

# 1970 CAR SHOP MANUAL

VOLUME ONE  
CHASSIS



METEOR

MAVERICK

FALCON

FAIRLANE

MUSTANG

FORD

THUNDERBIRD

MONTEGO

COUGAR

MERCURY

LINCOLN  
CONTINENTAL

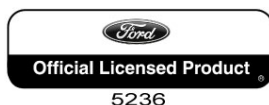
CONTINENTAL  
MARK III

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# FOREWORD

*This manual is divided into five volumes: 1 – Chassis, 2 – Engine, 3 – Electrical, 4 – Body, 5 – Maintenance and Lubrication. These volumes should provide Service Technicians with complete information covering normal service repairs on all 1970 model passenger cars built by Ford Motor Company in the U.S. and Canada. As changes in the product occur, this information will be updated by Technical Service Bulletins. When issued, TSB information always supersedes that published here.*

*Within each volume, information is grouped by system or component plus "General Service" parts which contain information which is common to several similar components.*

*The table of contents on the first page of each volume indicates the general content of the book and provides a handy tab locator to make it easy to find the first page of each "group." That page will contain an index to "parts" and the first page of each "part" contains a detailed index which gives page location for each service operation covered. Page numbers are consecutive in each "part."*

*Those who have previously used Ford Shop Manuals will find a major change this year in the division of information into "groups" and "parts." To make reference easier, information has been broken down into smaller units so that essentially there is now one "part" for each component or system. Group numbers have been changed so that the first digit of the number indicates the volume in which the group may be found.*

*Example:*

36 – 05 – 13  
Volume 3 – Group 6 – Part 5 – Page 13

*We hope that this change in indexing will make it easier and quicker to locate desired information within these manuals.*

*The descriptions and specifications in this manual were in effect at the time this manual was approved for printing. Ford Motor Company reserves the right to discontinue models at any time, or change specifications or design, without notice and without incurring obligation.*

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# Index and Vehicle Identification

GROUP  
**10**



W 1002-B

Fig. 1 — Typical Vehicle Identification Number

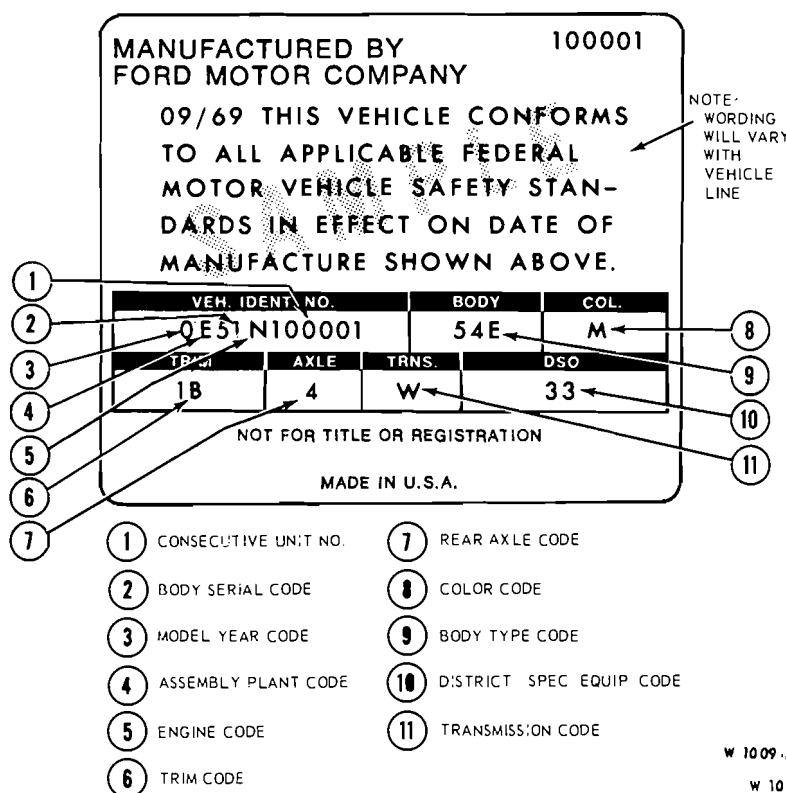


FIG. 2 — Vehicle Certification Label

## OFFICIAL VEHICLE IDENTIFICATION NUMBER

The official Vehicle Identification Number (VIN) for title and registration purposes is stamped on an aluminum tab that is riveted to the instrument panel close to the windshield on the driver's side of the car and is visible from outside (Fig. 1).

## VEHICLE CERTIFICATION LABEL

The Vehicle Certification Label (V.C. Label) is attached to the rear face of the driver's door. The upper half of the label contains the name of the manufacturer, the month and year of manufacture and the certification statement. The V.C. label also contains the Vehicle Identification Number. This number is also used for

Warranty identification of the vehicle. The first number indicates the model year. The letter following the model year number indicates the manufacturing assembly plant. The next two numbers designate the Body Serial Code followed by a letter expressing the Engine Code. The last six digits of the Vehicle Identification Number indicate the Consecutive Unit Number.

The remaining information on the V.C. Label consists of pertinent vehicle identification codes. The BODY code is two numerals and a letter identifying the body style. The COL (color) code is a number or letter (or both) indicating the exterior paint color code. The TRIM code consists of a number-letter combination designating the interior trim. The Axle code is a number or letter indicating the rear axle ratio and standard or locking type axles. The TRNS. code is a number or letter indicating the type of transmission, numerals for manual and letters for automatic or semi-automatic. The DSO code consisting of two numbers designates the district in which the car was ordered and may appear in conjunction with a Domestic Special Order or Foreign Special Order number when applicable. Ford of Canada DSO codes consist of a letter and a number except for export codes which are designated by two numbers.

## MODEL YEAR CODE

The number 0 designates 1970.

## ASSEMBLY PLANT CODES

Code Letter	
A	Atlanta
B	Oakville (Canada)
D	Dallas
E	Mahwah
F	Dearborn
G	Chicago
H	Lorain
J	Los Angeles
K	Kansas City
N	Norfolk
P	Twin Cities
R	San Jose
S	Allen Park
T	Metuchen
U	Louisville
W	Wayne
X	St. Thomas
Y	Wixom

## BODY SERIAL AND STYLE CODES

The two-digit numeral which follows the assembly plant code identifies the body series. This two-digit number is used in conjunction with the Body Style Code, in the Vehicle Data, which consists of a two-digit number with a letter suffix. The following chart lists the Body Serial Codes, Body Style Codes and the model.

## LINCOLN CONTINENTAL

Body Serial Code	Body Style Code	Body Type
82	53A	4 - Door Sedan
81	65A	2 - Door Hardtop

## MARK III

Body Serial Code	Body Style Code	Body Type
89	65A	2 - Door Hardtop

## COUGAR

Body Serial Code	Body Style Code	Body Type	Model
91	65A	2 - Door Hardtop ①	Standard
92	76A	Convertible ①	
93	65B	2 - Door Hardtop ①	XR-7 Luxury
94	76B	Convertible ①	
①Bench Seat		①Split Bench	①Bucket Seats

## MERCURY

Body Serial Code	Body Style Code	Body Type	Model
44	54A	4 - Door Sedan ①	Monterey
46	65A	2 - Door Hardtop ①	
48	57A	4 - Door Hardtop ①	
45	76A	Convertible ①	
CANADA ONLY			
40	53M	4 - Door Hardtop Sedan ①	Marquis
41	65M	2 - Door Hardtop—Formal ①	
42	57M	4 - Door Hardtop ①	
54	54C	4 - Door Sedan ①	Monterey—Custom
56	65B	2 - Door Hardtop ①	
58	57B	4 - Door Hardtop ①	
63	53F	4 - Door Hardtop Sedan ① ②	Marquis
66	65F	2 - Door Hardtop ① ②	
68	57F	4 - Door Hardtop ① ②	
65	76F	Convertible ① ②	
62	53C	4 - Door Hardtop Sedan ②	Brougham
64	65C	2 - Door Hardtop ②	
67	57C	4 - Door Hardtop ②	
60	63G	2 - Door Hardtop (Tunnel Roof) ① ②	Marauder
61	63H	2 - Door Hardtop (Tunnel Roof) X100 ① ② ③	
72	71B	4 - Door 2 Seat ①	Monterey Wagon
*72	71C	4 - Door 3 Seat (Side Facing) ①	

## MERCURY (Cont'd.)

Body Serial Code	Body Style Code	Body Type	Model
74	71F	4 - Door 2 Seat ①	Monterey—Custom Wagon
*74	71G	4 - Door 3 Seat (Side Facing) ①	
76	71E	4 - Door 2 Seat ① ②	Marquis Colony Park
*76	71A	4 - Door 3 Seat (Side Facing) ① ②	
①Bench Seat		①Split Bench	①Bucket Seats
*Merchandised as Options			

