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1976 TRUCK SHOP MANUAL

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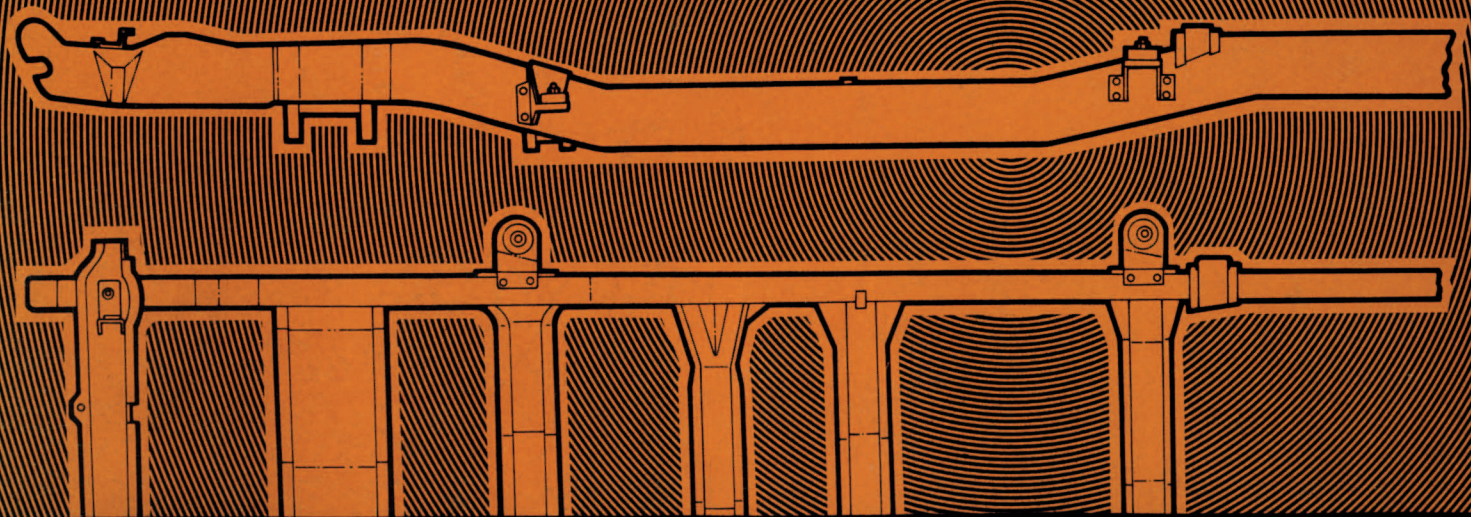
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1976 TRUCK SHOP MANUAL



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1976 TRUCK SHOP MANUAL

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FOREWORD

This manual is divided into five volumes: 1 — Chassis, 2 — Engine, 3 — Electrical, 4 — Body, 5 — Pre-delivery, Maintenance and Lubrication. These volumes provide Service Technicians with complete information covering normal service repairs on all 1976 model vehicles built by the Ford Motor Companies in the U.S. and Canada.

Information in each volume is divided into groups covering a general system. For easy reference, information in each group has been broken into smaller units or parts. There is one part for each component within the system as well as a general service part for information common to several similar components. Page numbers indicate this division.

Example: (Group 11-(Part) 02-(Page) 21

Page numbers are consecutive within each part.

The table of contents on the first page of the volume indicates the groups contained in each of the five volumes, and a tab locator is provided for finding each group of that particular volume. The first page of each group has an index to the smaller parts, and the first page of each part contains an index with page location for each service operation covered.

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.



Ford Parts and Service Division
Training and Publications Department

Identification Codes

GROUP
10

GENERAL INFORMATION

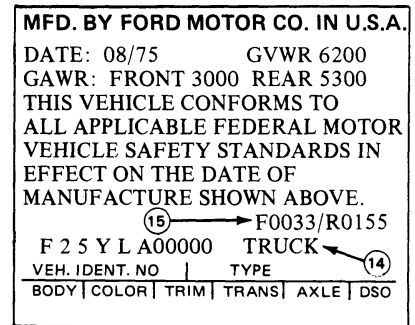
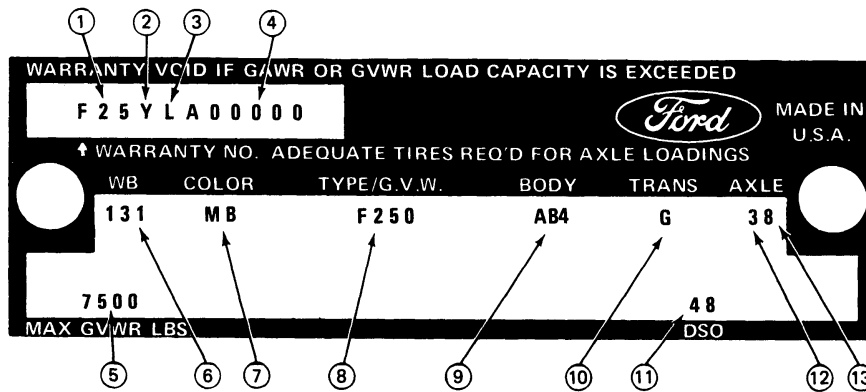
VEHICLE CERTIFICATION LABEL

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.

The remaining information codes on

the V.C. Label are the same as the Truck Rating Plate Codes (Fig. 1). Vehicle codes shown on the Truck Rating Plate are explained in the following paragraphs.



VEHICLE CERTIFICATION LABEL

- ① TRUCK SERIES CODE
- ② ENGINE CODE
- ③ ASSEMBLY PLANT CODE
- ④ CONSECUTIVE UNIT NO.
- ⑤ RECOMMENDED MAX. GROSS VEHICLE WEIGHT

- ⑥ WHEELBASE
- ⑦ EXTERIOR PAINT CODES
- ⑧ MODEL CODE
- ⑨ INTERIOR TRIM, SEAT AND BODY/CAB TYPE
- ⑩ TRANSMISSION CODES

- ⑪ DISTRICT/SPECIAL ORDER CODES
- ⑫ REAR AXLE CODES
- ⑬ FRONT AXLE CODES (IF SO EQUIPPED)
- ⑭ VEHICLE TYPE
- ⑮ ACCESSORY RESERVE LOAD

FIG. 1 Typical Truck Rating Plate and Vehicle Certification Label

RATING PLATE

Fig. 1 illustrates a typical Truck Rating Plate. On light and medium cowl and windshield vehicles, the Rating Plate is mounted on the right side of the cowl top panel under the hood. On stripped Parcel Delivery vehicles, the rating plate is placed in an envelope stapled to the dunnage box. On Bronco models, the plate is mounted on the inside panel of the glove compartment door. On all other vehicles, the Rating Plate is mounted on the rear face of the left front door.

VEHICLE IDENTIFICATION NUMBER

The identification number is the first line of numbers and letters appearing on the Rating Plate (Fig. 1). The first letter and two numbers indicate the truck series code. The letter following the truck series

code designates the engine identification code. The letter following the engine identification code indicates the assembly plant at which the vehicle was built. The remaining numbers indicate the consecutive unit number. The charts that follow list the various vehicle identification number codes.

VEHICLE DATA

The Vehicle Data appears on the Rating Plate on the two lines following the identification number. The first three digits under W.B. designate the wheelbase in inches. The one or two letters under COLOR identify the exterior paint color (two letters designate a two-tone). The letter and three digits under TYPE/G.V.W. designate the truck model within a series. The letter and numerals under BODY designate the interior trim, seat and body type. (See

Figs. 2, 3 and 4.) The transmission installed in the vehicle is identified under TRANS by either a numeric or alphabetical code (if two symbols appear, the first identifies the auxiliary transmission, if so equipped, and the second symbol identifies the main transmission). A letter and a number or two numbers under AXLE identify the rear axle ratio (when required, a letter is also stamped behind the rear axle code to identify the front axle capacity). The maximum gross vehicle weight in pounds is stamped under MAX. G.V.W.

A two-digit number is stamped under D.S.O. to identify the district which ordered the vehicle. If the vehicle is built to special order (Domestic Special Order, Foreign Special Order, Limited Production Option, or other special order), the complete order number will

also appear under D.S.O. The charts that follow list the various vehicle data codes.

W.B. (WHEELBASE)

The wheelbase in inches is entered in this space.

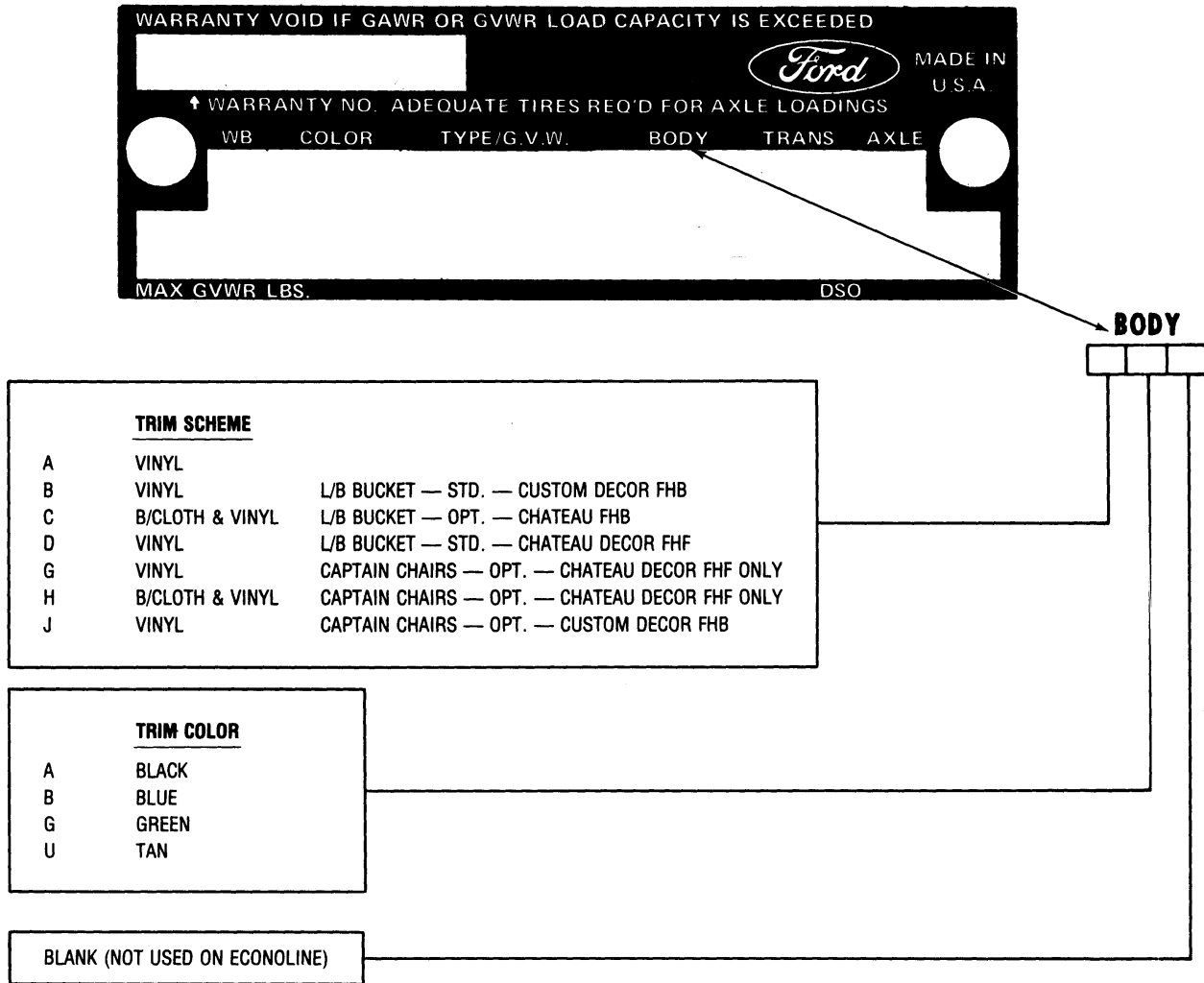
MAX. G.V.W. LBS

The maximum gross vehicle weight in pounds is recorded in this space.

D.S.O.

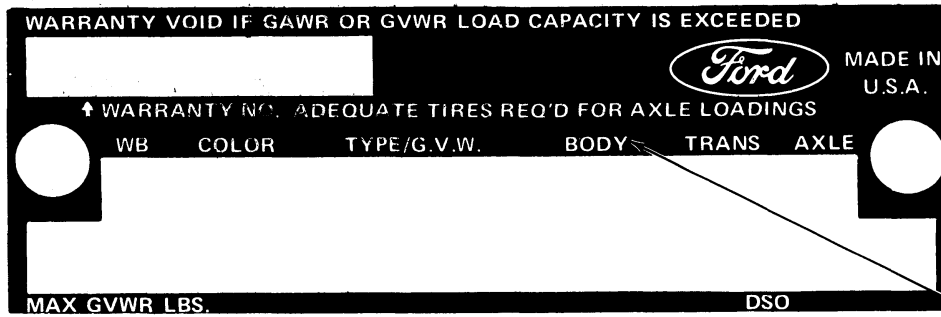
If vehicle is built on a D.S.O., F.S.O.,

L.P.O. (special orders) the complete order number will be reflected under the D.S.O. space including the District Code Number.

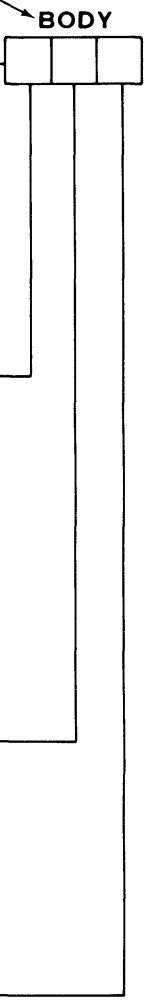


W1341-B

FIG. 2 Trim, Seat, Body/Cab Type Identification—Econoline-Vans and Club Wagons



ON COWL/WINDSHIELD BUS & PARCEL UNITS
THE FIRST TWO SPACES REMAIN BLANK



BRONCO				TRIM SCHEME & SEAT TYPE			
A	B/CLOTH — VINYL	LPB BUCKET		RANGER CAB			
R	KNIT & VINYL	L/B BUCKET		B	VINYL	STANDARD	L/B BENCH
S	KNIT & VINYL	L/B BUCKET		E	KNIT & VINYL	OPTIONAL	L/B BENCH
LIGHT TRUCKS — CUSTOM CAB				H	LEATHER VINYL	HEAVY DUTY	L/B BENCH
A	COLTON VINYL	STANDARD	L/B BENCH	RANGER CAB XLT			
D	KNIT & VINYL	DECOR	L/B BENCH	C	B/CLOTH & VINYL		L/B BENCH
G	LEATHER VINYL	HEAVY DUTY	L/B BENCH	F	KNIT & VINYL		L/B BENCH
F500 — F600 CABS				J	LEATHER VINYL	HEAVY DUTY	L/B BENCH
A	VINYL	STANDARD TRIM	STANDARD CAB L/B BENCH	L	VINYL SUPER SOFT		L/B BENCH
D	KNIT & VINYL	OPTIONAL TRIM	STANDARD CAB L/B BENCH	K	B/CLOTH & VINYL	LUXURY DECOR	L/B BENCH
E	KNIT & VINYL	OPTIONAL	CUSTOM CAB				
G	LEATHER VINYL	OPTIONAL	HEAVY DUTY STANDARD CAB				
H	LEATHER VINYL	OPTIONAL	HEAVY DUTY CUSTOM CAB L/B BENCH				
K	LEATHER VINYL	OPTIONAL	BOSTROM SEAT STANDARD CAB L/B BUCKET				
L	LEATHER VINYL	OPTIONAL	BOSTROM SEAT CUSTOM CAB				

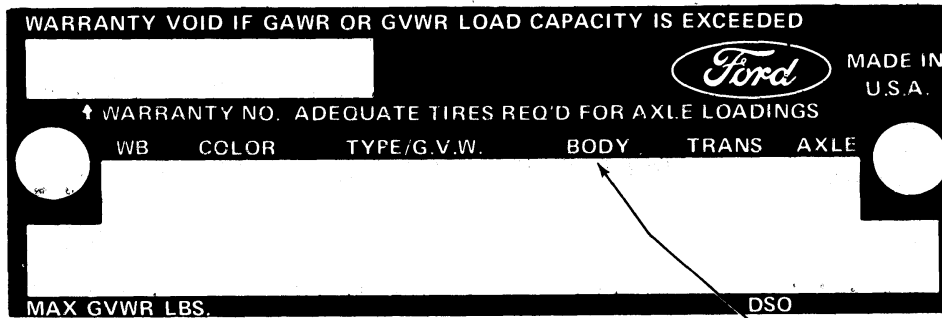
TRIM COLOR		HD BLACK SEAT WITH COLOR COMPONENTS	
A	BLACK	N	RED
B	BLUE	Q	BLUE
D	RED	4	TAN
G	GREEN	5	GREEN
U	TAN	A	BLACK
V	PARCHMENT		

CAB/BACK OF CAB				F/B 500-600	
F100-350					
6-MAN CREW CAB	SUPER CAB	REGULAR	SPECIFICATIONS	SPECIFICATIONS	
—	—	3	FLARESIDED PICK-UP	7	COWL
D	M	4	STYLESIDE PICK-UP	8	CHASSIS CAB STEEL REGULAR
—	—	5	PLATFORM STAKE	G	CHASSIS CREW CAB
—	—	7	COWL	6	CHASSIS CAB STEEL, FIRE TRUCK REGULAR
G	P	8	CHASSIS CAB		
—	—	9	PLATFORM		

W1342-B

FIG. 3 Trim, Seat, Body/Cab Type Identification—Medium, Sub Heavy and Heavy (500 thru 9000 Series)

MEDIUM, SUB-HEAVY AND HEAVY



BODY

ON COWL/BUS UNITS THE FIRST TWO SPACES REMAIN BLANK

CAB TRIM		
CUSTOM	STANDARD	CABS
A	1	GRAY
B	2	BLUE
C	3	TAN
D	4	BLACK
E	5	RED
F	6	GREEN
G	7	SADDLE
H	8	TOBACCO

F500 — F600 CABS	
A	VINYL STANDARD TRIM STANDARD CAB L/B BENCH
D	KNIT & VINYL OPTIONAL TRIM STANDARD CAB L/B BENCH
E	KNIT & VINYL OPTIONAL CUSTOM CAB
G	LEATHER VINYL OPTIONAL HEAVY DUTY STANDARD CAB
H	LEATHER VINYL OPTIONAL HEAVY DUTY CUSTOM CAB L/B BENCH
K	LEATHER VINYL OPTIONAL BOSTROM SEAT STANDARD CAB L/B BUCKET
L	LEATHER VINYL OPTIONAL BOSTROM SEAT CUSTOM CAB

SEAT TYPE			
HD BLACK VINYL	W/COMP. PASS.	SINGLE DRIVER	BENCH
A	—	—	1 BENCH SEAT
B	—	—	2 BENCH CUSTOM SEAT
—	C	3	— L-S (UNISON ACTION)
—	D	4	— L-S #675
—	E	5	— BOSTROM WESTCOASTER
—	F	6	— BOSTROM T-BAR
—	G	7	— NATIONAL CUSH-N-AIRE
—	H	8	— BOSTROM LEVELAIRE

F500 — F600			
TRIM COLOR		HD BLACK SEAT WITH COLOR COMPONENTS	
A	BLACK	N	RED
B	BLUE	Q	BLUE
D	RED	4	TAN
G	GREEN	5	GREEN
U	TAN	A	BLACK

BODY TYPE			
W/FOAM MATTRESS	SLEEPER W/SPRING MATTRESS	LESS MATTRESS	BODY
—	—	—	0 PARCEL, MOTOR HOME
—	—	—	2 CHASSIS CAB/W/BUTTERFLY HOOD
—	—	—	7 COWL
A	J	Y	8 CHASSIS CAB, STEEL
B	K	Q	H CHASSIS CAB, ALUMINUM
—	—	—	6 FIRE TRUCK/EMERGENCY CC STEEL
—	—	—	7 FIRE TRUCK W/BUTTERFLY HOOD

F500 — F600 SPECIFICATIONS	
7	COWL
8	CHASSIS CAB STEEL REGULAR
G	CHASSIS CREW CAB
6	CHASSIS CAB STEEL, FIRE TRUCK REGULAR

FIG. 4 Trim, Seat, Body/Cab Type Identification—Medium, Sub Heavy and Heavy (500 Thru 9000 Series)

MEDIUM CONVENTIONAL 'F' SERIES TRIM SCHEMES					
<u>ENGINEERING CODE</u>	<u>COMPONENT COLOR</u>	<u>RATING PLATE TRIM CODE</u>	<u>TRIM SCHEME</u>	<u>MODEL/SERIES</u>	
AA		AA	COLTON/KIWI — ALL VINYL (A1 BENCH — BASE DOOR PANEL)		
			STANDARD TRIM BLACK	81A — STANDARD CAB F500-600	
GA	W/BLACK	GA	LEATHER GRAIN — H.D. VINYL (A5 BENCH — BASE DOOR PANEL)		
			OPT. H.D. VINYL FOR STD. TRIM BLACK	81A — STANDARD CAB F500-600	
DA		DA	VILON KNIT/KIWI ALL VINYL (A4 BENCH — BASE DOOR PANEL)		
			OPT. KNIT VINYL FOR STD. TRIM BLACK	81A STANDARD CAB	
DB		DB	MED. BLUE		
DD		DD	RED, DK. RED	F500-600	
DU		DU	TAN		
DG		DG	MED. GREEN		
EA		EA	VILON KNIT/KIWI — ALL VINYL (A4 BENCH — CUSTOM DOOR PANEL)		
			CUSTOM TRIM BLACK	81B — CUSTOM CAB	
EB		EB	MED. BLUE		
ED		ED	RED, DK. RED	F500-600	
EU		EU	TAN		
EG		EG	MED. GREEN		
HA	W/BLACK W/BUE W/RED W/TAN W/GREEN	HA HO HN H4 H5	LEATHER GRAIN — H.D. VINYL (A5 BENCH — CUSTOM DOOR PANEL)		
			OPT. H.D. VINYL FOR CUSTOM TRIM BLACK	81B — CUSTOM CAB F500-600	

