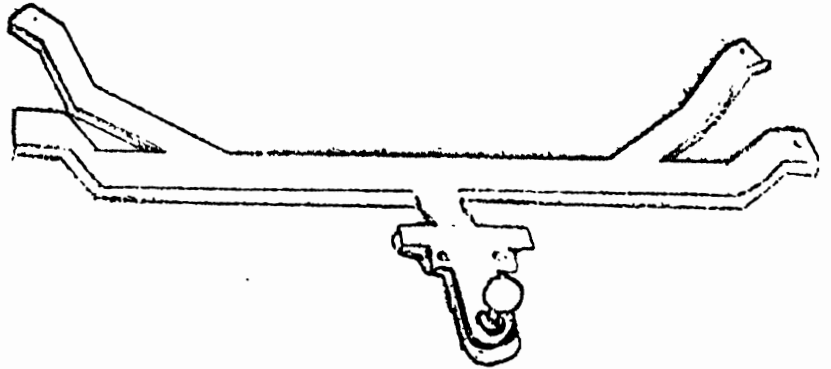
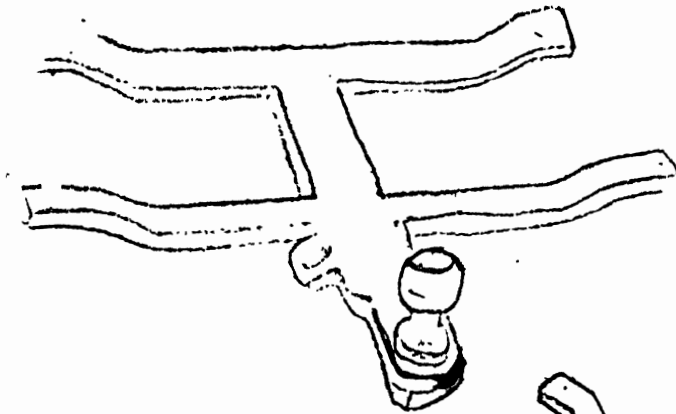
Bias		Bias and Belted Bias			Metric	Radial	
1968-On	Pre-1968	'70 Series'	'70 Series'	'60 Series'		'78 Series'	'70 Series'
	6 00-15				165 R 15	BR 78 15	
6 85-15		C78-15	C70-15		175 R 15	CR 78-15	CR 70-15
	6 50-15					DR 78 15	DR 70-15
7 35-15		D78-15	D70-15		185 R 15	ER 78-15	ER 70-15
7 75-15		E78-15	E70-15	E60-15	195 R 15	FR 78-15	FR 70-15
	6 70-15	F73-15	F70-15	F60-15	205 R 15	GR 78-15	GR 70-15
	7 10-15	G78-15	G70-15	G60-15	215 R 15	HR 78-15	HR 70-15
8 25-15		H78-15	H70-15		225 R 15	JR 78-15	JR 70-15
8 55-15	8 00-15	J78-15	J70-15			KR 70 15	
8 85-15	8 20-15		K70-15		235 R 15	LR 78 15	LR 70 15
9 15-15		L78-15	L70-15				
		M78-15					
		N78-15					
8 90-15							
8 00-16							
6 50-16							
7 00-16							
7 00-16							

TIRES FOR IMPORTED CARS

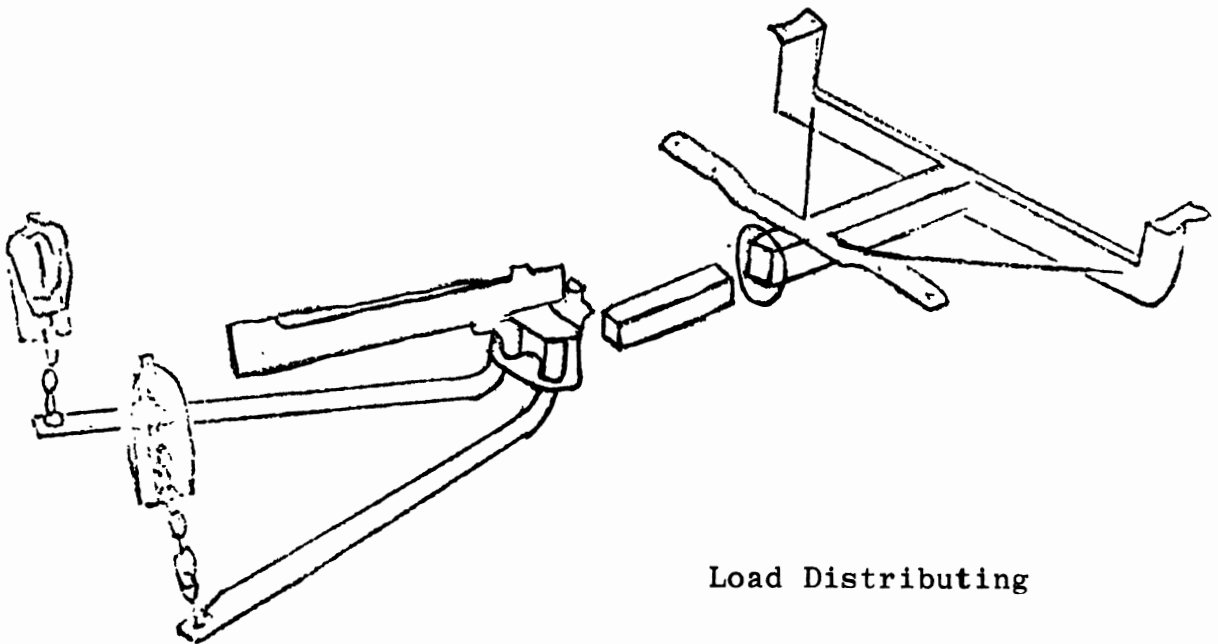
"Super Balloon" Sizes (Bias)	"Low Section" Sizes (Bias)	"Super Low Section" Sizes (Bias)
5 20-10	5 00-12	145 10/5 95-10
5 90-10	5 50-12	125-12/5 75-12
5 20-12	6 00-12	135-12/5 65-12
5 60-12	5 00-13	145-12/5 95-12
5 90-12	5 50-13	155-12/6 15-12
6 20-12	7 25-13	135-13/5 65-13
5 20-13	7 50-13	145-13/5 95-13
5 60-13	5 50-15L	155-13/6 15-13
5 90-13	6 00-15L	165-13/6 45-13
6 20-13	6 50-15L	175-13/6 95-13
6 40-13	7 00-15L	185-13/7 35-13
6 70-13		135 14/5 65-14
6 90-13		145-14/5 95-14
5 20-14		155-14/6 15-14
5 60-14		165-14
5 90-14		175-14
6 40-14		185-14
5 20-15		195-14
5 60-15	5 3-15	205-14
5 90-15	5 9-10	215-14
6 40-15	5 9-12	225-14
	6 2-12	125-15/5 35-15
	6 2-13	135-15/5 65-15
	6 2-14	(S.O-15)
	6 2-15	145-15/5 95-15
	6 2-16	(S.S-15)
	7 3-14	55-15/6 35-15
	7 3-15	165-15
		175-15/7 15-15
		185-15
		195-15
		205-15
		215-15
		225-15



TRAILER HITCH INFORMATION

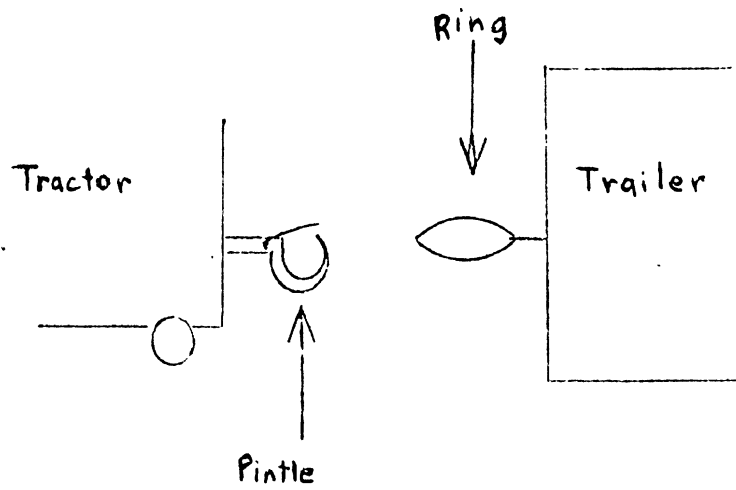


Frame Hitch

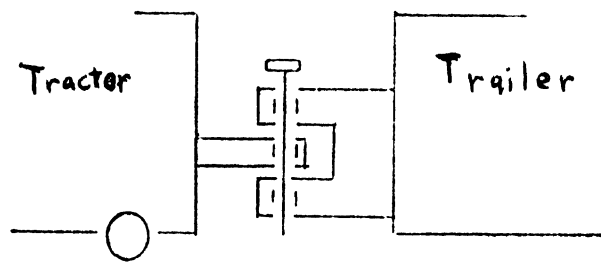


Load Distributing

TRAILER HITCH INFORMATION

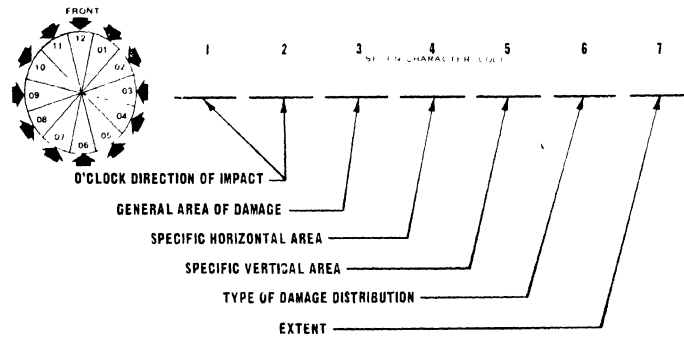


Ring and Pintle



Clevis and Pin

COLLISION DEFORMATION CLASSIFICATION - SAE J224a



Column No. 3

F - FRONT	T - TOP
R - RIGHT SIDE	U - UNDERCARRIAGE
B - BACK (REAR)	X - UNCLASSIFIABLE
L - LEFT SIDE	

Column No. 4

D - DISTRIBUTED	B - SIDE REAR - LEFT OR RIGHT
L - LEFT FRONT OR REAR	Y - SIDE OR END F + P OR L + C
C - CENTER FRONT OR REAR	Z - SIDE OR END B + P OR R + C
R - RIGHT FRONT OR REAR	
F - SIDE FRONT LEFT OR RIGHT	
P - SIDE CENTER SECTION LEFT OR RIGHT	

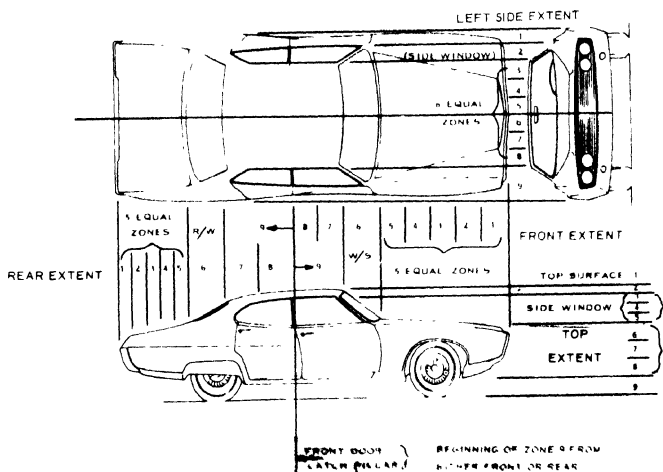
Column No. 5

A - ALL	X - UNDERCARRIAGE IN COLUMN 3
H - TOP OF FRAME TO TOP	
E - EVERYTHING BELOW GLASS	
G - GLASS AND ABOVE	
M - MIDDLE (TOP OF FRAME TO BELTLINE OR HOOD)	
L - LOW (BELOW TOP OF FRAME)	

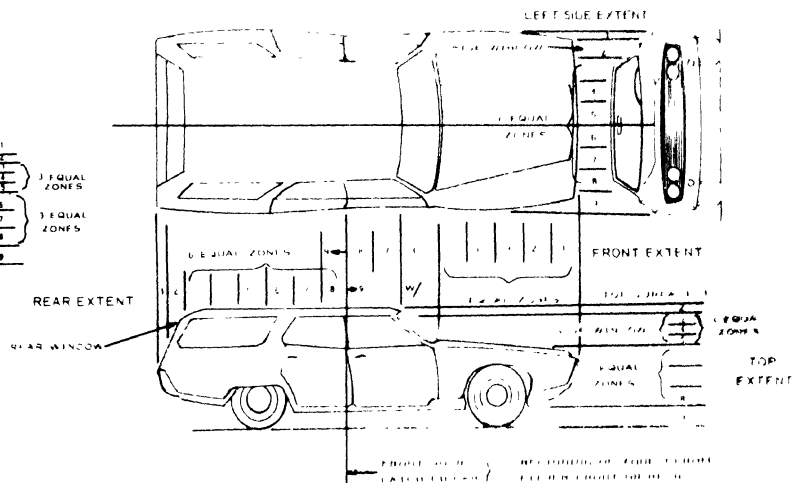
Column No. 6

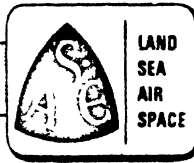
W - WIDE IMPACT AREA	O - ROLLOVER (INCLUDES ROLLING ONTO SIDE)
N - NARROW IMPACT AREA	A - OVERHANGING STRUCTURE
S - SIDE SWIPE < 4 in.	E - CORNER 5-16 in

DEFORMATION EXTENT ZONES (FOR PASSENGER CARS)



DEFORMATION EXTENT ZONES (FOR STATION WAGONS)





COLLISION DEFORMATION CLASSIFICATION — SAE J224a

SAE Recommended Practice

Report of Automotive Safety Committee approved January 1971 and revised February 1972.

1. Purpose and Scope—The purpose and scope of this SAE Recommended Practice is to provide a basis for classification of the extent of deformation caused by vehicle accidents on the highway. It is necessary to classify collision contact deformation (opposed to induced deformation) so that the accident deformation may be segregated into rather narrow limits. Studies of collision deformation can then be performed on one or many data banks with assurance that the data under study are of essentially the same type.¹

It also is an expression, useful to persons engaged in automobile safety, to appropriately describe a field-damaged vehicle with conciseness in their oral and written communications. Although this classification system was established primarily for use by professional teams investigating accidents in depth, other groups may also find it useful.

The classification system consists of seven characters, three numeric and four alphameric, arranged in a specific order. Each character describes specific deformation detail concerning the direction, location, the size of the area, and extent, which combined together form a descriptive composite of the damaged vehicle. The individual character positions are referred to by column number for identification and compatibility with conventional computer system data storage. Fig. 1 illustrates the format and the general description for each character.

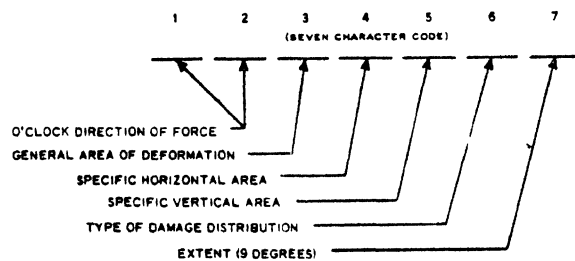


FIG. 1

2. Classification of Collision Damage—Vehicle collision damage is classified in the following respects:

2.1 Direction of Principal Force at Impact—Columns 1 and 2 are used.

The principal force is the force that caused the crush and sheet metal displacement on the damaged vehicle. The direction of the principal force is determined by the resultant of forces acting on the vehicle at the point of application. The direction of the principal force is designated by reference to hour sectors on a conventional clock face positioned over the point of application.

The clock face is assumed to be in a plane referenced to the horizontal plane of the car. "Twelve o'clock" characterizes a frontal directed force applied at the area of vehicle deformation. Other examples of clock positions, such as 3, 6, and 9 o'clock, refer to forces directed from the right, rear, and left respectively. The code classifications are the hour numerals from 01 to 12. Columns 1 and 2 of the classification system are used for direction of principal force. (See Fig. 2) The entry of 00 indicates that the impact is not horizontal, as in a rollover.

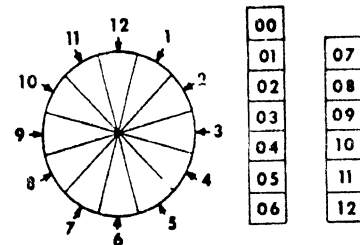
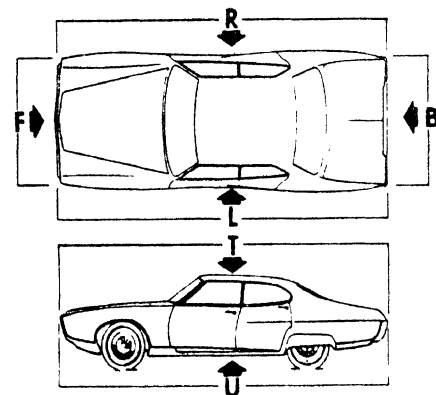


FIG. 2

2.2 Deformation Location and Classification Code—Column 3 is used.

This character of a classification expression broadly defines which projected area of the vehicle contains the deformation. (See Fig. 3.) Angle impacts at 45 deg to the front or rear corner may be difficult to classify. These impacts should be classified as "F" or "B" if the deformation area at the front or rear of the vehicle exceeds the deformation area at the side; "L" (or "R") should be used if the deformation area at the side is larger. Similar consideration should be given to top versus side deformation in rollover; if the deformation area on the top is greater than on the side, use "T." If the side deformation is greater, use "L" (or "R").



Location	Classification
Front	F
Right side	R
Back (rear)	B
Left side	L
Top	T
Undercarriage	U
Unclassifiable	X

FIG. 3

2.3 Specific Horizontal Location of Deformation and Classification Code—Column 4 is used

The plan view of the vehicle (Fig. 4) illustrates the horizontal areas to be used in locating the deformation. Variations in vehicles require that some special definitions be given as guidelines for the classification code "P." P is defined as follows:

(a) Passenger cars—from the windshield to the rear of the rear most seat

¹ R. A. Stoner, W. D. Nelson, E. W. L. and C. S. McEckel, and E. W. Sargent, "Collision Damage Severity Scale," Paper 66-0106 presented at SAE Convention, Engineering Congress, Detroit, January 1966.

COLLISION DEFORMATION CLASSIFICATION

- (b) Station wagons—from the windshield to the rear of the second seat.
 - (c) Vans—from the front-seat backrest to the center of the rear wheel.
 - (d) Pickups—from the windshield to the rear of the cab.
- "F" and "B" are side deformation areas forward and rearward of "P," respectively. Column 4 has meaning only in connection with column 3; that is, it is a suffix of column 3 rather than being independent of it.
- The classifications "R," "C," and "L" should not be used for vehicles with top deformation ("T" in column 3).

2.5 General Type of Damage Distribution and Classification Code—Column 6 is used. Definitions of the classifications are shown in Table 1.

TABLE 1

Type	Classification
Wide impact area	W
Narrow impact area	N
Side swipe	S
Rollover (includes rolling onto side)	O
Overhanging structure	A
Corner	E

These codes are illustrated by the following additional guidelines. To differentiate deformation which includes the corner of the vehicle in the longitudinal and lateral impacts, use the S, E or W classifications. The examples in Table 2 describe impacts at the front right corner.

TABLE 2

Classification	Max. Depth of Deformation from Side Surface
FRES	0 to 4 in (100 mm) (principally sheet metal)
FREE	5 to 16 in (130-410 mm) (wheel and suspension)
FREW	17 in (430 mm) and over (wide area)

Columns 3-6 are used for clarification. Fig. 6 shows these three types and similar damage to the right front side. The classification is appropriate for deformation at any corner of the vehicle for directions of principal force from front, rear, or side directions.

"A" is used to classify impacts where part of the vehicle deformation resulted from an overhanging structure. An example of this is under-riding the rear of some large trucks.

The use of "S," "O," "E," and "A" take precedence over "N" or "W." "W" and "N" are used to distinguish between large and small areas of deformation which do not fall into one of the other four categories. If an area is less than 16 in (410 mm) wide or less than 6 in (150 mm) high, "N" is the appropriate classification. For small rectangular or circular areas of deformation, if the perimeter is less than the perimeter of a 16 in (410 mm) square, use the "N"; otherwise, use "W."

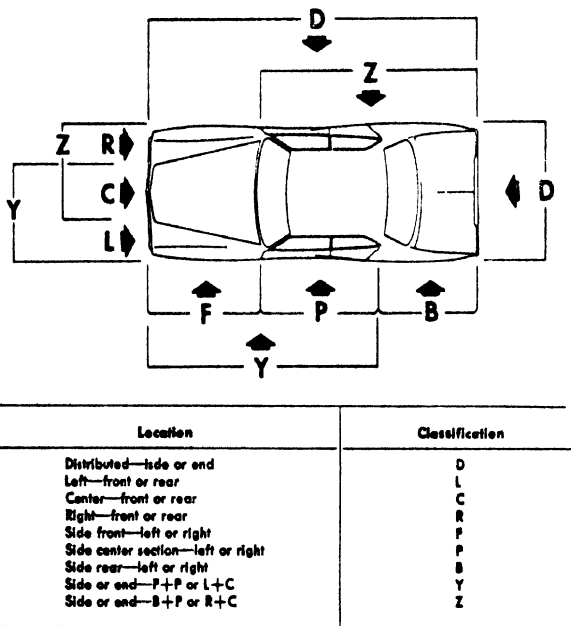


FIG. 4

2.4 Specific Vertical Location of Deformation and Classification Code—Column 5 is used.

Fig. 5 illustrates general locations of the classifications to be used for denoting the vertical location of all deformations.

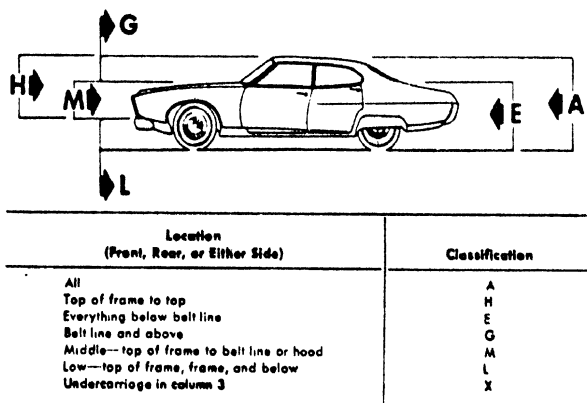


FIG. 5

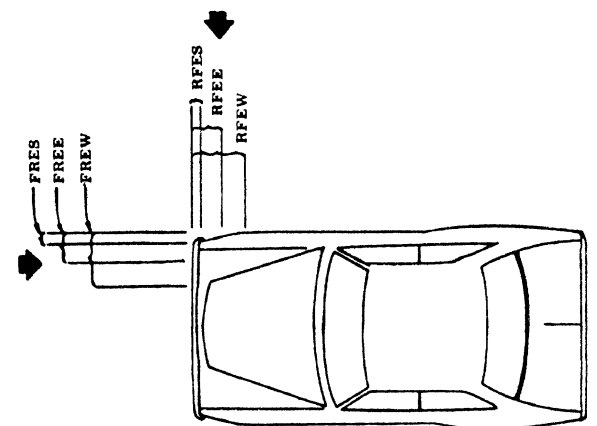


FIG. 6

2.6 Deformation Extent Guide—Column 7 is used

The extent of residual deformation is classified using a nine-zone extent system as shown in Figs. 7-10. Figs. 7-10 are illustrative for passenger cars, station wagons, vans, and pickups, respectively. Extent zones are applied to front, rear, side, top, or undercarriage deformation and should be selected so that they are compatible with the principal damage selection in column three.

COLLISION DEFORMATION CLASSIFICATION

In order to achieve uniformity, the deformation extent guide has been established in relation to specific points on the vehicle.

If the passenger compartment is involved in "top" damage, then the extent number should reflect the extent of damage to the passenger compartment. This is true even if the hood or deck lid are involved.

If the distance from the rearmost point of the vehicle to the top of the rear window is greater than the distance from the top of the rear window to the front door latch pillar (start of zone 9), then use the "passenger car" deformation rear extent zone guide for classifying rear deformation. Other vehicles are classified using the rear extent guide for station wagons and vans.

THE EXTENT NUMBER SHOULD NOT BE USED AS A TOOL FOR DETERMINING THE COLLISION SEVERITY OR ENERGY REQUIRED TO DUPLICATE THE DAMAGE. FOR VEHICLES OF THE SAME BASIC TYPE, IT DOES SERVE AS A TOOL FOR GATHERING TOGETHER VEHICLES WHICH HAVE SIMILAR DAMAGE CHARACTERISTICS.

2.7 Summary of the Classification System—A summary of the classification system and the assignment of codes in columns is shown in Fig 11. This array shows most of the more likely classifications that can be made. This display may be of value in auditing reports.