## METEOR (CANADA)

Body Serial Code	Body Style Code	Body Type	Model
20	54A	4 - Door Sedan ①	Rideau
22	54B	4 - Door Sedan ①	Rideau 500
23	65B	2 - Door Hardtop—Formal ①	
25	54C	4 - Door Sedan ① ②	Montcalm
26	65C	2 - Door Hardtop ① ②	
*26	65E	2 - Door Hardtop ① ②	
27	57C	4 - Door Hardtop ① ②	
28	76C	Convertible ① ②	
*28	76E	Convertible ① ②	
34	65F	2 - Door Hardtop—Formal ① ②	LeMoyné
35	57F	2 - Door Hardtop ① ②	
36	71B	Rideau 500—6 Passenger ①	Station Wagons—4 Door
37	71C	Rideau 500—Dual Face Rear ①	
38	71E	Montcalm—6 Passenger ①	
39	71A	Montcalm—Dual Face Rear ①	
①Bench Seat		①Split Bench	①Bucket Seats
*Merchandised as Options			

## MONTEGO

Body Serial Code	Body Style Code	Body Type	Model
01	65A	2 - Door Hardtop ①	Montego
02	54A	4 - Door Sedan ①	
06	54B	4 - Door Sedan ①	Montego MX
07	65B	2 - Door Hardtop ①	
10	54D	4 - Door Sedan ①	Montego MX Brougham
11	65D	2 - Door Hardtop ①	
12	57D	4 - Door Hardtop ①	
*07	65E	2 - Door Hardtop ②	Montego MX
05	57B	4 - Door Hardtop ①	
15	65F	2 - Door Hardtop ①	Cyclone
*15	65F	2 - Door Hardtop ②	
17	65G	2 - Door Hardtop ②	Cyclone Spoiler
16	65H	2 - Door Hardtop ②	Cyclone GT
08	71C	Montego MX ①	Station Wagon—4 Door
18	71A	Montego MX (Woodgrain Villager) ①	
①Bench Seat		①Split Bench	①Bucket Seats
*Merchandised as Options			

## THUNDERBIRD

Body Serial Code	Body Style Code	Body Type	Model
*83	65A	2 - Door Hardtop ①	
83	65C	2 - Door Hardtop ①	
*84	65B	2 - Door Landau ③	
84	65D	2 - Door Landau ①	
*87	57B	4 - Door Landau ③	
87	57C	4 - Door Landau ①	
①Bench Seat		③Split Bench	③Bucket Seats
*Merchandised as Options			

## FALCON

Body Serial Code	Body Style Code	Body Type	Model
10	62A	2 - Door Sedan ①	Standard
11	54A	4 - Door Sedan ①	
20	62B	2 - Door Sedan ①	Futura
21	54B	4 - Door Sedan ①	
12	71A	4 - Door Standard ①	Station Wagon
23	71B	4 - Door Futura ①	
①Bench Seat		③Split Bench	③Bucket Seats

## MAVERICK

Body Serial Code	Body Style Code	Body Type	Model
91	62A	2 - Door Sedan	Standard

## MUSTANG

Body Serial Code	Body Style Code	Body Type	Model
01	65A	2 - Door Hardtop ①	Standard
02	63A	2 - Door Fastback ③	
03	76A	Convertible ③	
*01	65B	2 - Door Hardtop ③	Flair
*02	63B	2 - Door Fastback ③	
*03	76B	Convertible ③	
04	65E	2 - Door Hardtop ③	"Grande"
05	63C	2 - Door Fastback ③	"Mach I"
①Bench Seat		③Split Bench	③Bucket Seats
*Merchandised as Options			

## FORD

Body Serial Code	Body Style Code	Body Type	Model
51	54E	4 - Door Sedan ①	Custom
53	54B	4 - Door Sedan ①	Custom 500

## FORD (Cont'd.)

Body Serial Code	Body Style Code	Body Type	Model
54	54A	4 - Door Sedan ①	Galaxie 500
55	63B	2 - Door Hardtop Fastback ①	
58	65C	2 - Door Hardtop Formal ①	
56	57B	4 - Door Hardtop ①	
60	63C	2 - Door Hardtop Fastback ① ③	Ford XL
61	76B	Convertible ① ③	
64	54C	4 - Door Sedan ① ③	Ford LTD
62	65A	2 - Door Hardtop Formal ① ③	
66	57F	4 - Door Hardtop ① ③	
70	71D	Ranchwagon-6 Passenger ①	Station Wagon
71	71H	Custom 500 Ranchwagon-6 Passenger ①	
72	71J	Custom 500 Ranchwagon-Dual Face Rear ①	
73	71B	Country Sedan-6 Passenger ①	
74	71C	Country Sedan-Dual Face Rear ①	
75	71E	Country Squire-6 Passenger ①	
76	71A	Country Squire-Dual Face Rear ①	
①Bench Seat		③Split Bench	③Bucket Seats

## FAIRLANE

Body Serial Code	Body Style Code	Body Type	Model
28	54B	4 - Door Sedan ①	Fairlane 500
29	65B	2 - Door Hardtop ①	
30	65C	2 - Door Hardtop ①	Torino
31	54C	4 - Door Sedan ①	
32	57C	4 - Door Hardtop ①	
*30	65C	2 - Door Hardtop ③	Torino
33	65E	2 - Door Hardtop - Formal ①	Torino Brougham
36	57E	4 - Door Hardtop ①	
35	63F	2 - Door Hardtop - Fastback ①	Torino GT
37	76F	Convertible ①	
*35	63F	2 - Door Hardtop - Fastback ③	Torino GT
*37	76F	Convertible ③	
38	63H	2 - Door Hardtop - Fastback ①	Cobra
*38	63H	2 - Door Hardtop - Fastback ③	Cobra
41	71B	Fairlane 500 ①	Station Wagon
42	71C	Torino ①	4 - Door
43	71E	Torino Squire (Brougham) ①	
46	66A	Ranchero ①	Ranchero
47	66B	Ranchero 500 ①	
*47	66B	Ranchero 500 ③	Ranchero
48	66C	Ranchero GT ①	Ranchero
*48	66C	Ranchero GT ③	
49	66E	Ranchero Squire ①	
*49	66E	Ranchero Squire ③	
①Bench Seat		③Split Bench	③Bucket Seats
*Merchandised as Options			

## REAR AXLE RATIO CODES

Conventional	Limited-Slip	Ratio
0		2.50:1
2	K	2.75:1
3		2.79:1
4	M	2.80:1
5		2.83:1
6	O	3.00:1
7		3.10:1
8		3.20:1
9	H	3.25:1
A	S	3.50:1
B		3.07:1
C		3.08:1
F	X	2.33:1
	V	3.91:1
	W	4.30:1

## TRANSMISSION CODES

Code	Type
1	3 - Speed Manual
5	4 - Speed Manual - wide ratio
6	4 - Speed Manual - close ratio
V	Semi - Automatic Stick Shift
W	Automatic (C4)
U	Automatic (C6)
X	Automatic (FMX)
Z	Automatic (C6 Special)

## ENGINE CODES

Code	Type
U	6 Cyl. 170 Cu. In. (1V)
T	6 Cyl. 200 Cu. In. (1V)
2	6 Cyl. ① 200 Cu. In. (1V)
L	6 Cyl. 250 Cu. In. (1V)
3	6 Cyl. ① 250 Cu. In. (1V)
V	6 Cyl. 240 Cu. In. (1V)
5	6 Cyl. ① 240 Cu. In. (1V)
B	6 Cyl. 240 Cu. In. (1V) Police
E	6 Cyl. 240 Cu. In. (1V) Taxi
F	8 Cyl. 302 Cu. In. (2V)
6	8 Cyl. ① 302 Cu. In. (2V)
D	8 Cyl. 302 Cu. In. (2V) Taxi
G	8 Cyl. 302 - 4V H0
H	8 Cyl. 351 Cu. In. (2V)
M	8 Cyl. 351 Cu. In. (4V)
Y	8 Cyl. 390 Cu. In. (2V) Regular
Q	8 Cyl. 428 Cu. In. (4V) CJ
R	8 Cyl. ② 428 Cu. In. (4V) CJ Ram Air
P	8 Cyl. ② 428 Cu. In. (4V) Police
K	8 Cyl. 429 Cu. In. (2V)
N	8 Cyl. 429 Cu. In. (4V)
C	8 Cyl. 429 - 4V - CJ
Z	8 Cyl. 429 - 4V - H0
J	8 Cyl. 429 - 4V CJ Ram Air
A	8 Cyl. 460 Cu. In. (4V)

① Low Compression    ② Premium Fuel  
 ③ Improved Performance  
 ④ High Performance    ⑤ Ram Air Induction