CY1726-A

FIG. 5 Trim, Seat, Body/Cab Type Identification

MED. HEAVY CONVENTIONAL 'F' SERIES TRIM SCHEMES				
<u>ENGINEERING CODE</u>	<u>COMPONENT COLOR</u>	<u>RATING PLATE TRIM CODE</u>	<u>TRIM SCHEME</u>	<u>MODEL/SERIES</u>
			<u>COLTON/KIWI — ALL VINYL</u> (A1 BENCH — BASE DOOR PANEL)	
AA		41	<u>STANDARD TRIM</u> BLACK MET.	<u>81A STANDARD CAB</u> F/100-750
			<u>LEATHER GRAIN — HD VINYL</u> (A5 BENCH — BASE DOOR PANEL)	
GA		4A	<u>★OPT. H.D. VINYL FOR STD. TRIM</u> BLACK	<u>81A STANDARD CAB</u> 700-750 ★STD. TRIM FOR F6000-7000
			<u>VILON KNIT/KIWI — ALL VINYL</u> (A4 BENCH — BASE DOOR PANEL)	
DA		42	<u>OPT. KNIT VINYL FOR STD. TRIM</u> BLACK MET.	<u>81A STANDARD CAB</u>
DB		22	MED. BLUE MET.	
DD		52	RED, DK. RED MET.	F700-750, F6000-7000
DU		32	TAN	
DG		62	MED. GREEN MET.	
			<u>VILON KNIT/KIWI — ALL VINYL</u> (A4 BENCH — CUSTOM DOOR PANEL)	
EA		D1	<u>MED. TRUCK CUSTOM TRIM</u> MED. BLUE MET.	<u>81B CUSTOM CAB</u>
ED		E1	RED, DK. RED MET.	F700-750, F6000-7000
EU		C1	TAN	
EG		F1	MED. GREEN MET.	
			<u>LEATHER GRAIN — HD VINYL</u> (A5 BENCH — CUSTOM DOOR PANEL)	
			<u>OPT. H.D. VINYL FOR CUSTOM TRIM</u>	<u>81B CUSTOM CAB</u>
HA	W/BLACK W/BLUE W/RED W/GINGER W/GREEN	DA BA EA CA FA	BLACK	F700-750, F6000-7000
<u>INDIVIDUAL SEATS</u>				
			<u>BOSTROM VIKING</u>	
	<u>DRIVER</u>	<u>DRIVER W/PASSENGER</u>	<u>LEATHER GRAIN — ALL VINYL</u> (A6 BOSTROM — BAS DOOR PANEL)	
KA	46	4F	<u>OPT. SEAT FOR STD. TRIM</u> BLACK	<u>81A STANDARD CAB</u> F700-750-7000
			<u>LEATHER GRAIN — ALL VINYL</u> (A6 BOSTROM — CUSTOM DOOR PANEL)	
LA	D6	DF	<u>OPT. SEAT FOR CUSTOM TRIM</u> BLACK	<u>81D CUSTOM CAB</u> F700-750-7000

CY1727-A

FIG. 6 Trim, Seat, Body/Cab Type Identification

CONVENTIONAL "L" SERIES TRUCK TRIM						
<u>ENGR. CODE</u>	<u>RATING PLATE TRIM CODE</u>				<u>TRIM SCHEME</u>	<u>MODEL SERIES</u>
	<u>STD.</u>	<u>H.D.</u>	<u>COMFORT (STD. CAB)</u>	<u>CUSTOM</u>		
1Z	81				<u>BENCH SEATS</u> CITY DELIVERY STANDARD CAB TRIM-BENCH-(A1) % LANARK REPEAT/ROMAINE VINYL DK. TOBACCO	*F-FT-FTS-N-NT800, N600-700-750 (L-LT-LTS-LN-LNT800-LN-600-700-750)
BZ			82		CITY DELIVERY OPT. COMFORT SEAT FOR STD. CAB-BENCH-(A2) % DIAMOND BASKETWEAVE/ROMAINE VINYL DK. TOBACCO	*F-FT-FTS-N-NT800-900-8000 (L-LT-LTS-LN-LNT800-900-8000) ★
CL		4A	4B		CITY DELIVERY OPT. H.D. VINYL FOR STD. CAB-BENCH-(A3) % LEATHER GRAIN H.D. VINYL BLACK	*N-600-700-750-6000-7000 (LN600-700-750-6000-7000) *F-FT-FTS-NT800, N600-700-750-800 (L-LT-LTS-LNT800, LN600-700-750-800)
CL	4A		4B		AS STANDARD SEAT FOR STANDARD CAB-BENCH-(A3) % LEATHER GRAIN H.D. VINYL BLACK	*F-FT-FTS-N-NT900-8000, N6000-7000 (L-LT-LTS-LN-LNT900-8000, LN-6000-7000) ★
2Z				H2	CITY DELIVERY CUSTOM TRIM-BENCH-(A2) % DIAMOND BASKETWEAVE/ROMAINE VINYL DK. TOBACCO	*N600-700-750-800-900-6000-7000-8000 F-FT-FTS-NT800-900-8000 (LN600-700-750-800-900-6000-7000-8000, L-LT-LTS-LNT-800-900-8000) ★
3L				DB	CITY DELIVERY OPT. H.D. VINYL FOR CUSTOM CAB-BENCH-(A3) % LEATHER GRAIN H.D. VINYL BLACK	*N600-700-750-800-900-6000-7000-8000 F-FT-FTS-NT600-900-8000 (LN600-700-750-800-900-6000-7000-8000, L-LT-LTS-LNT800-900-8000) ★

★ BENCH SEAT NOT AVAILABLE WHEN 6V-53 DIESEL ENGINE IS USED IN N-NT-8000 MODEL SERIES LEAR SIEGLER UNISON SEAT TO BE USED. (PASS. SEAT AVAILABLE).

* AS RELEASED BY ENGINEERING

() AS IDENTIFIED BY SALES

% NOT AVAILABLE WITH LINE HAUL INSTRUMENT PANEL

CY1728-A1

FIG. 7 Trim, Seat, Body/Cab Type Identification

CONVENTIONAL "L" SERIES TRUCK TRIM

ENGINEERING CODE	RATING PLATE TRIM CODE		TRIM SCHEME	MODEL SERIES
	DRIVER	DRIVER W. PASSENGER		
<u>INDIVIDUAL SEATS</u>				
(L.S.) UNISON ACTION — (A4)				
AS STANDARD SEAT FOR STANDARD CAB				
DZ	83	8C	#CLARION KNIT/RUFFINO VINYL DK. TOBACCO	*F-FT-FTS-N-NT900 (L-LT-LTS-LN-LNT9000)
AS OPTIONAL SEAT FOR STANDARD CAB				
DZ	83	8C	#CLARION KNIT/RUFFINO VINYL DK. TOBACCO	*N600-700-750-6000-7000, F-FT-FTS-N-NT800-900-8000 (LN600-700-750-6000-7000 L-LT-LTS-LN-LNT800-900-8000)
AS STD. SEAT FOR CUSTOM CAB (DIESEL)				
4Z	H3	HC	#CLARION KNIT/RUFFINO VINYL DK. TOBACCO	*F-FT-FTS-N-NT9000 (L-LT-LTS-LN-LNT9000)
AS OPTIONAL SEAT FOR CUSTOM CAB				
4Z	H3	HC	#CLAIRON KNIT/RUFFINO VINYL DK. TOBACCO	*N600-700-750-6000-7000, F-FT-FTS-N-NT800-900-8000 (LN-600-700-750-6000-7000, L-LT-LTS-LN-LNT800-900-8000)
(L.S.) UNISON #675 — (A4)				
AS OPTIONAL SEAT FOR STANDARD CAB				
DZ	H4	HD	#CLARION KNIT/RUFFINO VINYL DK. TOBACCO	*F-FT-FTS-N-NT800-900-8000-9000. (L-LT-LTS-LN-LNT800-900-8000-9000)
AS OPTIONAL SEAT FOR CUSTOM CAB				
4Z	H4	HD	#CLARION KNIT/RUFFINO VINYL DK. TOBACCO	*F-FT-FTS-N-NT800-900-8000-9000 (L-LT-LTS-LN-LNT800-900-8000-9000)
<u>BOSTROM WESTCOASTER — (A5)</u>				
AS OPTIONAL SEAT FOR STANDARD CAB				
EZ	H5	HE	*CLARION KNIT/RUFFINO VINYL DK. TOBACCO	*F-FT-FTS-N-NT800-900-8000-9000 (L-LT-LTS-LN-LNT800-900-8000-9000)
AS OPTIONAL SEAT FOR CUSTOM CAB				
5Z	H5	HE	#CLARION KNIT/RUFFINO VINYL DK. TOBACCO	*F-FT-FTS-N-NT800-900-8000-9000 (L-LT-LTS-LN-LNT800-900-8000-9000)
<p>* AS RELEASED BY ENGINEERING () AS IDENTIFIED BY SALES # CITY DELIVERY AND LINE HAUL INSTRUMENT PANEL</p>				

CY1728-A2

FIG. 7 cont. Trim, Seat, Body/Cab Type Identification

TILT CABS						
RATING PLATE TRIM CODE					BENCH SEATS	
ENGR. CODE	STD.	COMFORT (STD. CAB)	H.D.	CUSTOM	TRIM SCHEME	MODEL SERIES
01	11				STANDARD CAB TRIM-BENCH-(A6) BLOCKWEAVE AND CRUSH VINYL LT. GRAY	C600-700-750-800, CT800
36		4B	4A		OPTIONAL H.D. VINYL FOR STD. CABS-BENCH-(A8) LEATHER GRAIN HEAVY DUTY VINYL BLACK	C600-700-750-800, CT800
36	4A	4B			STANDARD SEAT H.D. VINYL FOR STD. CAB-BENCH-(A8) LEATHER GRAIN HEAVY DUTY VINYL BLACK	C900-CT900
11		12			OPT. COMFORT SEAT FOR STD. CAB-BENCH-(A7) Twill STRIPE PLASTIC AND CRUSH VINYL GRAY MULTI-COLOR LT. GRAY	C600-700-750-800-900, CT800-900
11				A2	CUSTOM CAB TRIM-BENCH-(A7) Twill STRIPE PLASTIC AND CRUSH VINYL GRAY MULTI-COLOR LT. GRAY	C600-700-750-800-900, CT800-900
36			DB		OPT. H.D. VINYL FOR CUSTOM CABS-BENCH-(A8) LEATHER GRAIN HEAVY DUTY VINYL BLACK	C600-700-750-800-900, CT800-900

CY1729-A

FIG. 8 Trim, Seat, Body/Cab Type Identification

TILT CAB				
ENGINEERING CODE	RATING PLATE TRIM CODE		INDIVIDUAL SEATS	
	DRIVER	DRIVER W/PASSENGER	TRIM SCHEME	MODEL SERIES
			UNISON ACTION (LIER SIEGLER)	
26	43	4C	AS STANDARD SEAT FOR STANDARD CAB LEATHER GRAIN VINYL BLACK	C6000-700-8000
26	43	4C	AS OPTIONAL SEAT FOR STANDARD CAB LEATHER GRAIN VINYL BLACK	C600-700-750-800-900, CT800-900
26	D3	DC	AS STANDARD SEAT FOR CUSTOM CAB LEATHER GRAIN VINYL BLACK	C6000-7000-8000
26	D3	DC	AS OPTIONAL SEAT FOR CUSTOM CAB LEATHER GRAIN VINYL BLACK	C600-700-750-800-900, CT800-900
HI-WAY TRACTOR				
			UNISON #675 WITH ROADRUNNER SUSPENSION AS STANDARD SEAT — NON SLEEPER CRINKLE VINYL (SADDLE)	W-WT-9000
7F	G4	GD		
			AS STANDARD SEAT — SLEEPER CRINKLE VINYL (SADDLE)	W-WT-9000
8F	G4	GD		
BOSTROM SEAT — WEST COASTER				
			AS OPTIONAL SEAT — NON SLEEPER LEATHER GRAIN VINYL (SADDLE)	W-WT-9000
7F	G5	GE		
			AS OPTIONAL SEAT — SLEEPER LEATHER GRAIN VINYL (SADDLE)	W-WT-9000
8F	G5	GE		
CUSH-N-AIRE				
			AS OPTIONAL SEAT — NON SLEEPER LEATHER GRAIN VINYL (SADDLE)	W-WT-9000
77F	G7	GG		
			AS OPTIONAL SEAT — SLEEPER LEATHER GRAIN VINYL (SADDLE)	W-WT-9000
78F	G7	GG		
BOSTROM SEAT — LEVELAIR				
			AS OPTIONAL SEAT — NON SLEEPER LEATHER GRAIN VINYL (SADDLE)	W-WT-9000
7F	G8	GH		
			AS OPTIONAL SEAT — SLEEPER LEATHER GRAIN VINYL (SADDLE)	W-WT-9000
8F	G8	GH		

CY1730-A

FIG. 9 Trim, Seat, Body/Cab Type Identification

<p>U Bronco U-15 U-100 (Wagon) 4x4</p> <p>E Econoline 100 Series E-01 E-100 Club Wagon 5 Passenger E-02 E-100 Club Wagon 8 Passenger E-04 E-100 Cargo Van E-05 E-100 Window Van E-06 E-100 Display Van</p> <p>150 Series E-11 E-150 Club Wagon 5 Passenger E-12 E-150 Club Wagon 8 Passenger E-14 E-150 Cargo Van E-15 E-150 Window Van E-16 E-150 Display Van</p> <p>250 Series E-21 E-250 Club Wagon 5 Passenger E-22 E-250 Club Wagon 8 Passenger E-23 E-250 Club Wagon 12 Passenger E-24 E-250 Cargo Van E-25 E-250 Window Van E-26 E-250 Display Van E-27 E-250 Cutaway E-28 E-250 Cutaway (Parcel)</p> <p>350 Series E-34 E-350 Cargo Van E-35 E-350 Window Van E-36 E-350 Display Van E-37 E-350 Cutaway E-38 E-350 Cutaway (Parcel)</p>	<p><u>BUS CHASSIS COWLS — B SERIES</u></p> <p>B50 B500 B60 B600 B61 B600 B70 B700 B75 B750</p> <p><u>B-SERIES — DIESEL</u> J70 B7000</p>	<p><u>SHORT CONVENTIONAL — LN SERIES</u></p> <p><u>LN-SERIES — GAS</u> N60 N600 N61, N62 N600 N70, N71 N700 N75, N76 N750 N80, N81 N800 N90, N91 N900</p> <p><u>LN-SERIES — DIESEL</u> R60 N6000 R61 N6000 R70, R71 N7000 R80, R81 N8000 R90 N9000</p> <p><u>LNT-SERIES — GAS</u> S80, S81 NT800 S90, S91 NT900 S88 NT880</p> <p><u>LNT-SERIES — DIESEL</u> W80, W81 NT8000 W90, W91 NT9000</p>																																																			
<p><u>CONVENTIONAL — F SERIES</u></p> <table border="1"> <thead> <tr> <th>CHASSIS CAB</th> <th>PICKUP</th> <th>F-SERIES — GAS</th> </tr> </thead> <tbody> <tr><td>F17</td><td>F10</td><td>F-100</td></tr> <tr><td>F18</td><td>F11</td><td>F-100 4x4</td></tr> <tr><td>F19</td><td>F15</td><td>F-150</td></tr> <tr><td>F27</td><td>F25</td><td>F-250</td></tr> <tr><td>F28</td><td>F26</td><td>F-250 4x4</td></tr> <tr><td>F37</td><td>F35</td><td>F-350</td></tr> <tr><td>F50</td><td></td><td>F-500</td></tr> <tr><td>F60</td><td></td><td>F-600</td></tr> <tr><td>F61</td><td></td><td>F-600</td></tr> <tr><td>F65</td><td></td><td>F-600 4x4</td></tr> <tr><td>F66</td><td></td><td>F-600 4x4</td></tr> <tr><td>F70</td><td></td><td>F-700</td></tr> <tr><td>F75</td><td></td><td>F-750</td></tr> <tr><td>F88</td><td></td><td>F-880</td></tr> <tr><td></td><td></td><td><u>F-SERIES — DIESEL</u></td></tr> <tr><td>K70</td><td></td><td>F-7000</td></tr> </tbody> </table>	CHASSIS CAB	PICKUP	F-SERIES — GAS	F17	F10	F-100	F18	F11	F-100 4x4	F19	F15	F-150	F27	F25	F-250	F28	F26	F-250 4x4	F37	F35	F-350	F50		F-500	F60		F-600	F61		F-600	F65		F-600 4x4	F66		F-600 4x4	F70		F-700	F75		F-750	F88		F-880			<u>F-SERIES — DIESEL</u>	K70		F-7000	<p><u>PARCEL — GAS</u></p> <p>P35 P350 P40 P400 P50 P500 P60 (DSO) P600 P45 P450 P55 P550</p> <p><u>PARCEL — DIESEL</u> G50 (DSO) P5000</p>	<p><u>LOW TILT CABS — C SERIES</u></p> <p><u>C-SERIES — GAS</u> C60 C600 C61 C600 C70 C700 C75 C750 C80 C800 C90, C91 C900</p> <p><u>C-SERIES — DIESEL</u> D60, D61 C6000 D70 C7000 D80 C8000</p> <p><u>CT-SERIES — GAS</u> L80 CT800 L90, L91 CT900</p> <p><u>CT-SERIES — DIESEL</u> Q80 CT8000</p>
CHASSIS CAB	PICKUP	F-SERIES — GAS																																																			
F17	F10	F-100																																																			
F18	F11	F-100 4x4																																																			
F19	F15	F-150																																																			
F27	F25	F-250																																																			
F28	F26	F-250 4x4																																																			
F37	F35	F-350																																																			
F50		F-500																																																			
F60		F-600																																																			
F61		F-600																																																			
F65		F-600 4x4																																																			
F66		F-600 4x4																																																			
F70		F-700																																																			
F75		F-750																																																			
F88		F-880																																																			
		<u>F-SERIES — DIESEL</u>																																																			
K70		F-7000																																																			
<p><u>MOTOR HOME</u></p> <p>M45 M450 M50 M500</p>	<p><u>CONVENTIONAL — L SERIES</u></p> <p><u>L-SERIES — GAS</u> F80, F81 L800 F90, F91 L900</p> <p><u>L-SERIES — DIESEL</u> K80 L8000 K81 L8000 K90 L9000</p>	<p><u>HIGH TILT CABS — W SERIES</u></p> <p><u>W-SERIES — DIESEL</u> Z90 W9000 X90, X91 WT9000</p>																																																			
<p><u>LT-SERIES — GAS</u> T80, T81 LT800 T88 LT880 T90, T91 LT900</p> <p><u>LT-SERIES — DIESEL</u> U80, U81 LT8000 U90, U91 LT9000</p> <p><u>LTS-SERIES — GAS</u> V80, V81 LTS800 V90, V91, V92 LTS900</p> <p><u>LTS-SERIES — DIESEL</u> Y80, Y81 LTS8000 Y90, Y91 LTS9000</p>																																																					

ENGINE CODES: BRONCO — ECONOLINE — CLUB WAGONS — PARCEL — SCHOOL BUS — LT & MED TRUCKS		
Code	Engine CID	Cyl.
Gas (Bronco)		
G	302-2V	8
Gas (Econoline)		
B	300-1V	6
H	351-2V	8
A	460-4V	8
Gas (Light Duty)		
B	300-1V	6
G	302-2V	8
Y	360-2V	8
H	390-2V	8
M	390-4V	8
J	460-4V	8
Gas (Medium Duty)		
B	300-1V	6
B (600 Series)	300-1V H.D.	6
C	330-2V M.D.	8
D	330-2V X.D.	8
E	361-4V H.D.	8
P	361-2V H.D.	8
F	391-4V H.D.	8
U	330-2V — LPG (DSO)	8
W	361-4V — LPG (DSO)	8
M	361-2V — LPG (DSO)	8
X	391-4V — LPG (DSO)	8
J	300-2V — LPG (DSO)	6
Diesel (Medium Duty)		
U (CAT)	522 (V150)	8
V (CAT)	522 (V175)	8
W DORSET (DSO)	380	6
Gas (Parcel Delivery)		
B	300-1V	6
Gas (Low Comp. Export)		
7	361-2V H.D.	8
4	330-2V X.D.	8
8	360-2V	8
5	361-4V H.D.	8
ENGINE CODES: HEAVY & EXTRA HEAVY TRUCK SERIES 700 THROUGH 900, N-600, C-600		
Code	Engine CID	Cyl.
Gas (700-900, N-600, C-600)		
D	330 ⁰ -2V H.D.	8
4	330 ⁰ -2V H.D. Low Comp.	8
E	361 ⁰ -2V	8
5	361 ⁰ -2V Low Comp.	8
F	389-4V X.D. (9.00 TVRV 900)	8
F	391 ⁰ -4V	8
H	401 ⁰ -4V	8
K	477 ⁰ -4V	8
L	534 ⁰ -4V	8
U	330 ⁰ -2V H.D. — LPG (DSO)	8
W	361 ⁰ -2V — LPG (DSO)	8
9	534 ⁰ -4V — LPG (DSO)	8
X	391 ⁰ -4V — LPG (DSO)	8
J	300 ⁰ -2V — LPG (DSO)	6
J	475 ⁰ -4V	8