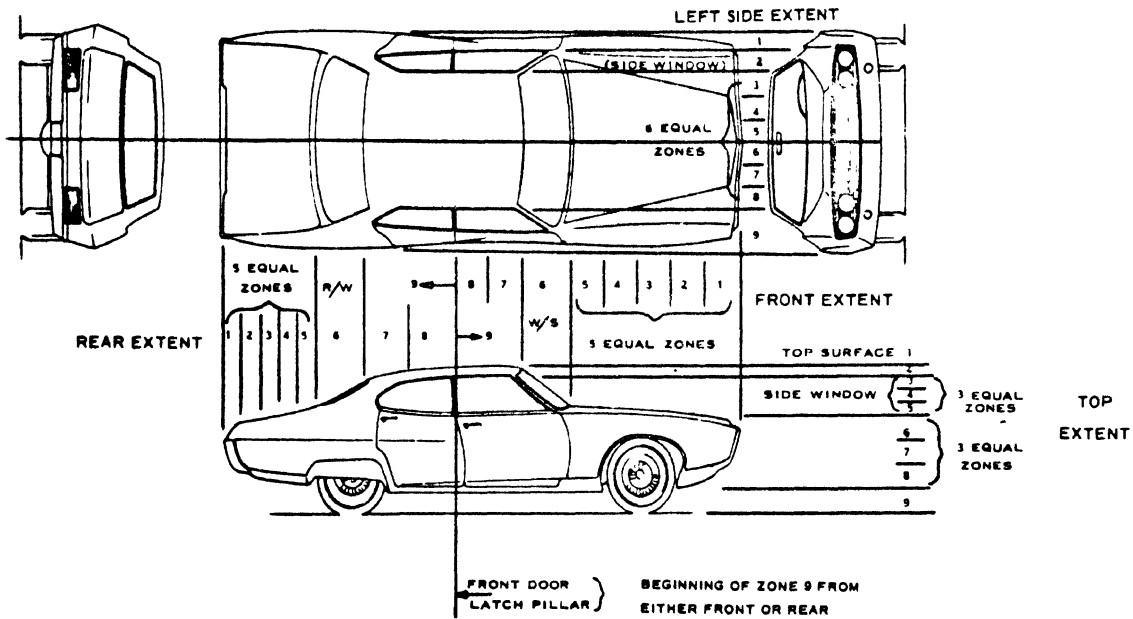


FIG. 7-DEFORMATION EXTENT ZONES (FOR PASSENGER CARS)

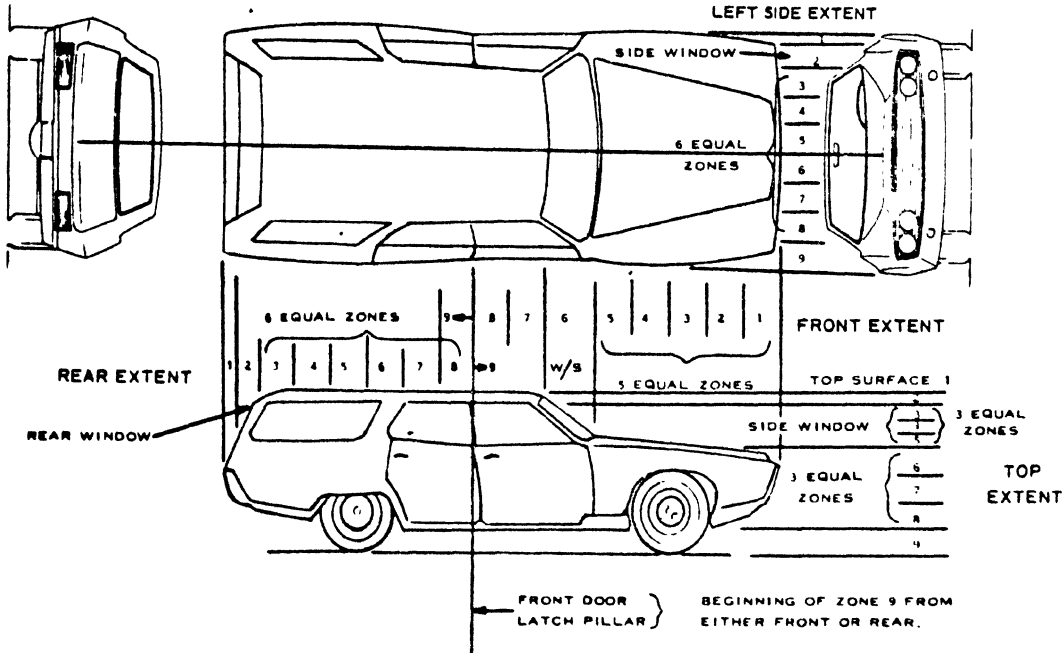


FIG. 8-DEFORMATION EXTENT ZONES (FOR STATION WAGONS)

COLLISION DEFORMATION CLASSIFICATION

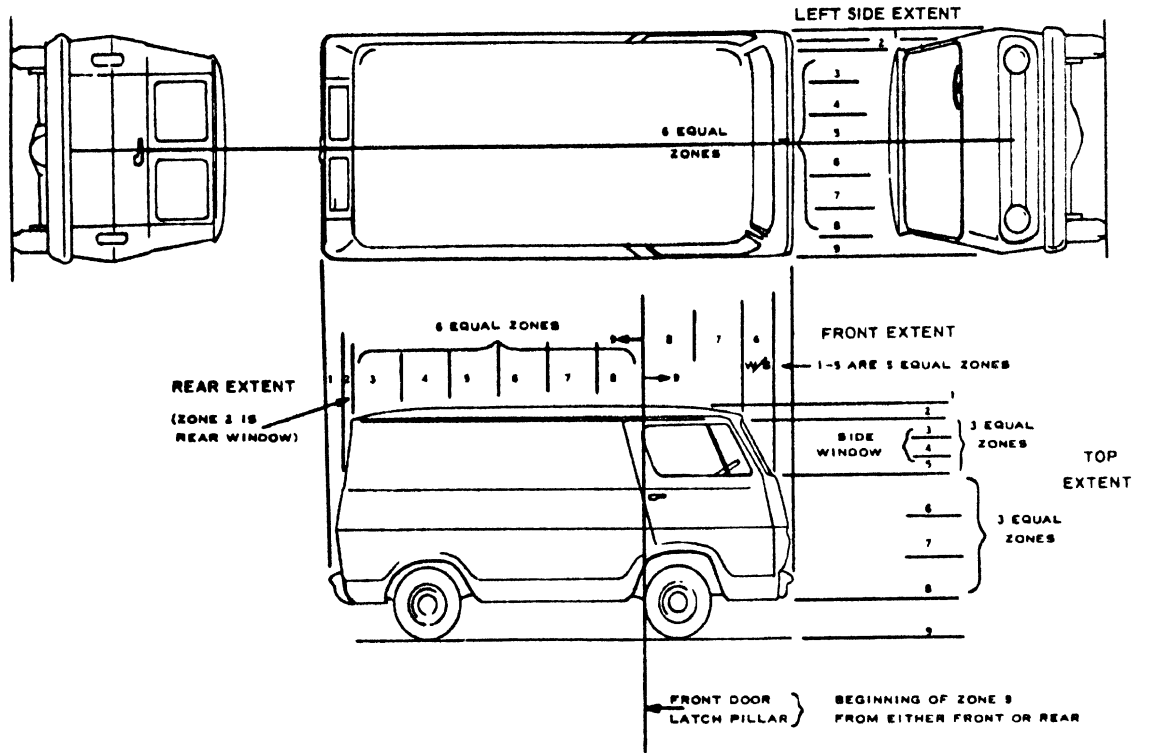


FIG. 9—DEFORMATION EXTENT ZONES (FOR VANS)

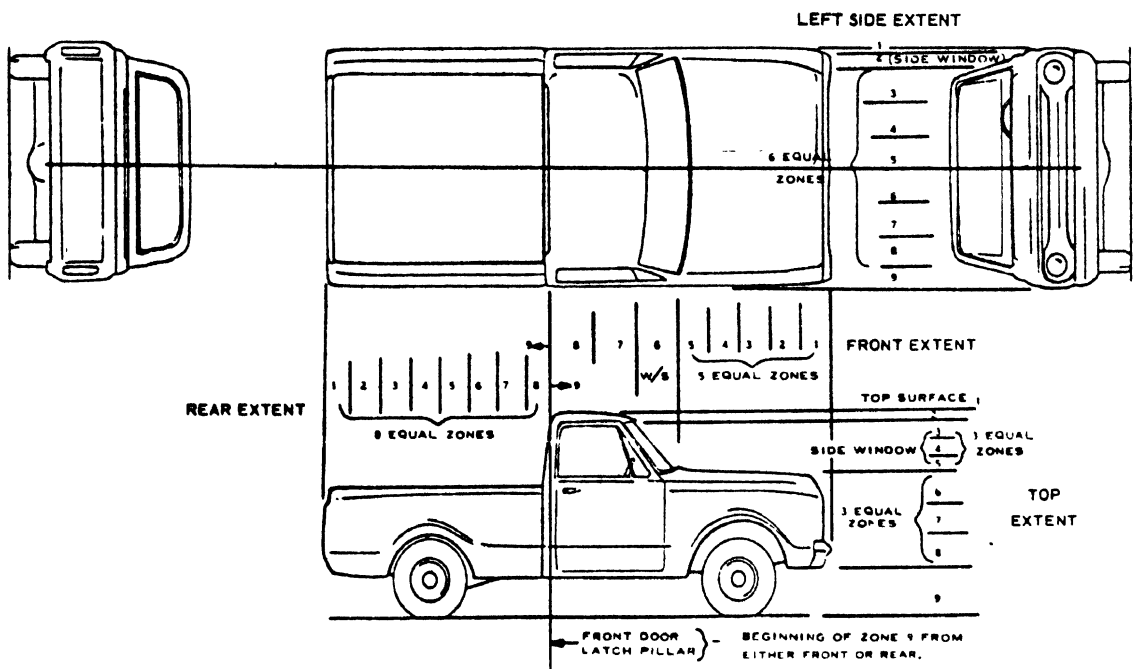


FIG. 10—DEFORMATION EXTENT ZONES (FOR PICKUP TRUCKS)

COLLISION DEFORMATION CLASSIFICATION

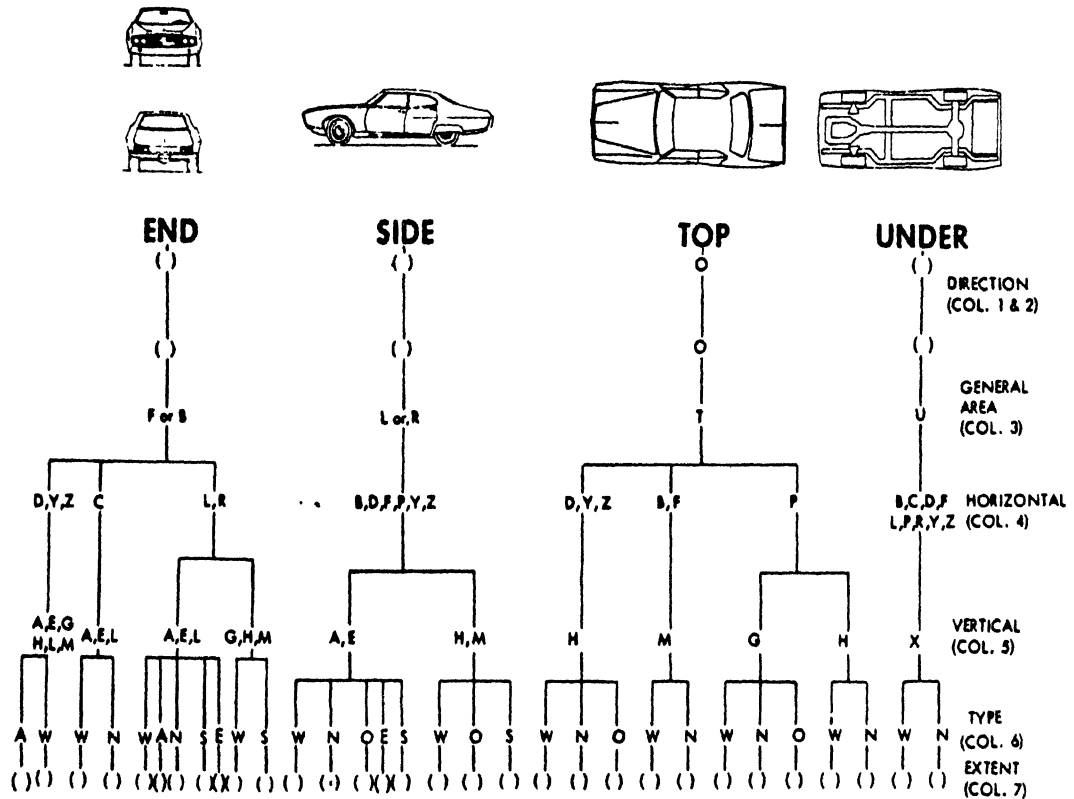


FIG. 11-DEFORMATION INDEX GUIDE

SAE Technical Board Rules and Regulations

All technical reports, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to adhere to any SAE Standard or SAE Recommended Practice, and no commitment to conform to or be guided by any technical report.

In formulating and approving technical reports, the Technical Board, its Councils and Committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of patents.

VIN SUMMARY

VIN - Vehicle Identification Number

Standard Form (67-72)

Manufacturers	CHARACTER SYMBOLS								PRODUCTION NUMBER				
	1	2	3	4	5	6	7	8	9	10	11	12	13
American Motors	M	1	T	A	5	5	E	2	9	9	9	9	9
Chrysler Corp.	M	S	5	5	E	1	P	9	9	9	9	9	9
Ford Motor Co.	1	P	4	5	E	9	9	9	9	9	9		
General Motors*	3	4	4	5	5	1	P	9	9	9	9	9	9

* Except Cadillac prior to 1971 and All GM 1972

VW=9 digits through 69, 10 digits after 69

<u>Character Symbol</u>	<u>Contents</u>
1	Model Year
2,P	Assembly Plant
3,M	Make
4,S	Series
5	Body Style (see below)
T	Transmission
E	Engine
9	Sequential Production Numbers

Body Style (Character Symbol = 5)

AMC	Column 5	
	5	4 dr. Sedan
	6	2 dr. Sedan
	7	Convertible (68)
	8	Station Wagon
9	2 dr. Hardtop	
GM	1,7	2 door
	5	Station Wagon
	6	Station Wagon, 2w tailgate
	9	4 door
	0	Pickup-Car

Chrysler	Column 3	Column 4
	2	2 dr. 1 Sedan
	4	4 dr. 3 Hardtop
		5 St. Wagon - 2 seat
		6 St. Wagon - 3 seat
		7 Convertible
		9 Special Hardtop

Ford - See VIN Manual

Windshield Code

The two letters in the lower left corner of each glazing monogram are used to code original equipment. Codes for service replacements are in brackets in the lower right corner. Note special codes for antenna.

GM 70 WINDSHIELDS WITHOUT ANTENNA

MONOGRAMS					
SAFETY PPG PLATE AS-1 LAMINATED DOT 18 M 21 AA (DN)	PPG *	SAFETY LOF PLATE AS-1 LAMINATED DOT 15 M 3 AB	LOF *		DCL *
SAFETY PPG FLO-LITE AS-1 LAMINATED DOT 18 M 25 AE (BB)	CA M52 (CE)	SAFETY LOF FLO-LITE AS-1 LAMINATED DOT 15 M 23 AF (BC)	DA M31 (DE)	SAFETY DCL FLO-LITE AS-1 LAMINATED DOT 19 M 43 EA	
SHADED ** SOFT-RAY SAFETY PPG FLO-LITE AS-1 LAMINATED DOT 18 M 30 AL (BH)		SHADED ** SOFT-RAY SAFETY LOF FLO-LITE AS-1 LAMINATED DOT 15 M 24 AM (BJ)	** DB M32 (DF)	SHADED ** SOFT-RAY SAFETY DCL FLO-LITE AS-1 LAMINATED DOT 19 M 34 AN (BK)	
SHADED ** SOFT-RAY SAFETY PPG PLATE AS-1 LAMINATED DOT 18 M 23 AS (BP)		SHADED ** SOFT-RAY SAFETY LOF PLATE AS-1 LAMINATED DOT 15 M 4 AT (BO)			
SOFT-RAY ** SHADED NEUTRAL SAFETY PPG PLATE AS-1 LAMINATED DOT 18 M 23.1 AW (BT)		SOFT-RAY ** SHADED NEUTRAL SAFETY LOF PLATE AS-1 LAMINATED DOT 15 M 6 AX (BU)			

YY-Unknown MFG or Type
 YX-LOF; unknown Type
 YW-PPG; unknown Type
 YV-DCL; unknown Type
 YU-Float Glass; unknown MFG.

YT-Plate Glass; unknown MFG.
 YS-LOF; Float; other info. unknown
 YR-LOF; Plate; other info. unknown
 YP-PPG; Float; other unknown
 YN-PPG; Plate; other unknown
 YM-DCL; Float; other unknown

NOTE

ORIGINAL MARK	REPLACEMENT MARK		
Flo-Lite Soft-Ray	PPG Float Sun-Shade Solex Duplate	LOF Float E-Z-Eye	DCL Float

*Manufacturers model numbers shown below will be used in addition to those shown in monogram
 **AJSI (location-rt. side adjacent to shading fade out line) indicates level required for driving visibility on shaded windshields only.

GM 70 WINDSHIELDS WITH

ANTENNA

(Codes For Service Replacement In Parenthesis - See Replacement Identifying Marks At Bottom Of Page)

MONOGRAMS					
SAFETY PPG PLATE AN-1 LAMINATED ANTENNA DOT 18 M 21 1 AD	PPG *	SAFETY LOF PLATE AN-1 LAMINATED ANTENNA DOT 15 M 20 AC	LOF *		DCL *
SAFETY PPG FLO-LITE AN-1 LAMINATED ANTENNA DOT 18 M 25 1 (BF) AJ	(K M52.1 (CP)	SAFETY LOF FLO-LITE AN-1 LAMINATED ANTENNA DOT 15 M 25 (BE) AH	DK M27 (DP)	SAFETY DCL FLO-LITE AN-1 LAMINATED ANTENNA DOT 13 M 45 1 EK	
SHADED ** SOFT-RAY SAFETY PPG FLO-LITE AN-1 LAMINATED ANTENNA DOT 16 M 30 2 (BM) AQ	** CL M53.1 (CR)	SHADED ** SOFT-RAY SAFETY LOF FLO-LITE AN-1 LAMINATED ANTENNA DOT 15 M 26 (BL) AP	** DL M28 (DR)	SHADED ** SOFT-RAY SAFETY DCL FLO-LITE AN-1 LAMINATED ANTENNA DOT 19 M 46 1 EL	
SHADED ** SOFT-RAY SAFETY PPG PLATE AN-1 LAMINATED ANTENNA DOT 18 M 23.2 (BS) AV		SHADED ** SOFT-RAY SAFETY LOF PLATE AN-1 LAMINATED ANTENNA DOT 15 M 21 (BR) AU			
		SOFT-RAY ** SHADED NEUTRAL SAFETY LOF PLATE AN-1 LAMINATED ANTENNA DOT 15 M 22 (BV) AY			
		SOFT-RAY ** SHADED NEUTRAL SAFETY LOF FLO-LITE AN-1 LAMINATED ANTENNA DOT 15 M 23 (BW) BA	** DM M35 (DS)		

(ALL UNKNOWN CODES SAME AS THOSE ON PREVIOUS PAGE)

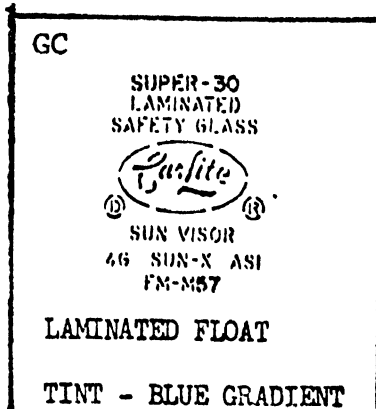
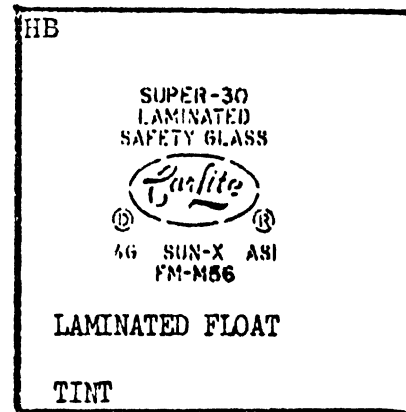
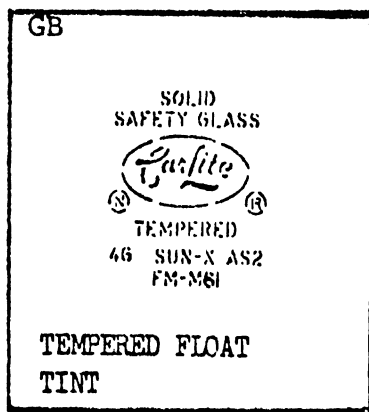
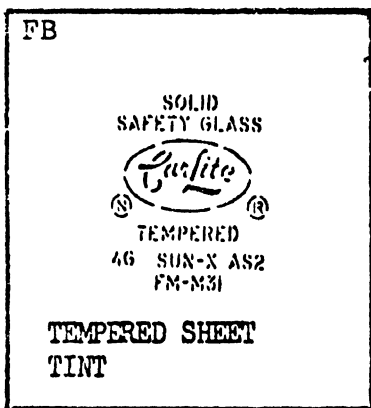
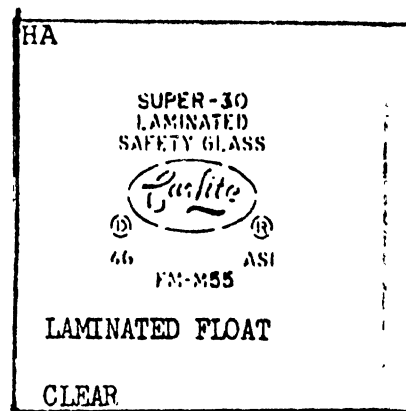
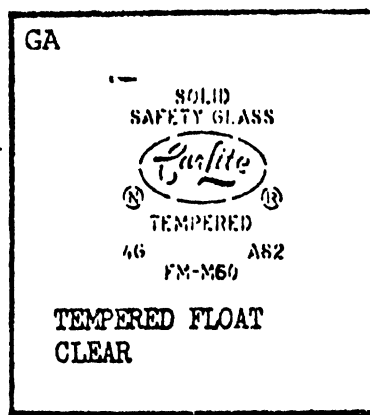
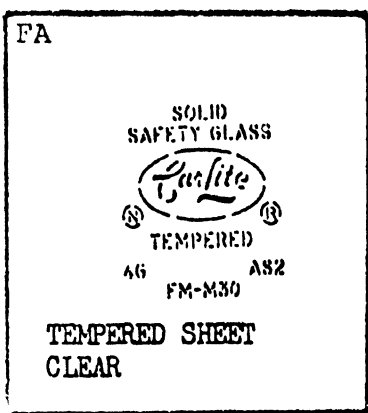
ORIGINAL MARK	REPLACEMENT MARK		
Flo-Lite Soft-Ray	PPG Float Sun-Shade Solex Poly-Lite	LOF Float E-Z-Eye	DCL Float

*Manufacturers model numbers shown below will be used in addition to those shown in monogram.

**ANSI (location-rt. side adjacent to shading fade out line) indicates level required for driving visibility on shaded windshields only.

1971 SAFETY GLAZING MONOGRAMS FOR WINDSHIELDS

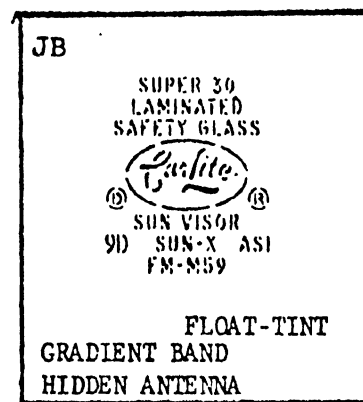
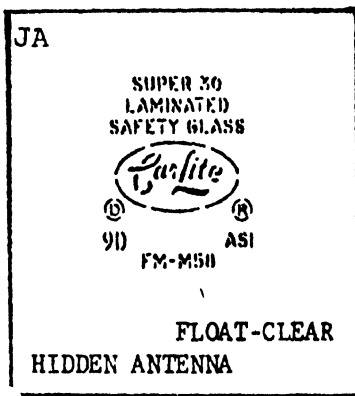
Ford WITHOUT ANTENNA



Unknown
Carlite
YK

1971 SAFETY GLAZING MONOGRAMS FOR WINDSHIELDS

Ford WITH ANTENNA



1971 SAFETY GLAZING MONOGRAMS AND PG-2070
FORM CODES

Other WINDSHIELDS WITHOUT ANTENNA

CORNING CHEMCOR
WINDSHIELD
CLEAR

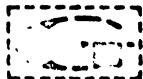
CORNING
CHEMICALLY
TEMPERED
LAMINATED
SAFETY GLASS
AS-1, CGW, M15
DOT-26, D.O.

PA

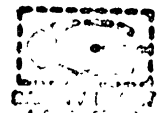
CORNING CHEMCOR
WINDSHIELD
TINTED

CORNING
CHEMICALLY
TEMPERED
LAMINATED
SAFETY GLASS
AS-1, CGW, M-16
DOT-26, D.O.

QA


GUARDIAN
SAFETY FLOAT
SHADED
LAMINATED
AS-1-70 66-M85
DOT 22


RK


(AS-1-70) AS-1-70 66-M85
DOT 22


RA

66-M78
DOT-22

Identifying Marks

SAFETY  FLO-LITE
AS-1 AD-69
LAMINATED
DOT-19 M-33

RE

SHADED
SOFT-RAY
SAFETY  FLO-LITE
AS-1 AD-69
LAMINATED
DOT-19 M-34

RF

SUPER-30
LAMINATED
SAFETY GLASS



AS2
66-M78

RB

SAFEGUARD
LAMINATED

 G


SAFETY GLASS
AS-1 1-70
DOT-22 66-M78

RC

SAFETY FLOAT
AS-1 Guardian J-70
LAMINATED
DOT 22 66-M78

RD

SAFEGUARD
LAMINATED

TINT
SHADED  G

SAFETY GLASS
AS-1 1-70
DOT-22 66-M85

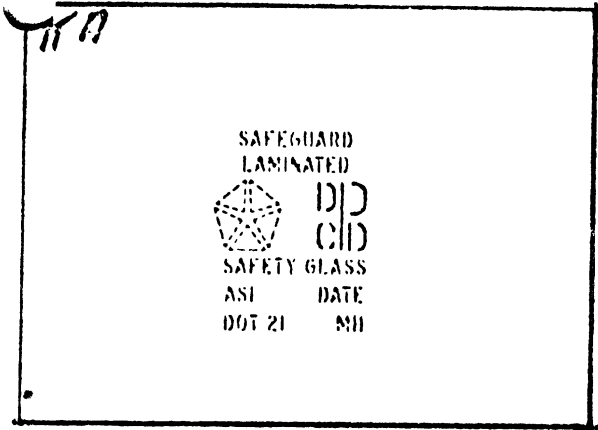
RG

SHADED
SOFT RAY
SAFETY FLOAT
AS-1 Guardian J-70
DOT 22 66-M85

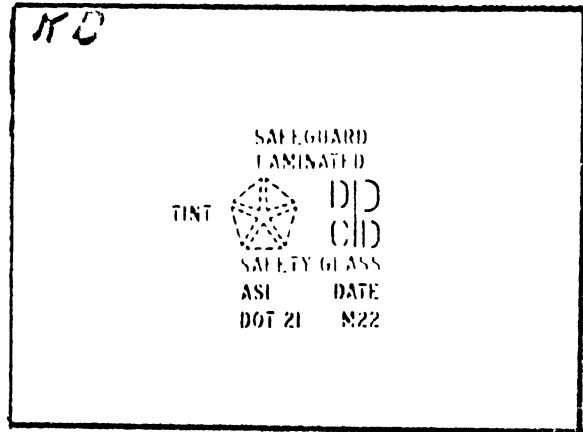
RH

Chrysler

WINDSHIELD MONOGRAMS

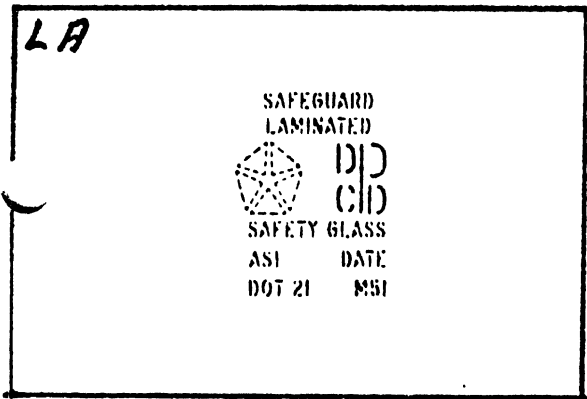


SAFEGUARD LAMINATED SAFETY GLASS -
DCPD, AS-1
laminated safety glass, AS-1,
with 30 mil interlayer

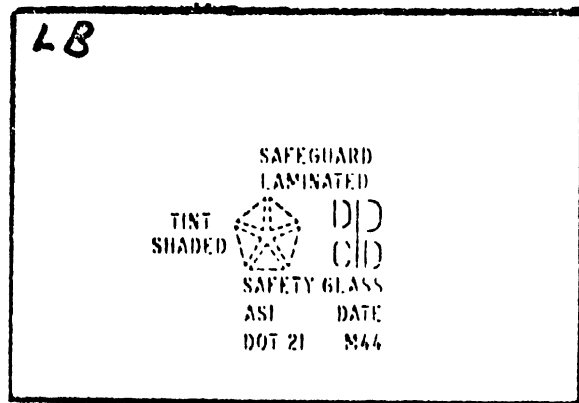


TINT SAFEGUARD LAMINATED SAFETY GLASS
DCPD, AS-1
laminated, heat absorbing,
safety glass, AS-1, with
30 mil interlayer

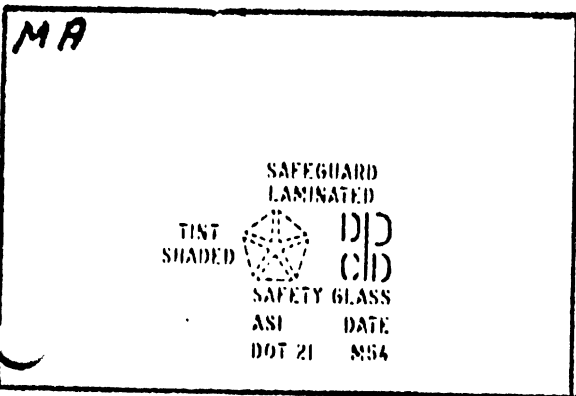
Unknown
YL



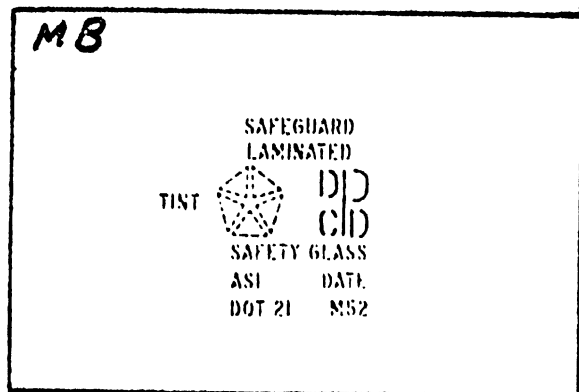
SAFEGUARD LAMINATED SAFETY GLASS -
DCPD, AS-1
laminated safety float glass, AS-1
with 30 mil interlayer



TINT SHADED SAFEGUARD LAMINATED
SAFETY GLASS - DCPD, AS-1
laminated, heat absorbing
safety glass, AS-1, with
30 mil interlayer colored band



TINT SHADED SAFEGUARD LAMINATED
SAFETY GLASS - DCPD, AS-1
laminated, heat absorbing, safety float glass, AS-1,
with 30 mil interlayer



TINT SAFEGUARD LAMINATED SAFETY GLASS -
DCDD, AS-1
laminated, heat absorbing, safety float glass,
AS-1, with 30 mil interlayer

1972 SAFETY GLAZING MONOGRAMS GM

TYPE OF GLAZING	MONOGRAMS			REMARKS
<p>AS-1 LAMINATED SAFETY GLASS</p> <p>Safety Glazing Material For Use Anywhere in Motor Vehicle</p>	<p>SAFETY FLO-LITE</p> <p>AB-1</p> <p>CA LAMINATED DOT 18 M 52 (CE)</p>	<p>SAFETY FLO-LITE</p> <p>AB-1</p> <p>DA LAMINATED DOT 15 M 31 (DE)</p>	<p>SAFETY FLO-LITE</p> <p>AB-1</p> <p>EA LAMINATED DOT 19 M 45</p>	
	<p>SAFETY FLO-LITE</p> <p>AB-1</p> <p>CK LAMINATED ANTENNA DOT 18 M 52 (CP)</p>	<p>SAFETY FLO-LITE</p> <p>AB-1</p> <p>DK LAMINATED ANTENNA DOT 15 M 27 (DP)</p>	<p>SAFETY FLO-LITE</p> <p>AB-1</p> <p>EK LAMINATED ANTENNA DOT 19 M 45 (E)</p>	
	<p>SHADED SOFT-RAY</p> <p>SAFETY FLO-LITE</p> <p>AB-1</p> <p>CL LAMINATED ANTENNA DOT 18 M 53 (CR)</p>	<p>SHADED SOFT-RAY</p> <p>SAFETY FLO-LITE</p> <p>AB-1</p> <p>DL LAMINATED ANTENNA DOT 15 M 28 (DR)</p>	<p>SHADED SOFT-RAY</p> <p>SAFETY FLO-LITE</p> <p>AB-1</p> <p>EL LAMINATED ANTENNA DOT 19 M 46 (E)</p>	<p>NOTE: The following Manufacturer's Model Numbers will also be used with those monograms to the left.</p> <p>D. C. L. M34 (Location-Rt. side adjacent to shading fade out line) indicates level required for driving visibility on shaded windshields only.</p>
		<p>SOFT-RAY</p> <p>SHADED NEUTRAL</p> <p>SAFETY FLO-LITE</p> <p>AB-1</p> <p>DM LAMINATED ANTENNA DOT 15 M 35 (DS)</p>		

(Codes For Service Replacement In Parenthesis)

YY - Unknown MFG or Type
 YX-LOF; unknown Type
 YW-PPG; unknown Type
 YV-DCL; unknown Type
 YU-Float Glass; unknown MFG.