## CONSECUTIVE UNIT NUMBER

Starting Serial Numbers - 1970 Passenger Cars  
 100,001 - Ford, Fairlane, Falcon, Mustang,  
 Thunderbird, Maverick  
 500,001 - Mercury, Meteor, Montego, Cougar  
 800,001 - Lincoln Continental & Mark III

## EXTERIOR PAINT COLOR CODES

Color	M-32-J Number	Color
A	1724-A	Black
B	3316-A	Dk. Maroon
C	3323-A	Dk. Ivy Green Met.
D	3470-A	Br. Yellow-Competition Yellow
E	1906-A	Lt. Blue
F	3065-A	Dk. Aqua Met (Br.)-Dk. Aqua Met.
G	3075-A	Med. Avacado Met.-Med. Lime Met.
H	2067-A	Lt. Green
I	3204-A	Dk. Orchid Met.
J	3320-A	Br. Blue Met. (Astra)-Deep Blue Met.
K	3340-A	Yellow Met.-Br. Gold Met. (Freudian Gilt/Maverick)-Deep Gold Met.
L	3318-A	Lt. Gray Met.
M	1619-A	White
N	921-A	Platinum-Pastel Blue
O	3202-A	Burnt Orange Met.-(Original Cinnamon/Maverick)
P	3401-A	Med. Ivy Green Met.
Q	3319-A	Med. Blue Met.
R	3342-A	Dk. Brown Met.
S	3199-A	Nugget Gold Met.-Med. Gold Met.
T	2008-A	Red
U	1070-A	Med. Aqua Met.
W	3341-A	Yellow
X	3063-A	Dk. Blue
Y	3347-A	Chestnut Met.-Chestnut Bronze Met.-Med. Bronze Met.
Z	3346-A	Dk. Slate Gray Met.-Dk. Gray Met.
1	1730-A	Calypso Coral-Vermilion-Competition Orange
2	3071-A	Lt. Ivy Yellow
5	3564-A	Ginger Met.-Med. Brown Met.
6	3077-A	Med. Br. Blue Met.-Bright Blue Met.-Hulla Blue/Maverick
7	3812-A	Med. Peppermint Met.-(Anti-Establishment Mint/Maverick)
8	3198-A	Lt. Gold
9	3120-A	Yellow/Pastel Yellow

## GLAMOUR PAINTS-Opt.

19	3595-A	Ivy Bronze Met.-Green Fire-Green Stardust
09	3597-A	Olive Bronze Met.-Olive Fire-Olive Stardust
89	3333-A	Fall Bronze Met.-Bronze Fire-Bronze Stardust
59	3275-A	Med. Red Met.-Burgundy Fire-Red Stardust

## Vendor=

J	0470	Grabber Blue (Med.)-Competition Blue
U	6166	Grabber Orange (Dk.)-Competition Gold
Z	4359	Grabber Green (Med.)-Competition Green

## Grabber Paints

## INTERIOR TRIM CODES

Code	Trim Schemes
1A	Black Vinyl
1A	Black Cloth & Vinyl
1A	Black Cloth & Black Vinyl
1A	Black Knit & Vinyl
1B	Med./Lt. Blue Vinyl
1B	Dk. Blue Cloth & Vinyl
1B	Dk. Blue Knit & Vinyl
1B	Med. Blue Vinyl
1B	Med. Blue Cloth & Vinyl
1D	Dk. Red Vinyl
1D	Dk. Red Knit & Vinyl
1D	Dk. Red Cloth and/or Dk. Red Vinyl
1F	Med. Ginger Vinyl
1F	Med. Ginger Cloth & Vinyl
1G	Dk. Ivy Green Cloth & Vinyl
1G	Med. Ivy Green Vinyl
1G	Med. Ivy Green Cloth & Vinyl
1G	Med. Green Cloth & Vinyl
1G	Dk. Ivy Green Knit & Vinyl
1P	Med. Grey Cloth & Vinyl
1Y	Lt. Nugget Gold Vinyl
1Y	Lt. Nugget Gold Cloth & Vinyl
1Y	Lt. Gold Cloth & Vinyl
1Z	Dk. Tobacco Vinyl
1Z	Dk. Tobacco Knit & Vinyl
2A	Black Vinyl
2A	Black Leather & Vinyl
2A	White & Black Cloth & Black Vinyl
2A	Black Knit & Vinyl
2B	Dk. & Lt. Blue Vinyl
2B	Dk. Blue Leather & Vinyl
2B	Med. Blue Vinyl
2B	Dk. Blue Knit & Vinyl
2B	Med. Blue & Black Cloth & Med. Blue Vinyl
2D	Dk. Red Vinyl
2D	Dk. Red Leather & Vinyl
2D	Dk. Red & Black Cloth & Dk. Red Vinyl
2F	Med. Ivy Green Vinyl
2F	Med. Ginger Vinyl
2F	Med. Brown Vinyl
2F	Med. Ginger Leather & Vinyl
2G	Dk. Ivy Green Vinyl
2G	Med. Green Vinyl
2G	Dk. Ivy Green Knit & Vinyl
2G	Dk. Ivy Green Leather & Vinyl
2K	Lt. Aqua Leather & Vinyl
2P	Med. Grey Leather & Vinyl
2W	White Vinyl
2W	White Leather & Vinyl
2W	White Vinyl With Black
2W	White Knit & Vinyl
2Y	Lt. Gold Vinyl
2Y	Lt. Nugget Gold Vinyl
2Y	Lt. Nugget Gold Leather & Vinyl
2Y	Lt. Nugget & Black Cloth & Lt. Nugget Gold Vinyl
2Z	Dk. Tobacco Leather & Vinyl
3A	Black Vinyl With Red Strip
3A	Black Cloth & Vinyl
3A	Black Leather & Vinyl
3A	Med. Blue Cloth & Vinyl
3B	Med. Blue Knit & Vinyl
3B	Med. Blue Cloth & Vinyl
3B	Dk. Blue Cloth & Vinyl
3B	Dk. Blue Leather & Vinyl
3B	Med. Blue Cloth & Lt. Blue Vinyl
3B	Med. Blue Vinyl
3D	Dk. Red Cloth & Vinyl
3D	Dk. Red Leather & Vinyl
3E	Vermilion Vinyl



## INTERIOR TRIM CODES—(continued)

Code	Trim Schemes
3E.....	Vermilion Knit & Vinyl
3F.....	Med. Brown Cloth & Vinyl
3F.....	Med. Ginger Knit & Vinyl
3F.....	Med. Ginger Leather & Vinyl
3F.....	Med. Ginger Vinyl
3F.....	Med. Ginger Cloth & Vinyl
3G.....	Med. Ivy Green Knit & Vinyl
3G.....	Med. Ivy Green Leather & Vinyl
3G.....	Med. Ivy Green Vinyl
3G.....	Med. Ivy Green Cloth & Vinyl
3G.....	Dk. Ivy Green Cloth & Vinyl
3K.....	Lt. Aqua Leather & Vinyl
3K.....	Lt. Aqua Cloth & Lt. Aqua Vinyl
3P.....	Med. Grey Leather & Vinyl
3W.....	White Leather & Vinyl
3W.....	White With Black Knit & Vinyl
3Y.....	Lt. Nugget Leather & Vinyl
3Y.....	Lt. Nugget Gold Cloth & Vinyl
3Z.....	Dk. Tobacco Leather & Vinyl
4A.....	Black Vinyl
4A.....	Black Cloth & Vinyl
4A.....	Dk. Black Knit & Vinyl
4B.....	Dk. Blue Knit & Vinyl
4B.....	Dk./Lt. Blue Vinyl
4B.....	Med. Blue Cloth & Vinyl
4B.....	Med. Blue Vinyl
4D.....	Dk. Red Vinyl
4F.....	Med. Ginger Vinyl
4F.....	Med. Brown Vinyl
4G.....	Dk. Ivy Green Knit & Vinyl
4G.....	Dk. Ivy Green Vinyl
4W.....	White Vinyl
4W.....	White Knit & Vinyl With Black
4Y.....	Lt. Gold Cloth & Vinyl
4Y.....	Lt. Nugget Gold Cloth & Vinyl
4Y.....	Lt. Nugget Gold Vinyl
5A.....	Black Knit & Vinyl
5A.....	Black Cloth and/or Black Vinyl
5A.....	Black Vinyl
5B.....	Med. Blue Cloth & Vinyl
5B.....	Med. Blue Knit & Vinyl
5B.....	Med. Blue Vinyl
5B.....	Dk. Blue Cloth & Vinyl
5D.....	Dk. Red Cloth & Vinyl
5D.....	Dk. Red Knit & Vinyl
5D.....	Dk. Red Vinyl
5F.....	Med. Brown Vinyl
5F.....	Med. Ginger Knit & Vinyl
5F.....	Med. Ginger Vinyl
5G.....	Med. Ivy Green Cloth & Vinyl
5G.....	Dk. Green Cloth & Vinyl
5G.....	Med. Ivy Green Knit & Vinyl
5G.....	Med. Green Vinyl &/or Cloth
5K.....	Lt. Aqua Cloth & Vinyl
5K.....	Lt. Aqua Knit & Vinyl
5Y.....	Lt. Nugget Gold Cloth & Vinyl
5Y.....	Lt. Gold Cloth & Vinyl
5Y.....	Lt. Nugget Gold Knit & Vinyl
5Z.....	Dk. Tobacco Knit & Vinyl
5Z.....	Dk. Tobacco Cloth & Vinyl
6A.....	Black Knit & Vinyl
6A.....	Black Vinyl
6A.....	Black Grain Leather
6A.....	Black Grain Leather &/or Vinyl
6B.....	Med. Blue Grain Leather With Vinyl
6B.....	Med. Blue Grain Leather
6B.....	Med. Blue Vinyl
6D.....	Dk. Red Cloth & Vinyl
6D.....	Dk. Red Vinyl
6D.....	Dk. Red Grain Leather
6D.....	Dk. Red Grain Leather &/or Vinyl
6F.....	Med. Brown Leather With Vinyl
6F.....	Med. Brown Vinyl