Gas (Motor Home)		
Y	360 ⁰ -2V	8
8	360 ⁰ -2V Low Comp.	8
H	390 ⁰ -2V	8
A	460-4V	8
DIESEL (SERIES 5000 THROUGH 9000)		
Code	Engine CID	
A	426 ⁰ Detroit 6-71N 218 HP @ 2300 RPM	
A	555 ⁰ Cummins V8 210 HP	
B	903 ⁰ Cummins V903 320 HP	
C	636 ⁰ Caterpillar V8 225 HP	
C	Caterpillar 3406 270 HP	
D	855 ⁰ Cummins NTC-270CT 255 HP (DSO)	
F	855 ⁰ Cummins NTC-270CT 240 HP (DSO)	
G	903 ⁰ Cummins V903 295 HP	
H	555 ⁰ Cummins V8 216 HP	
H	Caterpillar 3406 280 HP	
K	159 ⁰ Detroit 3V-53N 94 HP @ 2800 RPM (DSO)	
K	855 ⁰ Cummins NTC-270CT 270 HP	
L	855 ⁰ Cummins NTC-350 350 HP	
M	Caterpillar 3406 325 HP	
N	855 ⁰ Cummins NTC-335 280 HP	
O	855 ⁰ Cummins NTC-350 335 HP	
P	855 ⁰ Cummins NTC-335 300 HP	
Q	855 ⁰ Cummins NTC-335 320 HP	
R	855 ⁰ Cummins NTC-335 355 HP	
S	568 ⁰ Detroit 8V-71N 270 HP @ 2100 RPM (DSO)	
T	568 ⁰ Detroit 8V-71N 308 HP @ 2100 RPM	
U	568 ⁰ Detroit 8V-71N 350 HP @ 2300 RPM	
V	855 ⁰ Cummins NTC-290 @ 2100 RPM	
W	855 ⁰ Cummins NTC-290 270 HP @ 2100 RPM	
Y	927 ⁰ Cummins Super 250 270 HP @ 2100 RPM (DSO)	
1	855 ⁰ Cummins NH-230 220 HP @ 2100 RPM	
2	426 ⁰ Detroit 6-71N 228 HP @ 2100 RPM	
3	636 ⁰ Caterpillar V8 210 HP	
4	426 ⁰ Detroit 6-71NE 195 HP @ 2100 RPM (DSO)	
4	573 ⁰ Caterpillar V8 200 HP	
5	855 ⁰ Cummins NTC 290 270 HP @ 1950 RPM	
6	568 ⁰ Detroit 8V-71N 280 HP @ 2100 RPM	
7	568 ⁰ Detroit 8V-71NE 260 HP @ 2100 RPM	
8	855 ⁰ Cummins NTC-350 320 HP	
9	855 ⁰ Cummins NTC-290R 300 HP @ 2100 RPM (DSO)	

ASSEMBLY PLANTS CODE LETTERS	
Code	Assembly Plant
C	Ontario Truck
E	Mahwah
H	Lorain
I	Highland Park
K	Kansas City
L	Michigan Truck
N	Norfolk
P	Twin Cities
R	San Jose
S	Allen Park
U	Louisville
V	Kentucky Truck

ECONOLINE CLUB WAGONS VEHICLE NUMBERING SYSTEM
 SERIAL & WARRANTY NO. BLOCKS BASED UPON THE SCHEDULED MONTH

*Job #1 1976	1975 Calendar Year		1976 Model Program		1976 Calendar Year	
	* August	A00,000 — A24,999	January	B25,000 — B49,999		
September	A25,000 — A49,999	February	B50,000 — B74,999			
October	A50,000 — A74,000	March	B75,000 — B99,999			
November	A75,000 — A99,999	April	C00,000 — C24,999			
December	B00,000 — B24,999	May	C25,000 — C49,999			
		June	C50,000 — C74,999			
		July	C75,000 — C99,999			
		August	D00,000 — D24,999			

1975 Model Program
 For record purposes the 1975 Model Year Serial Numbering is shown to reflect August thru 1975 Model Build Serial Numbers.

*Job #1 1975	1975 Calendar Year		1976 Calendar Year	
	*January	W20,000 — W39,999	May	X00,000 — X19,999
February	W40,000 — W59,999	June	X20,000 — X39,999	
March	W30,000 — W79,999	July	X40,000 — X59,999	
April	W80,000 — W99,999	August	X60,000 — X79,999	

BRONCO-LT TRUCK-MED TRUCK-SCHOOL BUS-100 THRU 600 VEHICLE NUMBERING SYSTEM
 SERIAL & WARRANTY NO. BLOCKS BASED UPON THE SCHEDULED MONTH

*Job #1 1976	1975 Calendar Year		1976 Model Program		1976 Calendar Year	
	August	A00,000 — A24,999	January	B25,000 — B49,999		
September	A25,000 — A49,999	February	B50,000 — B74,999			
October	A50,000 — A74,999	March	B75,000 — B99,999			
November	A75,000 — A99,999	April	C00,000 — C24,999			
December	B00,000 — B24,999	May	C25,000 — C49,999			
		June	C50,000 — C74,999			
		July	C75,000 — C99,999			
		August	D00,000 — D24,999			

1975 Model Program
 For record purposes the 1975 Model Year Serial Numbering is shown starting Serial Number V2000

*Job #1 1975	1974 Calendar Year		1975 Calendar Year	
	August	*V20,000 — V39,999	January	W20,000 — W39,999
September	V40,000 — V59,999	February	W40,000 — W59,999	
October	V60,000 — V79,999	March	W60,000 — W79,999	
November	V80,000 — V99,999	April	W80,000 — W99,999	
December	W00,000 — W19,999	May	X00,000 — X19,999	
		June	X20,000 — X39,999	
		July	X40,000 — X59,999	
		August	X60,000 — X79,999	

FORD HEAVY & EXTRA-HEAVY TRUCK SERIES 700 THRU 9000, N600-C600
 'F & B 500-600-PARCEL' VEHICLE NUMBERING SYSTEM

*Job #1 1976	1975 Calendar Year		1976 Model Program for Heavy-Extra Heavy and Parcel Trucks		1976 Calendar Year	
	August	*A10,000 — A24,999	January	B35,000 — B49,999		
September	A35,000 — A49,999	February	B60,000 — B74,999			
October	A60,000 — A74,999	March	B85,000 — B99,999			
November	A85,000 — A99,999	April	C10,000 — C24,999			
December	B10,000 — B24,999	May	C35,000 — C49,999			
		June	C60,000 — C74,999			
		July	C85,000 — C99,999			
		August	D10,000 — D24,999			

1976 Model Program for F-B500-600 — Med. Trucks
 For record purpose the 1975 Model Year Serial Numbering is shown.

*Job #1 1976	1975 Calendar Year		1976 Calendar Year	
	August	*A00,000 — A09,000	January	B25,000 — B34,999
September	A25,000 — A34,999	February	B50,000 — B59,999	
October	A50,000 — A59,999	March	B75,000 — B84,999	
November	A75,000 — A84,999	April	000,000 — 009,999	
December	B00,000 — B09,000	May	C25,000 — C34,999	
		June	C50,000 — C59,999	
		July	C75,000 — C84,999	
		August	D00,000 — D09,999	

1975 Model Program for Heavy-Extra Heavy and Parcel Trucks

1975 Calendar Year		1976 Calendar Year	
January	W25,000 — W39,999	May	X05,000 — X19,999
February	W45,000 — W59,999	June	X25,000 — X39,999
March	W65,000 — W79,999	July	X45,000 — X59,999
April	W85,000 — W99,999	August	X65,000 — X79,999

1975 Model Program for F-B500-600-6000 Med. Trucks

1975 Calendar Year		1976 Calendar Year	
January	W20,000 — W24,999	May	X00,000 — X04,999
February	W40,000 — W44,999	June	X20,000 — X24,999
March	W60,000 — W64,999	July	X40,000 — X44,999
April	W80,000 — W84,999	August	X60,000 — X64,999

TRUCK EXTERIOR COLOR CODES

Econoline	Trucks	Paint Quality (ALT)				Econo — Van and Club Wagons		Bronco	Trucks			Truck Sales Name
		ESB-M50J1200A/103A/105A/106A (NAD) ESB-M32J100A/102A/104A				All Vans Std. Wagons Cutaway	Cust. Wagon Chateau Cutaway		Light	Medium	Heavy	
Code	Color	Suff #	Spec #	Ref #								
	A	Black	C1A	JASAXXA	1724-A			•A	•A	•A	•A	Raven Black
	K	Brn. Red	78D	CDJAXXA	5440-A			K	K	K	K	
T	T	Red	80D	JDMAXXA	2008-A	T		T	T	T	T	Candyapple Red
	J	Rangoon Red	79D	JDNAXXA	1515-A					J#	J	Rangoon Red
P	P	Lt. Blue	40B	CBLAXXA	5443-A	P		P	P	P	P	
	S	Brn. Dk. Blue Met.	H9B	SBQCXXA	5094-A			S	S	S	S	Midnight Blue Met.
N		Med. Blue Met.	G4B	TBMCXXA	5087-A	N	N					Brook Blue Met.
	1	Brn. Med. Blue	G8B	QBMAXXA	5004-A			I	I	I	I	Bahama Blue
	O	Dk. Green	D7G	QGQAXXA	5005-A			▲O	▲O	▲O	▲O	Mallard Green
8	8	Dk. Yellow Green Met.	36G	YGQCXXA	5223-A	8	8	8	8	8	8	Hatteras Green Met.
	L	Dk. Green	89R	JRQAXXA	1237-A					L#	L	Holly Green
V		Med. Green Gold	97G	AGTAXXA	5402-A	V		Y	Y	Y	Y	Baytree Green
		Dk. Jade Met.	16K	AKQCXXA	5328-A			B				Dk. Jade Met.
U	U	Lt. Green	79G	AGLAXXA	5404-A	U		U	U	U	U	Glen Green
	6	Dk. Brown (for Tutone)	41T	QTQAXXA	5064-A			6				
	3	Tan	40U	YUMAXXA	5297-A			3				Autumn Tan
X	X	Tan	52U	CULAXXA	5441-A	X	X	X	X	X	X	
	R	Med. Ginger Met.	90F	SFNCXXA	5186-A			R	R	R	R	Sequoia Brown Met.
	2	Tangerine	13E	CEKAXXA	5459-A			2				
	3	Med. Orange Met.	20C	UCPAXXA	5183-A	3						
	Y	Yellow Orange	18C	UCNAXXA	5181-A			Y	Y	Y	Y	
Z	Z	Copper Met.	25C	SCLCXXA	5035-A	Z		Z	Z	Z	Z	Hot Ginger Met.
	4	Gold	17V	CVMAXXA	5448-A							
G	G	Chrome Yellow ★	07V	JVMAXXA	1526-A	•G	•G	•G	•G	•G	•G	Chrome Yellow
	C	Special White (RPO)	32W	JWGAXXA	1525-A					#C•	•C	Pure White
M	M	White	26W	JWFAXXA	1619-A	M	M	M	M	M	M	Wimbledon White
	7	White	43W	ZWFAXXA	5418-A							
	D	White (KTP Only)	26W	JWFAXXA	1619-A	\$ Unique Kentucky Truck coding only required for sound level decibel D-83 dbA — E-86 dbA — H-88 dbA					\$D	
	E										\$E	
	H										\$H	
		NOTE: Kentucky Truck Plant only will code 1619-A White with codes — M, D, E, or H										
9	9	Red M6J102B Prime Gray M6J103B										
		(RPO) Unique Colors (Non-Polish)										
W	W	Med. Ivy Bronze Met.	F9G	ZGMDXXA	5435-A	W	W	W	W	W	W	Med. Green Glow
	4	Tan Met.	41U	YUMDXXA	5298-A					7		
	F	Dk. Ginger Met.	94F	ZFMDXXA	5425-A			F	F	F	F	Ginger Glow
4		Ginger Bronze Met.	87F	TFNDXXA	5436-A	4	4					Med. Ginger Glow
14	21					14	7					
							14	19	17	17	20	
		• RPO				1	1	2	2	3	3	
		# KTP								2		
		▲ LPO						1	1	1	1	
		@ EXPLR						2	3			

★ G — Std. School Bus — RPO other Trucks
 • RPO
 # #C, #J, #L — F600 (4 x 4) F700-750-7000 KTP Only

▲ LPO Fleet Paint
 @ 1975-1/2 Explorer

Note: Due to the truck single code limited paint identification system it will be necessary to reflect the Econoline codes and the KTP Heavy truck codes as separate paint code systems. This will allow duplicate codes to be utilized to identify different paint colors or unique code conditions. (Ex. Econo Code 3 is Orange — Bronco Code 3 is Tan.)

EXTERIOR PAINT COLOR CODES

Code	Color	M-30J/M-32J Spec. No.	Code	Color	M-30J/M-32J Spec. No.
A	Raven Black	1724-A	S	Midnight Blue Met.	5094-A
B	Wind Blue	3249-A	T	Candyapple Red	2008-A
C	Spec. White	1525-A	U	Glen Green	5404-A
D	Med. Ginger Glow	5436-A	V	Dk. Jade Met.	5328-A
E	Brook Blue Met.	5087-A	W	Med. Green Glow	5435-A
F	Ginger Glow	5425-A	X	Lt. Grabber Blue	5226-A
G	Chrome Yellow	1526-A	Y	Baytree Green	5402-A
H	Med. Beige	3569-A	Z	Hot Ginger Met.	5035-A
I	Bahama Blue	5004-A	2	Pastel Lime	5023-A
J	Rangoon Red	1515-A	3	Bright Green	5232-A
K	Autumn Tan	5297-A	4	Bright Lime	5027-A
L	Holly Green	1237-A	5	Med. Orange Yellow	5148-A
M	Wimbledon White	1619-A	6	Viking Red	3560-A
N	Bright Green Met.	5396-A	7	Med. Blue	2098-A
O	Mallard Green	5005-A	8	Brt. Yellow Gold Met.	5079-A
P	Vineyard Gold	5338-A	9	Hatteras Green Met.	5233-A
Q	Parrot Orange	5403-A	—	Prime Red	M6J102-B
R	Sequoia Brown Met.	5186-A	—	Prime Gray	M6J103-B

FRONT AXLE CODES, LIGHT AND MEDIUM TRUCKS

W POWER STEERING	CODE	FRONT AXLE — GVW
J	-	POWER STEERING
K	2	5,500
L	3	6,000
M	4	7,000
P	7	3,550 DANA - 60F
Q	8	3,000 DANA - 44 - LOCKING
R	9	3,800 LANA - 60F
E	5	3,850
N	5	9,000 (F/B 500-600)

FRONT AXLE CODES, HEAVY TRUCKS

W/POWER STEERING	CODE	FRONT AXLE — GVW
J	1	5,000
K	2	5,500
L	3	6,000
M	4	7,000
N	5	9,000
-	6	12,000 CENTER POINT
P	7	12,000
-	8	12,000 STEER EASE
R	9	15,000
S	-	16,000
T	-	18,000
U	-	20,000
A	-	3,800 PARCEL
B	-	4,700 PARCEL

DISTRICT CODES

11 BOSTON	41 CHICAGO	71 LOS ANGELES	FORD OF CANADA
12 BUFFALO	42 CLEVELAND	72 SAN JOSE	
13 NEW YORK	43 MILWAUKEE	73 SALT LAKE CITY	MERCURY REGIONS
14 PITTSBURGH	45 LANSING	74 SEATTLE	FORD REGIONS
15 NEWARK	46 INDIANAPOLIS	75 PHOENIX	A1 CENTRAL
16 PHILADELPHIA	47 CINCINNATI	76 DENVER	B1 CENTRAL
17 WASHINGTON	48 DETROIT		A2 EASTERN
		83 GOVERNMENT	B2 EASTERN
21 ATLANTA	52 DALLAS	84 HOME OFFICE RESERVE	A3 ATLANTIC
22 CHARLOTTE	53 KANSAS CITY	85 AMERICAN RED CROSS	B3 ATLANTIC
23 MEMPHIS	54 OMAHA	89 TRANSPORTATION SERVICES	A4 MIDWESTERN
24 JACKSONVILLE	55 ST. LOUIS	87 BODY COMPANY	B4 MIDWESTERN
26 NEW ORLEANS	56 DAVENPORT		A6 WESTERN
28 LOUISVILLE	57 HOUSTON		B6 WESTERN
	58 TWIN CITIES	90's EXPORT	A7 PACIFIC
			B7 PACIFIC

NOTE: EXPORT ALPHABETICAL I

FORD TRUCK SERIES DESIGNATIONS

Prefix	Series Numbers	Series	Prefix	Series Numbers	Series
U	100	Bronco	C	600 thru 900	Tilt Cab-Gas
E	100 thru 350	Econoline Van	C	6000 thru 8000	Tilt Cab-Diesel
F	100 thru 880	Conventional-Gas	CT	800 and 900	Tilt Cab Tandem-Gas
F	6000 and 7000	Conventional-Diesel	CT	8000	Tilt Cab Tandem-Diesel
L	800 and 900	Conventional-Gas	W	9000	Hi-Tilt Tractor-Diesel
L	8000 and 9000	Conventional-Diesel	WT	9000	Hi-Tilt Tractor-Diesel
LT	800, 880 and 900	Conventional Tandem-Gas	B	500 thru 750	School Bus Chassis-Gas
LT	8000 and 9000	Conventional Tandem-Diesel	B	7000	School Bus Chassis-Diesel
LTS	800 and 900	46" BA Conventional Tandem-Gas	P	350 thru 500	Parcel Delivery-Gas
LTS	8000 and 9000	46" BA Conventional Tandem-Diesel	*P	600	Parcel Delivery-Gas
N	600 thru 900	95.3" BBC Conventional-Gas	P	5000	Parcel Delivery-Diesel
N	6000 and 7000	95.3" BBC Conventional-Diesel	M	450 thru 500	Motor Home Chassis-Gas
N	8000 and 9000	93.3" BBC Conventional-Diesel			
NT	800 and 900	93.3" BBC Conventional Tandem-Gas			
NT	8000 and 9000	93.3" BBC Conventional Tandem-Diesel			

*Special Order

MODELS CODES AND GROSS VEHICLE WEIGHT RATINGS

ECONOLINE CLUB, CUSTOM & CHATEAU WAGONS

Series	Code	Passengers	GVW
E-100	E010	5	5,600
	E011	5	5,900
	E020	8	6,000
E-150	E110	5	6,010
	E111	5	6,300
	E120	8	6,350
E-250	E210	5	7,000
	E211	5	7,675

Series	Code	Passengers	GVW
	E212	5	8,300
	E213	5	8,450
	E220	8	7,100
	E221	8	7,675
	E222	8	8,300
	E223	8	8,450
	E230	12	7,850
	E231	12	8,500
	E232	12	8,750

ECONOLINE CARGO, WINDOW, DISPLAY VAN & CUTAWAY, CUTAWAY PARCEL DELIVERY MODELS

Series	Code			GVW
	Cargo	Window	Display	
E-100	E040	E050	E060	5,100
	E041	E051	E061	5,250
	E042	E052	E062	5,700
	E043	E053	E063	5,800
	E044	E054	E064	5,200
	E-150	E140	E150	E160
E141		E151	E161	6,200

Series	Code			GVW
	Cargo	Window	Display	
E-250	E240	E250	E260	6,870
	E241	E251	E261	7,625
	E242	E252	E262	8,350
E350	E340	E350	E360	8,650
	E341	E351	E361	9,600
	E342	E352	E362	9,900

ECONOLINE CARGO, WINDOW, DISPLAY VANS & CUTAWAY, CUTAWAY PARCEL DELIVERY MODELS

Series	Code		GVW
	Cutaway	Cutaway Parcel Del.	
E-250	E270	E280	7,850 GVW
	E500 GVW		
E-350	E370	—	8,750 S & DR
	E371	—	9,750 SR
	E372	—	8,750 DR
	E373	—	11,000 DR
	E374	—	11,000 DR
	—	E380	8,750 DR
	—	E381	11,000 DR
	—	E382	11,000 DR

BRONCO

Series	Code	GVW
U-100	U150	4,000
	U151	4,500
	U152	4,900

LIGHT TRUCK CODES AND GROSS VEHICLE WEIGHT

PICK-UPS	CHASSIS CAB	G.V.W.
F100 F101 F102 F103 F104 F105 F108 F107 F108 F109 F10N	<u>F100 4 x 2</u>	4,600 4,800 4,850 4,900 4,950 5,100 5,350 5,500 5,550 5,700 5,200
	F170	
	F171	
	F172	
	F173	
	F174	
	F175	
	F176	
	F177	
	F178	
	F179	
F17N		
F100 F111 F112	<u>F100 4 x 4</u>	5,350 5,550 5,700
	F180	
	F181	
	F182	
F150 F151	<u>F150 4 x 2</u>	6,050 6,200
	F190	
	F191	

PICK-UPS	CHASSIS CAB	G.V.W.
F140 F141 F142 F143	<u>F150 4 x 4</u>	6,050 6,200 6,300 6,400
	F160	
	F161	
	F162	
	F163	
F250 F251 F252 F253 F255 F256 F257 F254 F258 F259	<u>F250 4 x 2</u>	6,200 6,900 7,800 8,000 6,600 6,850 7,100 6,350 7,650 8,100
	F270	
	F271	
	F272	
	F273	
	F275	
	F276	
	F277	
	F274	
	F278	
	F279	