YT-Plate Glass; unknown MFG.
 YS-LOF; Float; other info. unknown
 YR-LOF; Plate; other info. unknown
 YP-PPG; Float; other unknown
 YN-PPG; Plate; other unknown
 YM-DCL; Float; other unknown

ORIGINAL MARK	REPLACEMENT MARK		
Flo-Lite Soft-Ray	<p><u>PPG</u> Float Sun-Shade Solex Duplate</p>	<p><u>LOF</u> Float E-Z-Eye</p>	<p><u>DCL</u> Float</p>

FOR ALL GENERAL MOTORS CORPORATION 1972 VEHICLES
PRODUCED IN THE UNITED STATES

WINDSHIELD CODES: 72

1972 VEHICLE WINDSHIELDS

AS-2 MA
 Securit
 of
 Belgium
 D-106 Solid
 Temp.
 Code: NA

Solex
 Shaded
 PPG
 Safety Plate
 1-2A
 Code: NB

Super 30
 Laminated
 Safety Glass
 Car-Lite
 FM-M59
 Sun-Visor
 OA SUN X ASI
 Code: NC

Triplex
 V
 T
 X
 Super-L
 EUM 11 A51
 Laminated
 Code: ND

(LACKTEX)
 Belgium
 Laminated
 Super
 M3 ASI
 TPGS 76
 DOT 32 Clear
 Code: NE

SICURSN
 I C C
 Hi Laminated
 IGM 4874 VSP
 ASI M1 D-139
 DOT 36
 Code: NF

(LACKTEX)
 °BELGIUM°
 Lam. Super
 Tinted
 GR M5 ASI
 DOT 32
 TPGS 88 D150
 Code: NG

Sun Shade
 SOLEX
 PPG
 Duplate
 Safety Float
 Antenna
 ASI 189 DOT18
 M30.2
 Code: BM

July, 1973 Update to Volume 5 Section 5 (MDA1)
Reference Information Used in Preparation
of the Collision Performance and Injury Report

The attached pages represent the updated reference information used in preparation of the Collision Performance and Injury Report. This material represents the first set of update sheets to the Reference Information portion (Section 5) of Volume 5, of the Multidisciplinary Accident Investigation Report Automation final report (October 1972). The loose-leafed pages of Reference Information are organized in alphabetic order. This lends itself to easy insertion of new or revised material. Attached is the list of changes with instructions and associated page headings. The instructions include "replace" or "insert" where pages are either "exchanged for" for "added to" existing pages, respectively. The Page Headings refer to the titles located in the upper right hand corner of each reference page. Note that for "Inserting" new pages, further identification for proper placement is formatted with an "after statement" which identifies the placement of new pages that follow after existing pages.

Please note that the reference manual is a perpetual compilation of materials from many different sources and thus is always subject to change. Any correction to the existing material, additional information, questions and/or comments will be both welcome and appreciated. Please send these to either Walt Bailey (CTM) or Jim Fell at NHTSA or to either Joe Marsh or Steve Vanek at HSRI.

Enclosures

InstructionPage Headings

Replace	A Dimensions:AMC
Insert	A Dimensions:Chrysler 73 after 70-72
Replace	A Dimensions:Ford 1972
Insert	A Dimensions:Ford 73, after Ford 72
Replace	A Dimensions:GM 71 (2 pages)
Insert	A Dimensions:GM 73, after GM 72 (5 pages)
Insert	A Dimensions:Import 73, after 72
Insert	A Dimensions:Pickups, after Imports 73
Replace	Body Models:Chrysler 72 (6 page chart),
Insert	Body Models:Chrysler 73, after 72
Insert	Body Models:GM 73, after 72
Insert	Body Structure:Imports 73, after
	Body Structure Imports
Replace	Body Structure:USA
Replace	Brake, Anti-Lock
Replace	Brake Types
Insert	Contact Areas
Insert	Demensions:Imports 73, after 72
Insert	Dimensions:USA 73, after 72
Replace	Make/Model Codes, 1 - 5
Insert	Occupations Classifications, after
	Make/Model 5 (5 pages)
Insert	OIC; after Occupations Classifications
	(2 pages)
Insert	Restraint System:Child Restraints,
	after Belt Availability
Insert	Restraint System:Locking Retractors
	Imports 73 after Locking Retractors:
	Imports
Insert	Restraint System:Warning System, after Usage
Replace	Seat Back Angles:Chrysler
Replace	Seat Back Angles:Ford 70
Replace	Seat Back Angles:Ford
Insert	Seat Back Angles:Ford 73, after 72
Insert	Seat Back Angles:Imports 73, after 72
Replace	Seat Back Angles:GM 1970-73
Insert	Seat Back Angles:Imports 73, after 72
Insert	Seat Backs:Import 73 after Seat Backs
Insert	Side Door Reinforcement Availability,
	after Seat Back Locks
Replace	Steering Column Angles:AMC
Replace	Steering Column Angles:Chrysler
Insert	Steering Column Angles:Ford 73, after 72
Insert	Steering Column Angles:GM 73, after
	GM Body Style Chart for GM Column Angles
Insert	Steering Column Angles:Imports 73, after 72
Insert	Steering Column Angles:Pickups, after
	Imports 73
Insert	Steering Column EA Device:Imports 73
	after Imports
Replace	Steering Column EA:USA
Insert	Steering Wheel EA:Imports 73, after
	Imports
Replace	Steering Wheel EA:USA
Insert	Telescoping Unit:Imports 73 after Imports

Instruction

Page Heading

Replace
Insert
Replace
Replace
Replace

Telescoping Unit:USA
2nd page for Tire Information, after Page 1
VIN Summary 73
Windshield Codes:Chrysler, Ford, GM, other
Table of Contents July, 1973

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(6/73)

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CHRYSLER
FORD
GM
IMPORTS
PICKUP

AIS, ABBREVIATED INJURY SCALE (31.12-26, 22-31)

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CHRYSLER
FORD
GM
IMPORTS

BODY STRUCTURE (7.3.52)

BRAKE OPTIONS:
BRAKE ANTI-LOCK DEVICE (7.3.52)
BRAKE TYPES (7.5.51)

COLLISION DEFORMATION CLASSIFICATION - SEE VDI/CDC

COLUMN MOVEMENT - SEE A DIMENSIONS

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CHILD RESTRAINT CODES (28.11.38-39)
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FORD
GM
IMPORTS

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CHRYSLER
FORD
GM
IMPORTS

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STEERING WHEEL EA DEVICE (16.6.67-76)

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VM/M CODE - SEE MAKE/MODEL CODES

WINDSHIELD CODES (20.7.46-47)

STEERING WHEEL HUB TO REAR WINDOW HEADERORIGINAL "A" DIMENSIONS

1971-73 AMC CARS

<u>Model</u>	<u>2-Door</u>	<u>4-Door</u>	<u>Wagon</u>
Hornet	62.25	61.75	81.70
Gremlin	60.10	---	---
Matador	61.25	64.20	105.5
Ambassador	61.25	64.20	105.5
Javelin, AMX	54.25	---	---

1972 Ford Steering Column Hub To Backlight Reader Dimensions

Model and Year	Maverick--1972		Comet--1972		Pinto--1972		
Series Number	62	54	62	54	62	64	73
Steering Column Hub to Backlight Upper D.L.O.	61.5	66.9	61.5	66.9	58.8	60.7	87.6

Model and Year	Thunderbird--1972	Mark IV--1972
Series Number	65	65
Steering Column Hub to Backlight Upper D.L.O.	66.2	66.2

Model and Year	Lincoln--1972		Capri--1970-1972
Series Number	65	53	
Steering Column Hub to Backlight Upper D.L.O.	65.8	70.8	56.0

Model and Year	Torino--1972					Montego--1972				
Series Number		53	63	65	66	71	53	65	63	71
Steering Column Hub to Backlight Upper D.L.O.		68.5	65.3	65.4	35.5	107.3	68.5	65.3	65.4	107.3

Model and Year	Mustang--1972			Cougar--1972	Bronco	
Series Number	65	63	76	65	76	U15-SW
Steering Column Hub to Backlight Upper D.L.O.	57.9	58.9	57.0	59.0	58.0	73.9

Model and Year	Ford--1972						Mercury--1972				
Series Number	54	53	57	65	76	71		65	53	57	71
Steering Column Hub to Backlight Upper D.L.O.	67.8	72.2	68.0	66.7	65.9	113.2		66.7	72.2	72.2	113.2

SERIES NO.	BODY STYLE	SERIES NO.	BODY STYLE
53	4-dr. Sedan (Concealed "B"-Pillar)	65	2-dr. Hardtop
54	4-dr. Sedan	66	2-dr. Pickup Type Car (Ranchero)
57	4-dr. Hardtop	71	4-dr. Station Wagon
62	2-dr. Sedan	76	2-dr. Convertible
63	2-dr. Hardtop (Fastback)		

1973

STEERING WHEEL HUB TO UPPER BACKLITE OPENING

VEHICLE	BODY STYLE	V.I.N. BODY CODE										
			Dia.	16"	16"	16"	16"	15.5"	14.5"	16"		
Plymouth Barracuda	2dr H/T	B23	-	-	-	-	-	53.0	-	-	-	-
Dodge Challenger	2dr H/T	J23	-	-	-	-	-	55.0	-	-	-	-
Plymouth Valiant Scamp	2dr H/T	V23	59.5	60.6	-	-	-	-	-	-	-	-
Plymouth Duster	2dr H/T	V29	59.5	60.6	-	-	-	-	-	-	-	-
Plymouth Valiant	4dr Sd.	V41	63.5	64.6	-	-	-	-	-	-	-	-
Dodge Dart Swinger	2dr H/T	L23	59.5	60.6	-	-	-	-	-	-	-	-
Dodge Dart	4dr Sd.	L41	63.5	64.6	-	-	-	-	-	-	-	-
Dodge Dart Sport	2dr H/T	L29	59.5	60.6	-	-	-	-	-	-	-	-
Plymouth Road Runner	2dr Sd	R21	61.9	63.0	-	-	-	-	-	60.2	62.1	-
Plymouth Satellite	2dr Sd & 2dr H/T	R21 & 23	61.9	63.0	-	-	-	-	-	60.2	62.1	-
Dodge Charger	2dr Sd & 2dr H/T	W21 & 23	61.9	63.0	-	-	-	-	-	60.2	62.1	-
Plymouth Satellite	4dr Sd	R41	62.8	63.9	-	-	-	-	-	61.1	63.0	-
Dodge Coronet	4dr Sd	W41	64.3	65.4	-	-	-	-	-	62.6	64.5	-
Dodge Charger SE	2dr H/T	W29	62.4	63.5	-	-	-	-	-	60.7	62.6	-
Satellite & Coronet	4dr Wagon	RW-45 & 49	107.0	107.1	-	-	-	-	-	107.2	107.3	-
Plymouth Fury	2dr H/T	P23	-	67.0	66.4	66.4	65.5	-	-	-	69.1	-
Dodge Polara & Monaco	2dr H/T	D23	-	67.0	66.4	66.4	65.5	-	-	-	65.1	-
Chrysler - All	2dr H/T	C23	-	67.0	66.4	66.4	65.5	-	-	-	-	-
Plymouth - Dodge - Chrysler	4dr Wagon	PDC-43 & 49	-	113.5	112.9	112.9	-	-	-	-	-	-
Plymouth Fury	4dr H/T	F43	-	70.5	69.9	69.9	69.0	-	-	-	69.0	-
Dodge Polara & Monaco	4dr H/T	D43	-	70.5	69.9	69.9	69.0	-	-	-	69.0	-
Plymouth Fury	4dr Sd	F41	-	67.5	66.5	66.5	65.0	-	-	-	65.0	-
Dodge Polara & Monaco	4dr Sd	D41	-	67.8	67.2	67.2	66.3	-	-	-	66.3	-
Chrysler - All	4dr Sd	C41	-	66.3	65.7	65.7	64 3/4	-	-	-	64.3	-
Chrysler - All	4 dr H/T	C43	-	69.5	68.9	68.9	67.8	-	-	-	67.8	-
Imperial - LeBaron	2dr H/T	Y23	-	-	65.6	66.5	-	-	-	-	66.5	-
Imperial - LeBaron	4dr H/T	Y43	-	-	69.9	70.8	-	-	-	-	70.8	-

1973 Ford Steering Column to Backlight Header Dimensions

<u>Model</u>	<u>Series No.</u>	<u>A-Dimension</u>
Maverick	62	60.5
	54	66.3
Comet	62	60.5
	54	66.3
Pinto	62	53.6
	64	57.4
	73	85.9
Thunderbird	65	66.2
Mark IV	65	66.2
Lincoln	65	65.8
	53	70.8
Capri	53	56.0
Torino	53	68.5
	63	65.3
	65	65.4
	66	35.5
	71	107.3
Montego	53	68.5
	65	65.3
	63	65.4
	71	107.3
Mustang	65	57.9
	63	58.9
	76	57.0
Cougar	65	59.0
	76	58.0
Ford	53	70.0
	57	70.0
	65	66.7
	71	113.0
Mercury	65	66.7
	53	70.0
	57	70.0
	71	113.0

<u>SERIES NO.</u>	<u>BODY STYLE</u>
53	4-dr. Sedan (Concealed "B"-Pillar)
54	4-dr. Sedan
57	4-dr. Hardtop
62	2-dr. Sedan
63	2-dr. Hardtop (Fastback)
64	2-dr. Hatchback
65	2-dr. Hardtop
66	2-dr. Pickup Type Car (Ranchero)
71	4-dr. Station Wagon
73	2-dr. Station Wagon
76	2-dr. Convertible

STEERING WHEEL TO REAR WINDOW DIMENSIONS
1971 GENERAL MOTORS PASSENGER CARS

MODEL	STEERING WHEEL	2DR CP	2DR HT	4DR S	4DR HT	4DR SW
CHEVROLET						
NOVA	STD	58.4		62.5		
	SPORT	58.9		63.0		
	OPT	58.4		62.5		
CAMARO	STD		55.7			
	SPORT		56.2			
	OPT		55.7			
CHEVELLE	STD		59.6	63.9	63.9	102.0
	SPORT		60.1	64.4	64.4	102.5
	OPT		59.6	63.9	63.9	102.0
BISCAYNE, BEL AIR, IMPALA	STD		61.8	64.8	65.7	
	OPT		61.8	64.8	65.7	
IMPALA CUSTOM	STD		64.1			
	OPT		64.1			
CAPRICE	STD		64.1		65.7	
	OPT		64.1		65.7	
MONTE CARLO	STD		59.8			
	SPORT		60.3			
	OPT		59.8			
BROOKWOOD TOWNSMAN KINGSWOOD	STD					103.3
	OPT					103.3
EL CAMINO	STD	36.1				
	SPORT	36.6				
	OPT	36.1				
CORVETTE	STD	37.5				
	T & T	39.3				
VEGA	STD	59.1	56.0			80.3*
	SPORT	59.3	56.2			80.5*
PONTIAC						
FIREBIRD	STD		55.7			
	DLX		56.1			
	SPORT		55.7			
	FORMULA		53.6			
TEMPEST, GTO	STD	59.4	59.4	63.8	63.8	102.0
	DLX	59.8	59.8	64.2	64.2	102.4
	SPORT	59.3	59.3	63.7	63.7	101.5
	FORMULA	57.2	57.2	61.6	61.6	99.4
CATALINA BONNEVILLE SAFARI	STD		61.8	64.8	65.7	103.3
	DLX		62.2	65.2	66.1	103.7
	SPORT		61.7	64.7	65.5	102.9
	FORMULA		59.6	62.6	63.4	100.8
GRAND PRIX	STD		59.8			
	DLX		60.2			
	SPORT		59.7			
	FORMULA		57.3			

* VEGA 2DR SW and Pickup Delivery

MODEL	STEERING WHEEL	2DR CP	2DR HT	4DR S	4DR HT	4DR SW
PONTIAC						
GRANDVILLE	STD		61.8		65.7	
	DLX		69.0		66.1	
	SPORT		61.7		65.6	
	FORMULA		59.3		63.2	
OLDSMOBILE						
CUTLASS	STD	60.2	60.2	64.5	64.5	102.6
	DLX	60.2	60.2	64.5	64.5	102.6
	SPORT	60.7	60.7	65.0	65.0	103.1
CUTLASS SUPREME	STD	60.2	60.2	64.5	64.5	
	DLX	60.2	60.2	64.5	64.5	
	SPORT	60.7	60.7	65.0	65.0	
VISTA CRUISER	STD					107.4
	DLX					107.4
DELTA 88	STD		61.8	64.8	65.7	
ROYALE	STD		62.7			
NINETY EIGHT	STD		67.8		68.7	
	T & T		67.4		68.3	
TORONADO	STD		61.6			
	T & T		61.2			
BUICK						
SKYLARK	STD I	59.5	59.5	63.7	63.7	102.3
	STD II	59.0	59.0	63.2	63.2	101.8
	OPT	59.1	59.1	63.3	63.3	101.9
	SPORT	60.0	60.0	64.2	64.2	
LE SABRE, CENTURION	STD II		61.8	64.8	65.7	
	STD III		61.7	64.7	65.6	
	OPT		61.9	64.9	65.8	
ESTATE WAGON	STD II					103.3
	STD III					103.2
	OPT					103.4
ELECTRA	STD III		67.8		68.7	
	OPT		68.0		68.9	
RIVIERA	STD III		63.9			
	OPT		64.1			
CADILLAC						
BROUGHAM	STD			76.6		
CALAIS, DEVILLE	STD		69.4		70.2	
ELDORADO	STD		62.5			
75 LIMOUSINE	STD			93.8		

STEERING WHEEL TO BACKLIGHT DIMENSIONS

A DIMENSIONS: GM 73

1973 BUICKS

MODEL	WHEEL CODES	17	27	69	29	37	57	69	39	87	S/W
APOLLO	14										
	16										
	33	61.4	59.0								
CENTURY, REGAL	14				62.5	59.4	58.6				100.1
	16										
	33										
LA SABRE, CENTURION	14						62.2	65.3	66.4		103.5
	16								66.3		103.6
	33										
ELECTRA 225	14										
	16						68.3		69.0		
	33										
RIVIERA	14										
	16									64.3	
	33										

73 GM Body Models

- 11 - 2 dr. Sedan
- 15 - 2 dr. Stationwagon
- 17 - Coupe, Hatchback
- 23 - 4 dr. Sedan
- 27 - 2 dr. Coupe
- 29 - 4 dr. Sedan
- 37 - 2 dr. Coupe
- 39 - 4 dr. Hardtop
- 47 - 2 dr. Hardtop - Cadillac Eldorado (47)-Coupe
- 49 - 4 dr. Sedan Hardtop (code as Sedan)
- 57 - 2 dr. Coupe
- 67 - 2 dr. Convertible
- 69 - 4 dr. Sedan
- 77 - Coupe, Hatchback
- 80 - Pickup Car
- 87 - 2 dr. Hardtop - Chevrolet Camaro and Pontiac Firebird (87) - Coupe

STEERING WHEEL TO BACKLIGHT DIMENSIONS

A DIMENSIONS: GM 73

1973 CADILLACS

MODEL	WHEEL CODES	69	47	49	23	33	67			
FLEETWOOD BROUGHAM	18	76.6								
CALAIS, DE VILLE	18		69.4	70.2						
			Coupe							
ELDORADO	18		62.5							
75 FLEET- WOOD	18				93.8					

73 GM Body Models

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- 57 - 2 dr. Coupe
- 67 - 2 dr. Convertible
- 69 - 4 dr. Sedan
- 77 - Coupe, Hatchback
- 80 - Pickup Car
- 87 - 2 dr. Hardtop - Chevrolet Camaro and Pontiac Firebird (37) - Coupe

STEERING WHEEL TO BACKLIGHT DIMENSIONS

A DIMENSIONS: GM 73

1973 CHEVROLET

MODEL	WHEEL CODES								
NOVA		17	27	69					
	01	61.3	58.5	63.5					
	03								
	04								
	20								
	29								
	30								
CAMARO		87							
	01								
	03								
	04	Coupe							
	20	57.0							
	29								
	30								
CHEVELLE, EL CAMINO		37	29	80	S/W				
	01	59.0			100.0				
	03								
	04								
	20								
	29	58.8	63.1		100.0				
	30				37.8				
MONTE CARLO		57							
	01								
	03								
	04								
	20								
	29	59.0							
	30								
VEGA		05	11	15	77				
	01								
	03								
	04								
	20				81.5	57.5			
	29								
	30								
BELAIR, IMPALA, CAPRICE		69	57	47	39	47	67	S/W	37
	01	65.8	64.5	64.5					
	03								
	04								
	20								
	29	65.6			66.1	63.5		104.8	
CORVETTE	03								37.8

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- 67 - 2 dr. Convertible
- 69 - 4 dr. Sedan
- 77 - Coupe, Hatchback
- 80 - Pickup Car
- 87 - 2 dr. Hardtop - Chevrolet Camaro and Pontiac Firebird (87) - Coupe

STEERING WHEEL TO BACKLIGHT DIMENSIONS

A DIMENSIONS: GM 73

1973 OLDSMOBILES

MODEL	WHEEL CODES	17	27	69	29	37	39	57	67	S/W
OMEGA	10		59.8							
	11									
	13									
	35	61.4	58.7	63.4						
	36									
CUTLASS	10					60.6				
	11					59.1				
	13									
	35									100.1
	36				62.9	59.1				99.8
DELTA 88	10									
	11			65.4			66.6	61.9		104.1
	13									
	35									
	36									
98	10									
	11					68.7	69.3			
	13						68.5			
	35									
	36									
TORANADO	10									
	11									
	13							61.2		
	35									
	36									

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- 49 - 4 dr. Sedan Hardtop (code as Sedan)
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- 69 - 4 dr. Sedan
- 77 - Coupe, Hatchback
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STEERING WHEEL TO BACKLIGHT DIMENSIONS

A DIMENSIONS: GM 73

1973 PONTIACS

MODEL	WHEEL CODES								
VENTURA		17	27	69					
	05			64.2					
	06								
	07								
	09								
	34	62.0							
FIREBIRD		87							
	05								
	06	<i>coupe</i>							
	07	55.7							
	09								
	34								
LEMANS		29	37	S/W					
	05	63.7							
	06		60.3						
	07								
	09								
	34								
ATALINA, BONNEVILLE, GRANVILLE		69	39	57	49	47	67	S/W	
	05	66.6							
	06	66.6	69.3	63.0				105.0	
	07								
	09								
	34								
GRAND PRIX		57							
	05								
	06	60.1							
	07								
	09								
	34								

73 GM Body Models

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- 67 - 2 dr. Convertible
- 69 - 4 dr. Sedan
- 77 - Coupe, Hatchback
- 80 - Pickup Car
- 87 - 2 dr. Hardtop - Chevrolet Camaro and Pontiac Firebird (87) - Coupe

<u>M e</u>	<u>Model</u>	<u>A Dimension</u>
Audi	90 Sedan - 2 dr. (Fox)	60.25
	90 Sedan - 4 dr. (Fox)	60.00
	100 LS - 4 dr.	63.25
Datsun	1200 - 2 dr. Sedan	59.00
	1200 - 2 dr. Sport Coupe	53.25
	1600 Pickup	31.25
	610 - 4 dr. Sedan	
	610 - 4 dr. Station Wagon	88.00
	610 - 2 dr. Hardtop	57.50
	240 Z	42.00
Dodge	Colt - 2 dr. Coupe	
	Colt - 2 dr. Hardtop	57.50
	Colt - 4 dr. Sedan	
	Colt - 4 dr. Station Wagon	
Fiat	850 Spider Convertible	N/A
Ford	Capri	57.00
Opel	1900 Luxus	55.00
	1900 Wagon	77.75
	Rallye Manta	55.00
	G. T.	47.50
Plymouth	Cricket - 4 dr. Sedan	None imported after 1/73
Porsche	911	48.00
	914	38.50
Toyota	Carina - 2 dr. Sedan	
	Corona - 4 dr. Sedan	
	Corona - 2 dr. Hardtop	
	Corona - Mark II MX	62.75
	Corolla - 2 dr. Coupe	54.50
	Corolla - 2 dr. Sedan	58.75
	Corolla - Station Wagon	80.62
	Celica - 2 dr. Hardtop	54.50
VW	Beetle	59.75
	Fastback	62.00
	Squareback	87.00
	412 - 2 dr.	67.75
	412 - 4 dr.	68.00
	412 - 3 dr. Hatchback	

A DIMENSIONS: PICK-UPS

Pickups Steering Wheel Hub to Backlight Dimensions

<u>Make</u>	<u>Type</u>	<u>Year</u>	<u>A Dimension</u>
GMC	100 200	70-73	32.2"
Chevrolet	C/10 C/20	70-73	32.2"
Dodge	D-100 D-200 D-300 W-100 W-200 W-300	71-73	(Conventional Cab) 35.5" (Club cab) 52.0"

MODEL CHART

COMPACT "A" BODY

*'60 '61 '62 '63 '64 '65 '66 *'67 '68 '69 '70 '71 '72

PLYMOUTH

Valiant												A	A	A
Valiant V-100	A	A	A	A	A	A	A	A	A	A				
Valiant V-200	A	A	A	A	A	A	A							
Valiant Signet 200			A	A	A									
Valiant Signet						A	A	A	A	A				
Valiant Scamp													A	A
Duster												*A	A	A
Duster 340												*A	A	A
Barracuda (Fast Back)						*A	A							
Barracuda (Notch top-Fast Back and Convertible)								*A	A	A				

Dodge

Lancer 170			*A	A										
Lancer 770			*A	A										
Lancer GT				A										
Dart						A	A	A	A	A	A	A	A	A
Dart 170				A	A									
Dart 270				A	A	A	A	A	A					
Dart 'GT				A	A	A	A	A	A	A				
Dart GTS									A	A				
Dodge Demon													A	A
Dodge Demon 340													A	A
Dart Custom										A			A	A
Swinger										A	A	A	A	
Swinger 340											A			
Swinger Special													A	A

*Indicates Major Body Sheet metal Change

INTERMEDIATE "B" BODY

MODEL CHART

'60 '61 *'62 '63 '64 '65 *'66 '67 *'68 '69 '70 *'71 '72

PLYMOUTH

Savoy		B	B	B									
Belvedere		B	B	B			B	B	B	B			
Belvedere I						B	B	B					
Belvedere II						B	B	B					
GTX								B					
Fury		B	B	B									
Sport Fury		B	B	B									
Satellite						B	B	B	B	B	B	B	B
Satellite Sebring												B	B
Satellite Custom												B	B
Sport Satellite								B	B	B			
Satellite Sebring												B	B
Satellite Brougham												B	
Satellite Regent												B	B
Road Runner								B	B	B	B	B	B
GTX								B	B	B	B		

DODGE

Dart		B											
Dart 330		B											
Dart 440		B											
Polara			B	B									
Polara 550		B	B										
Dodge 330			B	B									
Dodge 440			B	B									
Coronet						B	B	B				B	B

*Indicates Major Body Sheet Metal Change

INTERMEDIATE "B" BODY

MODEL CHART

	'60	'61	*'62	'63	'64	'65	*'66	'67	*'68	'69	'70	*'71	'72
Coronet Custom												B	B
Coronet Brougham												B	
Coronet Crestwood												B	B
Coronet Deluxe						B	B	B	B	B	B		
Coronet 440						B	B	B	B	B	B		
Coronet 500						B	B	B	B	B	B		
Coronet R/T								B	B	B	B		
Charger							B	B	B	B	B	B	B
Charger SE												B	B
Charger 500											B	B	
Charger R/T								B	B	B	B		
R/T									B				
Superbee								B	B	B	B		

*Indicates Major Body Sheet Metal Change

BODY MODELS: CHRYSLER 72

STANDARD "C" BODY

MODEL CHART continued

	*60	'61	'62	*63	'64	*65	'66	*67	'68	*69	'70	'71	*72
<u>DODGE</u>													
Monaco 500							C	C	C	C	C		
<u>CHRYSLER</u>													
Windsor	C	C											
Newport		C	C	C	C	C	C	C	C	C	C		
Newport Custom								C	C	C	C	C	C
Newport Royal													C
Saratoga	C												
New Yorker	C	C	C	C	C	C	C	C	C	C	C	C	C
300												C	
New Yorker Brougham													C
New York Salon				C	C								
300F	C												
300G		C											
300H			C										
300J & 300				C									
300K & 300					C								
300L & 300						C	C	C	C	C	C		
Town & Country							C	C	C	C	C	C	C
<u>IMPERIAL</u>													
Imperial Crown								C ₁	C ₁	C ₁	C ₁		
Imperial Le Baron								C ₁	C ₁	C ₁	C ₁	C ₁	C ₁
<u>DESOTO</u>													
Desoto		C											
Fireflite	C												
Adventurer	C												

C₁ indicates years that the Imperial was a modified "C" body.