## INTERIOR TRIM CODES—(continued)

Code	Trim Schemes
6F.....	Med. Ginger Vinyl
6F.....	Med. Ginger Grain Leather
6G.....	Med. Ivy Green Vinyl
6G.....	Med. Ivy Green Grain Leather
6G.....	Med. Green Vinyl
6G.....	Med. Green Cloth & Vinyl
6W.....	White Cloth & Vinyl
6W.....	White Vinyl With Black
6Y.....	Lt. Nugget Gold Vinyl
6Y.....	Lt. Nugget Gold Cloth & Vinyl
6Z.....	Dk. Tobacco Grain Leather
6Z.....	Dk. Tobacco Vinyl
6Z.....	Dk. Tobacco Grain Leather &/or Vinyl
6Z.....	Dk. Brown Leather & Vinyl
7A.....	Black Vinyl
7A.....	Black Cloth & Vinyl
7A.....	Black Leather & Vinyl
7B.....	Dk. Blue Leather & Vinyl
7B.....	Med. Blue Cloth & Vinyl
7B.....	Med. Blue Vinyl
7D.....	Dk. Red Leather & Vinyl
7F.....	Med. Ginger Cloth & Vinyl
7F.....	Med. Ginger Vinyl
7F.....	Med. Brown Cloth & Vinyl
7G.....	Med. Ivy Green Vinyl
7G.....	Dk. Ivy Green Leather & Vinyl
7G.....	Med. Ivy Green Cloth & Vinyl
7W.....	White Leather & Vinyl
7Y.....	Lt. Nugget Gold Cloth & Vinyl
8A.....	Black Vinyl
8A.....	Black Knit & Pewter Vinyl
8A.....	Black Grain Leather
8A.....	Black Knit & Vinyl
8A.....	Black Grain Leather &/or Vinyl
8B.....	Med. Blue Knit & Vinyl
8B.....	Med. Blue Vinyl
8D.....	Dk. Red Vinyl
8D.....	Dk. Red Grain Leather
8D.....	Dk. Red Knit & Vinyl
8D.....	Dk. Red Grain Leather &/or Vinyl
8F.....	Med. Brown Vinyl
8F.....	Med. Ginger Grain Leather &/or Vinyl
8F.....	Med. Ginger Vinyl
8F.....	Med. Ginger Grain Leather
8F.....	Med. Ginger Knit & Vinyl
8G.....	Med. Ivy Green Knit & Vinyl
8G.....	Med. Ivy Green Vinyl
8W.....	White Vinyl With Black
8W.....	White Knit & Vinyl
8W.....	White Knit & Vinyl With Black
9A.....	Black Vinyl
9A.....	Black Cloth & Vinyl
9B.....	Med. Blue Vinyl
9B.....	Med. Blue Cloth & Vinyl
9D.....	Dk. Red Vinyl
9D.....	Dk. Red Cloth & Vinyl
9F.....	Med. Ginger Vinyl
9G.....	Med. Ivy Green Cloth & Vinyl
9G.....	Med. Ivy Green Vinyl
9K.....	Lt. Aqua Cloth & Vinyl
9Y.....	Lt. Nugget Gold Cloth & Vinyl
AA.....	White Vinyl With Black Vinyl
AA.....	Black Vinyl With Black Vinyl
AA.....	Black Cloth & Vinyl
AB.....	White Vinyl With Blue Vinyl
AB.....	Blue Cloth With Blue Vinyl
AD.....	White Vinyl
AD.....	Dk. Red Cloth & Vinyl
AE.....	Vermilion Cloth & Vinyl
AF.....	Med. Ginger Cloth & Vinyl
AF.....	White Vinyl With Ginger
AG.....	White Vinyl With Ivy Gold
AG.....	Med. Ivy Green Cloth & Vinyl

## INTERIOR TRIM CODES—(continued)

Code	Trim Schemes
AK.....	Lt. Aqua Cloth & Vinyl
AP.....	Med. Grey Cloth & Vinyl
AY.....	Lt. Nugget Cloth & Vinyl
AZ.....	White With Tobacco
BA.....	Black Vinyl
BA.....	Black Cloth & Vinyl
BB.....	Lt. Blue Vinyl
BB.....	Med. Blue Vinyl
BD.....	Dk. Red Cloth & Vinyl
BE.....	Vermilion Vinyl
BF.....	Med. Ginger Vinyl
BG.....	Med. Ivy Green
BW.....	White Vinyl
BW.....	White Vinyl With Black
CA.....	Black Cloth & Vinyl
CA.....	Black Knit & Vinyl
CB.....	Med. Blue Knit & Vinyl
CB.....	Med. Blue Cloth & Vinyl
CD.....	Dk. Red Cloth & Vinyl
CD.....	Dk. Red Knit & Vinyl
CE.....	Vermilion Cloth & Vinyl
CF.....	Med. Ginger Cloth & Vinyl
CF.....	Med. Ginger Knit & Vinyl
CG.....	Med. Ivy Green Cloth & Vinyl
CY.....	Lt. Nugget Gold Cloth & Vinyl
DA.....	Black Cloth & Vinyl
DA.....	Black Vinyl
DB.....	Med. Blue Cloth & Vinyl
DB.....	Med. Blue Vinyl
DD.....	Dk. Red Cloth & Vinyl
DD.....	Dk. Red Vinyl
DE.....	Med. Ginger Cloth & Vinyl
DF.....	Med. Ginger Cloth & Vinyl
DG.....	Med. Ivy Green Cloth & Vinyl
DG.....	Med. Ivy Green Vinyl
DK.....	Lt. Aqua Cloth & Vinyl
DW.....	White Vinyl With Black
DY.....	Lt. Nugget Gold Cloth & Vinyl
DY.....	Lt. Nugget Gold Vinyl
EA.....	Black Cloth & Vinyl
EA.....	Black Knit & Vinyl
EA.....	White & Black Vinyl
EB.....	Med. Blue Knit & Vinyl
EB.....	Med. Blue Cloth & Vinyl
ED.....	Dk. Red Cloth & Vinyl
EF.....	Med. Ginger Cloth & Vinyl
EG.....	Dk. Ivy Green Knit & Vinyl
EG.....	Med. Ivy Green Cloth & Vinyl
EW.....	White Knit & Vinyl
EW.....	White w/Black Knit & Vinyl
EY.....	Lt. Nugget Gold Cloth & Vinyl
FA.....	Black Vinyl
FA.....	White Vinyl With Black
FA.....	White With Black Leather w/Vinyl
FB.....	Med. Blue Vinyl
FB.....	White Vinyl With Blue
FD.....	Dk. Red Vinyl
FD.....	White Vinyl With Red
FD.....	Dk. Red Cloth & Vinyl
FF.....	White Vinyl With Ginger
FF.....	Med. Ginger Vinyl
FG.....	Med. Ivy Green Vinyl
FG.....	White Vinyl With Dk. Ivy
FY.....	Lt. Nugget Gold Cloth & Vinyl
FZ.....	White Vinyl With Tobacco
GA.....	Black Vinyl
GB.....	Med. Blue Vinyl
GD.....	Dk. Red Vinyl
GF.....	Med. Ginger Vinyl
GF.....	Med. Brown Vinyl
GW.....	White Vinyl With Black
HA.....	Black Cloth & Vinyl
HA.....	Black Knit & Vinyl