PICK-UPS	CHASSIS CAB	G.V.W.
F260 F261 F262	<u>F250 4 x 4</u>	6,850 7,600 7,700
	F280	
	F281	
	F282	
F350 F351 F352 F353 F354 F355 F356 F357 F358 F359	<u>F350 4 x 2</u>	6,700 6,350 8,050 8,300 8,400 8,600 9,000 9,500 10,000 9,350
	F370	
	F371	
	F373	
	F373	
	F374	
	F375	
	F376	
	F377	
	F378	
	F379	

MEDIUM TRUCK MODEL CODES AND GROSS VEHICLE WEIGHT

Series	Model Code	GVW
F-500	F-500	14,000
	F-501	16,000
	F-502	17,400
	F-503	19,200
F-600	F-600	16,000
	F-601	17,000
	F-602	19,200
	F-610	19,700
	F-611	20,200
	F-612	21,000
	F-613	22,000
	F-614	22,000
	F-615	23,000
	F-616	24,000
	F-617	22,000
F-618	17,900	
F-600 - 4 x 4	F-650	17,200
	F-660	21,700
	F-661	24,000
B-500 - Bus	B-500	14,000
	B-501	16,000
	B-502	17,400
	B-503	19,200
B-600 - Bus	B-600	16,000
	B-601	17,000
	B-602	19,200
	B-610	19,700
	B-611	20,200
	B-612	21,000
	B-613	21,000
	B-614	22,000
	B-615	22,000
	B-616	23,000
	B-617	24,000
B-618	22,000	
P-350 - Parcel	P-351	6,100
	P-352	6,500
	P-353	8,000
	P-350	8,000
P-400 - Parcel	P-400	10,000
	P-401	7,400
	P-402	8,000
	P-403	7,000
P-500 - Parcel	P-500	15,000
	P-501	10,100
	P-502	15,000
	P-503	12,000
	P-505	17,000
P-5000 DSO - Parcel Diesel	G-504	12,000
	G-506	15,000

Series	Model Code	GVW
Motor Home		
M-450	M-452	12,500
	M-504	15,000
M-500	M-504	15,000
	M-507	14,000

TRUCK SERIES CODE, MODEL CODE, RECOMMENDED GROSS VEHICLE WEIGHT HEAVY AND EXTRA HEAVY TRUCK

Series	Model Code	GVW (lbs.)	
N-600	N-604	16,000	
	N-605	19,200	
	N-610	21,000	
	N-611	22,000	
	N-612	23,000	
	N-615	24,000	
	N-618	17,900	
	N-619	20,200	
	N-620	22,000	
	N-621	22,000	
	C600	C-602	17,000
C-611		22,000	
C-612		23,000	
C-616		20,200	
C-617		21,200	
N-6000		R-602	16,000
		R-603	19,200
	R-610	21,000	
	R-611	22,000	
	R-612	23,000	
	R-615	24,000	
	R-616	20,200	
	R-617	22,000	
	R-618	22,000	
C-6000	D-602	17,000	
	D-611	22,000	
	D-612	23,000	
	D-615	20,200	
	D-616	21,200	
F-7000	K-700	19,200	
	K-701	21,000	
	K-702	22,000	
	K-703	23,000	
	K-704	24,000	
	K-705	24,000	
	K-706	25,500	
	K-707	27,500	
	K-708	22,000	
	N-7000	R-700	22,000
		R-702	23,000
R-703		24,000	
R-704		25,500	

Series	Model Code	GVW (lbs.)
	R-707	27,500
	R-709	19,200
	R-710	21,000
	R-711	22,000
	R-712	24,000
C-7000	D-702	25,500
	D-705	27,500
	D-707	21,200
	D-708	23,000
F-700	F-700	19,200
	F-701	21,000
	F-702	22,000
	F-703	23,000
	F-704	24,000
	F-705	24,000
	F-706	25,500
N-700 and N-750	N-700	22,000
	N-702	23,000
	N-703	24,000
	N-704	25,500
	N-709	19,200
	N-710	21,000
	N-711	22,000
	N-712	24,000
	N-752	23,000
	N-753	24,000
	N-754	25,500
C-700	N-760	27,500
	N-762	21,500
	N-763	22,000
	N-764	22,000
	N-765	24,000
	C-702	25,500
	C-706	21,200
F-750	C-707	23,000
	F-750	21,500
	F-751	22,000
	F-752	23,000
	F-753	24,000
	F-754	24,000
	F-755	25,500
	F-756	27,500
C-750	F-757	21,500
	F-758	22,000
	C-752	25,500
	C-755	27,500
	C-756	23,000

TRUCK SERIES CODE, MODEL CODE, RECOMMENDED GROSS VEHICLE WEIGHT HEAVY AND EXTRA HEAVY TRUCK

SERIES	MODEL CODE	GVW (lbs.)	
L-800	F-802	24,500	
	F-803	25,500	
	F-804	27,500	
	F-805	29,000	
	F-806	31,000	
	F-808	34,000	
	F-809	31,000	
	F-810	22,100	
	F-811	31,800	
	F-812	22,100	
	F-813	31,800	
	F-814	34,000	
	N-800	N-802	24,500
		N-803	25,500
N-804		27,500	
N-805		29,000	
N-806		31,000	
N-808		34,000	
N-811		31,000	
N-812		22,100	
N-813		31,800	
N-814		22,100	
N-815		31,800	
N-816		34,000	
C-800		C-802	27,500
		C-807	25,100
LT-800 and LT-880	T-800	37,000	
	T-802	39,000	
	T-804	43,000	
	T-806	46,000	
	T-807	50,000	
	T-811	41,000	
	T-812	44,800	
	T-880	39,000	
	T-881	41,000	
	T-882	43,000	
	T-883	44,800	
	T-884	46,000	
	T-885	41,000	
	LTS-800	V-800	39,000
V-804		46,000	
V-805		50,000	
V-809		41,000	
V-810		44,000	
NT-800 and NT-880	S-800	37,000	
	S-802	39,000	
	S-804	43,000	
	S-806	46,000	
	S-807	50,000	
	S-811	41,000	
	S-812	44,800	
	S-880	39,000	
	S-881	41,000	
	S-882	43,000	
	S-883	44,800	
	S-884	46,000	
	S-885	41,000	
	CT-800	L-800	43,000
L-802		39,000	
L-806		42,000	

SERIES	MODEL CODE	GVW (lbs.)
	L-807	46,000
	L-808	47,100
	L-809	48,000
L-8000	K-802	25,500
	K-803	27,500
	K-805	31,000
	K-806	32,000
	K-807	34,000
	K-808	35,000
	K-812	23,100
	K-813	31,800
N-8000	R-802	25,500
	R-803	27,500
	R-805	31,000
	R-806	32,000
	R-807	34,000
	R-808	35,000
	R-810	23,100
C-8000	D-802	27,500
	D-806	25,100
	D-807	32,000
	D-808	35,000
LT-8000	U-800	39,000
	U-805	46,000
	U-806	50,000
	U-807	50,000
	U-808	54,000
	U-809	60,000
	U-810	55,000
	U-815	41,000
	U-816	44,800
	U-817	61,000
LTS-8000	Y-800	39,000
	Y-804	46,000
	Y-805	50,000
	Y-806	50,000
	Y-807	52,000
	Y-808	54,000
	Y-812	60,000
	Y-814	64,000
	Y-818	41,000
NT-8000	W-800	39,000
	W-805	46,000
	W-806	50,000
	W-807	50,000
	W-808	54,000
	W-812	41,000
	W-814	44,800
	W-815	55,000
	W-816	60,000
	W-817	61,000
CT-8000	Q-800	43,000
	Q-802	39,000
	Q-803	45,000
	Q-805	41,000
	Q-807	46,000
	Q-808	47,100
	Q-809	48,000
L-900	F-900	25,500
	F-902	27,500
	F-905	31,000

SERIES	MODEL CODE	GVW (lbs.)
	F-906	32,000
	F-908	34,000
	F-909	35,000
	F-912	23,100
	F-913	31,800
	F-914	31,000
N-900	N-900	25,500
	N-902	27,500
	N-905	31,000
	N-906	32,000
	N-908	34,000
	N-909	35,000
	N-911	23,100
	N-912	31,800
C-900	C-904	27,500
	C-906	31,000
	C-907	32,000
	C-910	34,000
	C-912	36,000
	C-913	31,000
	C-914	25,100
	C-915	38,000
LT-900	T-900	39,000
	T-902	41,000
	T-904	43,000
	T-906	46,000
	T-907	50,000
	T-908	50,000
	T-909	54,000
	T-911	60,000
	T-914	44,800
	T-915	48,000
	T-916	52,000
T-917	58,000	
LTS-900	V-900	39,000
	V-904	46,000
	V-905	50,000
	V-906	50,000
	V-907	52,000
	V-908	54,000
	V-909	56,000
	V-911	58,000
	V-912	60,000
	V-913	62,000
	V-914	64,000
V-918	41,000	
V-919	54,000	
V-920	48,000	
NT-900	S-900	39,000
	S-902	41,000
	S-904	43,000
	S-906	46,000
	S-907	50,000
	S-909	54,000
	S-914	44,800
	S-915	48,000
S-916	52,000	

TRUCK SERIES CODE, MODEL CODE, RECOMMENDED GROSS VEHICLE WEIGHT HEAVY AND EXTRA HEAVY TRUCK

SERIES	MODEL CODE	GVW (lbs.)	
CT-900	L-900	39,000	
	L-913	42,000	
	L-914	46,000	
	L-915	47,100	
	L-916	50,000	
	L-917	51,000	
	L-918	52,000	
	L-919	48,000	
	L-9000	K-902	32,000
K-904		35,000	
K-907		28,000	
K-908		31,800	
N-9000	R-902	32,000	
	R-904	35,000	
	R-906	28,000	
	R-907	31,800	
W-9000	Z-903	36,000	
	Z-904	29,900	
	Z-905	35,000	
	Z-906	36,000	
	Z-907	29,640	
LT-9000	U-900	43,000	
	U-903	46,000	
	U-904	50,000	
	U-905	50,000	
	U-906	54,000	
	U-908	60,000	
	U-911	52,000	
	U-914	44,800	
	U-915	61,000	
	U-916	48,000	
	U-917	58,000	
	LTS-9000	Y-900	43,000
		Y-903	50,000
Y-904		50,000	
Y-905		52,000	
Y-906		54,000	
Y-907		56,000	
Y-909		58,000	
Y-910		60,000	
Y-911		62,000	
Y-918		70,000	
Y-919		48,000	
NT-9000		W-903	46,000
		W-904	50,000
	W-906	54,000	
	W-907	43,000	
	W-911	44,800	
	W-912	48,000	
	W-913	52,000	
WT-9000	X-905	44,800	
	X-906	46,000	

SERIES	MODEL CODE	GVW (lbs.)	
	X-907	46,000	
	X-908	47,100	
	X-909	44,600	
	X-915	44,800	
	X-916	46,000	
	X-917	46,000	
	X-918	47,100	
	X-919	44,600	
	B-700	B-700	19,700
		B-701	21,000
B-702		21,000	
B-703		22,000	
B-704		23,000	
B-705		24,000	
B-706		24,000	
B-707		25,500	
B-7000	B-708	22,000	
	J-700	20,200	
	J-701	22,000	
	J-702	23,000	
	J-703	24,000	
	J-704	24,000	
	J-705	25,500	
B-750	J-706	22,000	
	B-750	21,500	
	B-751	22,000	
	B-752	23,000	
	B-753	24,000	
	B-754	24,000	
	B-755	25,500	
B-756	22,000		

REAR AXLE CODE (2900 Lb. to 7400 Lb. Capacity)

Code	Description	Ratio
A2	Ford 3300 ¹	3.70
A3	Ford 2900 ¹	4.11
A5	Ford 330 ¹	4.11
B4	Dana 60 ¹ (5300)	4.10
B8	Ford 2900 ¹	3.50
B9	Ford 3300 ¹	3.50
C7	Dana 60 ¹ (5300)	3.54
C8	Dana 60 ¹ (5300)	3.73
D6	Dana 70 ¹ (7400)	3.73
D7	Dana 70 ¹ (7400)	4.10
H1	Ford 3600 ¹	3.00
H1	Ford 3750 ¹	3.00
H2	Ford 3600 ¹	3.50
H2	Ford 3750 ¹	3.50
H3	Ford 3600 ¹	4.11
H3	Ford 3750 ¹	4.11
H4	Ford 3750 ¹	3.25
H5	Ford 3750	3.70
01	Ford 2750	3.00
02	Ford 3300	3.00
03	Ford 2900	4.11

Code	Description	Ratio
04	Ford 2750	3.50
05	Ford 3300	4.11
06	Ford 2750	3.70
07	Ford 2750	4.11
08	Ford 3300	3.50
09	Ford 3300	3.70
11	Ford 3600	4.11
12	Ford 3750	3.70
12	Ford 2900	3.00
14	Ford 3600	3.00
14	Ford 3750	3.00
15	Ford 3750	3.25
16	Ford 3600	3.50
16	Ford 3750	3.50
17	Ford 3300	3.25
18	Ford 2900	3.50
22	Dana 61 (5300)	3.07
23	Dana 61 (5300)	3.31
24	Dana 60 (5300)	4.10
27	Dana 70 (7400)	4.10
28	Dana 70 (7400)	4.56
36	Dana 70 (7400)	3.73
37	Dana 60 (5300)	3.54
38	Dana 60 (5300)	3.73

¹ Limited-Slip or Traction-Lok

REAR AXLE CODE (11,000-lb. to 18,500-lb. Capacity)

Code	Description	Capacity	Ratio
E1	Eaton 16244	(17,500)	5.57/7.75
E2	Eaton 16244	(17,500)	6.17/8.58
E3	Eaton 16244	(17,500)	6.50/9.04
F1	Eaton 15201	(15,000)	5.14/7.17
F2	Eaton 15201	(15,000)	5.83/8.12
F3	Eaton 15201	(15,000)	6.33/8.81
EH	Eaton 17221	(18,500)	5.57/7.60
FH	Eaton 17221	(18,500)	6.14/8.38
GH	Eaton 17221	(18,500)	6.50/8.87
HH	Eaton 17221	(18,500)	7.17/9.77
FQ	Eaton 17121	(18,500)	6.14
GQ	Eaton 17121	(18,500)	6.50
HQ	Eaton 17121	(18,500)	7.17
41	Rockwell D-140	(13,000)	5.83
42	Rockwell D-140	(13,000)	6.20
43	Rockwell D-140	(13,000)	5.29
44	Rockwell D-140	(13,000)	6.80
45	Rockwell D-140	(13,000)	4.88
47	Rockwell D-140	(13,000)	4.33
52	Rockwell H-170	(17,500)	5.86
53	Rockwell H-170	(17,500)	6.14
54	Rockwell H-170	(17,500)	6.83
55	Rockwell H-170	(17,500)	7.17
62	Rockwell F-106	(15,000)	6.20
64	Rockwell F-106	(15,000)	6.80
66	Rockwell F-106	(15,000)	7.20

REAR AXLE CODE (22,000 Lb. and 23,000 Lb. Single Axle)

Code	Description	Capacity	Ratio	Code	Description	Capacity	Ratio	Code	Description	Capacity	Ratio
DB	Eaton 18221	(22,000)	5.57/7.60	DK	Eaton 18121	(22,000)	6.50	H5	Rockwell R-171	(23,000)	5.29
EB	Eaton 18221	(22,000)	6.14/8.38	EK	Eaton 18121	(22,000)	7.17	H6	Rockwell R-171	(23,000)	5.86
FB	Eaton 18221	(22,000)	6.50/8.87	AP	Eaton 19221	(23,000)	4.33/5.90	H7	Rockwell R-171	(23,000)	6.14
GB	Eaton 18221	(22,000)	7.17/9.77	CP	Eaton 19221	(23,000)	5.43/7.39	H9	Rockwell R-171	(23,000)	3.70
AG	Eaton 19121	(23,000)	4.11	DP	Eaton 19221	(23,000)	6.17/8.40	1A	Rockwell R-170	(23,000)	4.11
BG	Eaton 19121	(23,000)	4.33	EP	Eaton 19221	(23,000)	6.67/9.08	2A	Rockwell R-170	(23,000)	4.33
CG	Eaton 19121	(23,000)	4.88	GP	Eaton 19221	(23,000)	4.11/5.60	3A	Rockwell R-170	(23,000)	5.29
DG	Eaton 19121	(23,000)	5.43	H1	Rockwell R-171	(23,000)	4.11	4A	Rockwell R-170	(23,000)	6.14
EG	Eaton 19121	(23,000)	6.17	H2	Rockwell R-171	(23,000)	4.33	5A	Rockwell	(23,000)	4.63
FG	Eaton 19121	(23,000)	6.67	H3	Rockwell R-171	(23,000)	4.63	6A	Rockwell	(23,000)	4.88
GG	Eaton 19121	(23,000)	3.70	H4	Rockwell R/171	(23,000)	4.88	7A	Rockwell	(23,000)	5.86
HG	Eaton 19121	(23,000)	4.56								

TANDEM REAR AXLE CODES

Code	Description	Capacity	Ratio	Code	Description	Capacity	Ratio	Code	Description	Capacity	Ratio
AJ	Eaton 38DSC	(38,000)	4.56	BA	Rockwell SLHD	(34,000)	3.55	AX	Eaton 50DP	(50,000)	5.61
BJ	Eaton 38DSC	(38,000)	4.88	BB	Rockwell SLHD	(34,000)	8.60	EC	Eaton 30DSC	(32,000)	6.50
CJ	Eaton 38DSC	(38,000)	5.57	B1	Rockwell SLHD	(34,000)	4.11	FC	Eaton 30DSC	(32,000)	7.17
FJ	Eaton 38DSC	(38,000)	4.11	B2	Rockwell SLHD	(34,000)	4.44	GC	Eaton 30DSC	(32,000)	7.60
GJ	Eaton 38DSC	(38,000)	4.33	B3	Rockwell SLHD	(34,000)	4.63	JF	Eaton 34DSC	(34,000)	4.11
HJ	Eaton 38DSC	(38,000)	5.29	B4	Rockwell SLHD	(34,000)	4.88	BF	Eaton 34DSC	(34,000)	4.33
DJ	Eaton 38DSE	(38,000)	6.14	B6	Rockwell SLHD	(34,000)	5.83	CF	Eaton 34DSC	(34,000)	4.56
EJ	Eaton 38DSE	(38,000)	6.50	B7	Rockwell SLHD	(34,000)	6.17	DF	Eaton 34DSC	(34,000)	4.88
JJ	Eaton 38DSE	(38,000)	7.17	B8	Rockwell SLHD	(34,000)	6.83	LF	Eaton 34DSC	(34,000)	3.70
KJ	Eaton 38DSE	(38,000)	7.60	B9	Rockwell SLHD	(34,000)	7.80	FF	Eaton 34DSC	(34,000)	5.57
DN	Eaton 34DPC	(34,000)	6.21	DA	Rockwell SQHD	(38,000)	6.17	GF	Eaton 34DSE	(34,000)	6.14
FN	Eaton 34DPC	(34,000)	7.60	D1	Rockwell SQHD	(38,000)	4.11	HF	Eaton 34DSE	(34,000)	6.50
AR	Eaton 38DPC	(38,000)	5.05	D2	Rockwell SQHD	(38,000)	4.44	MF	Eaton 34DSE	(34,000)	7.17
DR	Eaton 38DPC	(38,000)	6.22	D3	Rockwell SQHD	(38,000)	4.63	KF	Eaton 34DSE	(34,000)	7.60
ER	Eaton 38DPC	(38,000)	6.65	D4	Rockwell SQHD	(38,000)	5.29	FW	Eaton 34DTE	(34,000)	6.14/8.38
FR	Eaton 38DPC	(38,000)	7.60	D5	Rockwell SQHD	(38,000)	5.83	GW	Eaton 34DTE	(34,000)	6.50/8.87
AV	Eaton 42DPB	(44,000)	5.91	D6	Rockwell SQHD	(38,000)	6.83	HW	Eaton 34DTE	(34,000)	7.17/9.77
CV	Eaton 42DPB	(44,000)	5.05	D7	Rockwell SQHD	(38,000)	7.80				
DV	Eaton 42DPB	(44,000)	5.91	D8	Rockwell SQHD	(38,000)	4.88				