* Indicates Major Body Sheet Metal Change

MODEL CHART

"D" BODY

'60 '61 '62 '63 *'64 '65 '66 '67 '68 '69 *'70 '71 '72

IMPERIAL

Imperial Custom	D	D	D	D								
Imperial Crown	D	D	D	D	D	D	D					
Imperial LeBaron	D	D	D	D	D	D	D					

Plymouth

Barracuda										*E	E	E
Gran Coupe										*E	E	
'Cuda										*E	E	E

DODGE

Challenger										*E	E	E
Challenger R/T										*E	E	
Challenger (Rallye)												E

*Indicates Major Body Sheet Metal Change

1973 MODEL CHART

SALES NAME	CAR LINE CODE	BASE ENGINE CODE	SERIES	BODY TYPE							
				21	23	29	41	43	45	46	
Colt	6	K2	L	21							
Colt		K2	H		23		41			45	
Colt GT		K2	P		23						
Challenger	1	44	H		23						
Dart Swinger Special	D	22(a)	L		23						
Dart Swinger Special		44	L		23						
Dart		22(a)	L					41			
Dart		44	L					41			
Dart Sport		22(a)	L				29				
Dart Sport		44	L				29				
Dart 140 Sport		55	M				29				
Dart Swinger		22(a)	H			23					
Dart Swinger		44	H			23					
Dart Custom		22(a)	H					41			
Dart Custom		44	H					41			
Charger Coupe		W	24	L	21						
Charger Coupe	44		L	21							
Coronet	24		L					41			
Coronet	44		L					41		45	
Charger	24		H			23					
Charger	44		H			23					
Coronet Custom	24		H					41			
Coronet Custom	44		H					41		45	46
Charger SE	44		P				29				
Crestwood	44		P							45	46
Polara	D	44(c)	L		23		41		45		
Polara Custom		44(c)	M		23		41	43	45	46	
Monaco		57	P		23		41	43	45	46	
Cruiser	4	J1	B				41				
Cruiser		J3	C				(h)		45		
Barracuda	H	44	H		23						
Cuda		44	S		23						
Volaro	V	22(a)	L				41				
Volaro		44	L				41				
Duster		22(a)	L			29					
Duster		44	L			29					
Volaro Scamp		22(a)	H			23					
Duster 140		55	S			29					
Satellite	P	24	L	21			41				
Satellite		44	L	21			41		45		
Road Runner		44	M	21							
Satellite Scrim		24	H			23					
Satellite Scrim		44	H			23					
Satellite Custom		24	H				41				
Satellite Custom		44	H				41		45	46	
Satellite Scrim Ph		44	P			23					
Satellite Regent	44	P						45	46		
Fury I	P	44	L				41				
Fury II		44	M				41				
Suburban		57	M						45		
Fury III		44	H		23		41	43			
Custom Suburban		57	H						45	46	
Fury Gran Coupe		44	P		23						
Fury Gran Sedan		44	P					43			
Sport Suburban		57	P						45	46	
Newport	S	63	L		23		41	43			
Newport Custom		63	M		23		41	43			
New Yorker		85	H				41	43			
Town & Country		85	P						45	46	
New Yorker Brighton	85	S		23		41	43				
Imperial Coronet	85	M		23			43				

ENGINE CODES (Only Base Engines Included)	
J1	91.4 CID 4-Cylinder 1, 1-V
J3	91.4 CID 4-Cylinder 2, 1-V
K2	97.5 CID 4-Cylinder 1, 2-V
22	198 CID 6-Cylinder
24	225 CID 6-Cylinder
44	318 CID V-8
55	340 CID V-8
57	360 CID V-8
63	400 CID V-8 1, 2-V
68	400 CID V-8 1, 4-V
85	440 CID V-8

BODY TYPE	
21	2-Door Coupe
23	2-Door Special
29	2-Door Hardtop
41	4-Door Sedan
43	4-Door Hardtop
45	2-Seat Station Wagon
46	3-Seat Station Wagon

SERIES	
L, B	LEVEL OF EQUIPMENT OPULENCE
M	
H, C	
P	
S	

73 GM Body Models

- 11 - 2 dr. Sedan
- 15 - 2 dr. Stationwagon
- 17 - Coupe, Hatchback
- 23 - 4 dr. Sedan
- 27 - 2 dr. Coupe
- 29 - 4 dr. Sedan
- 37 - 2 dr. Coupe
- 39 - 4 dr. Hardtop
- 47 - 2 dr. Hardtop - Cadillac Eldorado (47)-Coupe
- 49 - 4 dr. Sedan Hardtop (code as Sedan)
- 57 - 2 dr. Coupe
- 67 - 2 dr. Convertible
- 69 - 4 dr. Sedan
- 77 - Coupe, Hatchback
- 80 - Pickup Car
- 87 - 2 dr. Hardtop - Chevrolet Camaro and Pontiac
Firebird (87) - Coupe

MAKE AND MODEL	DIMENSIONS									
	Wheelbase (in.)	Unladen weight (lbs)	Headroom (in) (front seat)	Legroom (in) (front seat)	Overall length (in)	Overall height (in)	Overall width (in)	Front tread (in.)	Rear tread (in.)	
ALFA ROMEO 2000 Berlina	110.1	2,442	35.6	45.7	172.7	55.3	61.6	52.1	50.1	
2000 Spider Veloce	88.5	2,292	35.8	44.8	147.9	50.8	64.2	52.1	50.1	
2000 GT Veloce	62.5	2,292	35.2	44.7	151.4	51.3	52.2	52.1	50.1	
AUDI 100-LS, 100 GL 2-door Sedan	105.3	2,354	*	*	182.6	55.1	68.1	56	56.1	
100-LS, 100-GL 4-door Sedan	105.3	2,379	*	*	182.6	55.1	68.1	56	56.1	
AUSTIN Marina	95	2,193	*	*	159.1	55	64.5	52	52	
BENTLEY T-Series Sedan	119.5	4,636	36	*	203.5	59.75	71	57.5	57.5	
BMW 2002 Sedan	98.5	2,210	*	*	172	55	62.5	52.4	52.4	
2002 Ti	98.5	2,233	*	*	172	55	62.5	52.4	52.4	
3.0 Coupé	103.0	3,070	*	*	186.5	53.8	65.6	54.2	55.2	
3.0 Bavaria, 3.0 S Sedan	105	3,050	*	*	192	57.1	63.9	55.9	57.6	
CAPRI 2000 Coupé	100.6	2,333	37.4	41.4	174	50.7	64.8	53	52	
2600 Coupé	100.8	2,443	37.4	41.4	174	50.7	64.8	53	52	
CITROEN SM	111.1	3,178	*	*	183.5	52.1	75	67.1	52.3	
COLT 4-door Sedan	95	2,042	37.8	42.7	163.4	55.3	61.4	50.6	50.6	
Colt Hardtop & GT	95	2,075	36.9	42.7	163.4	54.1	61.8	50.6	50.6	
Colt Station Wagon	95	2,100	37.2	42.7	164.0	55.7	61.4	50.6	50.6	
Colt 2-door Coupé	95	2,044	36.9	42.7	163.4	54.1	61.8	50.6	50.6	
CRICKET 4-door Sedan	93	1,961	*	37.7	161	54.9	62.5	51	51.3	
Station Wagon	93	2,160	37.8	39.5	165.9	54.9	62.5	51	51.3	
DATSUN PL 510 2-door Sedan	95.3	2,110	*	*	165.4	55.9	61.4	50	50	
PL610 2-door Hardtop	98.4	2,250	*	*	172	54.5	63	51.6	52	
PL610 4-door Sedan	98.4	2,270	*	*	172	55.3	63	51.6	52	
PL610 Station Wagon	93.4	2,410	*	*	174.5	55.7	63	51.6	52	
1200 Coupé	90.6	1,610	*	*	155.9	53.1	59.5	48.8	49	
1200 Sedan	90.6	1,650	*	*	156.3	54.7	59.9	48.8	49	
1400 Z Coupé	93.7	2,500	*	*	165.2	50.5	64.1	53.3	53	
PL520 Pickup	100.1	2,250	*	*	162.3	45.8	62.6	49.0	49.4	
FIAT 850 Spider	77.8	1,590	34.3	51.4	155	49	57	45.1	43.1	
128-SL Coupé	87.3	1,870	33.4	51.6	151.8	51.6	51.4	52.2	52.5	
128 2-door Sedan	87.4	1,760	35.2	51.4	154.2	56	62.2	51.2	51.7	
128 4-door Sedan	84.4	1,79	34.7	51.4	154.2	56	62.2	51.2	51.7	
128 Station Wagon	94.4	1,835	35.2	51.4	154.2	56	62.2	51.2	51.7	
124 Coupé	95.3	2,157	36.4	51.4	165.3	52.8	65.7	53	51.3	
124 Sedan	95.3	2,023	35.8	48	162.2	53.9	63.4	52.4	51.2	
124 Spider	89.8	2,077	35.8	50.5	159.5	49.2	63.5	53	51.8	
124 Station Wagon	95.3	2,079	35.8	48	162.2	53.7	64	52.4	51.2	
HONDA Civic Sedan	85.6	1,535	37.4	42.4	152.3	50	58.3	51.2	50.4	
JAGUAR V-12 Convertible, 2-2	105	3,315	35.5	35.25	184.38	51.3	66.06	54.5	53	
XJ-6 Sedan	102.9	3,390	35.25	*	189.6	57.9	67.75	58	58.6	
XJ-12 Sedan	102.9	3,338	35.25	35.25	189.6	57.9	67.75	58	58.5	
JENSEN HEALEY	92	2,190	35	41.5	162	53	61.2	52.2	52.2	
JENSEN Interceptor	105	4,700	36	39	178	53	69	57.2	57.5	
LOTUS Europa Special	91	1,120	45	46.5	158	43	64.5	53	55	
MAZDA 608 Coupé	91	2,037	37	41	152	53	63	51	51	
608 Sedan	91	2,026	36	40	152	53	63	51	51	
608 Station Wagon	91	2,130	35	40	152	53	63	51	51	
RX-3 Coupé	91	2,150	37	41	152	53	63	51	51	
RX-3 Sedan	91	2,180	38	40	152	54	63	51	51	
RX-3 Station Wagon	91	2,265	38	40	153	54	63	51	51	
RX-2 Coupé	97	2,321	37	40	167	55	62	51	51	
RX-2 Sedan	97	2,355	35	40	167	55	62	51	51	
MERCEDES-BENZ 220	108.3	3,071	37.8	*	184.5	52.7	69.7	57	56	
220-D	108.3	3,110	37.2	*	184.5	52.7	69.7	57	56.7	
230	108.3	3,025	37.5	*	184.5	52.7	69.7	57	56.7	
280 Coupé	103.3	3,422	36.6	*	185	54.9	62.5	57	56.7	
450 SE	112.8	3,950	35.2	*	197.3	55.1	73.4	60	59.3	
450 SEL	116.5	4,050	38.2	*	199.2	55.5	73.4	60	59.3	
450 SL	95.9	3,710	36.2	*	175.5	51.2	70.5	52.2	52.7	
450 SLC	111	3,760	37.2	*	184	52.4	70.5	52.2	52.7	
MG-B Mk II Roadster	91	1,820	37	46	150.15	49.25	59.94	49.25	49.25	
MG-B GT Mk II Coupé	91	2,190	37	46	150.15	49.25	59.94	49.25	49.25	
Mini Mk III	80	1,070	35.5	41.5	137.65	40.5	54.9	45.7	44.75	
OPEL 1900 2 door Sedan	95.7	2,130	38	43.4	155	50.6	64.3	52.4	52.0	
1900 4-door Sedan	95.7	2,180	38	43.4	155	50.6	64.3	52.4	52.0	
1900 Wagon	95.7	2,227	38.2	40.4	164.6	52.5	64.3	52.4	52.0	
Mania	95.7	2,180	37.3	43.4	157.0	51.3	64.3	52.4	51.7	
Mania Rallye	95.7	2,225	37.5	43.4	157.0	51.3	64.3	52.4	51.7	
Mania Luxus	95.7	2,160	37.3	43.4	157.0	51.3	64.3	52.4	51.7	
GT	95.7	2,220	35.8	45.7	161.9	47.4	65.2	48.1	47.6	
PANHARD	100	3,300	36	40	170	54	71.7	57	57	
PEUGEOT 504 Sedan	95	2,170	*	*	172	57	61	55	52.2	
504 Station Wagon	114	2,600	*	*	197	61	67	57	52	
POINTE 91A-1.7	85.5	1,700	*	*	157.2	48.4	61.0	52.4	51.0	
91A 2.0	85.5	1,800	*	*	157.4	49.1	61.0	52.4	51.4	
911 T	89	2,230	*	*	157.1	50	62.4	51.7	51.7	
911 E	89.5	2,320	*	*	157.1	51	62.4	51.7	51.7	
911 S	89.5	2,250	*	*	157.4	51	62.4	51.7	51.7	

MAKE AND MODEL	DIMENSIONS									
	Wheelbase (in.)	Unladen weight (lbs.)	Headroom (in) (front seat)	Legroom (in) (front seat)	Overall length (in.)	Overall height (in.)	Overall width (in.)	Front tread (in.)	Rear tread (in.)	
RENAULT 12 Sedan	96	2,093	38	41.5	172	56.6	64.5	51.5	51.5	
12 Station Wagon	96	2,225	38	41.5	175	57	64.5	51.5	51.5	
15 Coupé	96	2,227	*	*	170	51.5	64	51.5	51.5	
17 Coupé	96	2,392	*	*	170	51.5	64	52.7	52.5	
ROVER ROVER Silver Shadow Sedan	119.5	4,430	36	41	202.5	59.75	71	57.5	57.5	
Silver Shadow Long Wheelbase Sedan	123.5	4,867	36	*	207.5	59.75	71	57.5	57.5	
Comanche Coupé	119.5	4,760	36	*	203.5	58.75	72	57.5	57.5	
Comanche Convertible	119.5	4,700	36	*	203.5	58.75	72	57.5	57.5	
SAAB 99 99-L Sedan	97.4	2,480	33.6	49	173.2	55.7	65.5	54.7	55.1	
99-LE Sedan	97.4	2,500	33.6	48	173.2	56.7	65.5	54.7	55.1	
96 Sedan	98.3	2,020	33.6	47	167.3	57.5	62.6	43	45	
Same "	84.6	1,675	37	37	150.8	46.9	49.1	43.5	43.5	
Subaru GL Coupé	96.6	1,835	36.2	45	159.1	52.8	59.2	49.6	49.5	
DL 2-door Sedan	95.6	1,520	36.6	45	159.1	54	59.2	49.5	47.4	
DL 4-door Sedan	96.6	1,830	36.6	45	159.1	54.5	59.2	49.5	47.4	
DL Station Wagon	96.6	1,935	36.6	45	159.3	55.5	59.2	49.5	47.3	
TOYOTA Corolla 1200 Sedan	91.9	1,725	*	*	159.4	54.1	59.3	49.4	49	
Corolla 1600 Coupe and Sedan	91.9	1,915	*	*	160	54.1	59.3	49.4	49	
Corolla 1600 Station Wagon	91.9	2,200	*	*	160	55.3	59.3	49.4	49	
Corolla ST	95.5	2,300	*	*	168.8	54.5	61.8	52.4	52.6	
Corolla Sedan	95.7	2,170	*	*	170.7	57	61.8	51.2	52.4	
Corona Hardtop	95.7	2,170	*	*	170.7	54.5	61.8	51.2	50.4	
Corona Station Wagon	96.9	2,220	*	*	171.3	55.9	61.8	51.2	50.4	
Mark II Sedan	101.8	2,700	*	*	175.4	55.1	64.8	52.5	53	
Mark II Hardtop	101.9	2,700	*	*	175.4	55	64	53.5	53	
Mark II Station Wagon	101.8	2,750	*	*	176.6	55	64	53.5	53	
TRIUMPH Stag	100	2,877	34.5	45	173.7	49.5	63.5	52.5	54.9	
TR-6	88	2,156	36	42	155	50	58	52	49.75	
GT-6 Mk. 3	83	1,904	34	42	149	48	57	49	49	
Sprite Mk III	83	1,723	35	43	149	48	57	49	48	
VOLKSWAGEN Beetle	94.5	1,826	36.4	46.5	159.3	59.1	61	52.1	52.6	
Super Beetle	95.3	1,564	36.4	46.5	163	59.1	62.4	54.6	53.6	

Corporation	(1) Body & Frame	(2) Utilized	(3) Integral-Stub Frame	
AMC		ALL		
Chrysler		<p>A BODIES</p> <p>Valiant (68-73) Dart (68-73) Duster (70-72) Demon (71-73) Barracuda (68-70) Challenger (70-72)</p> <p>E BODY</p> <p>Challenger (-73)</p>	<p>B BODIES</p> <p>Satellite (68-73) Roadrunner (70-73) G T X Coronet (68-73) Charger (68-73) Belvedere (68-70)</p> <p>Barracuda (71-73)</p>	<p>C BODIES</p> <p>Fury (68-73) Suburban (68-73) Polara (68-73) Monaco (68-73) Newport (68-73) New Yorker (68-73) Town & Country (68-73) Imperial (68-73)</p>
Ford	<p>Ford (70-73) Lincoln (70-73) Mercury (70-73) Thunderbird (70-73) Continental (70-73) Torino (72-73) Montego (72-73)</p>	<p>Torino (70-71) Pinto (71-73) Mustang (70-73) Cougar (70-73) Maverick (70-73) Montego (70-71) Ranchero (70-73)</p>	<p>Comet (70-73) Capri</p>	
GM	Most	Vega Opel	<p>Firebird Camaro, Ventura II Chevy II, Nova</p>	

ANTI-LOCK BRAKE SYSTEMS

	Optional	Standard
1969	T-Bird & Mark III	N/A
1970	T-Bird, Continental, Riviera, Toronado, Eldorado (Mark III until 1/6/70)	Mark III after 1/6/70
1971	T-Bird, Continental, Riviera, Toronado, Eldorado	Mark III
1972 - 1973	Continental, Mercury with 429 or 460 CID Engines, Imperial, Eldorado, Toronado	Mark IV & T-Bird

Ford System is limited to (2) wheels.

FRONT DISK BRAKES

GM	<u>Optional 1967-to date</u>	<u>Standard</u>	<u>Standard in 72-73</u>
	Buick Riveria - 72 Special Eldorado Chevrolet Camaro Chevelle Chevy II Oldsmobile Toronado F-85 Pontiac Tempest Skylark Firebird Nova Ventura II	Corvette	Chevrolet Pontiac Oldsmobile Cadillac Toronado Eldorado Gran Prix Monte Carlo Riveria
Chrysler	<u>Optional 1967 to date</u>	<u>Optional Previous to 1967-to date</u>	<u>Standard 1967-to date</u>
	Dodge Coronet Dodge Charger Plymouth Belvedere Challenger Barracuda	Chrysler Dodge Polara Dodge Dart Plymouth Fury Plymouth Valiant	Imperial
Ford	<u>Optional 1967 to date</u>	<u>Optional Previous to 1967-to date</u>	<u>Standard Previous to 1967-to date</u>
	Falcon Fairlane Comet Cougar	Ford Mustang Mercury	Thunderbird Lincoln
AMC	Optional previous to 1967: Ambassador, American, Rebel, Marlin		
	Optional in 1972: Gremlin, Hornet, Matador, Javelin		

CODES FOR AREAS OF OCCUPANT CONTACT

FRONT OF PASSENGER COMPARTMENT

- (05) Instrument Panel (Specific Area Unknown)
- (04) Upper Instrument Panel (X)
- (05) Middle Instrument Panel (Y)
- (06) Lower Instrument Panel (Z)
- (07) Beneath Instrument Panel
- (08) A/D-on Tape Deck, Radio, Air Conditioner, etc.
- (09) Steering Assembly (Specific Area Unknown)
- (05) Steering Wheel
- (05) Steering Wheel Column
- (12) Windshield
- (02) Glove Compartment Area
- (03) Hardware Items (Specific Item Unknown)
- (81) Ashtray (Instrument panel)
- (82) Instruments
- (83) Control Knobs and Levers
- (04) Heater or AC Ducts
- (01) Air Conditioning or Ventilation Outlets
- (05) Mirrors
- (07) Parking Brake (Location Unknown)
- (08) Radio
- (10) Sunvisors & Fittings and/or Top Molding (Header)
- (11) Transmission Selector Lever
- (53) Parcel Tray
- (04) Parking Brake in Front

SIDES

- (20) Surface of Side Interiors
- (19) Hardware
- (13) Armrests
- (22) Window Glass
- (21) Window Frames
- (14) A-Pillar
- (15) B-Pillar
- (16) C-Pillar
- (17) D-Pillar
- (18) Courtesy Lights

INTERIOR

- (29) Front Seatbacks
- (33) Restraint System Hardware
- (34) Restraint System Webbing
- (30) Head Restraints
- (32) Other Occupants
- (31) Interior Loose Object
- (50) Rear Seat
- (51) Front Seat Cushion
- (52) Internal Flying Glass
- ROOF
- (26) Roof Side Rails
- (10) Sunvisors & Fittings and/or Top Molding (Header)
- (25) Roof or Convertible Top
- (24) Coat Hooks
- (18) Courtesy Light
- FLOOR
- (11) Transmission Selector Lever
- (49) Floor
- (28) Foot Controls
- (27) Console
- (85) Parking Brake, Floor Mounted
- REAR
- (23) Backlight (Rear Window)
- (39) Backlight Header
- EXTERIOR SURFACE OF CASE VEHICLE
- (37) Outside Surface of Case Vehicle (Specific Area Unknown)
- (35) Hood of Case Vehicle
- (60) Exterior Case Vehicle Hardware, e.g., Outside Mirrors, Antenna, Trim, Door Handles, etc.
- (62) Exterior Side Roof Rail of Case Vehicle
- (63) Trunk Lid of Case Vehicle
- (64) Tires of Case Vehicle

BEYOND CASE VEHICLE BOUNDARY

- (36) Area Exterior to Car (Specific Area Unknown)
- (70) Hood of Other Vehicle
- (71) Other Vehicle Exterior Hardware (e.g., Outside Mirrors, Antenna, Trim, Ornaments, Door Handles, etc.)
- (73) Exterior Side Roof Rail of Other Vehicle
- (74) Headlight or Front Grill of Other Vehicle
- (75) Trunk of Other Vehicle
- (76) Outside Surface of Other Vehicle
- (77) Tires of Other Vehicle
- (78) Ground
- (79) Water
- (80) Exterior Object (Not Vehicle, Ground or Water)
- PENETRATING OBJECTS
- (61) Other Vehicle
- (72) Object: _____
- (38) Other: _____
- (98) Impact Force, Whiplash, Parasite/Inertia/Compression
- (99) Missing Data/No Contact
- (00) Unknown Area of Contact