## INTERIOR TRIM CODES (continued)

Code	Trim Schemes
HB.....	Med. Blue Cloth & Vinyl
HD.....	Dk. Red Cloth & Vinyl
HG.....	Med. Green Cloth & Vinyl
HY.....	Lt. Nugget Gold Cloth & Vinyl
HY.....	Lt. Nugget Gold Knit & Vinyl
JA.....	Black Vinyl
JA.....	Black Knit & Vinyl
JB.....	Med. Blue Cloth & Vinyl
JB.....	Med. Blue Vinyl
JD.....	Dk. Red Vinyl
JF.....	Med. Ginger Vinyl
JG.....	Med. Ivy Green Vinyl
JW.....	White Vinyl
JW.....	White Knit & Vinyl
JW.....	White Vinyl W/Black
JY.....	Lt. Nugget Gold Vinyl
KA.....	Black Vinyl
KA.....	Black Knit & Vinyl
KA.....	Black Cloth & Vinyl
KA.....	Black Leather & Vinyl
KB.....	Med. Blue Cloth & Vinyl
KB.....	Dk. Blue Leather & Vinyl
KD.....	Dk. Red Cloth & Vinyl
KD.....	Dk. Red Leather & Vinyl
KF.....	Med. Ginger Leather & Vinyl
KG.....	Med. Ivy Green Cloth & Vinyl
KG.....	Dk. Ivy Green Leather & Vinyl
KK.....	Lt. Aqua Leather & Vinyl
KP.....	Med. Grey Leather & Vinyl
KW.....	White Knit & Vinyl With Black
KW.....	White Leather & Vinyl
KY.....	Lt. Nugget Leather & Vinyl
KY.....	Lt. Nugget Gold Vinyl
KY.....	Lt. Nugget Gold Knit & Vinyl
KY.....	Lt. Nugget Gold Cloth & Vinyl
KY.....	Lt. Gold Vinyl
KZ.....	Dk. Tobacco Cloth & Vinyl
KZ.....	Dk. Tobacco Leather & Vinyl
LE.....	Lt & Med. Beige Vinyl
MA.....	Black Vinyl
MA.....	Black & White Cloth & Black Vinyl
MB.....	Med. Blue Vinyl
MD.....	Dk. Red Vinyl
MD.....	Red & Black Cloth & Red Vinyl
MF.....	Med. Ginger Vinyl
NA.....	Black Vinyl
NA.....	Black Knit & Vinyl
NB.....	Med. Blue Vinyl
NF.....	Med. Ginger Knit & Vinyl
NY.....	Lt. Nugget Gold Vinyl
PA.....	Black Vinyl
PA.....	Black Cloth & Vinyl
PB.....	Lt. Blue Vinyl
PB.....	Lt. Blue Cloth & Vinyl
PD.....	Dk. Red Cloth & Vinyl
PF.....	Med. Ginger Cloth & Vinyl
PY.....	Lt. Nugget Gold Vinyl
PY.....	Lt. Nugget Gold Cloth & Vinyl
QA.....	Black Knit & Vinyl
QB.....	Med. Blue Knit & Vinyl
QD.....	Dk. Red Knit & Vinyl
QW.....	White Knit & Vinyl With Black
RA.....	Black Vinyl
RA.....	Black Grain Leather Vinyl
RA.....	Black Knit & Vinyl
RA.....	Black & White Cloth & Black Vinyl
RB.....	Med. Blue Vinyl
RB.....	Med. Blue Knit & Vinyl
RD.....	Dk. Red Vinyl
RD.....	Red & Black Cloth & Red Vinyl
RD.....	Dk. Red Knit & Vinyl
RF.....	Med. Ginger Vinyl
RF.....	Med. Brown Vinyl

## INTERIOR TRIM CODES (continued)

Code	Trim Schemes
RG.....	Med. Green Vinyl
RG.....	Med. Ivy Green Knit & Vinyl
RW.....	White Vinyl With Black
RW.....	White Knit & Vinyl With Black
RZ.....	Dk. Tobacco Leather & Vinyl
SA.....	Black Vinyl
SA.....	Black & White Cloth & Black Vinyl
SB.....	Med. Blue Vinyl
SD.....	Red & Black Cloth & Red Vinyl
SD.....	Dk. Red Vinyl
SF.....	Med. Ginger Vinyl
SG.....	Med. Ivy Green Vinyl
SW.....	White Vinyl With Black
TA.....	Black Cloth & Vinyl
TA.....	Black Knit & Vinyl
TA.....	Black & White Cloth & Black Vinyl
TB.....	Med. Blue Knit & Vinyl
TD.....	Dk. Red Cloth & Vinyl
TD.....	Dk. Red & Black Cloth & Dk. Red Vinyl
TD.....	Dk. Red Knit & Vinyl
TF.....	Med. Ginger Cloth & Vinyl
TF.....	Med. Brown Cloth & Vinyl
TG.....	Med. & Lt. Ivy Green Knit & Vinyl
TW.....	White Knit & Vinyl
TW.....	White With Black Knit & Vinyl
TY.....	Lt. Nugget Gold Knit & Vinyl
UA.....	Black Knit & Vinyl
UA.....	Black Vinyl
UA.....	Black Grain Leather
UB.....	Med. Blue Vinyl
UD.....	Dk. Red Grain Leather
UE.....	Vermilion Cloth & Vinyl
UF.....	Med. Ginger Cloth & Ginger Vinyl
UW.....	White Knit & Vinyl With Black
UW.....	White Vinyl
UY.....	Lt. Gold Vinyl
UY.....	Lt. Nugget Gold Knit & Vinyl
UY.....	Lt. Nugget Gold Vinyl
UZ.....	Dk. Tobacco Grain Leather
VA.....	Black Knit & Vinyl
VA.....	Black Vinyl
VB.....	Med. Blue Vinyl
VD.....	Dk. Red Cloth & Vinyl
VD.....	Dk. Red Vinyl
VF.....	Med. Brown Vinyl
VF.....	Med. Ginger Vinyl & Cloth
VF.....	Med. Ginger Vinyl
VF.....	Med. Ginger Knit & Vinyl
VG.....	Med. Ivy Green Vinyl
VW.....	White Vinyl
WA.....	Black Knit & Vinyl
WA.....	Black Vinyl
WA.....	Black Cloth & Vinyl
WB.....	Med. Blue Cloth & Vinyl
WD.....	Dk. Red Cloth & Vinyl
WF.....	Med. Ginger Cloth & Vinyl
WF.....	Med. Brown Cloth & Vinyl
WG.....	Med. Ivy Green Cloth & Vinyl
WW.....	White Knit & Vinyl With Black
WY.....	Lt. Nugget Gold Vinyl
WY.....	Lt. Nugget Gold Knit & Vinyl
YA.....	Black Knit & Vinyl
YA.....	Black Cloth & Vinyl
YB.....	Med. Blue Knit & Vinyl
YD.....	Dk. Red Knit & Vinyl
YF.....	Med. Ginger Knit & Vinyl
YG.....	Med. Ivy Green Cloth & Vinyl
YG.....	Med. Ivy Green Knit & Vinyl
YW.....	White Knit & Vinyl With Black
YY.....	Lt. Nugget Gold Cloth & Vinyl
ZA.....	Black Cloth & Vinyl
ZG.....	Dk. Ivy Green Cloth & Vinyl
ZG.....	Med. Green Cloth & Vinyl

## DATE CODES

A number signifying the date precedes the month code letter. A second-year code letter will be used if the model exceeds 12 months.

Month	Code First Year	Code Second Year
January.....	A.....	N.....
February.....	B.....	P.....
March.....	C.....	Q.....
April.....	D.....	R.....
May.....	E.....	S.....
June.....	F.....	T.....
July.....	G.....	U.....
August.....	H.....	V.....
September.....	J.....	W.....
October.....	K.....	X.....
November.....	L.....	Y.....
December.....	M.....	Z.....

## DISTRICT CODES (DSO)

Units built on a Domestic Special Order, Foreign Special Order, or other Special orders will have the complete order number in this space. Also to appear in this space is the two-digit code number of the District which ordered the unit. If the unit is a regular production unit, only the District code number will appear.