TRANSMISSION CODES

Code	Description	Code	Description
Bronco		0	New Process 542FL Direct 5 Speed
C	3 Speed Manual Ford	0	Fuller T-905B Direct 5 Speed
Econoline-Club Wagons		P	Warner T-19 4 Speed
C	3 Speed Manual Ford	P	Fuller RT 613 Direct 13 Speed
G	C-6 Automatic	P	C6 Automatic
Light, Medium and Heavy Truck, Parcel Delivery and School Bus		Q	Spicer 5652 Direct 5 Speed
A	New Process 435/4 Speed	Q	Fuller RT-1110 Direct 10 Speed
A	Spicer SST10 Direct 10 Speed	R	Spicer RP8716-3A Overdrive 16 Speed
B (Code Y-3A)	Spicer RP8516-3B Overdrive 16 Speed	S	Spicer 5756-B Direct 5 Speed
C	Ford Manual 3 Speed	T	New Process 542 F0 Overdrive 5 Speed
C	Fuller RT-610 Direct 10 Speed	T	Fuller RTO-9509-B9 Speed Overdrive
D	Clark 387 V Direct 5 Speed	U	Spicer 6852G Direct 5 Speed
E	Fuller RT12510 Direct 10 Speed	V	Fuller RT-910 Direct 10 Speed
E	Warner T-19 (Parcel) 4 Speed	W	Spicer 6352B Direct 5 Speed
F	Fuller RTO-12-513 Overdrive 13 Speed	X	Fuller T-905A Direct 5 Speed
F	Warner T-18 4 Speed	Z	Clark 397V Direct 5 Speed
G	Automatic	1	Spicer-8552A Direct 5 Speed
G	Spicer SST 1007-2F-Direct Speed	2	Clark 282V Direct 5 Speed
G	Warner T87G 3 Speed (Parcel)	3	Fuller RT-906 Direct 6 Speed
H	Allison MT650	4	Clark 280 VO Overdrive 5 Speed
J	Fuller RTO 9513 Overdrive 13 Speed	4	Fuller RT-9513 Direct 15 Speed
J	FMX Automatic (Parcel)	5	Fuller RTO-910 Overdrive 10 Speed
K	Spicer 6453 Overdrive 5 Speed	6	Fuller RTO-915 Overdrive 15 Speed
L	Allison AT540	6	Clark 390V Direct 5 Speed
M	Clark 285V Direct 5 Speed	7	Clark 385V Direct 5 Speed
N	Spicer 6352 Direct 5 Speed	8	Allison MT640
		9	Fuller RT-915 Direct 15 Speed
		9	New Process 542 FD Direct 5 Speed

AUXILIARY TRANSMISSION CODE

Code	Description	Code	Description	Code	Description
2	Spicer 5831D	4	Spicer 7231D	6	Spicer 8031B
3	Spicer 7231B	5	Spicer 8341C	8	Spicer 7041

<h1 style="margin: 0;">Wheels and Tires</h1>	<p style="margin: 0;">GROUP</p> <h1 style="margin: 0;">11</h1>
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<p>PART 11-01</p> <p>General Wheel and Tire Service 11-01-1</p> <p>PART 11-02</p> <p>Wheels and Tires—</p> <p>Drop Center Rim 11-02-1</p> <p>PART 11-03</p> <p>Wheels and Tires—</p> <p>Two-Piece Rims 11-03-1</p> <p>PART 11-04</p> <p>Wheels and Tires—</p> <p>Three-Piece Rims 11-04-1</p>	<p>PART 11-10</p> <p>Wheel Hubs and Bearings—</p> <p>Front (Except Front Drive) 11-10-1</p> <p>PART 11-11</p> <p>Wheel Hubs and</p> <p>Bearings—Rear 11-11-1</p> <p>PART 11-12</p> <p>Wheel Hubs and Bearings—</p> <p>Front Wheel Drive 11-12-1</p> <p>PART 11-14</p> <p>Wheel Hubs and Bearings—</p> <p>Rear (Full Floating Axle) 11-14-1</p>
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PART 11-01 General Wheel and Tire Service

Applies to All Models			
COMPONENT INDEX	Page	COMPONENT INDEX	Page
FRONT WHEEL BEARINGS		TIRES INSPECTION	01-3
Adjustments	01-3	WHEELS	
Maintenance	01-3	Balancing	01-3
Cleaning and Inspection	01-3	Cleaning and Inspection	01-3

SAFETY

SAFETY PRECAUTIONS WHEN SERVICING TRUCK TIRES

CAUTION AND SAFETY FIRST are bywords when handling tires, particularly truck tires. Careful attention to the suggestions that follow may prevent crippling injuries, or even death. **Make it a rule to respect the terrific force contained in an inflated tire.** You may be glad some day that you did.

Prepare for any tire repair operation in a safe and efficient way. In changing tires on drop center wheels, remove the wheel and tire from the truck, as changing tires with the wheel on the

truck is hazardous, more difficult, and takes more time. In servicing of all tires use caution not to drop them (or the wheels or assemblies) on the feet, hands or body, or heavily on the floor (Fig. 1). Practice good methods of lifting; use your legs as well as your arms and your body. This will help to prevent painful internal injury. When carrying tires or wheels don't step in oil or grease. **Keep the floor clean and dry.**

Demounting tires from wheels or rims requires special care. Tires on drop center rims are best handled on a wheel holder or tire-changing machine (Fig. 3).

Deflating a tire properly is very important to your safety. First, reduce the pressure as much as you possibly can by pushing the valve core plunger. **Only then should you remove the valve core.** Keep your eyes away from the valve: Fig. 2 shows the safe way to do it.

This will prevent cuts on hands and wrists and will make it unnecessary to use a mallet for seating the tire.

Use only standard tire mounting tools and equipment. The use of makeshift tools, screwdrivers or pliers to force tires on or off rims or wheels is dangerous.



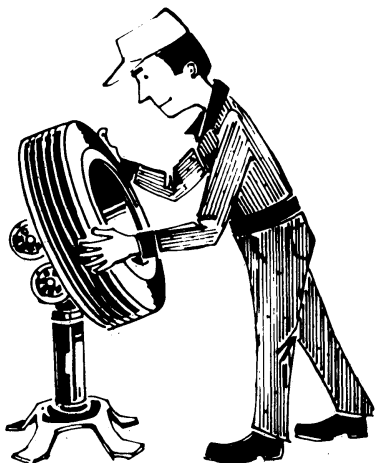
F1857-A

FIG. 1 Handling Wheels and Tires



F1853-A

FIG. 2 Safe Air Removal



F1856-A

FIG. 3 Changing Tire on Drop Center Rim

Always lubricate tire beads to assure sealing of tire beads on rim.

A new Rotunda tire changer is available. Details include a bead seater/inflator using an automatically adjustable inflation ring, which aids in properly seating the bead for inflation. To properly operate the new Rotunda tire changer, follow the instructions provided.

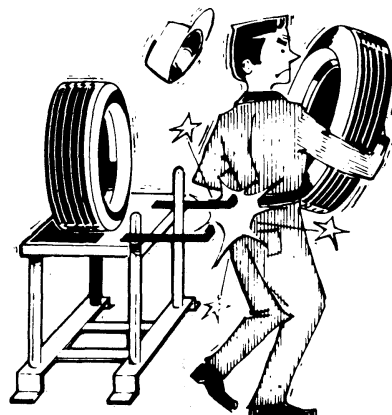
As with the drop-center rims, be certain on split-rim assemblies that all air is out before unlocking a rim or ring. Use **special care when using tire irons**. Grip them firmly and keep them free of oil and grease. They can slip and fly with tremendous force (Fig. 4).



F1858-A

FIG. 4 Use of Tire Irons

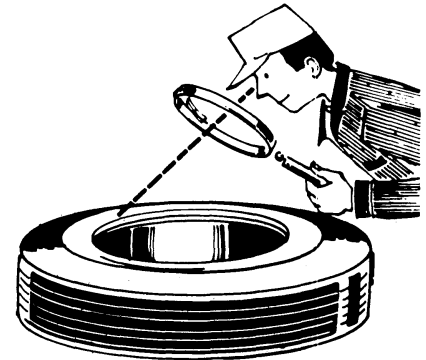
A careful inspection should be made of the tire and all necessary repairs should be performed. A tire spreader is very helpful (Fig. 5) but use care when working around it. Keep the spreader arms closed when the machine is idle.



F1860-A

FIG. 5 Tire Spreader

Inspect the rim parts carefully for rust, damage or distortion (Fig. 6). Never use rims, locking rings or flanges which are out of shape, rusted, cracked or broken in any way. **Never use a ring or other rim parts of different manufacture than the original rims or any different size or type.**



F1854-A

FIG. 6 Visual Inspection

Tires and rims often require a buffing operation before being mounted once the regular repairs have been made.

Always wear Safety Goggles, or a face shield when performing any buffing operation.

Avoid hammering rings or rims with steel hammers. Small bits of steel may be broken off the hammer or rim, flying into the eyes (wear safety goggles) face or body. Use rubber-covered, steel-headed hammers wherever possible (Fig. 7). Rubber mallets should only be used on passenger car tires; although with modern tire changing equipment no pounding is necessary.



F1859-A

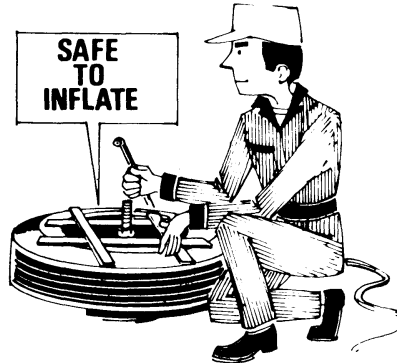
FIG. 7 Seating of Rings

Make certain the rim ring is seated to full depth of the groove, fits tightly all around, and is securely locked.

Stand away from the valve stem as far as possible while inflating tires. Avoid a position where the face or body is immediately over the work being done on any tire in which there is pressure.

With certain types of wheels, however, it is necessary to seat the rings while the tire is being inflated. In either case **before inflating study the next step.**

Attach a portable safety device, made especially for the purpose, to the assembly. This portable device should be used with all types of wheels and rims.



F1855-A

FIG. 8 Inflation Details

If the assembly is not of the type which requires inflation to seat the rings, a **Safety Cage** should be used, although the portable device is the best (Fig. 8).

Use only accurate, tested gauges to insure proper air pressure. Check all gauges regularly with a master gauge.

Play it **SAFE**. Set a good example for others who work with you. Follow the above suggestions completely. **If you are ever tempted to take a short cut because you are in a hurry, that is the time that you could get hurt.**

Finally, always remember, a jack is provided for wheel and tire maintenance only. **Never run the engine when the vehicle is supported by a jack.**

ADJUSTMENTS

WHEEL BALANCING

See the instructions provided with the Rotunda Wheel Balancer.

Make certain that the brakes are not dragging and wheel bearings are properly adjusted before attempting to spin the wheels. On vehicles equipped with disc brakes, push the brake shoes into the caliper to free the rotor.

FRONT WHEEL BEARING MAINTENANCE

Wheel bearings are adjustable. 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.

CLEANING AND INSPECTION

WHEELS

Wheel stud nuts should be inspected and tightened twice within the first 500 miles of operation. After the first 1000 miles of operation, they should again be inspected and tightened. Loose wheel stud nuts may cause shimmy and vibration. Elongated stud holes in the wheels may also result from the loose stud nuts.

Keep the wheels and hubs clean. Stones or lumps of mud wedged between the wheel and drum will 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 and cause uneven tire wear. Inspect the wheel rims for dents that could permit air to leak from the tires.

TIRES

The tires should be checked frequently to be sure that the air pressures agree with those specified for

the tires and vehicle model. Inspect the tire tread, and remove all stones, nails, glass or other objects that may be wedged in the tread. Check for holes or cuts that may permit air leakage from the tire, and make the necessary repairs.

Inspect the tire side walls for cuts, bruises, and other damage. If internal damage is suspected, demount the tire from the wheel for further inspection, repair or replacement.

Check the tire valve for air leaks, and replace the valve if necessary. Replace any missing valve caps.

On F-100, -250, -350, Econoline and Bronco models, it is important that all wheels be balanced. Fig. 9 describes common tire wear conditions.

FRONT WHEEL BEARINGS

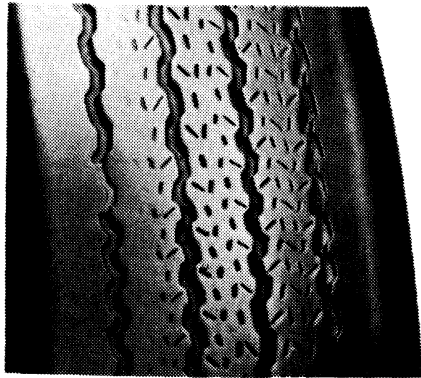
Wheel bearings are adjustable, to correct for bearing and shoulder wear of the spindle. Satisfactory operation and long life of bearings depend on proper adjustment and correct lubrication. **If bearings are adjusted too tightly, they will overheat and wear rapidly. An**

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.

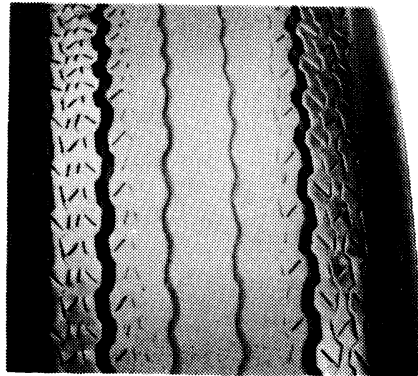
Front hub assemblies and bearings should be cleaned, inspected and lubricated whenever the hub assemblies are removed or at the mileage/time periods indicated in the maintenance schedule.

New hub assembly grease seals should be installed when the hub is removed. A damaged or worn seal may permit bearing lubricant to reach the brake linings, resulting in faulty brake operation and necessitating premature replacement of linings.

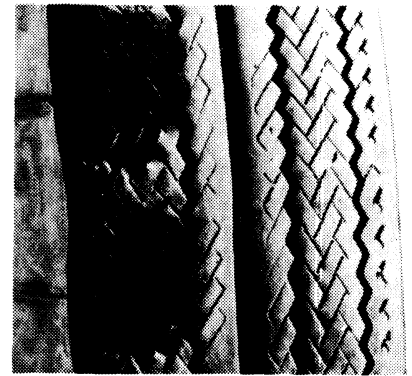
Bearing adjustment is described in Part 11-10 for front wheels. Part 11-12 covers front drive bearing adjustment. Parts 11-11 and 11-14 cover rear wheel bearing adjustments.



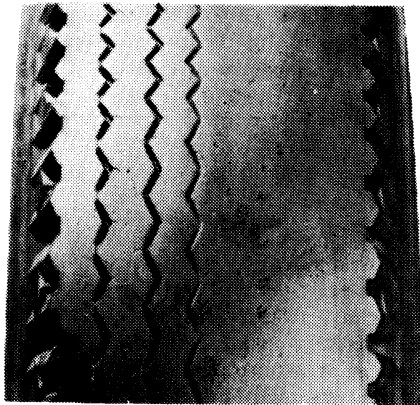
UNDERINFLATION



OVERINFLATION



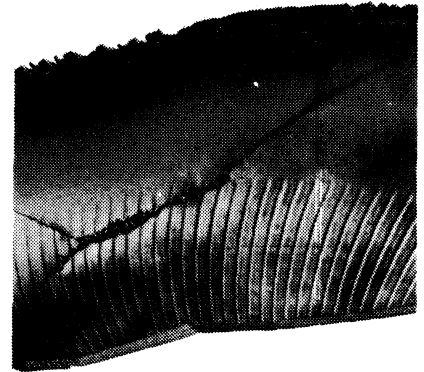
CUPPING—UNDERINFLATION AND/OR MECHANICAL IRREGULARITIES



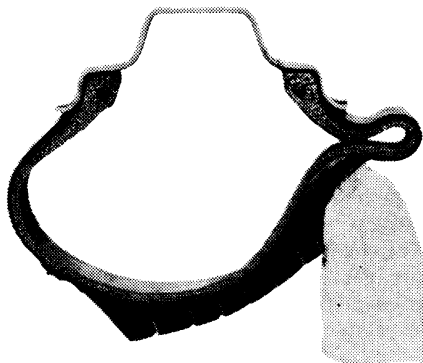
INCORRECT TOE-IN OR EXTREME CAMBER



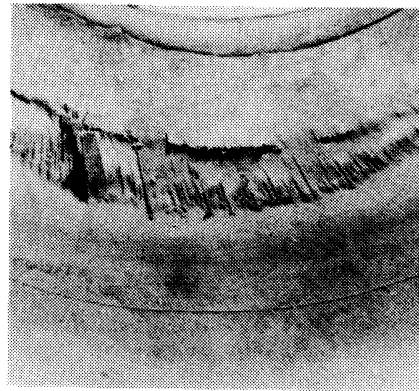
FEATHERING DUE TO MISALIGNMENT OR SEVERE CORNERING



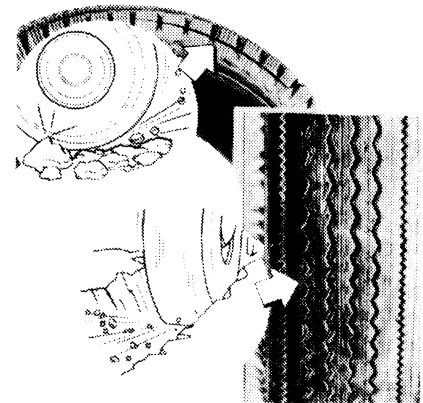
STONE BRUISE



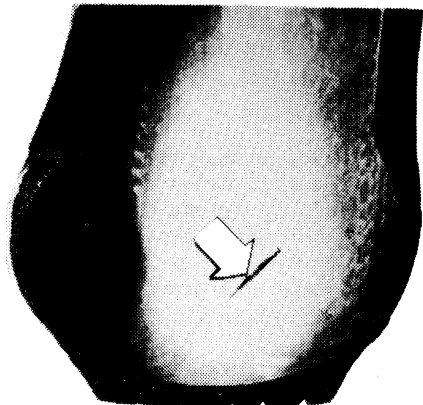
STONE BRUISE



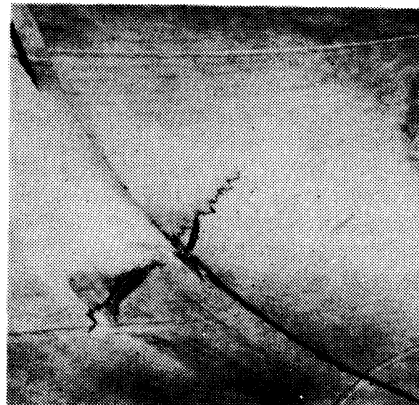
UNDERINFLATION



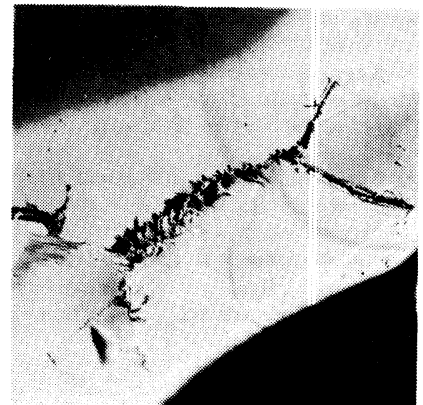
ROCK CUT



BRUISE



HEAT BRUISE



DOUBLEBRUISE—SHARP OBJECT AND RESULTING FATIGUE F1467-D

FIG. 9 Tire Wear Conditions

PART 11-02 Wheels and Tires Drop Center Rim

Applies to Bronco, E-100—E-350, F-100—F-350, P-350—P-500 and Medium Trucks					
COMPONENT INDEX		Page	COMPONENT INDEX		Page
FRONT WHEEL ASSEMBLY		02-1	REAR WHEEL ASSEMBLY		02-1
Description			Description		
FRONT WHEEL ASSEMBLY 4-WHEEL DRIVE		02-1	WHEEL REPLACEMENT		02-1
Description			SPECIFICATIONS		02-2
			TIRE REPLACEMENT		02-2

DESCRIPTION

FRONT WHEEL ASSEMBLY

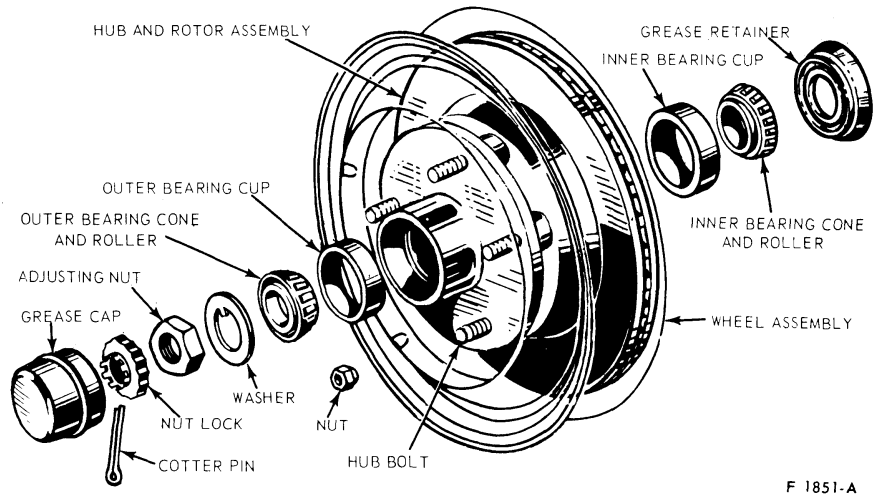
Each front wheel and tire assembly is bolted to its respective front hub and brake drum or rotor assembly. Two opposed tapered roller bearings are installed in each hub (Fig. 1). A grease retainer is installed at the inner end of the hub to prevent lubricant from leaking. The entire assembly is retained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

FRONT WHEEL ASSEMBLY—FOUR-WHEEL DRIVE

The front axles used on 4-wheel drive models are described in Parts 15-30, 15-32 and 15-33 of this manual. The locking hub assemblies are described in Part 11-12.

REAR WHEEL ASSEMBLY

Information on rear wheels may be found in Group 11, Parts 11 and 14.



F 1851-A

FIG. 1 Front Hub, Bearings and Grease Retainer—Disc Brakes—F100-F350, E100-E350

REMOVAL AND INSTALLATION

WHEEL REPLACEMENT

Light Vehicles

Removal

1. Pry off the hub cap or wheel cover (if the vehicle is so equipped), and loosen but do not remove the wheel stud nuts.
2. Raise the vehicle until the wheel and tire clear the floor. When installing the hub cap, notice the wheel hubs.