MAKE AND MODEL	DIMENSIONS									
	Wheelbase (in.)	Unladen weight (lbs)	Headroom (in) front seat	Legroom (in) front seat	Overall length (in.)	Overall height (in.)	Overall width (in.)	Front tread (in.)	Rear tread (in.)	
ALFA ROMEO 2000 Berlina	101.1	2,442	36.6	45.7	172.7	56.3	61.6	52.1	50.1	
2000 Spider Veloce	88.6	2,292	35.8	44.8	167.9	50.8	64.2	52.1	50.1	
2000 GT Veloce	92.5	2,292	36.2	47	161.4	51.8	52.2	52.1	50.1	
AUDI 100-LS, 100-GL 2-door Sedan	105.3	2,354	*	*	182.6	56.1	68.1	56	56.1	
100-LS, 100-GL 4-door Sedan	105.3	2,379	*	*	182.6	56.1	68.1	56	56.1	
AUSTIN Marina	96	2,193	*	*	169.1	56	64.8	52	52	
BENTLEY T-Series Sedan	119.5	4,636	36	*	203.5	59.75	71	57.5	57.5	
BMW 2002 Sedan	98.5	2,260	*	*	172	55	62.5	52.4	52.4	
2002 Tri	98.5	2,300	*	*	172	55	62.5	52.4	52.4	
3.0 CS Coupe	103.3	3,070	*	*	186.5	53.8	65.6	56.9	55.2	
3.0 Bavaria, 3.0 S Sedan	106	3,050	*	*	192	57.1	68.9	56.9	57.6	
CAPRI 2000 Coupe	100.8	2,333	37.4	41.4	174	50.7	64.8	53	52	
2600 Coupe	100.8	2,443	37.4	41.4	174	50.7	64.8	53	52	
CITROEN SM	116.1	3,198	*	*	193.6	52.1	75	60.1	52.3	
COLT 4-door Sedan	95	2,042	37.8	42.7	163.4	53.3	61.4	50.6	50.6	
Colt Hardtop & GT	95	2,075	36.9	42.7	163.4	54.1	61.8	50.6	50.6	
Colt Station Wagon	95	2,130	37.2	42.7	164.0	56.7	61.4	50.6	50.6	
Colt 2-door Coupe	95	2,064	36.9	42.7	163.4	54.1	61.8	50.6	50.6	
CRICKET 4-door Sedan	98	1,961	*	39.7	161.4	54.9	62.5	51	51.3	
Station Wagon	98	2,160	37.8	39.8	166.9	54.9	62.5	51	51.3	
DATSUN PL 510 2-door Sedan	95.3	2,140	*	*	165.4	55.9	61.4	50	50	
PL610 2-door Hardtop	98.4	2,290	*	*	172	54.5	63	51.6	52	
PL610 4-door Sedan	98.4	2,270	*	*	172	55.3	63	51.6	52	
PL610 Station Wagon	98.4	2,410	*	*	174.5	55.7	63	51.6	52	
1200 Coupe	90.6	1,650	*	*	155.9	53.1	59.6	48.8	49	
1200 Sedan	90.6	1,630	*	*	156.3	54.7	58.9	48.8	49	
740-Z Coupe	90.7	2,500	*	*	165.2	50.5	64.1	53.3	53	
PL620 Pickup	100.1	2,290	*	*	169.3	60.8	62.6	49.2	50.4	
FIAT 850 Spider	79.8	1,590	34.3	51.4	153	48	59	46.1	48.1	
128-SL Coupe	87.5	1,800	38.4	51.6	151.8	51.6	51.4	52.2	52.5	
128 2-door Sedan	96.4	1,760	36.2	51.4	154.2	56	62.2	51.2	51.7	
128 4-door Sedan	96.4	1,795	36.2	51.4	154.2	56	62.2	51.2	51.7	
128 Station Wagon	96.4	1,835	36.2	51.4	154.2	56	62.2	51.2	51.7	
124 Coupe	95.3	2,187	36.4	51.4	165.3	52.8	65.7	53	51.8	
124 Sedan	95.3	2,038	35.8	48	162.2	55.9	63.4	52.4	51.2	
124 Station Wagon	89.8	2,077	35.5	50.6	159.5	49.2	63.5	53	51.8	
124 Station Wagon	95.3	2,095	35.8	48	162.7	56.7	64	52.4	51.2	
HONDA Civic 2-door	86.6	1,536	37.4	43.4	139.8	53	53.3	51.2	50.4	
JAGUAR V-12 Convertible, 2 + 2	105	3,318	35.5	38.25	184.38	51.3	66.06	54.3	53	
XJ-6 Sedan	108.9	3,395	35.25	*	189.6	52.9	69.75	58	58.6	
XJ-12 Sedan	108.9	3,881	35.25	36	189.6	52.9	69.75	58	58.6	
JENSEN-HEALEY	92	2,195	35	42.5	162	48	63.2	53.2	52.2	
JENSEN Interceptor	105	4,000	36	39	188	53	69	56.2	57.5	
LOTUS Europa Special	91	1,250	45	46.6	158	43	64.5	53	53	
MAZDA 808 Coupe	91	2,000	37	41	162	53	63	51	51	
808 Sedan	91	2,025	38	40	162	53	63	51	51	
808 Station Wagon	91	2,130	38	40	162	55	63	51	51	
RX-3 Coupe	91	2,150	37	41	162	53	63	51	51	
RX-3 Sedan	91	2,180	38	40	162	54	63	51	51	
RX-3 Station Wagon	91	2,265	38	40	163	54	63	51	51	
RX-2 Coupe	97	2,325	37	40	167	55	62	51	51	
RX-2 Sedan	97	2,355	38	40	167	56	62	51	51	
MERCEDES-BENZ 220	108.3	3,070	37.8	*	184.5	56.7	69.7	57	56.7	
220-D	108.3	3,110	37.8	*	184.5	56.7	69.7	57	56.7	
280	108.3	3,395	37.8	*	184.5	56.7	69.7	57	56.7	
280 Coupe	108.3	3,425	36.6	*	184.5	54.9	73.5	57	56.7	
450 SE	112.8	3,995	38.2	*	195.3	56.1	73.4	60	59.3	
450 SEL	116.5	4,030	38.2	*	199.2	56.3	73.4	60	59.3	
450 SL	96.9	3,710	36.2	*	172.5	51.2	70.5	57.2	56.7	
450 SLC	111	3,765	37.2	*	186.6	52.4	70.5	57.2	56.7	
MG-B Mk II Roadster	91	1,920	37	46	153.19	49.38	59.94	49.25	49.25	
MG-B GT Mk. II Coupe	91	2,190	37	46	153.19	49.5	59.94	49.25	49.25	
Midalet Mk III	80	1,512	35.5	44.5	137.63	48.63	54.38	45.75	44.75	
OPEL 1900 2-door Sedan	95.7	2,138	38.1	40.4	164.6	52.6	64.3	52.4	52.0	
1900 4-door Sedan	95.7	2,183	38.1	40.4	164.6	52.6	64.3	52.4	52.0	
1900 Wagon	95.7	2,227	38.2	40.4	164.6	53.3	64.3	52.4	52.0	
Manta	95.7	2,183	37.3	40.4	171.0	51.3	64.3	52.4	52.0	
Manta Rallye	95.7	2,205	37.3	40.4	171.0	51.3	64.3	52.4	52.0	
Manta Luzus	95.7	2,183	37.3	40.4	171.0	51.3	64.3	52.4	52.0	
GT	95.7	2,120	35.3	45.7	161.9	47.4	62.2	49.4	50.6	
PANTERA	98.4	3,200	35.3	42.5	176	44	71.3	57	58	
PEUGEOT 504 Sedan	109	2,750	*	*	177	57	66	56.5	53.5	
504 Station Wagon	114	2,932	*	*	189	61	67	*	*	
PORSCHE 914 - 1.7	96.5	1,900	*	*	159.4	48.4	65.0	52.4	54.0	
914 2.0	96.5	1,900	*	*	159.4	48.4	65.0	52.9	54.4	
911 T	89.5	2,250	*	*	168.4	52	63.4	53.6	52.9	
911 E	89.5	2,250	*	*	165.4	52	63.4	53.6	52.9	
911 S	89.5	2,250	*	*	166.4	52	63.4	54.1	53.3	

MAKE AND MODEL	DIMENSIONS									
	Wheelbase (in.)	Unladen weight (lbs)	Headroom (in) front seat	Legroom (in) front seat	Overall length (in.)	Overall height (in.)	Overall width (in.)	Front tread (in.)	Rear tread (in.)	
RENAULT 12 Sedan	96	2,093	38	41.5	172.5	56.6	64.5	51.5	51.5	
12 Station Wagon	96	2,225	38	41.5	175	57	64.5	51.5	51.5	
15 Coupe	96	2,227	*	*	170	51.5	64	51.5	51.5	
17 Coupe	96	2,392	*	*	170	51.5	64	52.7	52.5	
ROLLS-ROYCE Silver Shadow Sedan	119.5	4,636	36	*	203.5	59.75	71	57.5	57.5	
Silver Shadow Long Wheelbase Sedan	123.5	4,867	36	*	207.5	59.75	71	57.5	57.5	
Corniche Coupe	119.5	4,760	36	*	203.5	58.75	72	57.5	57.5	
Corniche Convertible	119.5	4,700	36	*	203.5	58.75	72	57.5	57.5	
SAAB 99, 99-L Sedan	97.4	2,480	38.6	48	173.2	56.7	66.5	54.7	55.1	
99-LE Sedan	97.4	2,500	38.6	48	173.2	56.7	66.5	54.7	55.1	
96 Sedan	98.2	2,030	38.6	47	167.3	57.9	62.6	48	48	
Sannet III	84.6	1,875	37	44	159.8	46.9	59.1	48.5	48.5	
SUBARU GL Coupe	96.6	1,945	36.2	45	159.1	52.8	59.2	49.6	47.4	
DL 2-door Sedan	96.6	1,820	36.6	45	159.1	54.5	59.2	49.6	47.4	
DL 4-door Sedan	96.6	1,880	36.6	45	159.1	54.5	59.2	49.6	47.4	
DL Station Wagon	96.6	1,935	36.6	45	159.3	55.5	59.2	49.6	47.3	
TOYOTA Corolla 1200 Sedan	91.9	1,725	*	*	159.4	54.1	59.3	49.4	49	
Corolla 1600 Coupe and Sedan	91.9	1,915	*	*	160	54.1	59.3	49.4	49	
Corolla 1600 Station Wagon	91.9	2,000	*	*	160	55.3	59.3	49.4	49	
Corina	95.5	2,202	*	*	168.8	54.5	61.8	50.4	50.6	
Caica ST	95.5	2,300	*	*	168	51.6	63.0	50.4	50.6	
Corona Sedan	95.7	2,170	*	*	170.7	54.7	61.8	51.2	50.4	
Corona Hardtop	95.7	2,170	*	*	170.7	54.5	61.8	51.2	50.4	
Corona Station Wagon	96.9	2,220	*	*	171.3	55.9	61.8	51.2	50.4	
Mark II Sedan	101.8	2,700	*	*	175.4	55.1	64	53.5	53	
Mark II Hardtop	101.8	2,700	*	*	175.4	55.1	64	53.5	53	
Mark II Station Wagon	101.8	2,760	*	*	176.6	55.9	64	53.5	53	
TRIUMPH Stag	100	2,807	34.5	45	173.7	49.5	63.5	52.5	52.9	
TR-6	88	2,156	36	42	155	50	58	50.25	49.75	
GT-6 Mk. 3	83	1,904	34	42	149	46	57	49	49	
Spitfire Mk. III	83	1,708	36	43	149	48	57	49	48	
VOLKSWAGEN Beetle	94.5	1,826	36.4	46.5	159.8	59.1	61	52.1	53.6	
Super Beetle	95.3	1,984	36.4	46.5	163	59.1	62.4	54.6	53.6	
Karmann Ghia Coupe	94.5	1,918	34.2	39.4	165	52	64.3	51.3	52.7	
VW Type 3	94.5	2,226	35	42.7	170.8	57.9	63.2	51.6	53.1	
VW Squareback Sedan	94.5	2,282	35	41.9	172	57.9	64.6	51.6	53.1	
Station Wagon	94.5	3,043	39.4	*	177.4	76.4	67.7	54.6	56.6	
411 Four-door	98.4	2,425	36.6	45.8	180.4	58.1	65.9	54.2	53.1	
411 Three-door	98.4	2,469	36.6	45.8	180.4	58.1	65.9	54.2	53.1	
Thing (181)	94.5	1,995	39.2	45.3	148.8	63.8	64.6	53.3	56.9	
VOLVO 142 2-door Sedan	103	2,635	37.4	*	188.3	56.5	67.1	53.1	53.1	
144 4-door Sedan	103	2,697	37.4	*	188.3	56.5	67.1	53.1	53.1	
145 4-door Station Wagon	103	2,767	37.4	*	188.3	57.1	67.1	53.1	53.1	
164 4-door Sedan	107	2,999	37.4	*	192.3	56.5	67.1	53.1	53.1	
1800-ES Sport Coupe	96.5	2,589	36.8	*	176.9	50.4	67.0	51.6	51.6	

DIMENSIONS: USA 73

OVERALL DIMENSIONS - 1973 (Figures in Inches)

Models	Wheelbase L101	Overall Length L103	Overall Width W103	Overall Height H101	Minimum Running Ground Clearance H156
AMERICAN MOTORS CORPORATION					
Ambassador	122.0	212.0 - 212.9	77.2 - 73.3	55.3 - 55.9	7.0 - 7.5
Metador	118.0	207.7 - 208.5	77.2 - 77.3	54.3 - 57.4	4.8 - 7.5
Hornet, Javelin	108.0 - 110.0	184.9 - 192.3	71.0 - 75.4	51.3 - 53.6	4.8 - 5.9
Granlin	96.0	185.5	70.6	53.4	6.0
CHECKER MOTORS CORPORATION					
Checker	120.0 - 129.0	206.9 - 215.9	76.0	62.8	7.5
CHRYSLER CORPORATION					
Chrysler	122.0 - 124.0	229.6 - 230.1	79.4	55.0 - 58.0	5.9 - 6.7
Dodge	122.0	226.6 - 227.9	79.6	55.9 - 58.3	5.6 - 6.7
Coronet, Charger	115.0 - 118.0	212.7 - 217.6	77.0 - 78.8	52.2 - 56.4	5.0 - 6.5
Dart, Challenger	108.0 - 111.0	198.2 - 203.8	69.6 - 76.4	50.9 - 54.1	4.8 - 5.8
Imperial	127.0	235.3	79.6	55.6 - 56.2	6.6
Plymouth	115.0 - 122.0	210.8 - 227.5	78.6 - 79.8	52.2 - 58.3	5.0 - 6.7
Valiant, Barracuda	108.0 - 111.0	193.0 - 199.6	71.0 - 75.6	50.9 - 54.3	4.8 - 5.8
FORD MOTOR COMPANY					
Ford	121.0	219.5 - 223.4	79.5 - 75.9	54.3 - 57.1	4.5 - 6.5
Torino	116.0 - 118.0	208.0 - 215.7	79.0 - 75.3	52.1 - 55.0	---
Maverick, Mustang	103.0 - 109.9	183.3 - 193.8	70.5 - 7.1	50.0 - 52.9	4.6 - 5.0
Thunderbird	120.4	218.9	79.7	53.1 - 53.4	5.2 - 5.6
Pinto	94.2	164.1 - 173.8	69.4 - 65.7	49.6 - 51.3	4.8
Lincold	120.4 - 127.0	223.3 - 229.9	79.6 - 75.8	53.4 - 55.5	4.9 - 6.0
Mercury	121.0 - 124.0	222.5 - 223.4	79.3 - 75.8	53.9 - 57.1	4.7 - 6.5
Cougar, Montego	112.1 - 118.0	199.5 - 218.5	75.1 - 71.6	50.4 - 54.9	4.5 - 6.2
Comet	103.0 - 109.9	185.4 - 192.3	70.5	53.0 - 53.1	4.7 - 5.0
GENERAL MOTORS CORPORATION					
Oldsmobile	124.0 - 127.0	224.2 - 229.8	79.3 - 71.6	53.6 - 54.9	5.5 - 5.6
Buick	122.0	223.4	79.9	54.0	5.5
Riviera	112.0 - 116.0	208.4 - 216.6	78.0	53.5 - 55.5	5.7
Century, Regal	426.3 - 133.0	222.0 - 231.5	79.8	53.9 - 55.5	5.8 - 6.3
Cadillac	121.5 - 125.0	221.9 - 226.8	79.6	53.7 - 58.3	5.6 - 6.4
Chevrolet	112.0 - 116.0	202.9 - 213.3	76.6	52.7 - 55.7	4.9 - 5.8
Chevelle, Monte Carlo	111.0	194.3	72.4	52.5 - 53.9	4.6
Malibu	108.0	188.4	74.4	49.1	4.6
Camaro	98.0	186.7	69.0	47.7 - 47.8	4.3
Corvette	97.0	172.2	65.4	50.0 - 52.0	5.0 - 5.2
Vega	124.0 - 127.0	225.0 - 230.3	79.5 - 79.6	53.4 - 57.2	5.3
Oldsmobile	122.0	226.8	79.8	53.2	4.8
Toronado	112.0 - 116.0	207.0 - 219.3	76.5 - 75.8	53.1 - 55.3	5.4 - 5.6
Cutlass	111.0	197.5	72.4	52.4	4.9
Orage	124.0 - 127.0	224.0 - 230.2	79.6	53.5 - 57.5	---
Pontiac	112.0 - 116.0	207.4 - 216.6	77.7 - 78.7	55.0 - 55.9	---
LeMans	108.0 - 111.0	192.1 - 197.5	72.4 - 71.4	50.4 - 53.9	---
Firabird, Ventura	104.0 - 110.0	174.5 - 183.7	65.2	62.4 - 65.3	7.5 - 7.8
JEEP CORPORATION					
Jeepster, Jeep Wagoneer	104.0 - 110.0	174.5 - 183.7	65.2	62.4 - 65.3	7.5 - 7.8

FRONT OF CAR DIMENSIONS - 1973 (Figures in Inches)

Models	Upper Structure L123	Overhang, Front L104	Tread ^a W10	Overhang, Rear L105	Tread ^b W102
AMERICAN MOTORS CORPORATION					
Ambassador	104.4 - 135.9	37.1	59.9	52.9 - 53.8	60.0
Metador	104.4 - 135.9	36.7	59.9	52.9 - 53.8	60.0
Hornet, Javelin	96.8 - 123.7	36.7 - 42.5	56.4 - 59.3	39.8 - 40.3	56.6 - 60.0
Granlin	95.6	35.2	57.5	34.3	57.0
CHECKER MOTORS CORPORATION					
Checker	108.9	38.0	64.5	48.9	63.3
CHRYSLER CORPORATION					
Chrysler	106.1 - 113.9	43.7	62.1	62.4 - 63.9	63.4
Dodge	106.1 - 109.4	41.9	62.1	62.7 - 64.0	63.4
Coronet, Charger	99.1 - 102.7	39.9 - 45.2	61.9	52.5 - 59.7	62.0 - 63.4
Dart, Challenger	91.2 - 99.7	39.6 - 42.4	59.1 - 60.2	45.8 - 53.2	55.6 - 60.7
Imperial	106.1 - 113.9	44.3	62.4	64.0	63.4
Plymouth	99.1 - 108.5	40.0 - 41.6	61.9 - 62.1	54.3 - 63.9	62.0 - 63.4
Valiant, Barracuda	91.2 - 92.7	35.4 - 40.3	59.1 - 60.2	40.7 - 53.2	55.6 - 60.7
FORD MOTOR COMPANY					
Ford	103.9 - 141.9	42.2	64.1 - 64.2	56.3 - 60.2	64.3 - 64.4
Torino	100.9 - 134.5	43.2	62.8 - 63.4	50.8 - 54.5	62.9 - 63.5
Maverick, Mustang	93.9 - 102.6	37.2 - 43.3	56.5 - 61.0	41.5 - 43.1	56.5 - 60.8
Thunderbird	104.5	47.2	63.0	51.3	63.1
Pinto	93.5 - 115.3	35.7	55.0	34.2 - 43.9	55.0
Lincold	104.6 - 108.9	44.6 - 48.5	63.0 - 64.3	54.4 - 58.3	63.1 - 64.3
Mercury	104.2 - 142.5	42.2	64.1	56.3 - 60.2	64.3
Cougar, Montego	94.0 - 135.1	39.9 - 46.1	61.5 - 63.4	47.8 - 54.4	61.0 - 63.5
Comet	93.9 - 102.2	39.3	56.5	43.1	56.5
GENERAL MOTORS CORPORATION					
Buick	113.3 - 146.5	42.8	63.6	57.9 - 60.0	64.0
Riviera	116.0	46.7	63.6	54.8	64.0
Century, Regal	---	43.3 - 45.7	61.5	53.0 - 57.2	60.7
Cadillac	101.2 - 109.6	39.4 - 42.6	63.3 - 63.7	53.1 - 59.0	63.3 - 63.6
Chevrolet	108.5 - 146.5	43.4	64.1	57.0 - 58.4	64.0
Chevelle, Monte Carlo	95.3 - 133.4	40.1 - 43.6	61.5 - 61.9	50.8 - 57.2	60.7 - 61.1
Nova	95.4 - 95.8	32.8	59.8	50.5	59.6
Camaro	94.1	38.0	61.3	42.4	60.0
Corvette	97.2 - 61.3	42.8	58.7	43.9	59.5
Vega	91.7 - 106.3	34.0	55.2	41.3	54.1
Oldsmobile	109.4 - 116.1	42.9 - 43.7	63.7	58.8 - 60.4	64.0
Toronado	101.5	46.8	63.5	58.0	63.6
Cutlass	98.1 - 131.4	44.3 - 46.2	61.4	50.7 - 57.1	60.7
Orage	95.4 - 95.8	36.0	59.1	50.5	58.8
Pontiac	109.5 - 146.5	43.5	64.1	57.3 - 59.7	64.0
LeMans	95.3 - 133.4	40.1 - 44.8	61.5 - 61.9	55.3 - 57.2	60.7 - 61.1
Firabird, Ventura	93.9 - 95.8	36.0 - 40.2	59.9 - 61.6	43.9 - 50.5	59.6 - 60.3
JEEP CORPORATION					
Jeepster, Jeep Wagoneer	86.8 - 119.5	26.1 - 28.7	51.5 - 57.0	44.4 - 45.0	50.0 - 57.0

REAR OF CAR DIMENSIONS - 1973 (Figures in Inches)

Models	Overhang, Rear L105	Tread ^b W102
Ambassador	52.9 - 53.8	60.0
Metador	52.9 - 53.8	60.0
Hornet, Javelin	39.8 - 40.3	56.6 - 60.0
Granlin	34.3	57.0
Checker	48.9	63.3
Chrysler	62.4 - 63.9	63.4
Dodge	62.7 - 64.0	63.4
Coronet, Charger	52.5 - 59.7	62.0 - 63.4
Dart, Challenger	45.8 - 53.2	55.6 - 60.7
Imperial	64.0	63.4
Plymouth	54.3 - 63.9	62.0 - 63.4
Valiant, Barracuda	40.7 - 53.2	55.6 - 60.7
Ford	56.3 - 60.2	64.3 - 64.4
Torino	50.8 - 54.5	62.9 - 63.5
Maverick, Mustang	41.5 - 43.1	56.5 - 60.8
Thunderbird	51.3	63.1
Pinto	34.2 - 43.9	55.0
Lincold	54.4 - 58.3	63.1 - 64.3
Mercury	56.3 - 60.2	64.3
Cougar, Montego	47.8 - 54.4	61.0 - 63.5
Comet	43.1	56.5
Buick	57.9 - 60.0	64.0
Riviera	54.8	64.0
Century, Regal	53.0 - 57.2	60.7
Cadillac	53.1 - 59.0	63.3 - 63.6
Chevrolet	57.0 - 58.4	64.0
Chevelle, Monte Carlo	50.8 - 57.2	60.7 - 61.1
Nova	50.5	59.6
Camaro	42.4	60.0
Corvette	43.9	59.5
Vega	41.3	54.1
Oldsmobile	58.8 - 60.4	64.0
Toronado	58.0	63.6
Cutlass	50.7 - 57.1	60.7
Orage	50.5	58.8
Pontiac	57.3 - 59.7	64.0
LeMans	55.3 - 57.2	60.7 - 61.1
Firabird, Ventura	43.9 - 50.5	59.6 - 60.3
Jeepster, Jeep Wagoneer	44.4 - 45.0	50.0 - 57.0

COUNTRY, CORPORATION, DIVISION LABEL

COUNTRY	CORPORATION	DIVISION LABEL	BODY TYPE Label
USA	General Motors Corp.	4	Passenger Cars
11	Buick	419	Intermediate (GM A Body)
111	Cadillac	42	Standard/Full Size (B Body)
112	Chevrolet	434	Luxury (C Body)
113	Oldsmobile	45	Limousine (D Body)
114	Pontiac	451	Personal Luxury (E Body)
115	GM Truck and Coach	452	Specialty/Pony (F Body)
116	Electrootive, GMC	453	Specialty Intermediate (A sp Body)
117	Ford Motor Co.	454	Compact (X Body & Y Body)
12	Ford	455	Sub-compact/Mini-Imported (VW)
121	Lincoln-Mercury	46	Super Sport (Corvette)
122	Chrysler Corp.	47	Pickup-Car (Ranchero)
131	Dodge	48	Sub-compact/Mini-USA (H Body)
132	Imperial	5	European Sports Cars (MG)
133	Plymouth	531	Standard
134	DeSoto	551	Specialty Sports
135	American Motors Corp.	57	09, 18
14	American Motors	58	08
141	Other USA Corporations	6	01, 17
15	Checker	618	03
151	Kaiser-Jeep	622	04
152	International	651	05
153	Studebaker/Avanti	661	07
154	USA Truck Corp.	662	05
16	USA Truck Unknown Corp.	671	03
160	Brockway	68	04
161	Diamond-Geo	7	04
162	Ford	75	04
163	Kenworth	76	04
164	Peterbilt	77	04
165	White (Autocar, Freight Liner)	78	04
166	Other USA Truck Corp.	8	04
169	USA Special	832	04
17	Flexitor	851	04
171	Freuhauf	861	04
172	Male Pejeestrian	871	04
191	Female Pejeestrian	881	04
192	Canada	882	04
2	GM Canada*	883	04
21	Pord Canada*	884	04
22	Australia	885	04
3	GM (Holden)*	9	04
317		951	04
		952	04
		000	04

Body Type Label	Bus
Unknown Bus Type	40
School Bus	41
Intra City (between)	42
Intra City (within)	43
MOTORCYCLES	
Unknown Motorcycle Typ-	50
0-125cc	52
125-250cc	53
251-500cc	54
501-650cc	55
651+cc	56
3-wheels	57
SPECIAL PURPOSE VEHICLES	
Unknown Special	60
Snowmobile	61
ATV, All Terrain Vehicle	62
Amphibious Vehicle	63
Para Vehicles	64
Construction Vehicles	65
Trailer-Private (Camp 1)	66
Trailer-Commercial (Camp 2)	67
Train	90
Locomotive, Switcher	91
Pedestrian	99
Unknown Vehicle Type	00

* Corporation codes 1 to 4 (b) are always the same from country to country, e.g., 12 = USA/Ford and 42 = England/Ford. Codes 5-9 have different definitions in each country.

VEHICLE MAKE MODEL (ABCDE): (2/73)

AMERICAN MOTORS

14101 Classic, Rebel, Matador
 14102 Ambassador
 14106 Marlin, Javelin, Javelin AMX (71-)
 14108 American, Hornet
 14110 AMX (to 70)
 14118 Gremlin

CHRYSLER CORPORATION (1960 to-date)

Chrysler
 13102 Newport, Chrysler 300, New Yorker, Town & Country (66-)
 Windsor (60,61), Saratoga (60)

Dodge

13201 Coronet (65-), Super Bee (67-69), Charger (71-)
 Dart (62), Polara (62-64)
 13202 Polara (60,61,65-), Monaco (65-), 880 (62-65),
 Dart (60,61), Matador (60)
 13206 Charger (66-70), Challenger (70-), R/T
 13208 Dart (63-), GTS, Swinger (69-), Custom (59), Demon,
 Lancer (61,62)

13211 Van

13212 Pickup, D100, D200, D300
 13215 Carryall
 13233 Van walk-in
 13234 Straight truck
 13235 Truck tractor
 13236 Tractor-trailer combination (semi)
 (83209) Colt

Imperial

13305 Imperial, LeBaron, Crown, Custom (60-53)

Plymouth

13401 Fury (62-64), Savoy (62-64), Belvedere (62-), Savoy
 (62-64), Satellite (65-), Sebring, Road
 Runner, GTX (67-)
 13402 Fury (61) (65-), Suburban (68-), VIP (66-69),
 Belvedere (60,61)
 13406 Barracuda (67-), Grand Coupe (70-)
 13408 Valiant, Barracuda (64-66), Signet (62-69)
 Duster (70-), Scamp (72)
 (43409) Cricket

Desoto

13502 Desoto (61), Fireflite (60), Adventurer (60)

FORD MOTOR COMPANY

Ford

12101 Fairlane, Torino, Cobra, Falcon (70 1/2-)
 12102 Custom, Galaxie, XL, LTD, Country Squire, Ranch Wagon
 12105 Thunderbird, Landau
 12106 Mustang, Mach 1, Grande, Boss, Mach 1
 12108 Falcon (to 70), Maverick, Futura
 12111 Econoline, F100, Station Bus
 12112 Pickup F100 to F350
 12114 Bronco
 12117 Ranchero
 12118 Pinto
 12133 Van Walkin (P Series)
 12134 Straight Truck (C, F, L Series 500 and over)
 12135 Truck-Tractor (C Series, L Series, M Series)
 12138 Tractor-Trailer Combinations (Semi)
 12141 School Bus (B Series)

Lincoln-Mercury

12201 Comet (67-68) Calliente (67-68)
 Montego (68-), Voyager, Villager, Cyclone (67-)
 12202 Mercury Monterey, Montclair, Park Lane, Marauder,
 Marquis, Colony Park
 12203 Lincoln Continental
 12205 Continental Mark III
 12206 Cougar (67-)
 12208 Comet (65, 66, 71-)
 (62209) Capri (Germany)

FORD OF CANADA LTD.