## FORD

Code	District
11.....	Boston
13.....	New York
15.....	Newark
16.....	Philadelphia
17.....	Washington
21.....	Atlanta
22.....	Charlotte
24.....	Jacksonville
25.....	Richmond
28.....	Louisville
32.....	Cleveland
33.....	Detroit
35.....	Lansing
37.....	Buffalo
38.....	Pittsburgh
41.....	Chicago
43.....	Milwaukee
44.....	Twin Cities
46.....	Indianapolis
47.....	Cincinnati
51.....	Denver
53.....	Kansas City
54.....	Omaha
55.....	St. Louis
56.....	Davenport
61.....	Dallas
62.....	Houston
63.....	Memphis
64.....	New Orleans
65.....	Oklahoma City
71.....	Los Angeles
72.....	San Jose
73.....	Salt Lake City
74.....	Seattle
75.....	Phoenix
83.....	Government
84.....	Home Office Reserve
85.....	American Red Cross
89.....	Transportation Services
90-99.....	Export

## LINCOLN-MERCURY

Code	District
11.....	Boston
15.....	New York
16.....	Philadelphia
17.....	Washington
21.....	Atlanta
22.....	Dallas
23.....	Jacksonville
26.....	Memphis
31.....	Buffalo
32.....	Cincinnati
33.....	Cleveland
34.....	Detroit
41.....	Chicago
42.....	St. Louis
46.....	Twin Cities
51.....	Denver
52.....	Los Angeles
53.....	Oakland
54.....	Seattle
84.....	Home Office Reserve
90.....	Export

## FORD OF CANADA

Code	District
B1.....	Central
B2.....	Eastern
B3.....	Atlantic
I1 thru I7.....	Export
B4.....	Midwestern
B6.....	Western
B7.....	Pacific

Note: Canadian Lincoln-Mercury units use prefix  
"A" in place of "B"

<h1 style="margin: 0;">Wheels And Tires</h1>	<b>GROUP</b>  <b>11</b>
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**PART 11-01**

General Wheels and Tires

Service ..... 11-01-01

**PAGE PART 11-03**

Tires ..... 11-03-01

**PAGE****PART 11-02**

Wheels ..... 11-02-01

## PART 11-01 General Wheels and Tires Service

COMPONENT INDEX This Information Applies to All Models	All Models	COMPONENT INDEX This Information Applies to All Models	All Models
FRONT WHEEL BEARING MAINTENANCE	01-01	WHEEL BALANCING	01-01
TIRE INSPECTION	01-02	WHEEL INSPECTION	01-01
A page number indicates that the item is for the vehicle(s) listed at the head of the column. N/A indicates that the item is not applicable to the vehicle(s) listed.			

### 1 COMMON ADJUSTMENTS AND REPAIRS

#### WHEEL BALANCING

See the instructions provided with the Rotunda Wheel Balancer.

Make certain that the brakes are not dragging before attempting to spin the wheels. Push the brake shoes into the caliper to free the rotor.

### 2 CLEANING AND INSPECTION

#### WHEEL INSPECTION

Wheel hub nuts should be inspected and tightened to specification at pre-delivery. Loose wheel hub nuts may cause shimmy and vibration. Elongated stud holes in the wheels may also result from loose hub nuts.

Keep the wheels and hubs clean. Stones wedged between the wheel and

drum and lumps of mud or grease can unbalance a wheel and tire.

Check for damage that would affect the runout of the wheels. Wobble or shimmy caused by a damaged wheel will eventually damage the wheel bearings. Inspect the wheel rims for dents that could permit air to leak from the tires.

#### FRONT WHEEL BEARING MAINTENANCE

Wheel bearings are adjustable to correct for bearing and spindle shoulder wear. Satisfactory operation and long life of bearings depend on proper adjustment and correct lubrication. **If bearings are adjusted too tightly, they will overheat and wear rapidly. An**

adjustment that is excessively loose will cause pounding and contribute to uneven tire wear, steering difficulties and inefficient brakes. The bearing adjustment should be checked at regular inspection intervals.

Front hubs and bearings should be cleaned, inspected and lubricated whenever the hubs are removed or at

the mileage/time periods indicated in the maintenance schedule.

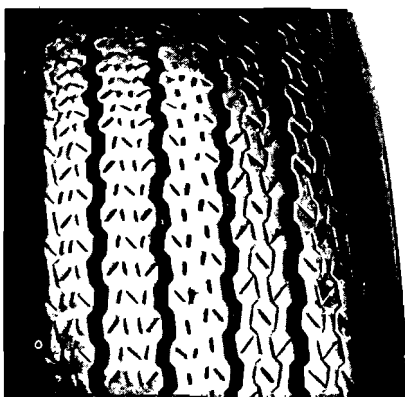
New hub grease seals should be installed when the hub is removed. An imperfect seal may permit bearing lubricant to reach the brake linings resulting in faulty brake operation and necessitating premature cleaning or replacement of linings.

## **TIRE INSPECTION**

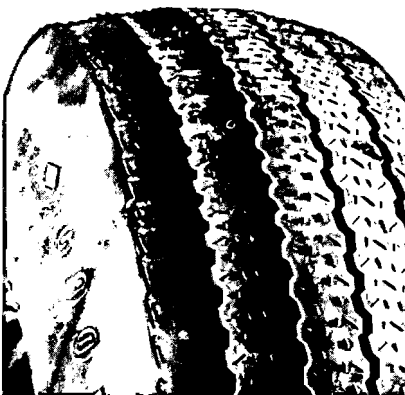
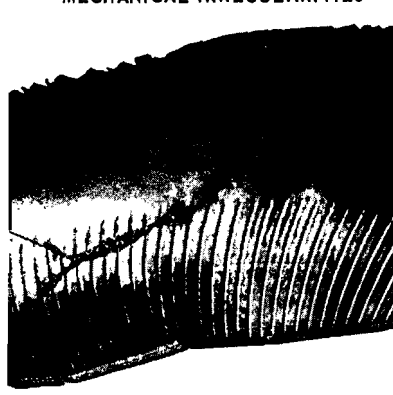
Incorrect wheel alignment can cause tire wear. Abnormal or excessive tire wear can also be caused by wheel/tire unbalance or incorrect tire pressure. Typical tire wear patterns are shown in Fig. 1.



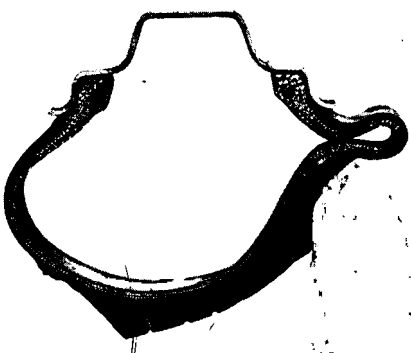
UNDERINFLATION



OVERINFLATION

CUPPING—UNDERINFLATION AND/OR  
MECHANICAL IRREGULARITIESINCORRECT TOE-IN  
OR EXTREME CHAMBERFEATHERING DUE TO MISALIGNMENT  
OR SEVERE CORNERING

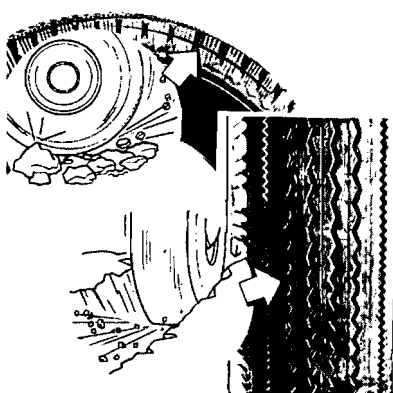
STONE BRUISE



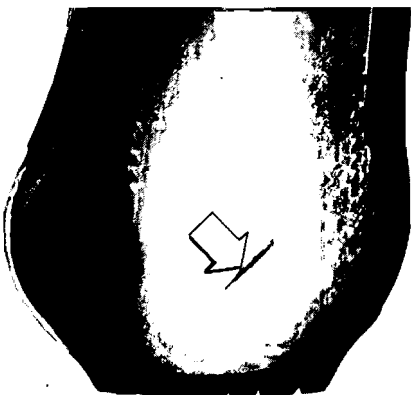
STONE BRUISE



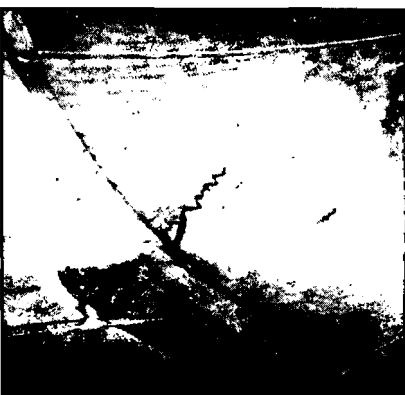
UNDERINFLATION



ROCK CUT



BRUISE



HEAT BRUISE

DOUBLE BRUISE—SHARP OBJECT  
AND RESULTING FATIGUE F1467-B

FIG. 1—Tire Wear Conditions



# PART 11-02 Wheels

COMPONENT INDEX Applies To Models As Indicated	All Models	Ford	Mercury	Meteor	Cougar	Fairlane	Falcon	Maverick	Montego	Mustang	Lincoln- Continental	Thunderbird	Continental- Mark III
FRONT HUB AND DRUM ASSEMBLY Removal and Installation	02-05												
FRONT HUB AND ROTOR ASSEMBLY Removal and Installation		02-05	02-05	02-05	02-05	02-05	02-05	N/A	02-05	02-05	02-05	02-05	02-05
FRONT WHEEL ASSEMBLY Description	02-01												
FRONT WHEEL BEARING ADJUSTMENT	02-02												
FRONT WHEEL GREASE SEAL AND BEARING Removal, Installation, Repacking	02-03												
HOISTING INSTRUCTIONS	02-02												
REAR WHEEL ASSEMBLY Description	02-01												
WHEEL AND TIRE (CONVEN- TIONAL) Removal and Installation	02-03												
A page number indicates that the item is for the vehicle(s) listed at the head of the column. N/A indicates that the item is not applicable to the vehicle(s) listed.													