The hub cap should be positioned on the wheel over one of the retaining nubs and the two locating nubs. Be sure that the lip of the hub cap is firmly seated in the groove of the retaining nub, and then force the cap over the other retaining nub. **Any other procedure necessitates heavy pounding with possible damage to the hub cap.**

3. Remove the wheel stud nuts and the wheel and tire from the hub and drum assembly, or the hub and rotor assembly.

Installation

1. Clean all dirt from the hub and rotor assembly. The replacement wheel and tire must be clean.
2. Position the wheel and tire on the hub and rotor assembly, and install the

wheel stud nuts. Tighten the stud nuts enough to hold the wheel firmly in place. **Always tighten alternate nuts to draw the wheel evenly against the hub and drum (or hub and rotor).**

On dual wheels, except E-350, F-350, P-350 and P-400 be sure to back off the outer nut before tightening the inner nut. Then tighten the outer nut. E-350, F-350, P-350 and P-400 dual wheels have mounting bolt holes which are alternately flared inward and outward. These surfaces must be mated when the wheels are mounted. Fig. 2 illustrates the dual wheel radial alignment locating pin used on E-350 and F-350.

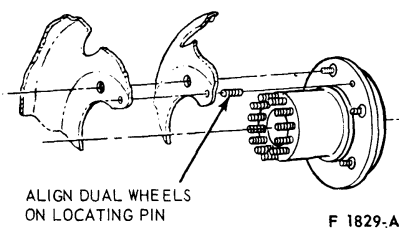


FIG. 2 Dual Wheel Radial Alignment to Hub (E-350, F-350)

3. Lower the vehicle to the floor, and tighten the wheel stud nuts to the specified torque. **On a new vehicle, and each time a wheel and tire is installed, the wheel nuts should be torqued to specification and rechecked at 500 miles.**

Medium Vehicles

Removal

1. Loosen but do not remove the wheel stud nuts.
2. Raise the vehicle until the wheel and tire clear the floor.
3. Remove the wheel stud nuts and the wheel and tire from the hub and drum.

Installation

1. Clean all dirt from the hub and drum. The replacement wheel and tire must be clean.
2. Position the wheel and tire on the hub and drum, and install the wheel stud nuts. Tighten the stud nuts enough to hold the wheel firmly in place.

Always tighten alternate nuts to draw the wheel evenly against the hub and drum.

On dual wheels, be sure to back off the outer nut before tightening the inner nut. Then tighten the outer nut.

3. Lower vehicle to the floor, and tighten the wheel stud nuts to the specified torque. **On a new vehicle, and each time a wheel and tire is installed, the wheel nuts should be checked for tightness.**

TIRE REPLACEMENT PRECAUTIONS

The tire must be completely deflated before removal, and the bead must not be damaged by a tire iron.

After installation, a tube tire should be inflated to recommended pressure, deflated, and then inflated again to insure that the tube is not folded inside the tire. Be sure the tube flap is properly positioned before inflating the tire. **On F-100, -250, -350, Econoline, and Bronco series, it is important that each front and rear tire and wheel be balanced.**

When installing tires on light trucks, thoroughly lubricate the tire beads. Inflate the tire until the bead seats against the rim of the wheel, then deflate to the specified pressure. Follow the instructions supplied with the Rotunda (KKRE-888 or equivalent) tire changer. Refer to Part 11-01 for safety procedures and illustrations.

SPECIFICATIONS

WHEEL TORQUE LIMITS – F-100 THRU F-350, ECONOLINE, BRONCO, P-350 THRU -500

Model	Nut Size	Ft-Lb
E-100, E150 F-100 (4 x 4), U-100 (Std. Wheel) P-100 F-250-250 (4 x 4) P-350 (W-5200 lb. Axle)	1/2-20	90
F-350, P-350, E-350 P-400 (W/Single Rear Wheel)	9/16-18	135
E-350 E-250 E-350 S/R E-350 D/R	1/2-20 9/16-18 9/16-18	135 135 210

Model	Nut Size	Ft-Lb
E-350, F-350, P-350, P-450 (W/Dual Wheels)① (and 7400 lb Axle)②	9/16-18	210
P-500	3/4-16 or 1-1/8-16	450

① E-350, F-250 and F-350 Single Rear Wheel Lug Nuts are Black in Color.

② E-350, F-350, P-350 and P-400 Dual Rear Wheel Lug Nuts are Zinc Plate in Color.

The Lug Nuts Should not be mixed. The Dual Wheel Lug Nuts are Left Handed Threads for Left Rear Wheels Only.

CF1804-D

PART 11-03 Wheels and Tires— Two-Piece Rims

Applies to F-250-F-350 Vehicles			
COMPONENT INDEX	Page	COMPONENT INDEX	Page
TIRE REMOVAL AND MOUNTING Two-Piece Rims	03-1	TIRE REMOVAL AND MOUNTING Two-Piece Semi-Drop Center Rims	03-2

DESCRIPTION

Two-piece rims are used on disc and cast wheels with tube-type tires only.

Refer to Part 11-01 for safety procedures and illustrations.

REMOVAL AND INSTALLATION

The tire must be completely deflated before removal, and the bead must not be damaged by a tire iron.

After installation, a tube tire should be inflated to recommended pressure, deflated, and then inflated again to insure that the tube is not folded inside the tire. Be sure the tube flap is properly positioned before inflating the tire.

It is recommended that tire-changing equipment be used in changing all truck tires. See Safety Precautions in Part 11-01.

TIRE REMOVAL AND MOUNTING—TWO-PIECE RIM

Removing Tire from Wheel

If no tire-changing machine is available, remove tire as detailed in following Steps.

1. First, remove valve core and completely deflate the tire. Then, place the wheel (ring side up) on the floor. Insert the hook end of the rim tool between the ring flange and the tire and press downward on bead. Continuing around the ring, pry the tire off the tapered seat of the ring (Fig. 1).
2. To remove the ring, insert the straight end of the rim tool into the notch, and force ring opposite the notch down with foot, and pry off. Be careful not to bend side ring.
3. Force upper tire bead into well opposite the valve slot, and with tire tool, pry opposite portion of bead over edge of rim.

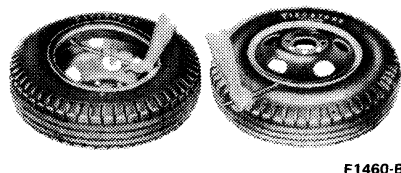


FIG. 1 Removing Rim and Removing Tire—Two-Piece Rim

4. Stand assembly in vertical position. Lubricate second bead. At top of assembly insert straight end of tool between bead and back flange of rim at about a 45 degree angle. Turn tool so that it is perpendicular to rim. Pry second bead off.
5. Turn tire over. With rim tools, loosen bead on opposite bead seat. This can be further aided by using foot pressure.

Make sure one portion of second bead is still in the rim well, then pry opposite portion of bead over edge of rim. This will free the tire from the rim.

Mounting Tire to Wheel

1. Place tire on rim so that valve is in line with rim slot and insert valve through the slot (Fig. 2). Force first bead down into well of rim just to side of valve. Mount first bead over rim lip with rim tool, progressing around the tire.

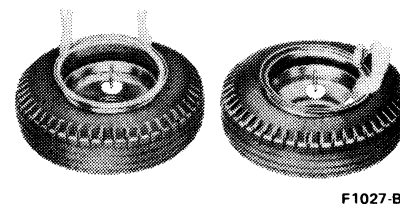


FIG. 2 Positioning and Starting Ring—Two-Piece Rim

2. To apply second bead, start at point opposite valve and press tire bead over rim lip and into rim well (Fig. 3). Mount remainder of bead over rim lip by means of thin tire tool, being careful not to pinch tube. If necessary, insert second tire tool and lubricate last 6 inches of bead before completing mounting.

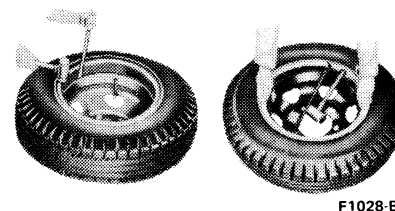


FIG. 3 Installing and Checking Ring—Two-Piece Rim

3. Place half of side ring under the rim lip with cutaway portions in position as shown. Insert thin end of rim tool or heavy screwdriver and pull ring

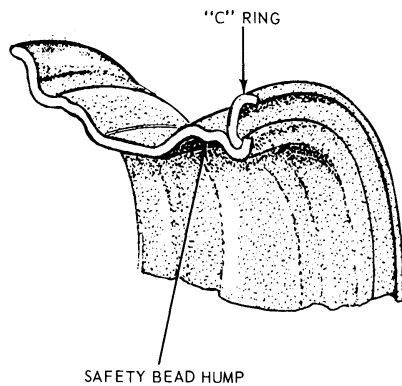


FIG. 4 Two-Piece Split Ring—Light Truck

outward toward centered position. Strike with mallet to start ring over rim lip, then strike remaining portion to force it over rim lip.

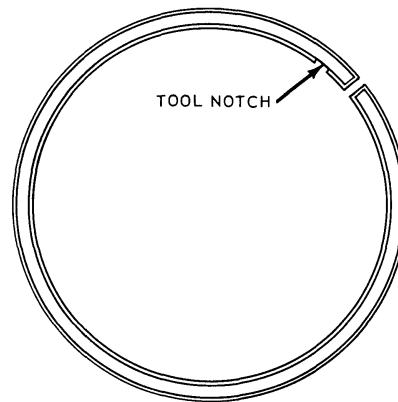
TIRE REMOVAL AND MOUNTING—TWO-PIECE SEMI-DROP CENTER RIM—F250-F350

Recent developments make possible the removal and mounting of tires from this type of wheel-rim combination with mechanical tire-changing equipment. If available, follow instructions of equipment manufacturer. Otherwise, use the following instructions.

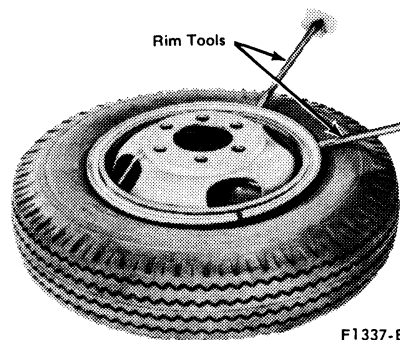
This two-piece wheel uses a split C-type ring, as shown in Fig. 4.

Removal of Side Ring from Rim with Tire

1. Deflate tire completely and place the wheel (ring side up) on the floor.
2. Break the tire bead free from the rim, being careful not to damage the bead (Fig. 5).
3. Insert the straight end of the rim tool into and under the notch in the ring (Fig. 6).
4. Force the tool downward to disengage the ring from the rim gutter. Work the tool around the rim, freeing the ring from the rim, and remove the ring.
5. Turn the wheel over and loosen the opposite tire bead from the rim by driving the hook end of the rim tool between the rim flange and the tire bead. Pry the tire bead away from the taper, and remove the tire from the rim (Fig. 7).



F1473-B

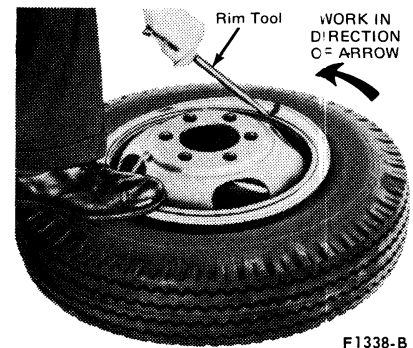


F1337-B

FIG. 5 Loosening Tire Bead

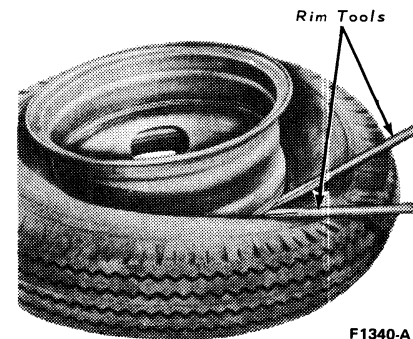
Mounting Tire to Wheel

1. Position the tube in the tire and place the wheel (gutter side up) on the floor. Soap both beads of the tire and position the tire on the rim. It is important that the tire be soaped well as it must be forced over the safety bead hump and the rim edge (Fig. 8).
2. Position the ring with the notch about 3 inches from the valve stem.
3. Insert the rim tool under the ring at a position approximately 180 degrees from the notch and pry tire onto rim. Work the remaining section of rim over the gutter with a second tool.
4. Make certain that the ring is entirely seated in the gutter. If the ring is not seated correctly as described, it may be forced off violently, either during inflation or when the vehicle is operated.



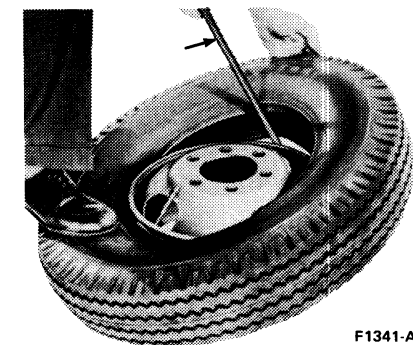
F1338-B

FIG. 6 Removing Split Ring



F1340-A

FIG. 7 Removing Tire From Rim



F1341-A

FIG. 8 Installing First Tire Bead on Wheel

5. After installation, over-inflate the tire to 75 psi to snap the tire beads over the bead humps and fully seat the tire against the rim and side ring. Deflate the tire, then reinflate it to recommended pressure to insure that the tube is not folded inside the tire. Be sure the tube flap is properly positioned before inflating the tire. **Always use a cage or safety chain during initial inflation.**

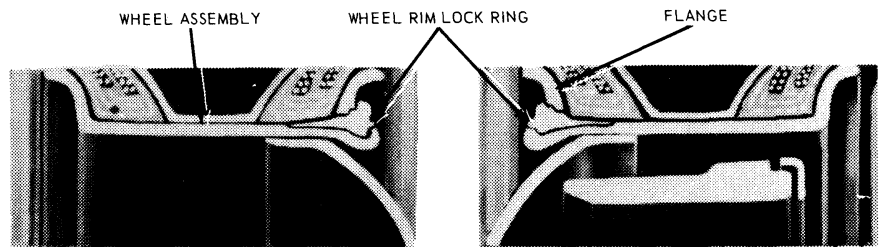
PART 11-04 Wheels and Tires— Three-Piece Rims

Applies to All 500-9000 Series Vehicles			
COMPONENT INDEX	Page	COMPONENT INDEX	Page
TIRE REMOVAL AND MOUNTING – Three-Piece Rims	04-1	TIRE REMOVAL AND MOUNTING – Cast Spoke Wheels	04-02

DESCRIPTION

Three-piece rims are used on disc and cast wheels. Fig. 1 shows a dual wheel sectional view.

Demountable rims for cast-spoke wheels are secured by a ramp at the back edge of each spoke, together with a lug retained by a stud and nut at the edge of each spoke. Refer to Part 11-01 for safety procedures and illustrations.



3-PIECE RIM, DUAL WHEELS

F1806-A

FIG. 1 Three-Piece Rim—Dual Wheel Sectional View

REMOVAL AND INSTALLATION

The tire must be completely deflated before removal, and the bead must not be damaged by a tire iron.

After installation, a tube tire should be inflated to recommended pressure, deflated, and then inflated again to insure that the tube is not folded inside the tire. Be sure the tube flap is properly positioned before inflating the tire.

TIRE REMOVAL AND MOUNTING—THREE-PIECE RIM

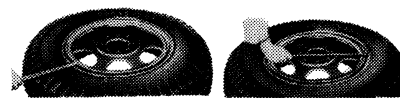
Tire mounting procedures are the same for disc wheels and for cast wheels equipped with the three-piece rims. However, cast wheels require special final centering and runout adjustment.

Removing Tire from Wheel

1. Place the wheel and deflated tire on the floor, with the ring up.
2. Insert the straight end of the rim tool in the locking ring depression and loosen the tire bead by pressing down on the side ring (Fig. 2).
3. Insert the straight end of the rim tool in the notch provided in the locking

- ring, and pry the locking ring out of the gutter (Fig. 2).
4. Lift out the locking ring and remove the slide ring (Fig. 3).

5. Turn the wheel over and loosen the tire bead from the rim by driving the hooked end of the rim tool between the rim flange and the tire bead.
6. Pry the tire bead away from the taper all around the rim until tire is free and remove the tire.



F1461-A

FIG. 2 Loosening Tire Bead and Locking Ring—Three-Ring Rim



F1462-A

FIG. 3 Removing Locking Ring and Positioning Locking Ring—Three-Piece Rim

Mounting Tire to Wheel

1. Position the wheel (gutter side up) on the floor. Soap both beads of the tire and position the tire on the rim.
2. Position the solid side ring on the tire and insert the tapered toe of the split locking ring between the rim and the side ring (Fig. 3).
3. Using a soft hammer, drive the locking ring into place (Fig. 4). Start at one end of the split ring and progressively drive the ring into the gutter until the entire ring is seated (Fig. 4).

The ring must be entirely seated around the entire circumference of the rim. The split ends must be engaged in the gutter, or the ring will be forced off

violently during inflation or when vehicle is driven. When inflating the tire do not stand in front of the ring. See Safety Precautions in Part 11-01.

TIRE REMOVAL AND MOUNTING—CAST WHEELS

Removal

1. To remove the rim and tire from a cast wheel, apply the parking brake, and block at least one wheel. Raise the vehicle and remove the rim clamps.
2. With dual rear wheels, lift off the outer rim and tire, remove the spacer rim, and the inside rim and tire assembly.

Installation

1. To install the tire and rim on a dual wheel, place the inner tire and wheel on the wheel hub. The rim must ride high enough up on the tapered retainer flange of the inner section of the wheel to prevent the assembly

from sliding down on the tapered surface.

2. Position the spacer between the inner and outer rim.
3. Place the outer rim and tire assembly on the wheel, and install the clamps (Fig. 5).
4. Tighten the top clamp until the spacer pushes the inner rim onto the tapered surface of the wheel inner section.
5. Tighten the bottom clamp to help center the rim on the wheel.
6. Tighten the remaining clamps



FIG. 4 Starting Locking Ring and Locking Ring Installed—Three-Piece Rim

alternately and evenly, and torque all wheel nuts to specification. Lateral or side runout should not exceed 1/8-inch for the front rims and 1/4-inch for the dual rear rims. **Lateral or side runout must be checked at the outer bead surface of the wheel.**

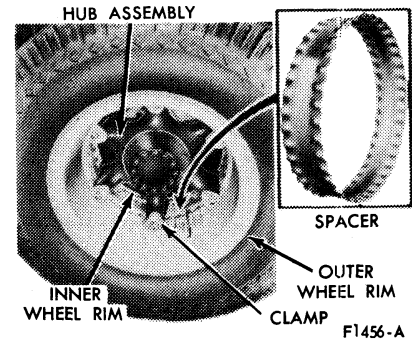


FIG. 5 Three-Piece Rim Installed on Cast Wheel

PART 11-10 Wheels, Hubs and Bearings— Front (Except Front Drive)

Applies to All Models			
COMPONENT INDEX	Page	COMPONENT INDEX	Page
FRONT WHEEL ASSEMBLY	10-1	FRONT WHEEL GREASE	10-5
Description		SEAL AND BEARING	
FRONT WHEEL BEARING	10-4	Removal and Installation	10-5
Adjustment		Repacking	

DESCRIPTION

FRONT WHEEL ASSEMBLY

Each front wheel and tire assembly is bolted to its respective front hub and brake drum or rotor assembly. Two opposed tapered roller bearings are installed in each hub (Figs. 1 and 2, Part 11-02, and Figs. 3 and 4 of this Part). A grease retainer is installed at the inner end of the hub to prevent lubricant from leaking into the drum or onto the rotor. The entire assembly is retained to its spindle by the locknut and/or adjusting nut and cotter pin, or an adjusting nut and lock nut combination (Figs. 3 and 4).