Lincoln-Mercury
 22202 Meteor

GENERAL MOTORS CORPORATION

Buick

11101 Special (64-), Skylark, GS, Sportwagon, Century
11102 LeSabre, Wildcat, Centurion
11103 Electra 225
11105 Riviera
11108 Special (to 63), Apollo
(61809) Opel Kadett, 1900, Rallye
(61819) Opel GT

Cadillac

11203 Calais, DeVille, Sixty Special, Brougham
11204 Seventh Five, Limousine
11205 Eldorado

Chevrolet

11301 Chevelle, Malibu, Nomad, Greenbrier
11302 Biscayne, Bel Air, Impala, Caprice, Brookwood,
Townsmen, Kingswood
11306 Camaro
11307 Monte Carlo
11308 Chevy II, Nova, Corvair, Monza
11310 Corvette, Sting Ray
11311 Van, Sport Van, G10, G20, G12
11312 Pickup C10, C20, C30
11314 Blazer
11315 Carryall
11317 El Camino
11318 Vega
11333 Van Walk-in
11334 Straight truck
11335 Truck-tractor
11338 Tractor-trailer combination (semi)

Oldsmobile

11401 F-85 (64-), Cutlass, Vista-Cruiser, 442
11402 Delmont 88, Delta 88, Starfire, Rocket 88, 88, Jetstar
Dynamic 88, Jetstar 88
11403 98
11405 Toronado
11408 F-85, (to 63), Omega

Pontiac

11501 Tempest (64-), LeMans, GTO, Safari (to 69)
11502 Catalina, Ventura, Executive, Bonneville, Grand Ville
Grand Prix (to 68), Brougham, Star Chief, Safari (71-)
11506 Firebird
11507 Grand Prix (69-),
11508 Tempest (to 63), Ventura II

GMC Truck and Coach

11611 Sportvan
11612 Pick-up
11614 Jimmy
11615 Carryall
11617 GMC Sprint
11633 Van Walk-in
11634 Straight truck
11635 Truck-tractor
11638 Tractor-trailer combination (semi)

GENERAL MOTORS OF CANADA LTD

Chevrolet

21301 Chevelle, Chevrolet, Acadian

Oldsmobile

21401 Oldsmobile

Pontiac

21501 Beaumont
21502 Pontiac, Parisienne, Grand Parisienne (to 69)
21008 Astre, Safari

KAISER MOTORS (JEEP)

15201 Wagoneer, J-100
15214 Jeep, Jeepster, GJ5
15212 Pickup

CHECKER

15102 Checker, Marathon

INTERNATIONAL HARVESTER

15315 Travelall
15312 Pickup
15314 Scout
15333 Van Walk-in
15334 Straight truck
15335 Truck tractor
15338 Tractor trailer combination (semi)

STUDEBAKER

15405 Avanti II

IMPORTED CARS - by code (1/72)

Australia

31708 Holden

England

41908 Vauxhall
 42209 Ford Anglia, Cortina
 42401 Ford Zephyr
 43409 Plymouth Cricket, Rootes
 45--- British Leyland
 45108 Austin Maxi, A60, 1800
 45109 Austin Mini, Mini Cooper, America, 1300
 45219 Austin Healy Sprite, 300
 45319 MGA, MGB, MGC, MG, MIDGET, MGT/GT, MGC/GT
 45409 Morris Mini
 45503 Jaguar 420, XJ6
 45510 Jaguar E type (XKE)
 45608 Triumph 2000
 45609 Triumph Herald
 45619 Triumph Spitfire, GT6, TR3, TR4, TR250, TR6, GT6+, Stag
 46--- Rootes
 46109 Hillman Imp
 46209 Singer
 46319 Sunbeam Alpine, Tiger, Rapier
 48110 Aston Martin DB5, DB6, DBS
 48219 Lotus Elan, Elite, +2s, Super 7, Europa
 48319 Morgan
 48403 Rolls Royce (shadow)
 48404 Rolls Royce (limo)
 48610 Jensen

France

53109 Simca 1204, GLS
 55101 Citroen 21, ID20, DS21
 55108 Citroen GS
 55109 Citroen 2CV, Dyane, Ami
 55110 Citroen SM
 56108 Renault 16
 56109 Renault 8, 10
 57108 Peugeot 504
 57109 Peugeot 204, 304, 404, 403

Germany

61809 Opel Kadett, 1900, Rallye
 61819 Opel GT
 62209 Ford Capri
 65101 Mercedes Benz 200, 190, 220, 230, 250, 280 (-73)
 300 except SL, 450 SE
 65104 Mercedes 600 (limo)
 65110 Mercedes Benz 280 SL, 250SL, 300SL (-73), 190SL, 350SL, 450SL
 66108 VW 411
 66109 VW 1300, 1500, 1600, "beetle"
 66119 Karmann-Ghia
 66210 Porsche 911, 914-6
 66219 Porsche 912, 914, 355B, 356B, 1600s

67108 BMW2500/2800/3000 sedans, Bavaria
 67109 BMW 1600,2002, 1800, 2002tii, 1602
 67110 BMW 2800cs, 2800 ca, 3000 cs, 3000 ca
 68108 Audi 100LS, Super 90
 68119 Audi 100 Coupe
 68309 NSU 1000, 1200
 68301 NSU Ro80

Italy

72210 De Tomaso Mangusta, Pantera
 75108 Alfa Romeo 1750 Berlina, Guila
 75110 Alfa Romeo Montreal
 75119 Alfa Romeo 1750 & 1600 GTV, Spyder
 76109 Fiat 500, 650, 850, 124 sedans
 76110 Fiat Dino
 76119 Fiat 850, 124, Coupe and Spyder, 1500 Spyder
 77110 Ferrari
 78110 Maserati
 78208 Lancia Berlina 4 door
 78219 Lancia 2 door
 78410 Lamborghini

Japan

83209 Dodge Colt
 85109 Mazda (except cosmo)
 85110 Mazda Cosmo
 86109 Datsun 1000, Sunny 1200, PL510
 86119 Datsun 1600, 2000, 240z
 87108 Toyota Corona, Crown
 87109 Toyota Corolla, Sprinter
 87110 Toyota 2000GT
 88109 Honda
 88209 Subaru
 88309 Suzuki
 884-- Kawasaki
 885-- Yamaha

Other (Sweden)

95108 Saab 95, 96, 99
 95115 Saab Sonnett
 95208 Volvo 122, 142, 144, 145, 164, 522
 95219 Volvo P1800

IMPORTED CARS - BY NAME (1/72)

75108 Alfa Romeo 1750 Berlina, Guila
75110 Alfa Romeo Montreal
75119 Alfa Romeo 1750 & 1600 GTV, Spyder
48110 Aston Martin DB5, DB6, DBS
68108 Audi 100LS, Super 90
68119 Audi 100 Coupe
45219 Austin Healy Sprite
45219 Austin Healy 3000
45108 Austin Maxi, A60, 1800
45109 Austin Mini, Mini Cooper, America, 1300
15403 Avanti II

67108 BMW 2500/2800/3000 sedans, Bavaria
67109 BMW 1600, 2002, 1800, 1602, 2002tii
67110 BMW 2800cs, 2800ca, 3000cs, 3000ca

62209 Capri, Ford
55101 Citroen 21, ID20, DS21
55108 Citroen GS
55109 Citroen 2CV, Dyane, Ami
55110 Citroen SM
83209 Colt, Dodge
43409 Cricket, Plymouth

86109 Datsun 1000, Sunny, 1200, PL510
86119 Datsun 1600, 2000, 24oz
72210 DeTomaso Mangusta, Pantera
83209 Dodge Colt

77110 Ferrari
76109 Fiat 500, 650, 850, 124 sedans
76110 Fiat Dino
76119 Fiat 850, 124, Coupe and Spyder, 1500 S pyder
42209 Ford Anglia, Cortina
62209 Ford Capri
42401 Ford Zephyr

46109 Hillman Imp
31708 Holden
88109 Honda

45503 Jaguar 420, XJ6
45510 Jaguar E type (XKE)
48610 Jensen

66119 Karmann Ghia, VW

78410 Lamborghini
78208 Lancia Berlina 4 door
78219 Lancia 2 door
48219 Lotus Elan, Elite, +2s, Super 7, Europa
48210 Lotus Europa

70110 Maserati
85109 Mazda (except cosmo)
85119 Mazda Cosmo
65101 Mercedes Benz 200, 190, 220, 230, 250, 280 (-73)
300 except SL, 450 SE
55104 Mercedes 600 (limo)
65110 Mercedes Benz 280 SL, 250 SL, 300SL (-73), 190 SL, 350 SL, 450
45319 MGA, MGB, MGC, MG, MIDGET MGB/GT, MGC/GT
45409 Morris Mini
48319 Morgan

68309 NSU 1000, 1200
68301 NSU Ro80

61809 Opel Kadett, 1900, Rallye
61819 Opel GT

57108 Peugeot 504
57109 Peugeot 204, 304, 404, 403
41409 Plymouth Cricket
66210 Porsche 911, 914-6
66219 Porsche 912, 914

56108 Renault 16
56109 Renault 8, 10
48403 Rolls Royce (shadow)
48404 Rolls Royce (limo)
49508 Rover
95108 Saab 95, 96, 99
95119 Saab Sonnett
53109 Simca 1204, GLS
46209 Singer (automobile)
88209 Subaru
46319 Sunbeam Alpine, Tiger, Rapier
88309 Suzuki (automobile)

45609 Triumph Herald
45608 Triumph 2000
46619 Triumph Spitfire, GT6, TR3, TR4, TR250, TR6, GT6+, Stag
27108 Toyota Corona, Crown
37109 Toyota Corolla, Sprinter
87110 Toyota 2000GT

41908 Vauxhall
95208 Volvo 122, 142, 144, 145, 164, 522
95219 Volvo P1800
66108 VW 411
66109 VW 1300, 1500, 1600, "beetle"
66119 VW Karmann Ghia

OCCUPATIONAL CLASSIFICATION SYSTEM

(11)

PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS

Accountants
 Architects
 Computer specialists
 Computer programmers
 Computer systems analysts
 Computer specialists, n.e.c.
 Engineers
 Aeronautical and astronautical engineers
 Chemical engineers
 Civil engineers
 Electrical and electronic engineers
 Industrial engineers
 Mechanical engineers
 Metallurgical and materials engineers
 Mining engineers
 Petroleum engineers
 Sales engineers
 Engineers, n.e.c.
 Farm management advisors
 Foresters and conservationists
 Home management advisors
 Lawyers and judges
 Judges
 Lawyers
 Librarians, archivists, and curators
 Librarians
 Archivists and curators
 Mathematical specialists
 Actuaries
 Mathematicians
 Statisticians
 Life and physical scientists
 Agricultural scientists
 Atmospheric and space scientists
 Biological scientists
 Chemists
 Geologists
 Marine scientists
 Physicists and astronomers
 Life and physical scientists, n.e.c.
 Operations and systems researchers and analysts
 Personnel and labor relations workers
 Physicians, dentists, and related practitioners
 Chiropractors
 Dentists
 Optometrists
 Pharmacists
 Physicians, medical and osteopathic
 Podiatrists
 Veterinarians
 Health practitioners, n.e.c.

PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS—Continued

Nurses, dietitians, and therapists
 Dietitians
 Registered nurses
 Therapists
 Health technologists and technicians
 Clinical laboratory technologists and technicians
 Dental hygienists
 Health record technologists and technicians
 Radiologic technologists and technicians
 Therapy assistants
 Health technologists and technicians, n.e.c.
 Religious workers
 Clergymen
 Religious workers, n.e.c.
 Social scientists
 Economists
 Political scientists
 Psychologists
 Sociologists
 Urban and regional planners
 Social scientists, n.e.c.
 Social and recreation workers
 Social workers
 Recreation workers
 Teachers, college and university
 Agriculture teachers
 Atmospheric, earth, marine, and space teachers
 Biology teachers
 Chemistry teachers
 Physics teachers
 Engineering teachers
 Mathematics teachers
 Health specialties teachers
 Psychology teachers
 Business and commerce teachers
 Economics teachers
 History teachers
 Sociology teachers
 Social science teachers, n.e.c.
 Art, drama, and music teachers
 Coaches and physical education teachers
 Education teachers
 English teachers
 Foreign language teachers
 Home economics teachers
 Law teachers
 Theology teachers
 Trade, industrial, and technical teachers
 Miscellaneous teachers, college and university
 Teachers, college and university, subject not specified

OCCUPATION CLASSIFICATION

PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS—Continued

Teachers, except college and university
 Adult education teachers
 Elementary school teachers
 Prekindergarten and kindergarten teachers
 Secondary school teachers
 Teachers, except college and university, n.e.c.
 Engineering and science technicians
 Agriculture and biological technicians, except health
 Chemical technicians
 Draftsmen
 Electrical and electronic engineering technicians
 Industrial engineering technicians
 Mechanical engineering technicians
 Mathematical technicians
 Surveyors
 Engineering and science technicians, n.e.c.

Technicians, except health, and engineering and science

Airplane pilots
 Air traffic controllers
 Embalmers
 Flight engineers
 Radio operators
 Tool programmers, numerical control
 Technicians, n.e.c.

Vocational and educational counselors

Writers, artists, and entertainers

Actors
 Athletes and kindred workers
 Authors
 Dancers
 Designers
 Editors and reporters
 Musicians and composers
 Painters and sculptors
 Photographers
 Public relations men and publicity writers
 Radio and television announcers
 Writers, artists, and entertainers, n.e.c.

Research workers, not specified

(12) MANAGERS AND ADMINISTRATORS, EXCEPT FARM

Assessors, controllers, and treasurers; local public administration
 Bank officers and financial managers
 Buyers and shippers, farm products
 Buyers, wholesale and retail trade
 Credit men
 Funeral directors
 Health administrators
 Construction inspectors, public administration
 Inspectors, except construction, public administration
 Managers and superintendents, building
 Office managers, n.e.c.
 Officers, pilots, and pursers; ship
 Officials and administrators; public administration, n.e.c.
 Officials of lodges, societies, and unions
 Postmasters and mail superintendents
 Purchasing agents and buyers, n.e.c.
 Railroad conductors

MANAGERS AND ADMINISTRATORS, EXCEPT FARM—Continued

Restaurant, cafeteria, and bar managers
 Sales managers and department heads, retail trade
 Sales managers, except retail trade
 School administrators, college
 School administrators, elementary and secondary
 Managers and administrators, n.e.c.

(13) SALES WORKERS

Advertising agents and salesmen
 Auctioneers
 Demonstrators
 Hucksters and peddlers
 Insurance agents, brokers, and underwriters
 Newsboys
 Real estate agents and brokers
 Stock and bond salesmen
 Salesmen and sales clerks, n.e.c.

(14) CLERICAL AND KINDRED WORKERS

Bank tellers
 Billing clerks
 Bookkeepers
 Cashiers
 Clerical assistants, social welfare
 Clerical supervisors, n.e.c.
 Collectors, bill and account
 Counter clerks, except food
 Dispatchers and starters, vehicle
 Enumerators and interviewers
 Estimators and investigators, n.e.c.
 Expeditors and production controllers
 File clerks
 Insurance adjusters, examiners, and investigators
 Library attendants and assistants
 Mail carriers, post office
 Mail handlers, except post office
 Messengers and office boys
 Meter readers, utilities
 Office machine operators
 Bookkeeping and billing machine operators
 Calculating machine operators
 Computer and peripheral equipment operators
 Duplicating machine operators

OCCUPATION CLASSIFICATION

CLERICAL AND KINDRED WORKERS—Continued

Office machine operators—Continued

Key punch operators
 Tabulating machine operators
 Office machine operators, n.e.c.
 Payroll and timekeeping clerks
 Postal clerks
 Proofreaders
 Real estate appraisers
 Receptionists
 Secretaries
 Secretaries, legal
 Secretaries, medical
 Secretaries, n.e.c.
 Shipping and receiving clerks
 Statistical clerks
 Stenographers
 Stock clerks and storekeepers
 Teacher aides, exc. school monitors
 Telegraph messengers
 Telegraph operators
 Telephone operators
 Ticket, station, and express agents
 Typists
 Weighers
 Miscellaneous clerical workers
 Not specified clerical workers

(21)

CRAFTSMEN AND KINDRED WORKERS

Automobile accessories installers
 Bakers
 Blacksmiths
 Boilermakers
 Bookbinders
 Brickmasons and stonemasons
 Brickmasons and stonemasons, apprentices
 Bulldozer operators
 Cabinetmakers
 Carpenters
 Carpenter apprentices
 Carpet installers
 Cement and concrete finishers
 Compositors and typesetters
 Printing trades apprentices, exc. pressmen
 Cranemen, derrickmen, and hoistmen
 Decorators and window dressers
 Dental laboratory technicians
 Electricians
 Electrician apprentices
 Electric power linemen and cablemen
 Electrotypers and stereotypers
 Engravers, exc. photoengravers
 Excavating, grading, and road machine operators; exc. bulldozer
 Floor layers, exc. tile setters
 Foremen, n.e.c.
 Forgemen and hammermen
 Furniture and wood finishers
 Furniers
 Glaziers
 Heat treaters, annealers, and temperers
 Inspectors, scalers, and graders; log and lumber
 Inspectors, n.e.c.

CRAFTSMEN AND KINDRED WORKERS—Continued

Jewelers and watchmakers
 Job and die setters, metal
 Locomotive engineers
 Locomotive firemen
 Machinists
 Machinist apprentices
 Mechanics and repairmen
 Air conditioning, heating, and refrigeration
 Aircraft
 Automobile body repairmen
 Automobile mechanics
 Automobile mechanic apprentices
 Data processing machine repairmen
 Farm implement
 Heavy equipment mechanics, incl. diesel
 Household appliance and accessory installers and mechanics
 Loom fixers
 Office machine
 Radio and television
 Railroad and car shop
 Mechanic, exc. auto, apprentices
 Miscellaneous mechanics and repairmen
 Not specified mechanics and repairmen
 Millers; grain, flour, and feed
 Millwrights
 Molders, metal
 Molder apprentices
 Motion picture projectionists
 Opticians, and lens grinders and polishers
 Painters, construction and maintenance
 Painter apprentices
 Paperhangers
 Pattern and model makers, exc. paper
 Photoengravers and lithographers
 Piano and organ tuners and repairmen
 Plasterers
 Plasterer apprentices
 Plumbers and pipe fitters
 Plumber and pipe fitter apprentices
 Power station operators
 Pressmen and plate printers, printing
 Pressman apprentices
 Rollers and finishers, metal
 Roofers and slaters
 Sheetmetal workers and tinsmiths
 Sheetmetal apprentices
 Shipfitters
 Shoe repairmen
 Sign painters and letterers
 Stationary engineers
 Stone cutters and stone carvers
 Structural metal craftsmen
 Tailors
 Telephone installers and repairmen
 Telephone linemen and splicers
 Tile setters
 Tool and die makers
 Tool and die maker apprentices
 Upholsterers
 Specified craft apprentices, n.e.c.
 Not specified apprentices

OCCUPATION CLASSIFICATION

CRAFTSMEN AND KINDRED WORKERS— Continued

Craftsmen and kindred workers, n.e.c.
Former members of the Armed Forces

(22) OPERATIVES, EXCEPT TRANSPORT

Asbestos and insulation workers
Assemblers
Blasters and powdermen
Bottling and canning operatives
Chainmen, rodmen, and axmen; surveying
Checkers, examiners, and inspectors; manufacturing
Clothing ironers and pressers
Cutting operatives, n.e.c.
Dressmakers and seamstresses, except factory
Drillers, earth
Dry wall installers and lathers
Dyers
Filers, polishers, sanders, and buffers
Furnacemen, smeltermen, and pourers
Garage workers and gas station attendants
Graders and sorters, manufacturing
Produce graders and packers, except factory and farm
Heaters, metal
Laundry and dry cleaning operatives, n.e.c.
Meat cutters and butchers, exc. manufacturing
Meat cutters and butchers, manufacturing
Meat wrappers, retail trade
Metal platers
Milliners
Mine operatives, n.e.c.
Mixing operatives
Oilers and greasers, exc. auto
Packers and wrappers, except meat and produce
Painters, manufactured articles
Photographic process workers
Precision machine operatives
 Drill press operatives
 Grinding machine operatives
 Lathe and milling machine operatives
 Precision machine operatives, n.e.c.
Punch and stamping press operatives
Riveters and fasteners
Sailors and deckhands
Sawyers
Sewers and stitchers
Shoemaking machine operatives
Solderers
Stationary firemen
Textile operatives
 Carding, lapping, and combing operatives
 Knitters, loopers, and toppers
 Spinners, twistors, and winders
 Weavers
 Textile operatives, n.e.c.
Welders and flame-cutters
Winding operatives, n.e.c.
Machine operatives, miscellaneous specified
Machine operatives, not specified
Miscellaneous operatives
Not specified operatives

(23) TRANSPORT EQUIPMENT OPERATIVES

Boatmen and canalmen
Bus drivers
Conductors and motormen, urban rail transit
Deliverymen and routemen
Fork lift and tow motor operatives
Motormen; mine, factory, logging camp, etc.
Parking attendants
Railroad brakemen
Railroad switchmen
Taxicab drivers and chauffeurs
Truck drivers

(24) LABORERS, EXCEPT FARM

Animal caretakers, exc. farm
Carpenters' helpers
Construction laborers, exc. carpenters' helpers
Fishermen and oystermen
Freight and material handlers
Garbage collectors
Gardeners and groundskeepers, exc. farm
Longshoremen and stevedores
Lumbermen, raftsmen, and woodchoppers
Stock handlers
Teamsters
Vehicle washers and equipment cleaners
Warehousemen, n.e.c.
Miscellaneous laborers
Not specified laborers

(31) FARMERS AND FARM MANAGERS

Farmers (owners and tenants)
Farm managers

(32) FARM LABORERS AND FARM FOREMEN

Farm foremen
Farm laborers, wage workers
Farm laborers, unpaid family workers
Farm service laborers, self-employed

(41) SERVICE WORKERS, EXC. PRIVATE HOUSEHOLD

Cleaning service workers
 Chambermaids and maids, except private household
 Cleaners and charwomen
 Janitors and sextons

Food service workers
 Bartenders
 Busboys
 Cooks, except private household
 Dishwashers
 Food counter and fountain workers
 Waiters
 Food service workers, n.e.c., except private household

**SERVICE WORKERS, EXC. PRIVATE
HOUSEHOLD—Continued**

Health service workers

Dental assistants
Health aides, exc. nursing
Health trainees
Lay midwives
Nursing aides, orderlies, and attendants
Practical nurses

Personal service workers

Airline stewardesses
Attendants, recreation and amusement
Attendants, personal service, n.e.c.
Baggage porters and bellhops
Barbers
Boarding and lodging house keepers
Bootblacks
Child care workers, exc. private household
Elevator operators
Hairdressers and cosmetologists
Personal service apprentices
Housekeepers, exc. private household
School monitors
Ushers, recreation and amusement
Welfare service aides

Protective service workers

Crossing guards and bridge tenders
Firemen, fire protection
Guards and watchmen
Marshals and constables
Policemen and detectives
Sheriffs and bailiffs

(42)

PRIVATE HOUSEHOLD WORKERS

Child care workers, private household
Cooks, private household
Housekeepers, private household
Laundresses, private household
Maids and servants, private household

(50) Housewife

(60) Student

(70) Military

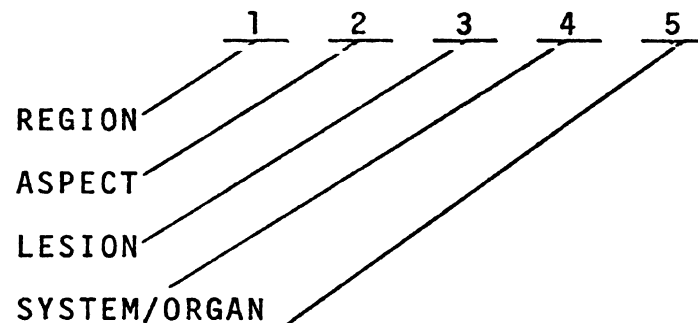
(80) Retired

(90) Unemployed (over a month)

(00) Unreported, Unknown

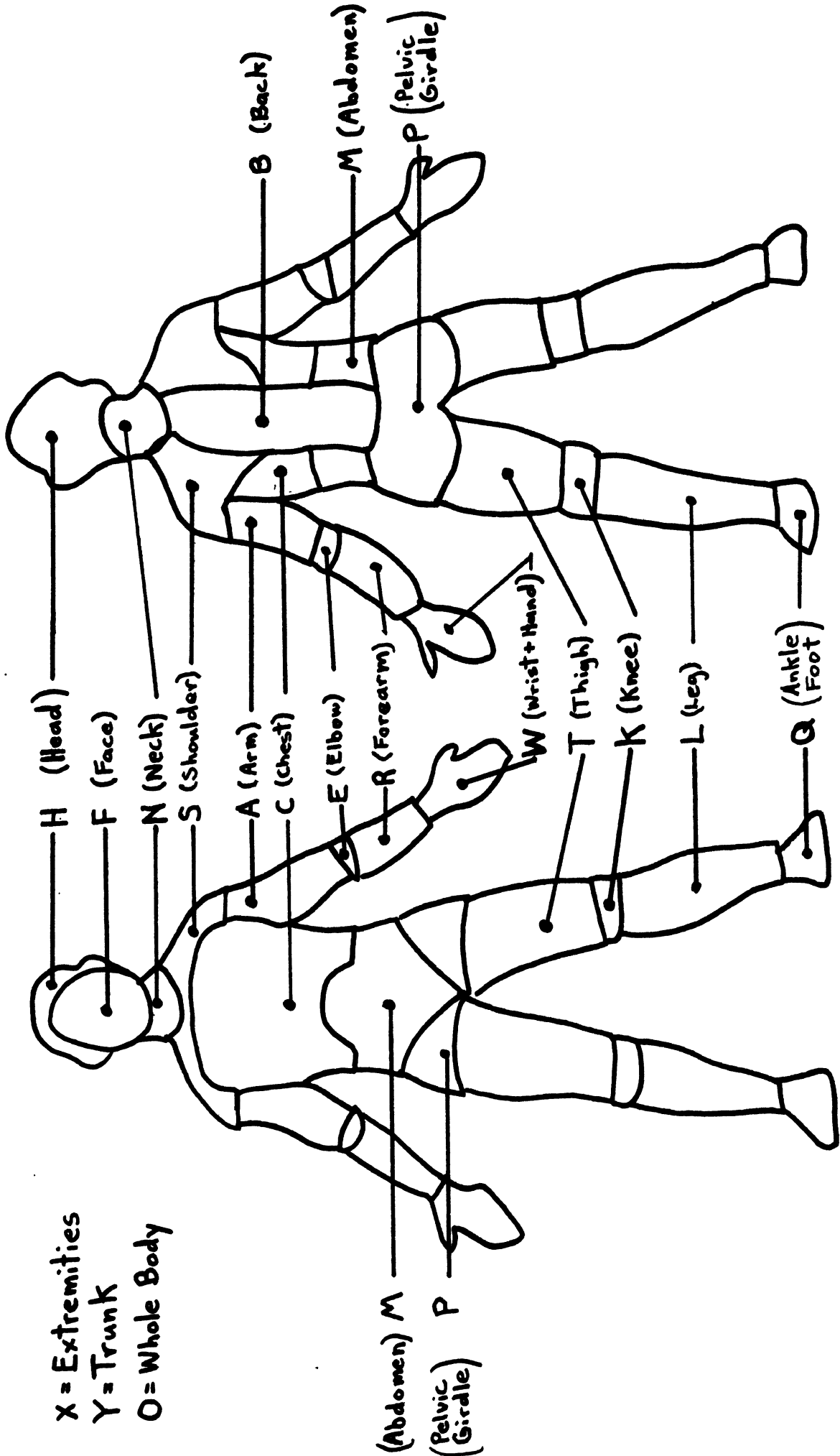
Note: If several jobs, use major time
If temp. unemployed, use last job

OCCUPANT INJURY CLASSIFICATION SUMMARY



ABBREVIATED INJURY SCALE

<u>1</u> <u>BODY REGION</u>	<u>2</u> <u>ASPECT</u>	<u>3</u> <u>LESION</u>	<u>4</u> <u>SYSTEM/ORGAN</u>
H HEAD - SKULL	R RIGHT	F FRACTURES	S SKELETAL
F FACE	L LEFT	D DISLOCATIONS	V VERTEBRAE
N NECK - CERVICAL SPINE	B BILATERAL	L LACERATION	J JOINTS
S SHOULDER	C CENTRAL	V AVULSION	D DIGESTIVE
A ARM (UPPER)	A ANTERIOR/FRONT	R RUPTURE	L LIVER
E ELBOW	P POSTERIOR/BACK	M AMPUTATION	N NERVOUS SYSTEM
R FOREARM	S SUPERIOR/UPPER	C CONTUSION	B BRAIN
W WRIST-HAND	I INFERIOR/LOWER	H HEMORRHAGE (INTERNAL ONLY)	C SPINAL CORD
C CHEST	M MEDIAL/MIDLINE	(E.G., HEMOTOMA)	E EYES, EARS
M ABDOMEN	W WHOLE REGION	A ABRASIONS	A CARDIOVASCULAR
B BACK - THORACOLUMBAR SPINE	U UNKNOWN	K CONCUSSION	H HEART
P PELVIC - GIRDLE		B BURN	Q SPLEEN
T THIGH		P PAIN	U UROGENITAL
K KNEE		X ASPHYXIA	K KIDNEYS
L LEG (LOWER)		S SPRAINS	R RESPIRATORY
Q ANKLE - FOOT		O OTHER	P PULMONARY, LUNGS
O WHOLE BODY		U UNKNOWN	M MUSCLES
X EXTREMITIES (ARMS-LEGS)			I INTEGUMENTARY
Y TRUNK			U UNKNOWN, UNCLASSIFIED
U UNKNOWN, UNCLASSIFIED			



RESTRAINT SYSTEM: CHILD RESTRAINTS

Child Restraint Codes

I. Harness Restraint

- A. Anchored by strap over seat to floor
10. Unknown or other harness anchored to floor
 11. Sears Child Safety Harness # 6401
 12. Sears Child Safety Harness # 6402
 13. Irvin Auto Safety Harness # CH-102
 14. Wards Harness # 66B6053
 15. Volpex Harness # C-2000
 16. Mark IV Monitor Harness # 61B1289C (Wards)

B. Anchored by adult lap belt

17. Unknown or other harness anchored by lap belt
18. Life Auto Babe Nylon Car Harness
19. Circle Square Ba-Be Safety Harness

C. Anchored by straps from the waist to the floor

20. Unknown or other harness anchored with waist straps
21. American Motors Harness # 8992185
22. American Motors Harness # CV250

II. Seat Type Restraint

A. Rear facing and anchored by adult lap belt

23. Unknown or other rear facing seat
24. GM Infant Carrier # 0993970

B. Encapsulating shell with anchorage by adult lap belt

25. Unknown or other encapsulating shell
26. Ford Tot Guard
27. Donlee Plastics Safety Seat (Guardwe'l)
28. Firestone Protecta Tot
29. Bobby Mac Safety Shield (Hookunder)
30. Irvin Industries "Irvin The Magnificent"

*C. Forward facing seat - Hookover and Hookunder type

34. Unknown or other hookover and hookunder
35. Bunny-Bear Seat # T8905H

*D. Forward facing seat - Hookover type (all non-pedestal)

36. Unknown or other hookover seat
37. Union Carbide High Back Sports Car Seat (no headrest)
38. Thayer Seat # 34936 (no headrest)
39. Century Seat # 4625 (no headrest)
40. Fabric seat and back with no child seat belts (no headrest)
41. International Seat # 4513
42. Strolee Seat # 509
43. Trimble Products Seat (Wards # 821)
44. Peterson Swinger Seat # 60EC
45. Five-Filer Brothers Bail Seat
46. George B. Walker Safety Seat (also with straps to go around seat and anchor to floor)

*E. Forward facing seat - Hookunder type

47. Unknown or other hookunder seat
48. Jany Seat # 5420
49. Bunny Bear Seat # 3505
50. Ross Derry Seat
51. Fitz-All Knatwet Childseat (tiltable), Kant-Wet Snoozer # 872

52. Bunny Bear N-50 (hookunder bends down in foreign cars)
53. Trimble-Guardian Child Seat # 8750-879
54. International Seat # 4613 (no headrest)
55. Century Seat # 4865 (no headrest)
56. Dennis Mitchell Seat (no headrest)
57. Five Filer Brothers Hookunder Seat
58. Sears Seat # 28A6400C (6M Made) (high cushion pedestal, no headrest)
59. GM Standard Seat # 993502 (high cushion pedestal, no handbar, no headrest)

*F. Forward facing seat - anchored by adult lap belt

65. Unknown or other seat anchored by lap belt
66. Strolee Seat # 589, # 590 (Wards # 6101)
67. Trimble Seat # 875 (Wards # 6102)
68. Century Seat # 4845
69. Thayer Bobby-Mac Tri-Chair
70. Bunny Bear GI E-Z Fit
71. Peterson Seat # 61, 63, 68
72. Teddy Tot 6200 (Sears # 85285), 6600
73. Kantwet # 78
74. Sears Seat # 5516 (high cushion pedestal, hookover, no handbar, no headrest, no child seat belts)
75. Sears Safety Seat # 28AR6401 (molded plastic shell, non pedestal, no head restraint, no handbar, harness belts)
80. Unknown or other like Cosco Go-Seat
81. Hamilton Cosco Go-Seat (steel rod pedestal, no handbar, no head restraint, no child seat belts)
82. Unknown or other high cushion only
83. Beam's Tot Booster Cushion (high cushion pedestal, no seat back, no handbar, no head restraint, no child seat belts)
84. Kelly Kiddy Kaddy (high cushion pedestal, no seat back, no handbar, no head restraint, no child seat belts)

*G. Forward facing seat - tiedown with strap around adult seat back

85. Unknown or other strapped around seat back
86. Strolee Seat # 587
87. Volvo Child Safety Seat (moulded child seat back, straps to adult seat back, no other features, for use in reversed adult seat)

H. Forward facing seat - rear seat mounted, rear deck and floor, non pedestal, no handbar, with head restraints and child seat belts.