## 1 DESCRIPTION

### FRONT WHEEL ASSEMBLY

Each front wheel and tire is bolted to its respective front hub and brake drum or rotor assembly. Two opposed tapered roller bearings are installed in each hub. A grease retainer is installed at the inner end of the hub to prevent lubricant from leaking into the drum or on the rotor. The entire assembly is retained to its spindle by the adjusting nut, nut lock and cotter pin (Figs. 1 and 2).

### REAR WHEEL ASSEMBLY

The rear wheel hub and brake drum assembly is attached to studs on the rear axle shaft flange by three speed nuts. The wheel and tire mounts on the same rear axle shaft flange studs and is held against the hub and drum by the wheel nuts. The rear wheel bearing is pressed onto the axle shaft just inside the shaft flange, and the entire assembly is retained to the rear axle housing by the bearing retainer plate which is bolted to the housing flange.

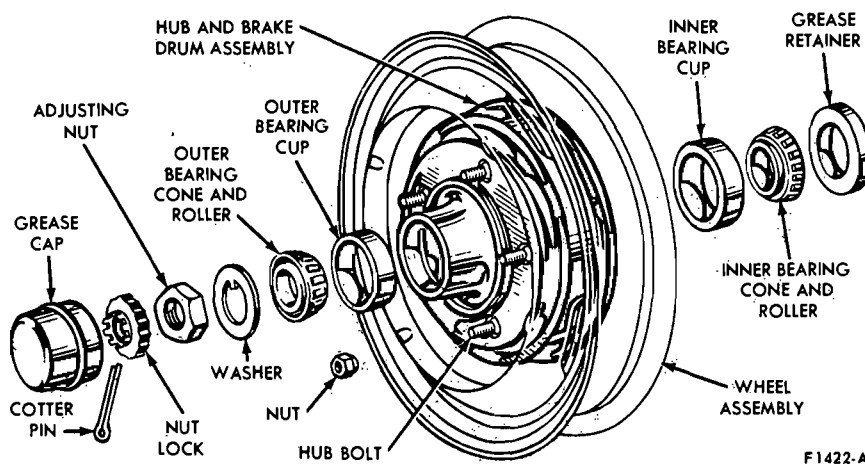
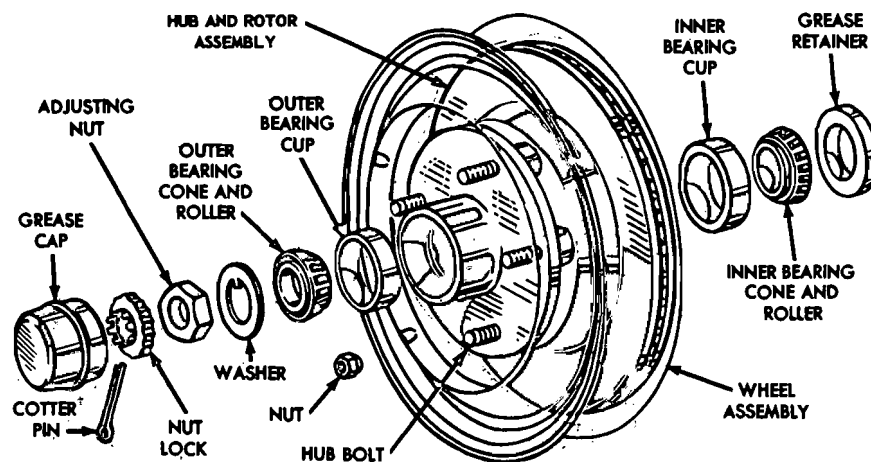


FIG. 1—Front Hub, Bearing and Grease Retainer Drum Brakes



F1416-A

FIG. 2—Front Hub and Rotor Bearing and Grease Retainer Disc Brakes—Typical

## 2 IN-VEHICLE ADJUSTMENTS AND REPAIRS

### HOISTING INSTRUCTIONS

Damage to steering linkage components and front suspension struts may occur if care is not exercised when positioning the hoist adapters of 2 post hoists prior to lifting the vehicle.

If a 2 post hoist is used to lift the vehicle, place the adapters under the lower arms or the No. 1 crossmember. Do not allow the adapters to contact steering linkage. If the adapters are placed under the crossmember, a piece of wood (2x4x16 inches) should be placed on the hoist channel between the adapters. This will prevent the adapters from damaging the front suspension struts.

### FRONT WHEEL BEARING ADJUSTMENT

The front wheel bearings should be adjusted if the wheel is loose on the spindle or if the wheel does not rotate freely. The following procedures will bring the bearing adjustment to specification.

#### DRUM BRAKES

1. Raise the vehicle until the wheel and tire clear the floor.
2. Pry off the hub cap or wheel cover and remove the grease cap (Fig. 1) from the hub.
3. Wipe the excess grease from the

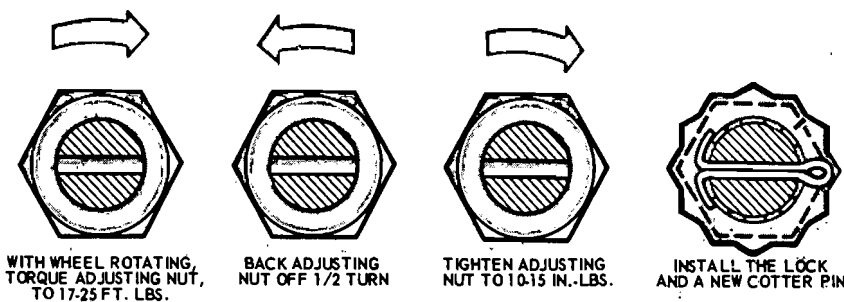


FIG. 3—Front Wheel Bearing Adjustment

end of the spindle, and remove the cotter pin and nut lock.

4. While rotating the wheel, hub, and drum assembly, torque the adjusting nut to 17-25 ft-lbs to seat the bearings (Fig. 3).

5. Locate the nut lock on the adjusting nut so that the castellations on the lock are aligned with the cotter pin hole in the spindle.

6. Using a 1 1/8-inch box wrench, back off the adjusting nut one half turn. Retighten the adjusting nut to 10-15 in-lbs with a torque wrench or finger tight.

7. Position the lock on the adjusting nut and install a new cotter pin. Bend the ends of the cotter pin around the castellated flange of the nut lock.

8. Check the front wheel rotation.

If the wheel rotates properly, install the grease cap and the hub cap or wheel cover. If the wheel still rotates roughly or noisily, clean, inspect or replace the bearings and cups as required.

#### DISC BRAKES

1. Raise the vehicle until the wheel and tire clear the floor.
2. Pry off the wheel cover and remove the grease cap (Fig. 2) from the hub.
3. Wipe the excess grease from the end of the spindle, and remove the adjusting nut cotter pin and nut lock.
4. Loosen the bearing adjusting nut three turns. Then, rock the wheel, hub, and rotor assembly in and out several times to push the shoe and

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linings away from the rotor.

5. While rotating the wheel, hub, and rotor assembly, torque the adjusting nut to 17-25 ft-lbs to seat the bearings (Fig. 3).

6. Back the adjusting nut off one half turn. Then, retighten the adjusting nut to 10-15 in-lbs with a torque wrench or finger tight.

7. Locate the nut lock on the ad-

justing nut so that the castellations on the lock are aligned with the cotter pin hole in the spindle.

8. Install a new cotter pin, and bend the ends of the cotter pin around the castellated flange of the nut lock.

9. Check the front wheel rotation. If the wheel rotates properly, install

the grease cap and the hub cap or wheel cover. If the wheel still rotates roughly or noisily, clean or replace the bearings and cups as required.

10. Before driving the vehicle, pump the brake pedal several times to obtain normal brake lining to rotor clearance and restore normal brake pedal travel.

### 3 REMOVAL AND INSTALLATION

#### HOISTING INSTRUCTIONS

Damage to steering linkage components and front suspension struts may occur if care is not exercised when positioning the hoist adapters of 2 post hoists prior to lifting the vehicle.

If a 2 post hoist is used to lift the vehicle, place the adapters under the lower arms or the No. 1 crossmember. Do not allow the adapters to contact the steering linkage. If the adapters are placed under the crossmember, a piece of wood (2x4x16 inches) should be placed on the hoist channel between the adapters. This will pre-

vent the adapters from damaging the front suspension struts.