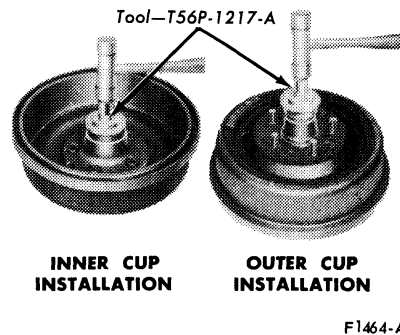


FIG. 1 Installing Bearing Cups

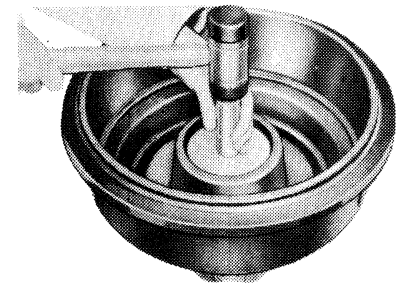
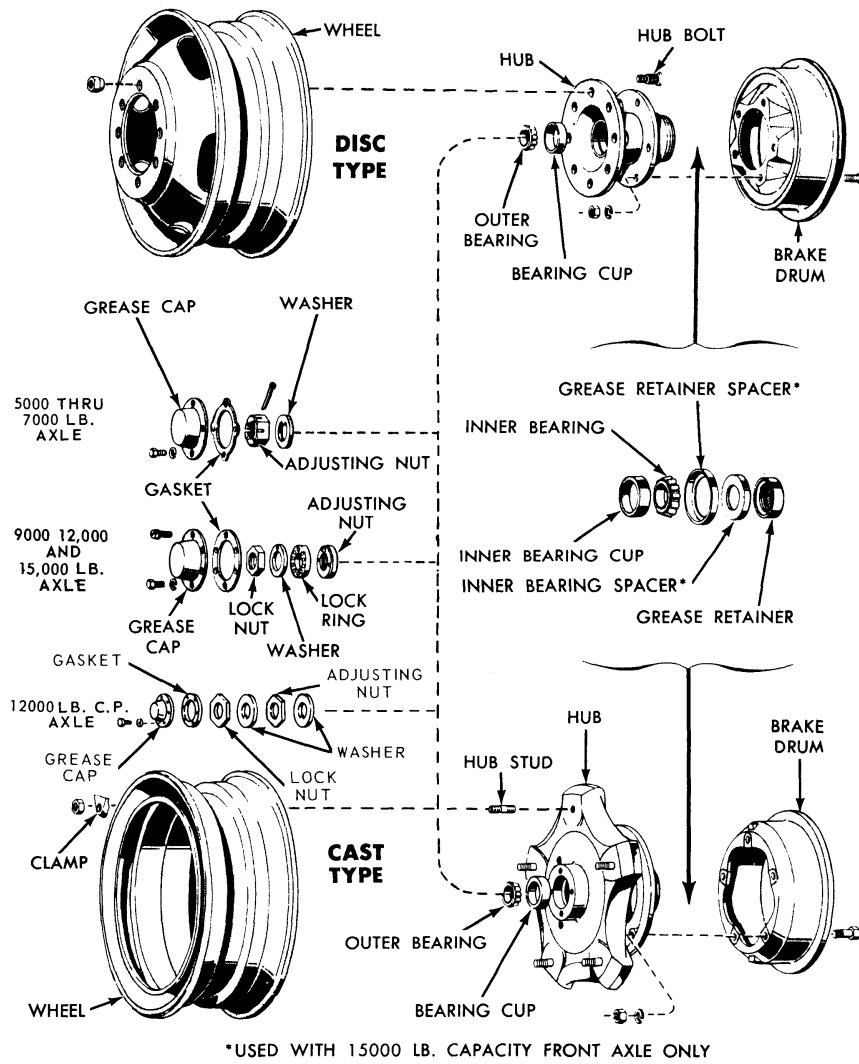
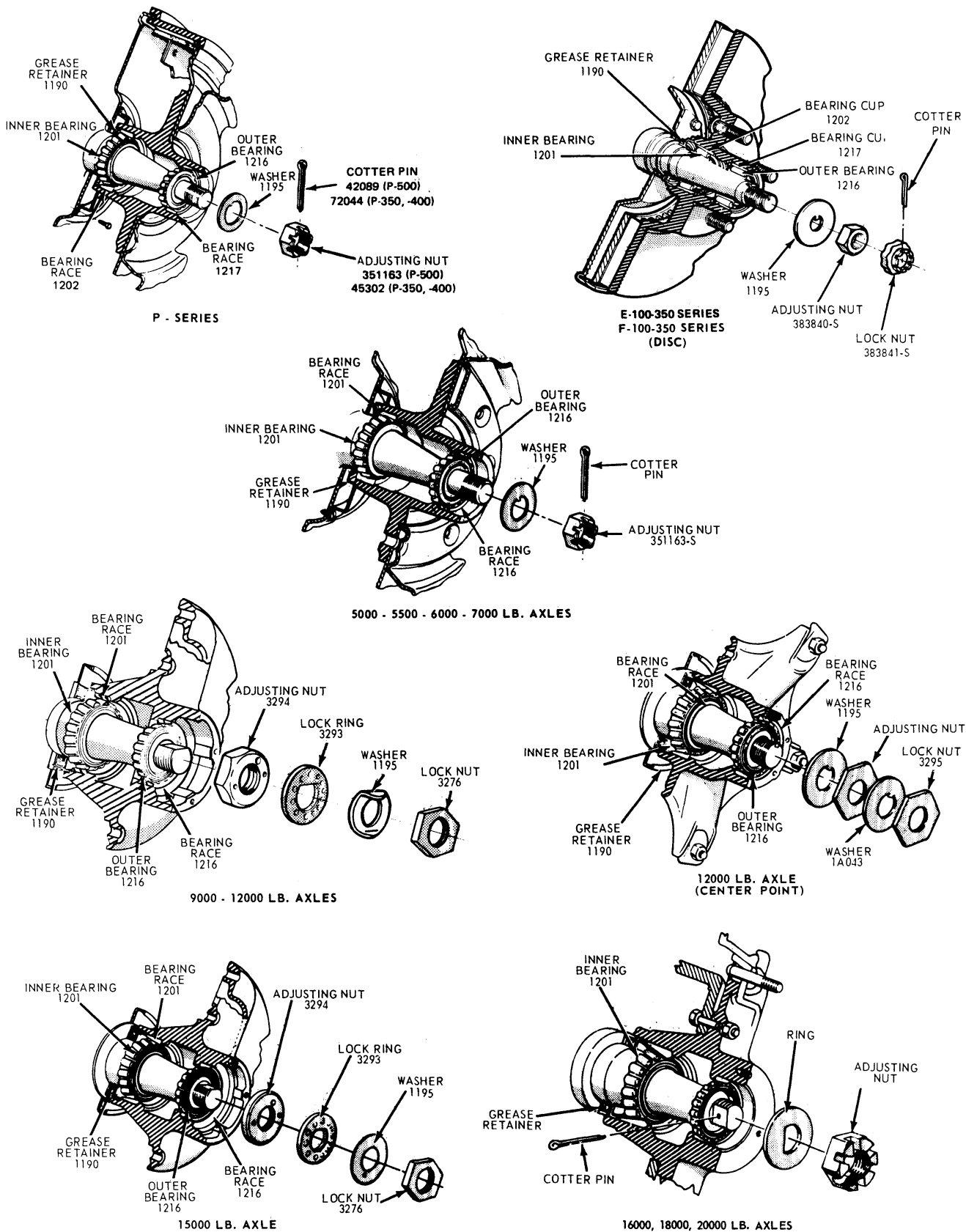


FIG. 2 Installing Grease Retainer



F1466-B

FIG. 3 Typical Front Hubs and Bearings



F1474-F

FIG. 4 Front Hubs, Bearings and Grease Retainers

ADJUSTMENTS

FRONT WHEEL BEARING ADJUSTMENT

To check the wheel bearing adjustment, raise the front of the vehicle. Then, grasp the tire at the sides, and alternately push inward and pull outward on the tire. If any looseness is felt, adjust the front wheel bearings.

F100-F350 (4x2) and E100-E350

1. Remove the hub cap or wheel cover and remove the grease cap from the hub.
2. Wipe any excess grease from the end of the spindle and remove the cotter pin and nut lock.
3. While rotating the wheel, torque the adjusting nut (Fig. 1, Part 11-02) to 17-25 ft-lb to seat the bearings.
4. Install the nut lock so a slot is aligned with the cotter pin hole in the spindle.
5. Back off the adjusting nut and nut lock two slots of the nut lock and install the cotter pin.
6. Check the front wheel rotation. If the wheel rotates freely with no noticeable end play, install the grease cap. If the wheel is still loose or if it rotates roughly or noisily, the bearing cones, rollers, and cups are dirty or worn and should be cleaned or replaced.
7. Install the grease cap and the hub cap or wheel cover.

P-350 THRU-500

1. Remove hub cap, if so equipped, and remove grease cap from hub.
2. Remove any excess grease from the end of the spindle and remove the adjusting nut cotter pin.
3. While rotating the wheel, torque the adjusting nut (See Fig. 4, under Disassembly and Assembly), 40 to 55 ft-lb to seat the bearings.
4. If necessary, back off the adjusting nut to the next slot so nut aligns with the cotter pin hole. Then, back off the adjusting nut two slots and install the cotter pin.
5. Check the front wheel rotation. If the wheel rotates freely with no noticeable end play, install the grease cap. If the wheel is still loose, or if it rotates roughly or noisily, the bearing cones, rollers and cups are dirty or worn and should be cleaned or replaced.
6. Install the hub cap, if so equipped.

ALL MEDIUM, HEAVY AND EXTRA-HEAVY TRUCKS

Single Nut with Cotter Pin (5000-7000 Pound Front Axles)

1. While rotating the wheel, torque the adjusting nut, 70 to 100 ft-lb, to seat the bearings.
2. Back off the adjusting nut 180 degrees (one half turn).
3. Hand tighten the adjusting nut finger tight (13 to 17 in-lb) while moving the top part of the tire in and out.
4. If the cotter pin hole lines up with a slot in the nut, insert and secure a new cotter pin. If it does not, back off the adjusting nut to align a slot with the first available cotter pin hole. Final bearing adjustment must provide .001 to .010-inch end play.
5. Install the gasket and grease cap and adjust the brakes. **The final adjustment must not result in a preloaded bearing.**

Double Nut with Lock Ring (15000-Pound Front Axle)

1. While rotating the wheel in both directions, torque the adjusting nut, 100 to 125 ft-lb to seat the bearings.
2. Back off the adjusting nut one complete turn (See Fig. 4, under Removal and Installation).
3. Again, rotate the wheel in both directions, and re-torque the adjusting nut, 40 to 55 ft-lb.
4. Back off the adjusting nut to obtain an initial .004 to .010-inch end play between the wheel hub and spindle.
5. Install the lock ring. Make sure that adjacent nut dowel is inserted into a lock ring hole.
6. Install the washer with the dimple indexed in one of the holes in the lock ring.
7. Install lock nut and torque, 100 to 125 ft-lb.
8. Recheck the end play. (Final bearing adjustment must allow .001 to .010 end play.) Re-adjust if necessary.
9. Bend the washer outward in two places, on opposite sides of lock nut, to lock the nut in position.
10. Install the gasket and grease cap and adjust the brakes. **The final adjustment must not result in a preloaded bearing.**

Double Nut with Double Washer (12000-Pound Center Point Axle)

1. While rotating the wheel in both directions, torque the adjusting nut, 100 to 125 ft-lb to seat the bearings.
2. Back off the adjusting nut one complete turn (see Fig. 4, under Disassembly and Assembly).
3. Again, while rotating the wheel in both directions, re-torque the adjusting nut, 40 to 55 ft-lb.

4. Back off the adjusting nut to obtain an initial .004 to .010-inch end play between the hub and spindle.
5. Install the outer washer and lock nut and torque, 100 to 125 ft-lb.
6. Recheck the end play (final limit .001 to .010 inch). Re-adjust if necessary.
7. Bend the washer outward in two places, on opposite sides of lock nut, to lock the outer nut in position.
8. Install the gasket and grease cap and adjust the brakes. **The final adjustment must not result in a preloaded bearing.**

Single Nut with Cotter Pin (16000-, 18000-and 20000-Pound Front Axle)

1. While rotating the wheel in both directions, torque the adjusting nut, 100 to 125 ft-lb to seat the bearings.
2. Back off the adjusting nut one complete turn (see Fig. 4, under Disassembly and Assembly).
3. Again rotate the wheel in both directions, and re-torque the adjusting nut, 40 to 55 ft-lb.
4. If necessary, back off the adjusting nut to align a slot with the next cotter pin hole.
5. Using the same cotter pin hole as a reference point, back off the adjusting nut to the next slot to allow the wheel to rotate freely within the limits of .001 to .010-inch end play.
6. Insert and secure the cotter pin.
7. Install the gasket and grease cap and adjust the brakes. **The final adjustment must not result in a preloaded bearing.**

Double Nut with Lock Ring (9000-and 12000-Pound Front Axle)

1. While rotating the wheel in both directions, torque the adjusting nut, 100 to 125 ft-lb to seat the bearing.
2. Back off the adjusting nut one complete turn.
3. Then, again rotate the wheel in both directions, and re-torque the adjusting nut, 40 to 55 ft-lb.
4. Back off the adjusting nut to obtain an initial .004 to .010-inch end play between the hub and spindle.
5. Install the lock ring making sure the adjusting nut dowel is inserted into the lock ring.
6. Install the outer washer, locating dimple in washer in one of the lock ring holes, and install the lock nut. Torque, 100 to 150 ft-lb.
7. Recheck to make sure the final bearing adjustment allows .001 to .010-inch end play. Re-adjust if necessary.

8. Bend the washer outward in two places, on opposite sides of the lock nut, to lock the outer nut in position.
9. Install the gasket and grease cap and adjust the brakes. **The final adjustment must not result in a preloaded bearing.**

DISASSEMBLY AND ASSEMBLY

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

Wheel bearing lubricant is a lithium-base grease, ESA-M1C75B.

Sodium-base grease is not compatible with lithium-base grease and should not be intermixed. Therefore, do not lubricate front and/or rear wheel bearings without first ascertaining the type of original wheel bearing lubricant. Usage of incompatible bearing lubricants could result in premature lubricant breakdown.

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.

P-350,-400 AND -500

1. Raise the vehicle until the wheel and tire clear the floor. Remove wheel and tire from hub. If drums will not remove easily, back off the brake shoe adjusting screw so that the shoes do not contact the brake drum. Remove grease cap from the hub.
2. Remove the cotter pin, nut lock, adjusting nut and washer from the spindle (Fig. 1, Part 11-02).
3. Remove the outer bearing cone and roller. Pull the hub and drum assembly off the wheel spindle. Then, remove and discard the grease retainer. Remove the inner bearing cone and roller from the hub. **Remove all traces of old lubricant from bearings, hubs, and axle spindle.**
4. Inspect the cups for scratches, pits or cracks. If the cups are worn or damaged, remove them with a drift.
5. Clean the inner and outer bearing cones and rollers with solvent and dry thoroughly. **Do not spin the bearings dry with compressed air.**
6. Inspect the cones and rollers for cracks, nicks, brinelling, or seized rollers. Inspect the grease retainer and replace it if it is cracked, nicked, or dented.

7. Cover the spindle with a clean cloth and brush all loose dust and dirt from the brake assembly. **Remove the cloth from the spindle carefully to prevent dirt from falling on the spindle.**
8. Install the inner and outer bearing cups in the hub with the appropriate installing tool (Fig. 1). Be sure to seat the cups properly in the hub. The cups will be properly seated when they are fully bottomed.
9. Pack the inside of the hub with C1AZ-19590-B Multi-Purpose Lubricant. Fill the hub until the grease is flush with the inside diameters of both bearing cups. Pack the bearing cones and rollers with wheel bearing grease. Use a bearing packer 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.
10. Place the inner bearing cone and roller in the inner cup and install the grease retainer (Fig. 2) with the appropriate driving tool. Be sure that the retainer is fully bottomed.
11. Install the hub and drum on the wheel spindle. **Keep the hub centered on the spindle to prevent damage to the grease retainer or the spindle threads.**
12. Install the outer bearing cone and roller and the flat washer on the spindle, then install the adjusting nut, and adjust the wheel bearing as outlined under Adjustments. Install the adjusting nut lock, cotter pin and grease cap.

F100-F350, E100-E350 DISC BRAKE EQUIPPED

The removal and installation of front wheel grease seals and bearings for disc brake equipped vehicles differs only in two respects from the procedure for drum brake equipped vehicles.

First, it is necessary to remove the brake caliper (refer to Part 12-24). In this case, the caliper can be suspended by wiring it above the hub and rotor. **Be**

careful not to twist or strain the flexible brake line.

Then follow the procedure outlined for E-100 and E-300 and P-350 and P-500 with only one exception: a different Tool, T37T-1190-B is required to install the special shielded grease seal.

Finally, install the brake caliper following the steps given in Part 12-24. **NOTE: To prevent fluid leakage, tighten the hose to caliper attaching bolt**

MEDIUM, HEAVY AND EXTRA-HEAVY VEHICLES

There are two basic types of hubs, disc and cast, shown in Fig. 3. The basic design of the hub bearings is the same in all hubs, but minor differences in size exist between the various models. The outer bearing attaching parts differ according to front axle weight capacity as indicated in Fig. 3. For further detailed views of hubs, bearings, and grease retainers, see Fig. 4.

1. Raise the vehicle until the tires clear the floor and install safety stands to support the front axle. Remove the grease cap and gasket from the hub.
2. To check the wheel bearing adjustment, alternately push inward and outward on the tire. If there is any excessive looseness, or if there is no end play, adjust the front wheel bearing.
3. With 5000, 5500, 6000, 7000, 16000, 18000 or 20000-pound capacity front axles, remove the cotter pin, adjusting nut and flat washer from the spindle. Proceed to Step 4.

With 9000, 12000 or 15000-pound capacity front axles, remove the lock nut, washer, locking ring and the adjusting nut and pin. Proceed to Step 4.

With a 12000-pound capacity center point front axle, remove the lock nut, inner washer, adjusting nut and outer washer.

4. Inspect the condition of the spindle and nut threads to insure a free running nut when reassembling.

5. Remove the outer bearing cone and roller. Pull the hub and drum assembly off the spindle.
6. Remove the inner bearing and seal using a brass drift. **Be careful not to damage the bearing cage.**
7. Remove all traces of old lubricant from the bearings, hubs and axle spindle. Inspect the cups for pitting, galling or unusual wear. If either cup is worn or damaged, remove it with a brass drift.
8. Clean the inner and outer bearing cones and rollers with solvent and dry them thoroughly. **Do not spin the bearings dry with compressed air.**
9. Inspect the cones and rollers for pitting, galling or unusual wear. Closely inspect the rollers for end wear and flat or rough spots. Replace all worn or damaged assemblies. It is recommended that the cone and roller assemblies and cups be replaced in sets.

10. Replace the grease retainer.
11. Cover the spindle with a clean cloth and brush all loose dust and dirt from the brake assembly. Remove the cloth from the spindle carefully to prevent dirt falling on the spindle.
12. Install the inner and outer bearing cups in the hub with the appropriate tool (Fig. 1). Check for proper seating of the new bearing cups by trying to insert a 0.0015-inch feeler gauge between the cup and wheel hub. The feeler gauge should not enter.
13. Pack the inside of the hub with lithium-base wheel bearing grease (C1AZ-19590-B). Fill the hub until the grease is flush with the inside diameters of both bearing cups.

Pack the bearing cones and rollers with wheel bearing grease. Use a bearing packer 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.

14. Place the inner bearing cone and roller in the inner cup and install the grease retainer with the appropriate tool. Be sure the retainer is fully bottomed.

On all synthetic-type seals, coat the seal lips with wheel bearing grease (C1AZ-19590-B) before installing the hub and drum. On seals not coated on the OD with sealer by the supplier, coat the grease seal bore in the hub with a thin coat of non-hardening sealer prior to installing the grease seal.

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

16. With 5000, 5500, 6000, 7000, 16000, 18000 or 20000-pound capacity front axles, install the outer bearing cone and roller and the flat washer on the spindle. Then, install the adjusting nut.

With 9000, 12000 and 15000-pound capacity front axles, install the outer bearing cone and roller and the bearing adjusting nut.

With a 12000-pound capacity center point front axle, install the washer and adjusting nut. Make the final bearing adjustment. See Adjustments, this Part.

MEDIUM, HEAVY AND EXTRA HEAVY VEHICLES (OIL LUBRICATION)

Stemco Seals and National Seals, available as regular production options,

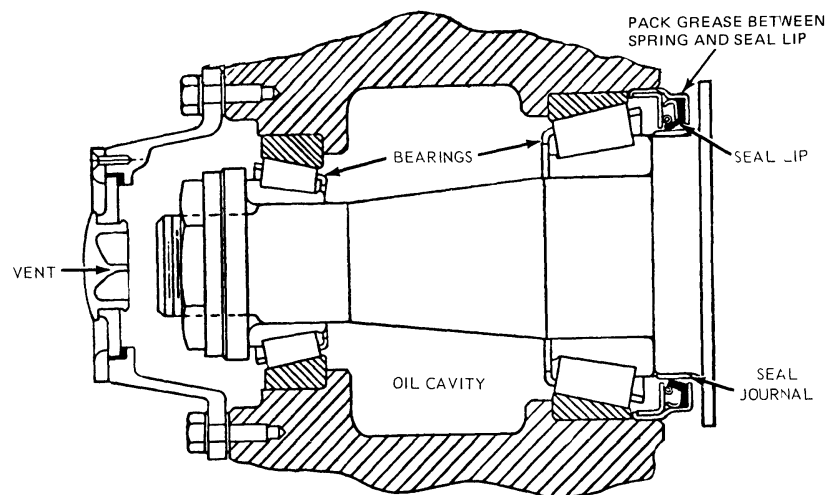
provide sealing where oil is used for bearing lubrication. The tools required for Stemco Seal Installation are only available from the Stemco warehouse. Refer to Specifications for the tooling required. Fig. 5 illustrates a front wheel Stemco Seal Installation.

FRONT HUB SEAL INSTALLATION

Stemco Seals

Clean all parts thoroughly before starting the installation.

1. Oil the spindle and push the axle ring flush against the axle face where applicable.
2. Remove all burrs from the wheel hub bore seal area, and clean again.
3. Pack grease between the spring and the seal lip. This will prevent the spring from dislocating when the seal is installed.