88. Unknown or other seat strapped to floor
89. KL Jeenay Child Safety Seat
90. Klippan Safety Seat

90. Unknown if child seat involved
98. Child seat of completely unknown type
99. Not applicable - no child seat

NOTE: Child seats referring to head restraint availability can be integral or separate.

* All forward facing seats are Tubulan pedestal, with padded handbar and head restraint, and will separate child seat belts unless noted otherwise.

RESTRAINT SYSTEM: LOCKING RETRACTORS
IMPORTS, 73

Restraint System

<u>Make</u>	<u>Model</u>	<u>Type</u>	<u>Lap Retractor</u>	<u>Shoulder Retractor</u>
Audi	90 Sedan - 2 dr. (Fox)	3 pt	One Inertia	Reel for both
	90 Sedan - 4 dr. (Fox)	3 pt	One Inertia	Reel for both
	100 LS - 4 dr.	3 pt	One Inertia	Reel for both
Datsun	1200 - 2 dr. Sedan	3 pt	Locking	None
	1200 - 2 dr. Sport Coupe	3 pt	Locking	None
	1600 Pickup	3 pt	None	None
	610 - 4 dr. Sedan			
	610 - 4 dr. Station Wagon	3 pt	Locking	None
	610 - 2 dr. Hardtop	3 pt	Locking	None
	240 Z	3 pt	Locking	None
Dodge	Colt - 2 dr. Coupe			
	Colt - 2 dr. Hardtop	3 pt	Locking	None
	Colt - 4 dr. Sedan			
	Colt - 4 dr. Station Wagon			
Fiat	850 Spider Convertible	2 pt	Locking	None
Ford	Capri	3 pt	One Inertia	Reel for both
Opel	1900 Luxus	3 pt	Locking	
	1900 Wagon	3 pt	Locking	None
	Rallye Manta	3 pt	Locking	None
	G. T.	3 pt	Locking	None
Plymouth	Cricket - 4 dr. Sedan	None imported after 1/73		
Porsche	911	3 pt	One Inertia	Reel for both
	914	3 pt	One Inertia	Reel for both
Toyota	Carina - 2 dr. Sedan			
	Corona - 4 dr. Sedan			
	Corona - 2 dr. Hardtop			
	Corona - Mark II MX	3 pt	Locking	None
	Corolla - 2 dr. Coupe	3 pt	Locking	None
	Corolla - 2 dr. Sedan	3 pt	Locking	None
	Corolla - Station Wagon	3 pt	Locking	None
	Celica - 2 dr. Hardtop	3 pt	Locking	None
VW	Beetle	3 pt	One Inertia	Reel for both
	Fastback	3 pt	One Inertia	Reel for both
	Squareback	3 pt	One Inertia	Reel for both
	412 - 2 dr.	3 pt	One Inertia	Reel for both
	412 - 4 dr.	3 pt	Inertia Reel	None
	412 - 3 dr. Hatchback			

RESTRAINT SYSTEM: WARNING SYSTEM

Identification of 1972 Model year automobiles equipped with seat belt warning system.

Cars manufactured or sold after January 1, 1972 were equipped with a seat belt warning system (MVSS 208). American cars equipped with the systems may be identified in the following ways:

AMC products - 1972 cars with push button buckles

GM products - 1972 cars with 3 point systems

Chrysler

products - 1972 cars with rear seat retractors

Ford products- Those 1972 cars which are equipped have a wire from the right front seat to the right outboard retractor, and the driver's retractor has a plastic covered plug which can be removed to abort the system.

71-73 CHRYSLER FRONT SEAT BACK ANGLES

All Models $64.5^{\circ} \pm 1^{\circ}$

1970 Ford Front Seat Back Angles

MODEL & YEAR
SERIES #

FRONT SEAT BACK (BENCH)
ANGLE TO HORIZONTAL (BUCKET)

MAVERICK - 1970		MUSTANG - 1970		COUGAR - 1970	
62		65	63	76	65
68°		68°	*	*	68° *

MODEL & YEAR
SERIES #

FRONT SEAT BACK (BENCH)
ANGLE TO HORIZONTAL (BUCKET)

TORINO - 1970						MONTEGO - 1970					
54	57	62	63	65	66	71	76	54	57	62	65
66.5	*	66.8	*	66.8	63°	67.5	*	66.5	*	66.8	67.5
			*	66.8	68°	66.8				66°	66

MODEL & YEAR
SERIES #

FRONT SEAT BACK (BENCH)
ANGLE TO HORIZONTAL (BUCKET)

FORD - 1970						MERCURY - 1970					
54	57	62	63	65	71	76	54	53	57	65	76
66°	*	*	*	*	65°	67°	68°	*	*	*	67°
-	-	-	65°	-	-	65°	-	-	-	65°	65°

MODEL & YEAR
SERIES #

FRONT SEAT BACK (BENCH)
ANGLE TO HORIZONTAL (BUCKET)

THUNDERBIRD - MARK III		LINCOLN	
65	57	65	53
67.5	67	67°	
67.5			69°

NOTE:-

ALL DIMENSIONS REFLECT CURB ATTITUDE
* - SAME AS BASE MODEL
Δ - SAME AS MODEL - 57

SERIES NO. BODY STYLE

53	4-dr. Sedan (Concealed "B"-Pillar)
54	4-dr. Sedan
57	4-dr. Hardtop
62	2-dr. Sedan
63	2-dr. Hardtop (Fastback)
65	2-dr. Hardtop
66	2-dr. Pickup Type Car (Ranchero)
71	4-dr. Station Wagon
76	2-dr. Convertible

1971 Ford Front Seat Back Angles

VEHICLE ACCIDENT INVESTIGATION DIMENSIONS

Model & Year Series #	Maverick '71		Comet '71		Pinto '71		Mustang '71		Cougar '71		Torino '71		Montego '71								
	62	54	62	54	62	54	65	63	76	65	57	63	66	71	76	54	57	65	71		
Front Seat Back* (Bench)	66.2°	66.2°	66.2°	66.2°	-	-	-	-	-	-	66.5°	68°	66.8°	68°	67.5°	66.5°	66.8°	66.5°	67.5°	66.8°	67.5°
Angle to Horizontal (Bucket)	70.2°	-	70.2°	-	71°	-	70°	+	70°	+	-	66.0°	68°	66.8°	-	66.8°	-	66.8°	-	66.8°	66.0°

*Dimensions at Curb Attitude

+ Same as Base Model

Model & Year Series #	T-Bird '71		Mark III '71		Ford '71		Mercury '71		Lincoln '71						
	65	57	65	57	54	53	57	65	53	57	65	53	57	65	53
Front Seat Back* (Bench)	67.5°	67°	68°	68°	65.5°	65.5°	66°	65.5°	66.5°	66.5°	66°	65.5°	65.5°	66.5°	68°
Angle to Horizontal (Bucket)	67.5°	-	-	-	68.5°	68.5°	68.5°	68.5°	68.5°	68.5°	68.5°	68.5°	68.5°	68.5°	68.5°

SERIES NO.	BODY STYLE	SERIES NO.	BODY STYLE
53	4-dr. Sedan (Concealed "B"-Pillar)	65	2-dr. Hardtop
54	4-dr. Sedan	66	2-dr. Pickup Type Car (Ranchero)
57	4-dr. Hardtop	71	4-dr. Station Wagon
62	2-dr. Sedan	76	2-dr. Convertible
63	2-dr. Hardtop (Fastback)		

1973 Ford Front Seat Back Angles

<u>Model</u>	<u>Series No.</u>	<u>Angle</u>	<u>Model</u>	<u>Series No.</u>	<u>Angle</u>
Maverick	62	Be 61.5 ^o Bu 70.2 ^o	Montego	53	Be 66.8 Bu 67.6
	54	61.5		65	Be 67.0 Bu 67.8
Comet	62	Be 61.5 ^o Bu 70.2 ^o		63	Be 67.0 Bu 67.7
	54	61.5 ^o		71	Be 67.3 Bu 68.1
Pinto	62	64.1	Mustang	53	69.0
	64	64.1		65	69.0
	73	63.9		63	69.0
T-Bird	65	64.3		71	69.0
Mark IV	65	69.3 ^o		65	69.0
Lincoln	65	67.5	Cougar	65	69.0
	53	68 ^o		76	69.0
Capri	--	66 ^o	Ford	53	63.8
Torino	53	Be 66.8 ^o Bu 67.6 ^o		57	63.8
	63	Be 67.0 Bu 67.7		65	63.8
	65	Be 67.0 Bu 67.8	Mercury	71	64.3
	66	Be 67.7 Bu 68.4		65	64
	71	Be 67.3 Bu 68.1		53	64
				57	64
				71	64.3

<u>SERIES NO.</u>	<u>BODY STYLE</u>
53	4-dr. Sedan (Concealed "B"-Pillar)
54	4-dr. Sedan
57	4-dr. Hardtop
62	2-dr. Sedan
63	2-dr. Hardtop (Fastback)
64	2-dr. Hatchback
65	2-dr. Hardtop
66	2-dr. Pickup Type Car (Ranchero)
71	4-dr. Station Wagon
73	2-dr. Station Wagon
76	2-dr. Convertible

1970-1973 GM FRONT SEAT BACK ANGLES *

Division	Body Type	70-72	73	
Chevrolet	H	71°		
Chevrolet	X	68°		
Chevrolet	F	65°		
Chevrolet	A, A wagon & SP-A	67°		
Chevrolet	B	69°		
Pontiac	F	65°		
Pontiac	A	67°		
Pontiac	G	66°		
Pontiac	B & B wagon	67°		
Oldsmobile	A & A wagon	67°	66°	Omega: coupe-70 sedan-68
Oldsmobile	B	67°	66°	
Oldsmobile	C	67°	66°	
Oldsmobile	E	68°	67°	
Buick	A	67°		
Buick	B	67°		
Buick	C	67°		
Buick	E	68°		
Cadillac	C	69°	64°	
Cadillac	D	69°	64°	
Cadillac	E	69°	64°	

* Body Type Chart on Following Page

SEAT BACK ANGLES: IMPORTS 73

<u>Make</u>	<u>Model</u>	<u>Seatback Angle</u>
Audi	90 Sedan - 2 dr. (Fox)	73° up *
	90 Sedan - 4 dr. (Fox)	73° up *
	100 LS - 4 dr.	72° up *
Datsun	1200 - 2 dr. Sedan	77° up *
	1200 - 2 dr. Sport Coupe	77° up *
	1600 Pickup	72° up
	610 - 4 dr. Sedan	
	610 - 4 dr. Station Wagon	75° up *
	610 - 2 dr. Hardtop	75° up *
	240 Z	73° up *
Dodge	Colt - 2 dr. Coupe	*
	Colt - 2 dr. Hardtop	66° up *
	Colt - 4 dr. Sedan	*
	Colt - 4 dr. Station Wagon	*
Fiat	850 Spider Convertible	67°
Ford	Capri	70° up * (Optional)
Opel	1900 Luxus	72° up 3 position
	1900 Wagon	*
	Rallye Manta	*
	G. T.	72° up 3 position
Plymouth	Cricket - 4 dr. Sedan	None imported after 1/73
Porsche	911	80° up *
	914	65° up *
Toyota	Carina - 2 dr. Sedan	
	Corona - 4 dr. Sedan	
	Corona - 2 dr. Hardtop	
	Corolla - 2 dr. Coupe	*
	Corolla - 2 dr. Sedan	*
	Corolla - Station Wagon	*
	Celica - 2 dr. Hardtop	*
	Corona - Mark II MX	*
VW	Beetle	75° up 3 position
	Fastback	70° up *
	Squareback	76° up *
	412 - 2 dr.	74° up *
	412 - 4 dr.	78° up *
	412 - 3 dr. Hatchback	

*Reclining

SEAT BACKS: IMPORTS 73

Folding Seatbacks

<u>Make</u>	<u>Model</u>	<u>Front</u>	<u>Rear</u>
Audi	90 Sedan - 2 dr. (Fox)	1	2
	90 Sedan - 4 dr. (Fox)	2	2
	100 LS - 4 dr.	1	2
Datsun	1200 - 2 dr. Sedan	1	2
	1200 - 2 dr. Sport Coupe	1	1*
	1600 Pickup	1	3
	610 - 4 dr. Sedan		
	610 - 4 dr. Station Wagon	1	1*
	610 - 2 dr. Hardtop	1	2
	240 Z	1	3
Dodge	Colt - 2 dr. Coupe		
	Colt - 2 dr. Hardtop	1	2
	Colt - 4 dr. Sedan		
	Colt - 4 dr. Station Wagon		
Fiat	850 Spider Convertible	1	3
Ford	Capri	1	2
Old	1900 Luxus	1	2
	1900 Wagon	1	1*
	Rallye Manta	1	2
	G. T.	1	3
Plymouth	Cricket - 4 dr. Sedan	None imported after 1/73	
Porsche	911	1	1*
	914	2	3
Toyota	Carina - 2 dr. Sedan		
	Corona - 4 dr. Sedan		
	Corona - 2 dr. Hardtop		
	Corona - Mark II MX	1	2
	Corolla - 2 dr. Coupe	1	2
	Corolla - 2 dr. Sedan	1	2
	Corolla - Station Wagon	1	1*
	Celica - 2 dr. Hardtop	1	2
VW	Beetle	1	1*
	Fastback	1	2
	Squareback	1	1*
	412 - 2 dr.	1	2
	412 - 4 dr.	1	2
	412 - 3 dr. Hatchback		

*Locks on both sides

SIDE DOOR REINFORCEMENT

Side Door Reinforcement Beams

Corporation	Body Models	Model Code	Year Introduced
GM	B, C, D	02, 03, 04	1969
GM	A, G	01, 07	1970
GM	F	06	Mid-1970
GM	E, H	05, 18	1971
GM	X, Sp	08, 10	1973 or (model year intro)
Chrysler	E	06	1970
Ford	Mustang, Cougar, Ford (B body) Mercury (B body)		
	Lincoln (B body)	06, 02	1971
AMC	Javelin, AMX	06	1971

Note(1): Particular car lines listed would include two-door and four-door models if that particular car line offered four door models.

Note(2): January 1, 1973 - all makes and models are equipped with side-door reinforcement beams.

STEERING COLUMN ANGLES: AMC

71-73 AMC Steering Column Angles

Series	Column Type	Column Angle (degrees)
Hornet Gremlin	All	19
Javelin Javelin AMX	All	18
Matador	All	(71+73) 20, (72) 19
Ambassador	All	(71+73) 20, (72) 18

STEERING COLUMN ANGLES: CHRYSLER

71-73 Chrysler Steering Column Angles

A Body Cars

22 (degrees)

B Body Cars

19 (degrees)

C Body Cars

21 (degrees)

Chrysler Body Type Chart

A Bodies

Valiant

Dart

Duster

Demon

Barracuda

Challenger

B Bodies

Satellite

Roadrunner

C T X

Coronet

Charger

Belvedere

C Bodies

Fury

Suburban

Polara

Monaco

Newport

New Yorker

Town & Country

Imperial

STEERING COLUMN ANGLES: FORD 73

'73 Steering Column Angle

<u>Name</u>	<u>Series No.</u>	<u>Angle</u>	<u>Name</u>	<u>Series No.</u>	<u>Angle</u>
Maverick	62	24	Montego	53	20.0
	54	23.9		65	20.3
Comet	62	24		63	20.2
	54	23.9		71	20.6
Pinto	62	23.0	Mustang	65	22.5
	64	23.0		63	22.5
	73	23.3		76	22.5
Thunderbird	65	20.2	Cougar	65	22.5
Mark IV	65	20.2		76	22.5
Lincoln	65	23.0	Ford	53	26.4
	53	23.5		57	26.4
Capri	--	24.9		65	26.4
Torino	53	20.0		71	26.5
	63	20.2	Mercury	65	26.0
	65	20.3		53	26.0
	66	20.9		57	26.0
	71	20.6		71	26.5

STEERING COLUMN ANGLES: GM 73

73 GM Steering Column Angles

Cadillac

Cadillac 24°

Eldorado 23°

Oldsmobile

Omega -- 24°

Cutlass, Cutlass Supreme and Vista Cruiser -- 17°

All others -- 20°

STEERING COLUMN ANGLE: IMPORTS 73

<u>Make</u>	<u>Model</u>	<u>Shear Capsule</u>	<u>Steering Column Angle</u>
Audi	90 Sedan - 2 dr. (Fox)	2	B-26 ⁰ *
	90 Sedan - 4 dr. (Fox)	2	B-23 ⁰ *
	100 LS - 4 dr.	2	B-21 ⁰ *
Datsun	1200 - 2 dr. Sedan	1	B-29 ⁰ *
	1200 - 2 dr. Sport Coupe	1	B-32 ⁰
	1600 Pickup	2	B-22 ⁰
	610 - 4 dr. Sedan		
	610 - 4 dr. Station Wagon	1	B-27 ⁰
	610 - 2 dr. Hardtop	1	B-27 ⁰
	240 Z	2	B-23 ⁰ *
Dodge	Colt - 2 dr. Coupe		
	Colt - 2 dr. Hardtop	1	T-30 ⁰ B-25 ⁰
	Colt - 4 dr. Sedan		
	Colt - 4 dr. Station Wagon		
Fiat	850 Spider Convertible	2	B-28.5 ⁰
Ford	Capri	2	B-26 ⁰
Opel	1900 Luxus	1	B-16 ⁰
	1900 Wagon	1	
	Rallye Manta	1	
	G. T.	1	B-16 ⁰
Plymouth	Cricket - 4 dr. Sedan	None imported after 1/73	
Porsche	911	2	B-19 ⁰ *
	914	2	B-13 ⁰ *
Toyota	Carina - 2 dr. Sedan		
	Corona - 4 dr. Sedan		
	Corona - 2 dr. Hardtop		
	Corona - Mark II MX	1	T-22 ⁰ B-22 ⁰
	Corolla - 2 dr. Coupe	1	T-28 ⁰ B-26 ⁰
	Corolla - 2 dr. Sedan	1	T-27 ⁰ B-27 ⁰
	Corolla - Station Wagon	1	T-27 ⁰ B-27 ⁰
	Celica - 2 dr. Hardtop	1	B-24 ⁰
VW	Beetle	2	
	Fastback	1	B-24 ⁰
	Squareback	1	B-24 ⁰
	412 - 2 dr.	2	B-31 ⁰
	412 - 4 dr.	2	B-29 ⁰
	412 - 3 dr. Hatchback	2	B-26 ⁰

*Shroud

B - Measured at Bottom

T - Measured at Top

STEERING COLUMN ANGLES: PICKUPS

Pickups Steering Column Angle

<u>Make</u>	<u>Type</u>	<u>Year</u>	<u>Angle</u>
GMC	100 200	70-73	22.5°
Chevrolet	C/10 C/20	70-73	22.5°
Dodge	D-100 D-200 D-300 W-100 W-200 W-300	71-73	23°

STEERING COLUMN EA DEVICE: IMPORTS 73

Steering Column E. A. D.

<u>Make</u>	<u>Model</u>	<u>Type</u>	<u>Dimension</u>
Audi	90 Sedan - 2 dr. (Fox)	6	6.4
	90 Sedan - 4 dr. (Fox)	6	6.4
	100 LS - 4 dr.	1	6.4
Datsun	1200 - 2 dr. Sedan	1	12.5
	1200 - 2 dr. Sport Coupe	1	13.0
	1600 Pickup	7	N/A
	610 - 4 dr. Sedan		
	610 - 4 dr. Station Wagon	6	8.0
	610 - 2 dr. Hardtop	9	13.75
	240 Z	6	9.5
Dodge	Colt - 2 dr. Coupe		
	Colt - 2 dr. Hardtop	9	7.0
	Colt - 4 dr. Sedan		
	Colt - 4 dr. Station Wagon		
Fiat	850 Spider Convertible	7	N/A
Ford	Capri	7	N/A
Opel	1900 Luxus	1	10.50
	1900 Wagon	1	10.50
	Rallye Manta	1	10.50
	G. T.	7	N/A
Plymouth	Cricket - 4 dr. Sedan	None imported after 1/73	
Porsche	911	7	N/A
	914	1	6.4
Toyota	Carina - 2 dr. Sedan		
	Corona - 4 dr. Sedan		
	Corona - 2 dr. Hardtop		
	Corona - Mark II MX	6	99.9
	Corolla - 2 dr. Coupe	1	10.74
	Corolla - 2 dr. Sedan	1	10.74
Toyota	Corolla - Station Wagon	1	10.74
	Celica - 2 dr. Hardtop	1	10.74
VW	Beetle	1	6.4
	Fastback	1	6.4
	Squareback	1	6.4
	412 - 2 dr.	1	6.4
	412 - 4 dr.	1	6.4
	412 - 3 dr. Hatchback		

STEERING COLUMN

STEERING COLUMN ENERGY ABSORBING DEVICE TABLE						
CORPORATION	MODEL YEAR	MAKE	STEERING COLUMN TYPE	E.A. DEVICE TYPE	ORIGINAL LENGTH C	
GENERAL MOTORS	71-73	B-C-E	Tilt and Standard	2	8.75	
	69-70	B-C-E	Tilt and Standard	2	8.25	
	73	A	Tilt	2	7.81	
	72	A	Tilt	2	8.31	
	69-71	A	Tilt	2	7.81	
	73	A	Standard	2	8.75	
	69-72	A	Standard	2	8.75	
	69-73	CORVETTE		ALL TYPES	3	8.25
		CADILLAC (EXCEPT ELDORADO)		TILT-TELESCOPE	2	7.8
	71-73	GM VEGA		STANDARD	4	8.1
	67-73	OPEL		ALL TYPES	1	10.3
	67-69	CORVAIR		ALL TYPES	1	10.3
	67-68	ALL (EXCEPT CORVAIR & OPEL)		ALL TYPES	1	9.7
FORD	68-73	ALL MAKE - COLUMN COMBINATIONS - EXCEPT BELOW		5	9.5	
	71-73	71 PINTO, 72 PINTO, TORINO, MONTEGO, FORD, MARRIOTT		8	8.0	
CHRYSLER	67-69	ALL MAKE - COLUMN COMBINATIONS		1	9.7	
	70-73	ALL (EXCEPT BARRACUDA & CHALLENGER & COLT)		1	9.7	
		BARRACUDA & CHALLENGER		NONE	See page 16	
		COLT		9	7.0	
AMC	67-69	ALL MAKE - COLUMN COMBINATIONS		1	9.7	
	70-73	ALL MAKE - COLUMN COMBINATIONS EXCEPT TILT COLUMN IN 71+73		2	8.25	
	72-73	ALL MAKE - COLUMN COMBINATIONS TILT		2	7.8	
JEEP	73	Commando, Wagoneer, Jeep Trucks		2	8.25	

CORPORATION	MODEL YEAR	MAKE	STEERING COLUMN TYPE	E.A. DEVICE TYPE	ORIGINAL LENGTH C
INTERNATIONAL	71 & 72	SCOUT II	STANDARD	2	8.12"
	69, 70, 71, 72	1000 THRU 1500 SERIES	STANDARD	1	9.72"

STEERING WHEEL EA DEVICE: IMPORTS 73

Steering Wheel E. A. D.

<u>Make</u>	<u>Model</u>	<u>Type</u>	<u>Dimension</u>
Audi	90 Sedan - 2 dr. (Fox)	Mesh	3.75"
	90 Sedan - 4 dr. (Fox)	Mesh	3.75
	100 LS - 4 dr.	Mesh	3.75
Datsun	1200 - 2 dr. Sedan	3(N/A)	N/A
	1200 - 2 dr. Sport Coupe	3	N/A
	1600 Pickup	3	N/A
	610 - 4 dr. Sedan		N/A
	610 - 4 dr. Station Wagon	3	N/A
	610 - 2 dr. Hardtop	3	N/A
	240 Z	3	N/A
Dodge	Colt - 2 dr. Coupe		
	Colt - 2 dr. Hardtop	3	N/A
	Colt - 4 dr. Sedan		
	Colt - 4 dr. Station Wagon		
Fiat	850 Spider Convertible	3	N/A
Ford	Capri	Barracuda	3.25
Opel	1900 Luxus	3	N/A
	1900 Wagon	3	N/A
	Rallye Manta	3	N/A
	G. T.	3	N/A
Plymouth	Cricket - 4 dr. Sedan	None imported after 1/73	
Porsche	911	Mesh	3.75
	914	Mesh	3.75
Toyota	Carina - 2 dr. Sedan		
	Corona - 4 dr. Sedan		
	Corona - 2 dr. Hardtop		
	Corona - Mark II MX	3	N/A
	Corolla - 2 dr. Coupe	3	N/A
	Corolla - 2 dr. Sedan	3	N/A
	Corolla - Station Wagon	3	N/A
	Celica - 2 dr. Hardtop	3	N/A
VW	Beetle	3	N/A
	Fastback	3	N/A
	Squareback	3	N/A
	412 - 2 dr.	3	N/A
	412 - 4 dr.	3	N/A
	412 - 3 dr. Hatchback		

Steering Wheel Energy Absorbing Device Table

<u>Corporation</u>	<u>Year</u>	<u>Make</u>	<u>Length</u>
Chrysler	70-73	Barracuda	4.9 (in)
		Challenger	4.9 (in)
Ford	71-73	Capri	6.0 (in)

Also included as a Steering Wheel Energy Absorbing Device is the Steering Wheel Pad (17.7.14). The cars below are the only ones with pads that serve that purpose.