#### WHEELS AND TIRES

##### WHEEL AND TIRE REMOVAL

1. Pry off the wheel hub cap or wheel cover. Loosen but do not remove the wheel hub nuts.

2. Raise the vehicle until the wheel and tire clear the floor.

3. Remove the wheel hub nuts from the bolts, and pull the wheel and

tire from hub and drum.

##### WHEEL AND TIRE INSTALLATION

1. Clean all dirt from the hub and drum.

2. Position the wheel and tire on the hub and drum. Install the wheel hub nuts and tighten them alternately to draw the wheel evenly against the hub and drum.

3. Lower the vehicle to the floor, and torque the hub nuts to specification.

### 4 MAJOR REPAIR OPERATIONS

#### HOISTING INSTRUCTIONS

Damage to steering linkage components and front suspension struts may occur if care is not exercised when positioning the hoist adapters of 2 post hoists prior to lifting the vehicle.

If a 2 post hoist is used to lift the vehicle, place the adapters under the lower arms or the No. 1 crossmember. Do not allow the adapters to contact the steering linkage. If the adapters are placed under the crossmember, a piece of wood (2x4x16 inches) should be placed on the hoist channel between the adapters. This will prevent the adapters from damaging the front suspension struts.

#### FRONT WHEEL GREASE SEAL AND BEARING REMOVAL, INSTALLATION AND/OR REPACKING

If bearing adjustment will not

eliminate looseness or rough and noisy operation, the hub and bearings should be cleaned, inspected, and repacked with specified wheel grease. If the bearing cups or the cone and roller assemblies are worn or damaged, they should be replaced.

##### DRUM BRAKES

1. Raise the vehicle until the wheel and tire clear the floor.

2. Remove the wheel cover or hub cap. Remove the grease cap from the hub. Remove the cotter pin, nut lock, adjusting nut, and flat washer from the spindle. Remove the outer bearing cone and roller assembly (Fig. 1).

3. Pull the wheel, hub, and drum assembly off the wheel spindle.

4. Remove the grease retainer with Tool 1175AB and discard. Remove the inner bearing cone and roller assembly from the hub.

5. Clean the lubricant off the inner

and outer bearing cups with solvent and inspect the cups for scratches, pits, excessive wear, and other damage. If the cups are worn or damaged, remove them with Tool T69L-1102-A (Fig. 4).

6. Thoroughly clean the inner and outer bearing cone and roller assemblies with solvent and dry them thoroughly. Do not spin the bearings with compressed air.

Inspect the cone and roller assemblies for wear or damage, and replace them if necessary. The cone and roller assemblies and the bearing cups should be replaced as a unit if damage to either is encountered.

7. Thoroughly clean the spindle and the inside of the hub with solvent to remove all old lubricant.

Cover the spindle with a clean cloth, and brush all loose dust and dirt from the brake assembly. To prevent getting dirt on the spindle, carefully remove the cloth from the

spindle.

8. If the inner and/or outer bearing cup(s) were removed, install the replacement cup(s) in the hub with the tool shown in Fig. 5. **Be sure to seat the cups properly in the hub.**

9. Pack the inside of the hub with specified wheel bearing grease. Add lubricant to the hub only until the grease is flush with the inside diameter of both bearing cups (Fig. 6).

10. All old grease should be completely cleaned from the bearings and surrounding surfaces before repacking them with new grease (CIAZ-19590-B). The new lithium base grease is not compatible with sodium base grease which may have been present on the bearing surfaces. Pack the bearing cone and roller assemblies

with wheel bearing grease. A bearing packer is desirable for this operation. If a packer is not available, work as much lubricant as possible between the rollers and cages. Lubricate the cone surfaces with grease.

11. Place the inner bearing cone and roller assembly in the inner cup. Apply a light film of grease to the lip(s) of the grease retainer and install the new grease retainer with the reverse end of the tool shown in Fig. 5. **Be sure that the retainer is properly seated.**

12. Adjust the brake shoes as outlined in Group 12.

13. Install the wheel, hub, and drum assembly on the wheel spindle. **Keep the hub centered on the spindle to prevent damage to the grease retainer or the spindle threads.**

14. Install the outer bearing cone and roller assembly and the flat washer on the spindle, then install the adjusting nut (Fig. 1).

15. Adjust the wheel bearings as outlined in Section 2, and install a new cotter pin. Bend the ends of the cotter pin around the castellations of the nut lock to prevent interference with the radio static collector in the grease cap. Install the grease cap.

16. Install the hub cap or wheel cover.

#### DISC BRAKES

1. Raise the vehicle until the wheel

and tire clear the floor.

2. Remove the wheel cover or hub cap from the wheel.

3. Remove the wheel and tire from the hub and rotor.

4. Remove 2 bolts and washers that attach the caliper to the spindle. Remove the caliper from the rotor and wire it to the underbody to prevent damage to the brake hose.

5. Remove the grease cap from the hub. Remove the cotter pin, nut lock, adjusting nut, and flat washer from the spindle. Remove the outer bearing cone and roller assembly (Fig. 2).

6. Pull the hub and rotor assembly off the wheel spindle.

7. Remove and discard the old grease retainer and the inner bearing cone and roller assembly from the hub.

8. Clean the lubricant off the inner and outer bearing cups with solvent and inspect the cups for scratches, pits, excessive wear, and other damage. If the cups are worn or damaged, remove them with Tool T69L-1102-A (Fig. 4).

9. Thoroughly clean the inner and outer bearing cones and rollers with cleaning solvent, and dry them thoroughly. **Do not spin the bearings dry with compressed air.**

Inspect the cones and rollers for wear or damage, and replace them if necessary. The cone and roller assemblies and the bearing cups should be replaced as a set if damage to either is encountered.

10. Thoroughly clean the spindle and the inside of the hub with solvent to remove all old lubricant.

Cover the spindle with a clean cloth, and brush all loose dust and dirt from the dust shield. To prevent getting dirt on the spindle carefully remove the cloth from the spindle.

11. If the inner and/or outer bearing cup(s) were removed, install the replacement cup(s) in the hub with the tools shown in Fig. 7. **Be sure to seat the cups properly in the hub.**

12. Pack the inside of the hub with the specified wheel bearing grease. Add lubricant to the hub only until the grease is flush with the inside diameter of both bearing cups.

It is important that all old grease be removed from the wheel bearings and surrounding surfaces because the new Lithium base grease CIAZ-19590-B is not compatible with Sodium base grease which may already be present on the bearing surfaces.

13. Pack the bearing cone and roller assemblies with wheel bearing grease. A bearing packer is desirable

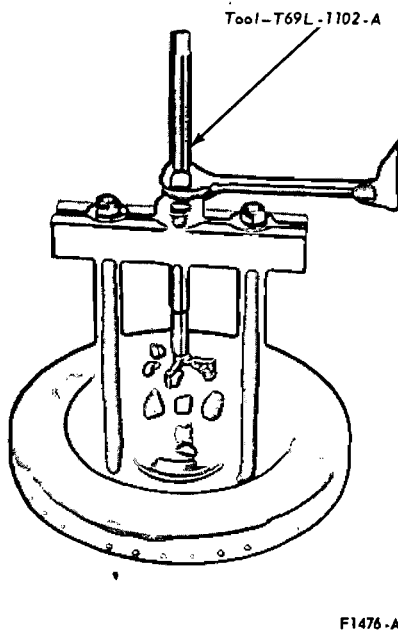


FIG. 4—Removing Front Wheel Bearing Cups—Disc (Drum-Type Similar)

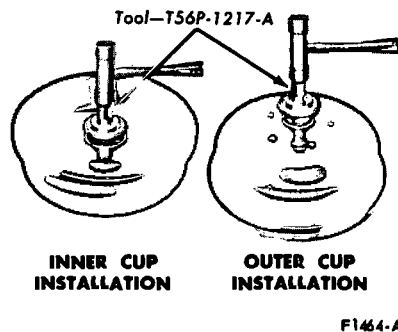


FIG. 5—Installing Front Wheel Bearing Cups—Drum

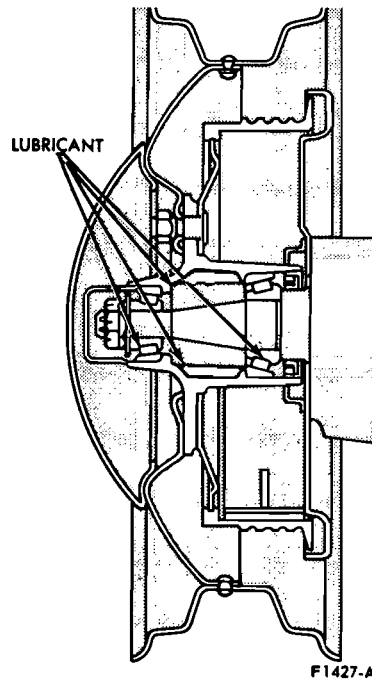


FIG. 6—Front Wheel Hub Lubrication