Cricket- All year models

Fords- 67

Mercury Cougar- 67

TELESCOPING UNIT: IMPORT 73

Make	Model	Steering Column Flexible Coupling Equipped	Engine Compartment Telescoping Unit	
			Type	Dimension
Audi	90 Sedan - 2 dr. (Fox)	1	N/A	N/A
	90 Sedan - 4 dr. (Fox)	1	N/A	N/A
	100 LS 4 dr.	1	N/A	N/A
Datsun	1200 - 2 dr. Sedan	2	N/A	N/A
	1200 - 2 dr. Sport Coupe	2	N/A	N/A
	1600 Pickup	2	N/A	N/A
	610 - 4 dr. Sedan			
	610 - 4 dr. Station Wagon	1	8	***
	610 - 2 dr. Hardtop	1	N/A	N/A
	240 Z	1*	N/A	N/A
Dodge	Colt - 2 dr. Coupe			
	Colt - 2 dr. Hardtop	2	N/A	N/A
	Colt - 4 dr. Sedan			
	Colt - 4 dr. Station Wagon			
Fiat	850 Spider Convertible	2	8	***
Ford	Capri	2**	N/A	N/A
Opel	1900 Luxus	1	8	
	1900 Wagon	1	N/A	N/A
	Rallye Manta	1	2	***
	G.T.		8	***
Plymouth	Cricket - 4 dr. Sedan	none imported after 1/73		
Porsche	911	1	8	***
	914	1	N/A	N/A
Toyota	Carina - 2 dr. Sedan			
	Corona - 4 dr. Sedan			
	Corona - 2 dr. Hardtop			
	Corona - Mark II MX	1	N/A	N/A
	Corolla - 2 dr. Coupe	2	N/A	N/A
	Corolla - 2 dr. Sedan	2	N/A	N/A
	Corolla - Station Wagon	2	N/A	N/A
	Celica - 2 dr. Hardtop	1	N/A	N/A
VW	Beetle	1	N/A	N/A
	Fastback	1	N/A	N/A
	Squareback	1	N/A	N/A
	412 - 2 dr.	1	N/A	N/A
	412 - 4 dr.	1	N/A	N/A
	412 - 3 dr. Hatchback			

*Flexible coupling and V joint

**Disk coupling

***Immeasurable

GM Engine Compartment Telescoping Unit Dimensions

<u>Make</u>	<u>Year</u>	<u>Type</u>	<u>F dim</u>	<u>H dim</u>
<u>A-Bodies</u>	67	1	8.45	--
Chevelle	68-70	2	5.74	--
El Camino	71-72	2	5.69	--
Tempest	73	2	6.08	--
LeMans				
Cutlass				
F-85				
Vista Cruiser				
Special				
Skylark				
SportWagon				
Century				
Regal				
<u>F-Bodies</u>	70	2	5.74	--
Firebird	71-73	6	--	8.18
Camaro				
<u>Grand Prix</u>	69-70	2	5.79	--
	71-73	6	--	8.74
<u>Monte Carlo</u>	70	2	6.53	--
	71-73	6	--	8.70
<u>Chevrolet B-bodies</u>	71-73	6	--	6.21
Biscayne				
Brookwood				
Bel Air				
Townsmen				
Impala				
Kingwood				
Caprice				
<u>B&C Bodies</u>	71-73	6	--	7.20
Catalina				
Bonneville				
Grand Safari				
Delta 88				
98				
LeSabre				
Estate Wagon				
Centurion				
Electra 225				
<u>Grandville</u>	71-72	6	--	8.45
<u>Riviera</u>				
Chevy II	Thru-73		Not Equipped	
Eldorado				
Cadillac				
Buick Opel				
Ford Cortina				
Omega				

Corporation	Make	Model Year	Unit Type	Original Length F
AMC	Hornet	71	1	8.25
		72	1	6.56
	Javelin	71-72	1	7.53
		Javelin AMX		
	Matador	71-72	2	6.28
	Ambassador	67	1	8.4
		68-69	2	6.1
70		2	7.7	
71-72		2	7.62	
Chrysler	Barracuda	70-72	4	10.2 (Manual)
	Challenger			9.0 (Power)

TIRE INFORMATION

When a new tire size is designated as H78-15, what do those figures mean? The H is the load capacity designation which replaces the old tire width numbers (8.55 in this case). The further into the alphabet you go (B after A for example) the higher the load capacity. The following table shows the letters which replace number designations:

Letter	Replaces Number
A	6.00
B	6.45
C	6.95
D (new designation)	—
E	7.35
F	7.75
G	8.25
H	8.55
J	8.85
L	9.15

The 78 is what engineers refer to as Aspect Ratio. The Aspect Ratio is determined by the relationship:

$$\frac{\text{Tire Section Height}}{\text{Tire Section Width}}$$

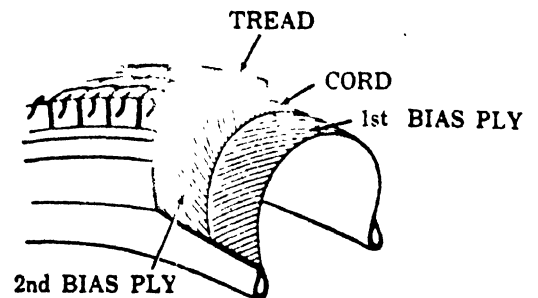
Using that calculation, you can see that the wider the tire section, the smaller the Aspect Ratio. As a general guide, an Aspect Ratio of 78 (as in F78-15) is considered standard, while an Aspect Ratio of 70 indicates a Wide-Oval and an Aspect Ratio of 60 indicates a Super-Wide-Oval tire.

Sometimes you may see an R included with the tire designation, such as HR78-15. The R stands for radial ply, as compared to the conventional bias ply or belted bias ply which have no R marking. You may see the R listed on tires as HR78-15 or with metric designations such as 175R-13. In the latter case, the 175 refers to the Nominal Tire Section Width of 175 millimeters.

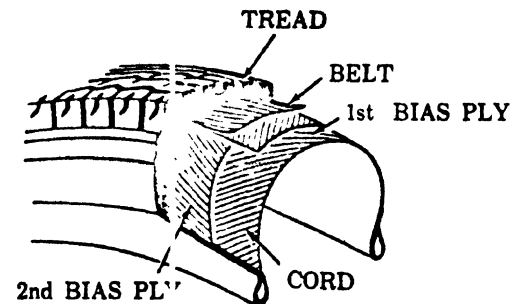
To sum up these "translations," new tire designations would be:

HR78-15 = H Load-Carrying Capacity
 R for radial ply
 78 for a "standard" or "conventional" Aspect Ratio
 15 for fitting a 15-inch rim.
 175R-13 = 175 millimeter Nominal Tire Section Width
 R for radial ply
 13 for fitting a 13-inch rim.

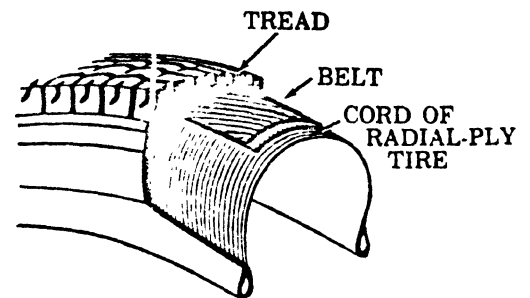
The car manufacturer matches the weight of its different car models, including equipment, to the tire with the appropriate load-carrying capacity.



The bias-ply tire has two or more plies. Each ply consists of cord imbedded in a layer of fabric. The layers constitute the carcass of the tire. The cords in each layer, or ply, in a bias-ply tire run at an angle (bias) to the tread. In a 2-bias-ply tire, shown above, the cords in one ply run at a bias in one direction, and the cords in the other ply run at a bias in the opposite direction.



The belted bias-ply tire is a bias-ply tire (as shown in top drawing) with a belt of material added, as used in the radial-ply tire, underneath the thick tire tread.



The radial-ply tire has one cord-imbedded-layer, with cords running radial to the tire, from bead to bead of the tire. This construction requires a belt or belts of material running completely around the tire, below the thick tire tread.

VIN SUMMARY

VIN - Vehicle Identification Number

Standard Form (73)

Manufacturers	CHARACTER SYMBOLS								PRODUCTION NUMBER				
	1	2	3	4	5	6	7	8	9	10	11	12	13
American Motors	M	1	T	4	5	6	E	9 ^P	9	9	9	9	9
Chrysler Corp.	M	S	5	5	E	1	P	9	9	9	9	9	9
Ford Motor Co.	1	P	4	5	E	9 ^M	9	9	9	9	9	9	9
General Motors*	3	S	5	5	E	1	P	9	9	9	9	9	9

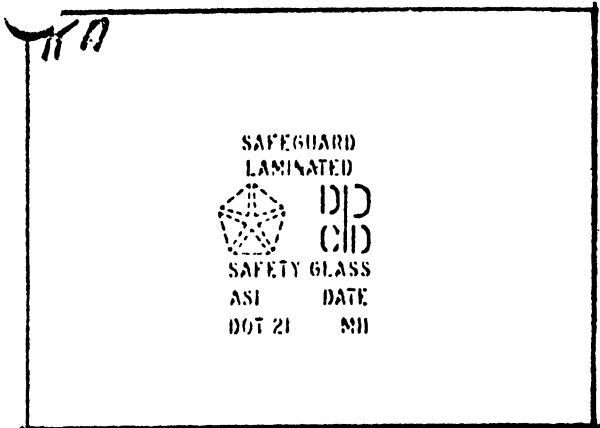
* for 72 and 73

VW=9 digits through 69, 10 digits after 69

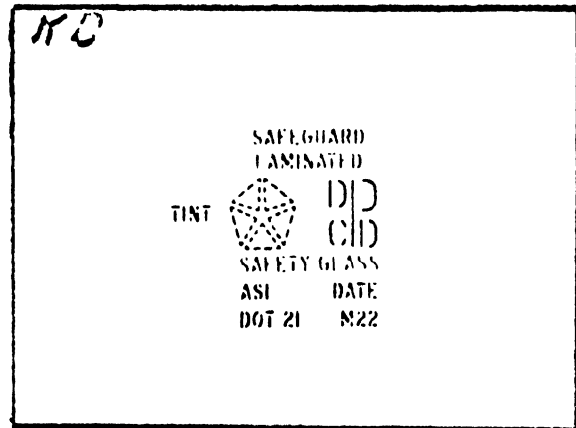
<u>Character Symbol</u>	<u>Contents</u>
1	Model Year
2,P	Assembly Plant
3,M	Make
4,S	Series
5	Body Style (see below)
T	Transmission
E	Engine
9	Sequential Production Number
6	Group Type (AMC only)
9 ^P	AMC Production Numbers
	100,001 - 699,999
	Kenosha Plant
	700,000 - 999,999
	Brampton Plant
9 ^M	Ford Production Numbers
	100,001 - 499,999
	Ford
	500,000 - 799,999
	Mercury
	800,000 - 999,999
	Lincoln

Chrysler

WINDSHIELD MONOGRAMS

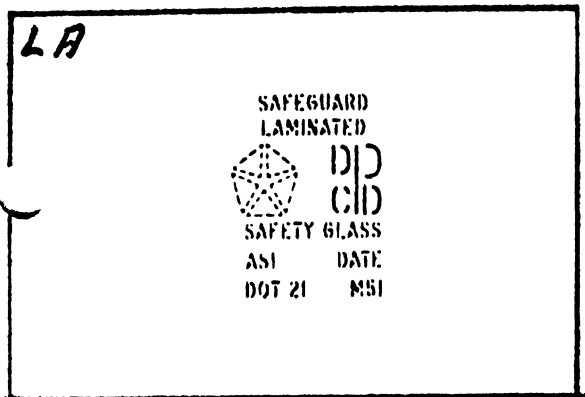


SAFEGUARD LAMINATED SAFETY GLASS -
DCPD, AS-1
laminated safety glass, AS-1,
with 30 mil interlayer

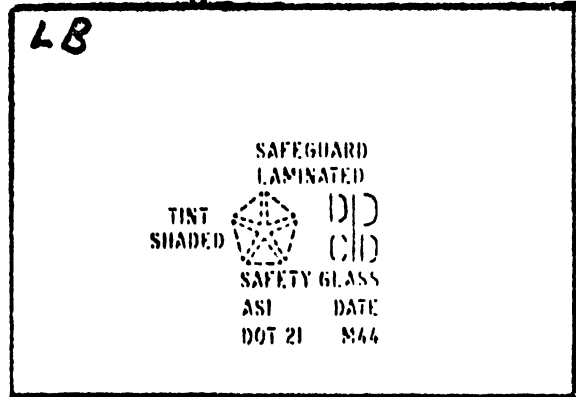


TINT SAFEGUARD LAMINATED SAFETY GLASS
DCPD, AS-1
laminated, heat absorbing,
safety glass, AS-1, with
30 mil interlayer

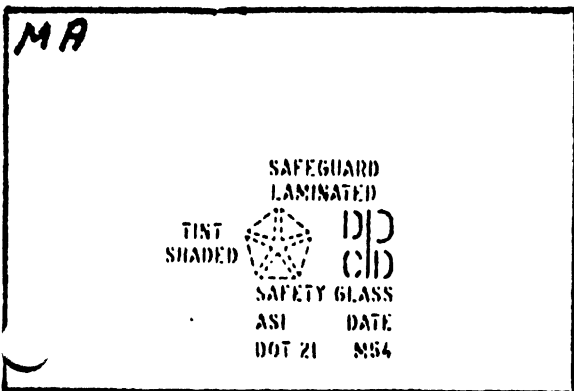
Unknown
YL



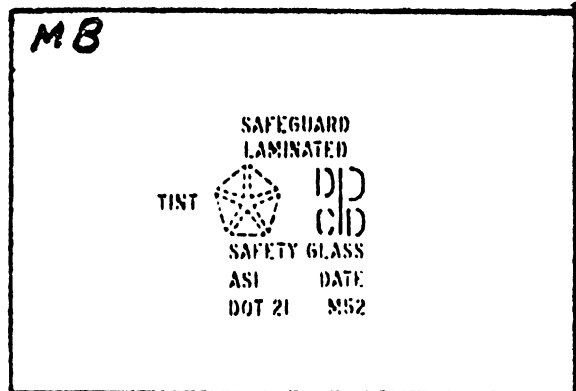
SAFEGUARD LAMINATED SAFETY GLASS -
DCPD, AS-1
laminated safety float glass, AS-1
with 30 mil interlayer



TINT SHADED SAFEGUARD LAMINATED
SAFETY GLASS - DCPD, AS-1
laminated, heat absorbing
safety glass, AS-1, with
30 mil interlayer colored band



TINT SHADED SAFEGUARD LAMINATED
SAFETY GLASS - DCPD, AS-1
laminated, heat absorbing, safety float glass, AS-1,
with 30 mil interlayer with colored band




TINT SAFEGUARD LAMINATED SAFETY GLASS -
DCDD, AS-1
laminated, heat absorbing, safety float glass,
AS-1, with 30 mil interlayer

1971 SAFETY GLAZING MONOGRAMS FOR WINDSHIELDS

Ford WITHOUT ANTENNA

FA

SOLID SAFETY GLASS




TEMPERED

4G FM-M30 AS2

TEMPERED SHEET
CLEAR

GA

SOLID SAFETY GLASS




TEMPERED

4G FM-M60 AS2

TEMPERED FLOAT
CLEAR

HA

SUPER-30 LAMINATED SAFETY GLASS




4G FM-M55 ASI

LAMINATED FLOAT
CLEAR

FB

SOLID SAFETY GLASS




TEMPERED

4G SUN-X AS2 FM-M31

TEMPERED SHEET
TINT

GB

SOLID SAFETY GLASS




TEMPERED

4G SUN-X AS2 FM-M81

TEMPERED FLOAT
TINT

HB

SUPER-30 LAMINATED SAFETY GLASS




4G SUN-X ASI FM-M66

LAMINATED FLOAT
TINT

GC

SUPER-30 LAMINATED SAFETY GLASS



SUN VISOR

4G SUN-X ASI FM-M57

LAMINATED FLOAT
TINT - BLUE GRADIENT


Unknown
Lacite
YK

1971-SAFETY GLAZING MONOGRAMS FOR WINDSHIELDS

Ford WITH _____ ANTENNA

JA

SUPER 30
LAMINATED
SAFETY GLASS




9D FM-M5H ASI

FLOAT-CLEAR
HIDDEN ANTENNA

JB

SUPER 30
LAMINATED
SAFETY GLASS




9D SUN-VISOR ASI
FM-M59

FLOAT-TINT
GRADIENT BAND
HIDDEN ANTENNA

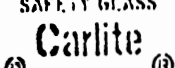
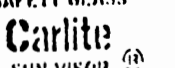

6D

SOLID
SAFETY GLASS



2H SUN-X AS2
DOT-75 FM-M80













TEMPERED FLOAT
TINT - HEATED

<p>6E</p> <p>SUPER-30 LAMINATED SAFETY GLASS</p>  <p>2H ASI DOT-75 FM-M90</p> <p>LAMINATED FLOAT CLEAR (7/32")</p>	<p>6F</p> <p>SUPER-30 LAMINATED SAFETY GLASS</p>  <p>SUN-VISOR 2H SUN-X ASI DOT-75 FM-M91</p> <p>LAMINATED FLOAT TINT - GRADIENT (7/32")</p>	<p>6G</p> <p>SUPER-30 LAMINATED SAFETY GLASS</p>  <p>2K SUN-X ASI DOT-75 FM-M92</p> <p>LAMINATED FLOAT TINT (7/32")</p>
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Windshield Code

The two letters in the lower left corner of each glazing monogram are used to code original equipment. Codes for service replacements are in brackets in the lower right corner. Note special codes for antenna.

GM 70 WINDSHIELDS WITHOUT ANTENNA

MONOGRAMS					
SAFETY  PLATE AS-1 LAMINATED DOT 18 M 21 AA (DN)	PPG *	SAFETY  PLATE AS-1 LAMINATED DOT 18 M 3 AB	LOF *		DCL *
SAFETY  FLO-LITE AS-1 LAMINATED DOT 18 M 25 AE (BB)	CA M52 (CE)	SAFETY  FLO-LITE AS-1 LAMINATED DOT 18 M 23 AF (BC)	DA M31 (DE)	SAFETY  FLO-LITE AS-1 LAMINATED DOT 18 M 43 EA	
SHADED ** SOFT-RAY SAFETY  FLO-LITE AS-1 LAMINATED DOT 18 M 30 AL (BH)		SHADED ** SOFT-RAY SAFETY  FLO-LITE AS-1 LAMINATED DOT 18 M 24 AM (BJ)	** DB M32 (DF)	SHADED ** SOFT-RAY SAFETY  FLO-LITE AS-1 LAMINATED DOT 18 M 34 AN (BK)	
SHADED ** SOFT-RAY SAFETY  PLATE AS-1 LAMINATED DOT 18 M 23 AS (BP)		SHADED ** SOFT-RAY SAFETY  PLATE AS-1 LAMINATED DOT 18 M 4 AT (BO)			
SOFT-RAY** SHADED NEUTRAL SAFETY  PLATE AS-1 LAMINATED DOT 18 M 23.1 AW (BT)		SOFT-RAY ** SHADED NEUTRAL SAFETY  PLATE AS-1 LAMINATED DOT 18 M 6 AX (BU)			

YY-Unknown MFG or Type
 YX-LOF; unknown Type
 YW-PPG; unknown Type
 YV-DCL; unknown Type
 YU-Float Glass; unknown MFG.

YT-Plate Glass; unknown MFG.
 YS-LOF; Float; other info. unknown
 YR-LOF; Plate; other info. unknown
 YP-PPG; Float; other unknown
 YN-PPG; Plate; other unknown
 YM-DCL; Float; other unknown

NOTE













ORIGINAL MARK	REPLACEMENT MARK		
Flo-Lite Soft-Ray	PPG Float Sun-Shade Solex Duplate	LOF Float E-Z-Eye	DCL Float

*Manufacturers model numbers shown below will be used in addition to those shown in monogram

**AJSI (location-rt. side adjacent to shading fade out line) indicates level required for driving visibility on shaded windshields only.

GM 70 WINDSHIELDS WITH ANTENNA

(Codes For Service Replacement In Parenthesis - See Replacement Identifying Marks At Bottom Of Page)

MONOGRAMS					
SAFETY  PLATE AS-1 LAMINATED ANTENNA DOT 18 M 21.1 AD	PPG *	SAFETY  PLATE AS-1 LAMINATED ANTENNA DOT 15 M 20 AC	LOF *		DCL *
SAFETY  FLO-LITE AS-1 LAMINATED ANTENNA DOT 18 M 25.1 (BF) AJ	CR M52.1 (CP)	SAFETY  FLO-LITE AS-1 LAMINATED ANTENNA DOT 15 M 25 (BE) AH	DK M27 (DP)	SAFETY  FLO-LITE AS-1 LAMINATED ANTENNA DOT 19 M 45.1 EK	
SHADED ** SOFT-RAY SAFETY  FLO-LITE AS-1 LAMINATED ANTENNA DOT 18 M 30.2 (EM) AQ	** CL M53.1 (CR)	SHADED ** SOFT-RAY SAFETY  FLO-LITE AS-1 LAMINATED ANTENNA DOT 15 M 26 (BL) AP	** DL M28 (DR)	SHADED ** SOFT-RAY SAFETY  FLO-LITE AS-1 LAMINATED ANTENNA DOT 19 M 46.1 EL	
SHADED ** SOFT-RAY SAFETY  PLATE AS-1 LAMINATED ANTENNA DOT 18 M 23.2 (BS) AV		SHADED ** SOFT-RAY SAFETY  PLATE AS-1 LAMINATED ANTENNA DOT 15 M 21 (BR) AU			
		SOFT-RAY ** SHADED NEUTRAL SAFETY  PLATE AS-1 LAMINATED ANTENNA DOT 15 M 22 (BV) AY			
		SOFT-RAY ** SHADED NEUTRAL SAFETY  FLO-LITE AS-1 LAMINATED ANTENNA DOT 15 M 22 (BW) RA	** DM M35 (DS)		

(ALL UNKNOWN CODES SAME AS THOSE ON PREVIOUS PAGE)









ORIGINAL MARK	REPLACEMENT MARK		
Flo-Lite Soft-Ray	PPG Float Sun-Shade Solex Day-Lite	LOF Float E-Z-Eye	DCL Float

*Manufacturers model numbers shown below will be used in addition to those shown in monogram.

**AISI (location-rt. side adjacent to shading fade out line) indicates level required for driving visibility on shaded windshields only.

1972 SAFETY GLAZING MONOGRAMS GM

WINDSHIELD CODES: GM

TYPE OF GLAZING	MONOGRAMS				REMARKS
AS-1 LAMINATED SAFETY GLASS Safety Glazing Material For Use Anywhere in Motor Vehicle	SAFETY  FLO-LITE AB-1 LAMINATED DOT 18 M 52 CA (CE)	SAFETY  FLO-LITE AB-1 LAMINATED DOT 15 M 31 DA (DE)	SAFETY AB-1 EA	FLO-LITE DCL LAMINATED DOT 19 M 45	
	SAFETY  FLO-LITE AB-1 LAMINATED ANTENNA DOT 18 M 52 CK (CP)	SAFETY  FLO-LITE AB-1 LAMINATED ANTENNA DOT 15 M 27 DK (DP)	SAFETY AB-1 EK	FLO-LITE OCL LAMINATED ANTENNA DOT 19 M 45	
	SHADED SOFT-RAY SAFETY  FLO-LITE AB-1 LAMINATED ANTENNA DOT 18 M 55 CL (CR)	SHADED SOFT-RAY SAFETY  FLO-LITE AB-1 LAMINATED ANTENNA DOT 15 M 28 DL (DR)	SAFETY AB-1 EL	SHADED SOFT-RAY SAFETY  FLO-LITE AB-1 LAMINATED ANTENNA DOT 19 M 46	NOTE: The following Manufacturer's Model Numbers will also be used with those monograms to the left. D. C. L. M34 (Location-Rt. side adjacent to shading fade out line) indicates A ↓ S level required for driving visibility on shaded windshields only.
	CL (CR)	SHADED NEUTRAL SAFETY  FLO-LITE AB-1 LAMINATED ANTENNA DOT 19 M 35 DM (DS)			(location-Rt. side adjacent to shading fade out line) indicates A ↓ S level required for driving visibility on shaded windshields only.

(Codes For Service Replacement In Parenthesis)

- YY - Unknown MFG or Type
- YX-LOF; unknown Type
- YW-PPG; unknown Type
- YV-DCL; unknown Type
- YU-Float Glass; unknown MFG.
- YT-Plate Glass; unknown MFG.
- YS-LOF; Float; other info. unknown
- YR-LOF; Plate; other info. unknown
- YP-PPG; Float; other unknown
- YN-PPG; Plate; other unknown
- YM-DCL; Float; other unknown

ORIGINAL MARK	REPLACEMENT MARK		
Flo-Lite Soft-Ray	PPG Float Sun-Shade Solex Duplate	LOF Float E-Z-Eye	DCL Float

FOR ALL GENERAL MOTORS CORPORATION 1972 VEHICLES
 PRODUCED IN THE UNITED STATES

1972 VEHICLE WINDSHIELDS

AS-2 MA
 Securit
 of
 Belgium
 D-106 Solid
 Temp.
 Code: NA

Solex
 Shaded
 PPG
 Safety Plate
 1-2A
 Code: NB

Super 30
 Laminated
 Safety Glass
 Car-Lite
 FM-M59
 Sun-Visor
 OA SUN X ASI
 Code: NC

Triplex
 V
 T
 X
 Super-L
 EUM 11 A51
 Laminated
 Code: ND

(LACKTEX)
 Belgium
 Laminated
 Super
 M3 ASI
 TPGS 76
 DOT 32 Clear
 Code: NE

SICURSN
 I C C
 Hi Laminated
 IGM 4874 VSP
 ASI M1 D-139
 DOT 36
 Code: NF

(LACKTEX)
 °BELGIUM°
 Lam. Super
 Tinted
 GR M5 ASI
 DOT 32
 TPGS 88 D150
 Code: NG

Sun Shade
 SOLEX
 PPG
 Duplate
 Safety Float
 Antenna
 ASI 189 DOT18
 M30.2
 Code: BM

1971 SAFETY GLAZING MONOGRAMS AND PG-2070
FORM CODES

other WINDSHIELDS WITHOUT ANTENNA

CORNING CHEMCOR
WINDSHIELD
CLEAR

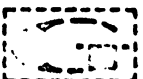
CORNING
CHEMICALLY
TEMPERED
LAMINATED
SAFETY GLASS
AS-1, CGW, M15
DOT-26, D.O.

PA

CORNING CHEMCOR
WINDSHIELD
TINTED

CORNING
CHEMICALLY
TEMPERED
LAMINATED
SAFETY GLASS
AS-1, CGW, M-16
DOT-26, D.O.

QA


GUARDIAN
SAFETY FLOAT
SHADED
LAMINATED
AS-1-70 66-M78
DOT 22

RK

(AS-1-70) AD-4-70 66-M78
EST 63

RA

66-M78
DOT-22

Identifying Marks


SAFETY [DCL] FLO-LITE
AS-1 [DCL] AD-69
LAMINATED
DOT-19 M-33

RE

SHADED
SOFT-RAY
SAFETY [DCL] FLO-LITE
AS-1 [DCL] AD-69
LAMINATED
DOT-19 M-34

RF

SUPER-30
LAMINATED
SAFETY GLASS



(D) AS2
66-M78

RB

SAFEGUARD
LAMINATED

 G


SAFETY GLASS
AS-1 1-70
DOT-22 66-M78

RC

SAFETY FLOAT
AS-1 Guardian J-70
LAMINATED
DOT 22 66-M78

RD

SAFEGUARD
LAMINATED

TINT
SHADED  G

SAFETY GLASS
AS-1 1-70
DOT-22 66-M78

RG

SHADED
SOFT RAY
SAFETY FLOAT
AS-1 Guardian J-70
DOT 22 66-M78

RH