VIEW FOR 15000 LB.
FRONT AXLE ONLY

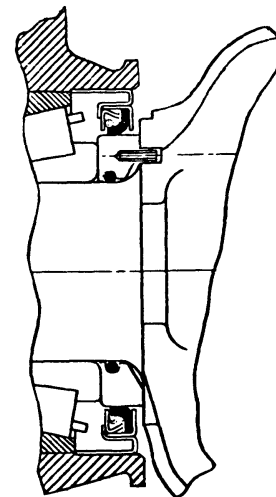


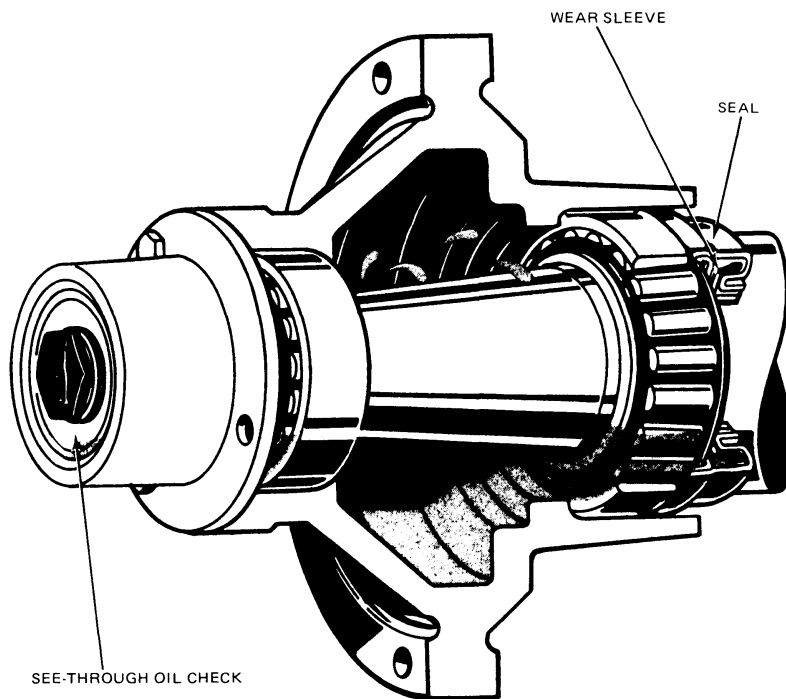
FIG. 5 Front Seal Installation (Stemco)

4. Position the seal in the hub bore (Part Number Up). Drive the seal into position using the correct tool. It must be perfectly square with the bore, and bottom evenly.
5. Install the wheel and adjust the bearings. Install the Stemco hub cap.
6. Remove the filler plug and add oil (ESW-M2C105-BSAE 90). Double check the oil level before releasing the vehicle for service. Oil level must be between the oil level line on the hub cap to 1/4-inch above the line.

NATIONAL SEALS

Install (Fig. 6) as follows:

1. Clean all parts, remove rough spots and install axle ring flush against face where applicable.
2. Position the seal into the hub (notice oil side marking) with drive tool and lightly hammer into a press fit.
3. Install the wheel and adjust the bearings the same as for any seal installation. Install the see-through hubcap and the retaining screws.
4. Remove the filler plug and add oil to level on see-through hubcap.



F1831-A

FIG. 6 National Seal Installation

SPECIFICATIONS

WHEEL TORQUE LIMITS—F-100 THRU F-350, ECONOLINE, BRONCO, P-SERIES

Model	Nut Size	Ft-Lb
E-100, E-150	1/2-20	90
F-100 (4 x 4), U-100 (Std. Wheel) F-250-250 (4 x 4) P-350-3500 (W-5200-lb. Axle)		90
E-250 (Std. Wheel) (W/Single Rear Wheels)	1/2-20	135
F-350, P-350, E-350	9/16-18	135
F-350, P-350, P-450 (W/Dual Wheels and 7400-lb. Axle)	9/16-18	210
P-350, P-400 (W/17" Wheels)	5/8-18	210
E-300 (W/Dual Rear Wheels)	9/16-18	210

SPECIAL SERVICE TOOLS

Tool No.	Description
T-59T-1197-B	Front Wheel Bearing Adjustment Spanner Wrench
Tool 1175-AB	Grease Seal Remover Head
T50T-100-A	Impact Slide Hammer
T56P-1217-A	Front Hub Bearing Cup Replacer
T73T-1190-B	Shielded Grease Seal Installer

SPECIAL SERVICE TOOLS—STEMCO

Ford Seal Kit Part No.	Stemco Tool No.	Ford Seal Kit Part Name
DOHZ-1190-A	5064-5351	Kit - Front Hub Grease Retainer and Wiper
DOHZ-1190-B	5061-5062	
DOHZ-1190-C	5066-5353	
DOHC-1190-D	None-5386	
DOHZ-1190-E	5007-5358	

Kits on this page consist of one axle ring and one seal for just one wheel

WHEEL TORQUE LIMITS—500 THRU 9000 SERIES

Description	Nut Size	Ft-Lb
Disc Wheel Nut	All	450
Cast Wheel Rim Nut	3/4-10	170-220

CF1810-D

PART 11-11 Wheel Hubs and Bearings—Rear

Applies to Bronco, Econoline E-100, E-150, E-250 and F-100 and F-150			
COMPONENT INDEX	Page	COMPONENT INDEX	Page
AXLE SHAFT		REAR WHEEL BEARING	
Removal	11-1	AND SEAL	
Installation	11-2	Removal and Installation.....	11-1
DESCRIPTION	11-1		

DESCRIPTION

REAR WHEEL ASSEMBLY

The rear wheel brake drum assembly is attached to studs on the rear axle shaft flange by three retainers. The wheel (and tire) is mounted 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. The

assembly is retained to the rear axle housing by the bearing retainer plate, which is bolted to the housing flange.

REMOVAL AND INSTALLATION

REMOVAL OF AXLE SHAFT

Synthetic wheel bearing seals are used. The entire length of the shaft (including spline), up to the seal journal, must pass through the seal without contact. **Roughening or cutting of the seal during axle removal or installation will result in early seal failure.** The rear axle shafts, wheel bearings and oil seals can be replaced without removing the differential assembly from the axle housing.

1. Remove the wheel cover or hub cap, wheel and tire from the brake drum.
2. Remove the retainers that secure the brake drum to the axle shaft flange, and remove the drum from the flange.
3. Working through the hole provided in each axle shaft flange, remove the nuts that secure the wheel bearing retainer plate.
4. Pull the axle shaft assembly out of the axle housing (Fig. 1). **The brake backing plate must not be dislodged.** Install one nut to hold the plate in place after the axle shaft is removed.

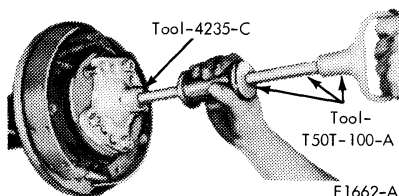


FIG. 1 Removing Axle Shaft

1. Loosen the inner retainer ring by nicking it, deeply with a cold chisel in several places (Fig. 2). It will then slide off easily.

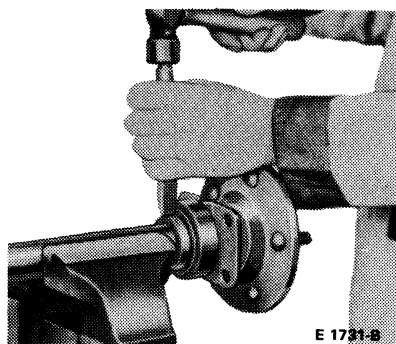


FIG. 2 Removing Rear Wheel Bearing Retainer Ring

REAR WHEEL BEARING AND SEAL

Removal

Synthetic seals must not be cleaned, soaked or washed in cleaning solvents.

Removal of the wheel bearings from the axle shaft makes them unfit for further use.

2. Remove the bearing from the axle shaft with Tool T60K-1225-A.
3. Whenever a rear axle shaft is replaced, the oil seal must be replaced. Remove the seal with Tool 1175-AB and a slide hammer.

REAR WHEEL BEARING AND SEAL

Installation

1. Inspect the machined surface of the axle shaft and the axle housing for rough or other irregularities which would affect the sealing action of the oil seal. Check the axle shaft splines for burrs, wear or twist. Carefully remove any burrs or rough spots. Replace worn or damaged parts.
2. Lightly coat wheel bearing bores with axle lubricant.
3. Place the bearing retainer plate on the axle shaft, and press the new wheel bearing on the shaft with Tool 4621-A (Fig. 3). **Do not attempt to press on both the bearing and the inner retainer ring at the same time.**
4. Using the bearing installation tool (Tool 4621-A), press the bearing inner retainer ring on the shaft until the retainer seats firmly against the bearing.
5. Install the new oil seal with the tools shown in Fig. 4.

INSTALLATION OF AXLE SHAFT

1. Carefully slide the axle shaft into the housing so that the rough forging of the shaft will not damage the oil seal. Start the axle splines into the side gear, and push the shaft in until the bearing bottoms in the housing.
2. Install the bearing retainer plate and the nuts that secure it. Tighten the nuts to specification.
3. Install the brake drum and the drum attaching (Tinnerman) nuts.
4. Install the wheel and tire on the drum. Install the wheel cover.

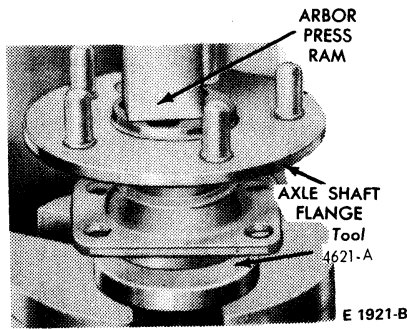


FIG. 3 Installing Rear Wheel Bearing

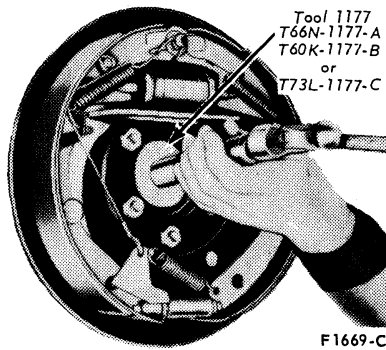


FIG. 4 Installing Rear Wheel Bearing Oil Seal

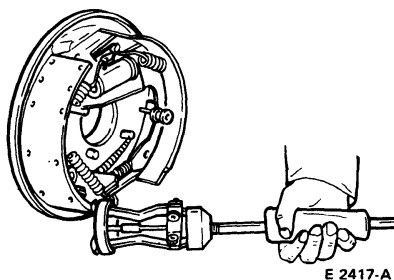


FIG. 5 Removing Tapered Bearing Cup

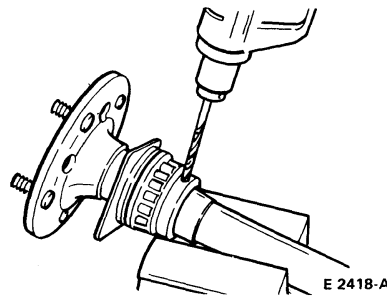


FIG. 6 Drilling Retainer Ring

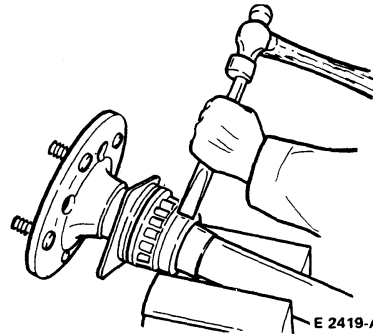


FIG. 7 Removing Rear Wheel Bearing Retainer Ring

Removal of Tapered Roller Bearing and Seal

1. Drill a 1/4-inch hole in the outside diameter of the inner retainer to a depth approximately 3/4 the thickness of the retainer ring. Do not drill all the way through the retainer ring because the drill could damage the axle shaft (Fig. 6).
2. After drilling the retainer ring, use a chisel positioned across the drilled hole and strike sharply to break the retainer ring (Fig. 7). **Retainers are not reusable after having once been installed and must be scrapped after removal.**

Although the retainer must be scrapped, the tapered bearing can be reused provided the proper tooling (see Step 4) is used. **IF THE TOOLING IS NOT USED, THE BEARING MUST BE SCRAPPED.**

3. Remove the outer bearing cup from the housing bore, (Fig. 5) and place it on the axle shaft assembly.
4. Place the axle shaft in the tool (T75L-1165-A,B,C) as shown in Fig. 8.
5. Assemble the two halves of the Remover Collet and tighten the bolts.
6. Press the bearing assembly off the shaft. **NEVER USE HEAT AS THIS WOULD DAMAGE THE AXLE SHAFT.**

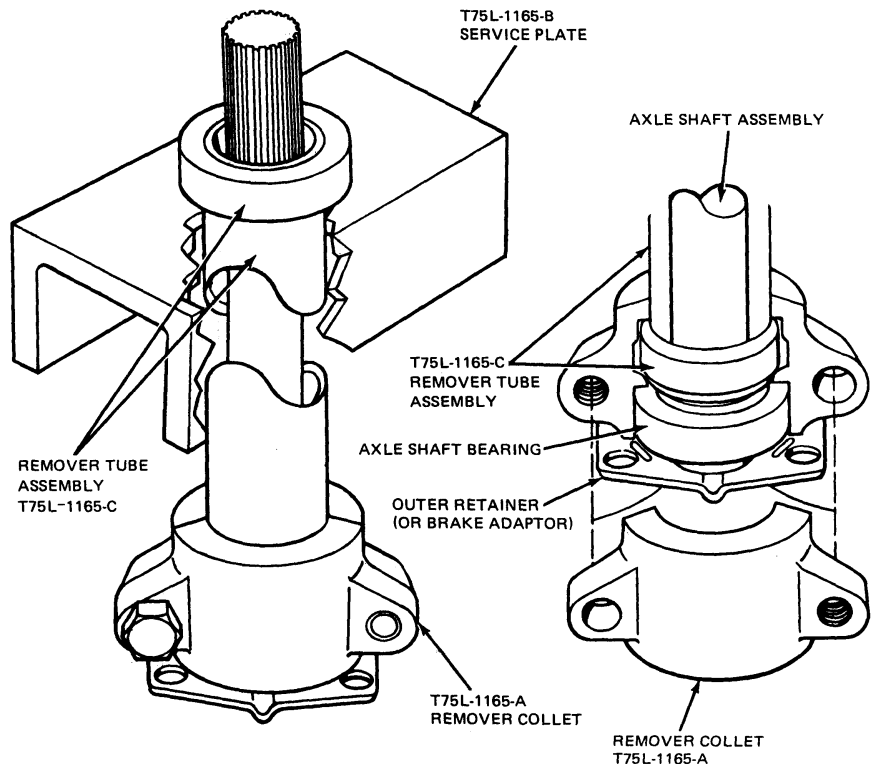


FIG. 8 Removing Bearing Cone Assembly

Installation

1. Install the outer retainer plate (if it had been removed) making sure it is not put on backwards.
2. Place the lubricated seal and bearing on the axle shaft making sure the cup rib ring is facing the axle flange. It should be noted that the lubricated seal of the bearing assembly used on drum brake vehicles is of a different length than that used on rear disc brake equipped vehicles. **THEY ARE NOT INTERCHANGEABLE.** To prevent seal failure, examine the outer rim of the seal. Those for use with drum brakes have a gray metal appearance. Those for use with disc rear brakes have a black oxide appearance.
3. Press the tapered bearing and seal assembly on to the axle shaft. Apply sufficient pressure to seal the bearing against the axle shaft shoulder. Do not attempt to press on the bearing retainer at the same time.
4. Position a **NEW** bearing retainer on the shaft, then press it into position firmly against the bearing. Fig. 9 illustrates the shaft after the bearing has been pressed on, and with the bearing retainer in position ready to be pressed on.
5. Before sliding the shaft assembly into the axle housing, position the bearing cup on the bearing and apply lubricant to the outer diameter of the cup and the seal.

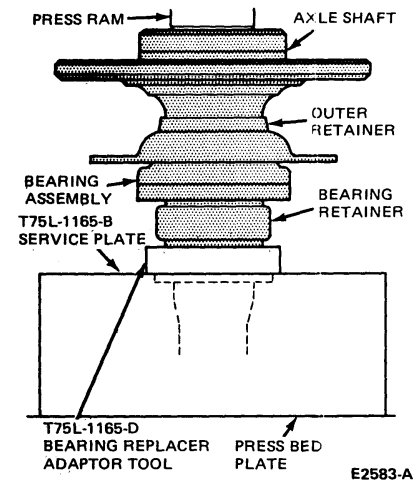


FIG. 9 Installing Seal and Bearing

PART 11-12 Wheel Hubs and Bearings— Front Wheel Drive

Applies to Bronco, F-100, F-250 and F-600 Only			
COMPONENT INDEX	Page	COMPONENT INDEX	Page
ADJUSTMENTS	12-1	DISASSEMBLY AND ASSEMBLY.....	12-6
DESCRIPTION	12-1	REMOVAL AND INSTALLATION	12-2

DESCRIPTION

Front drive assemblies are available for Bronco, F-100, F-250 and F-600 vehicles.

ADJUSTMENTS

FRONT WHEEL BEARING ADJUSTMENT

If equipped with free-running hubs, refer to Removal and Installation—Free-Running Hub, in this Part. (Standard on Bronco, optional on F-100.)

BRONCO AND F-100

1. Raise the vehicle and install safety stands.
2. Remove the front hub grease cap and the driving hub snap ring (Fig. 1).

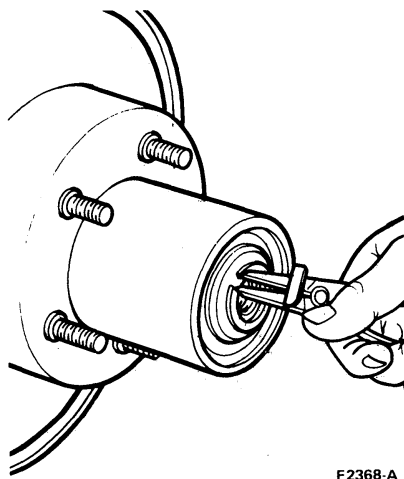


FIG. 1 Removing Snap Ring

3. Remove the splined driving hub and the pressure spring. This may require a slight prying assist (Figs. 2 and 3).

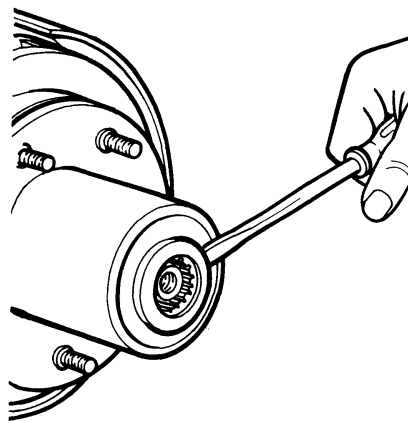


FIG. 2 Removing Splined Driving Hub

4. Remove the wheel bearing lock nut and lock ring.
5. Using Tool T59T-1197-B and a torque wrench, tighten the bearing adjusting nut to 50 ft-lb while rotating the wheel back and forth to seat the bearing.
6. Back off the adjusting nut approximately 90 degrees.
7. Assemble the lock ring by turning the nut to the nearest notch for dowel pin installation.
8. Install the outer lock nut and tighten to 80 to 100 ft-lb. Final end play of the wheel on the spindle should be 0.001 to 0.010 inch.

9. Apply non-hardening sealer to the seating edge of the grease cap, then install the pressure spring and driving hub, driving hub snap ring and grease cap.
10. Remove safety stands. Lower vehicle.

F-250

Free-running hubs are standard on F-250 Models. See Removal and Installation, Free-Running Hub, in this Part.

1. Raise the vehicle and install safety stands. Remove the wheel cover, if installed.
2. Refer to Free-Running Hub Removal, Steps 1 through 8, for detailed instruction.
3. Remove the front hub grease cap.
4. With Tool T59T-1197-B, remove lock nut and lock ring from spindle.
5. Using Tool T59T-1197-B and a torque wrench, tighten the bearing adjusting nut (Fig. 2, Part 11-02) to 50 ft-lb, while rotating the wheel back and forth to seat the bearings.
6. Back the adjusting nut off approximately 90 degrees. Assemble the lock ring by turning the nut to the nearest notch for dowel pin installation.
7. Install the outer lock nut and tighten to 80 to 100 ft-lb. Final end play of the wheel on the spindle should be 0.001 to 0.010 inch.
8. Install the front hub grease cap. Then follow Steps 1 through 10, Free-Running Hub Installation.

- Remove the safety stands and lower the vehicle.

F-600

- Remove the outer hub cap retaining screws, and remove the cap.
- Remove the retaining lock ring, as shown in Fig. 4.
- Remove the retaining screws and splined drive plate.
- Bend the tab of the lock washer away from the lock nut and remove the lock nut (Fig. 5).
- Remove and discard the lock washer.
- While rotating the wheel back and forth to correctly seat the bearings, tighten the adjusting nut to 50 ft-lb.
- Back off the adjusting nut 1/4 to 1/3 turn.
- Position a **new** lock washer against the adjusting nut and apply a film of

oil to the outer face of the lock washer.

- Run the lock nut up against the lock washer and tighten to 100 to 150 ft-lb.
- Bend one tab of the lock washer over the adjusting nut.
- Bend one tab of the lock washer (in the opposite direction) over the lock nut. **Use a blunt tool when bending the tabs to avoid making any chips which could cause serious bearing damage.**
- Apply Silastic Sealer to the front and rear mounting faces of the splined drive plate.
- Position the drive plate, install the retaining screws, and tighten them to specification.
- Install the retaining lock ring.
- Position outer hub cap, install the retaining screws, and tighten them to specification.

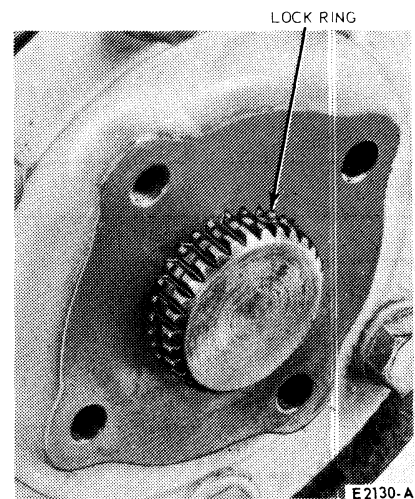


FIG. 4 Access to Lock Ring

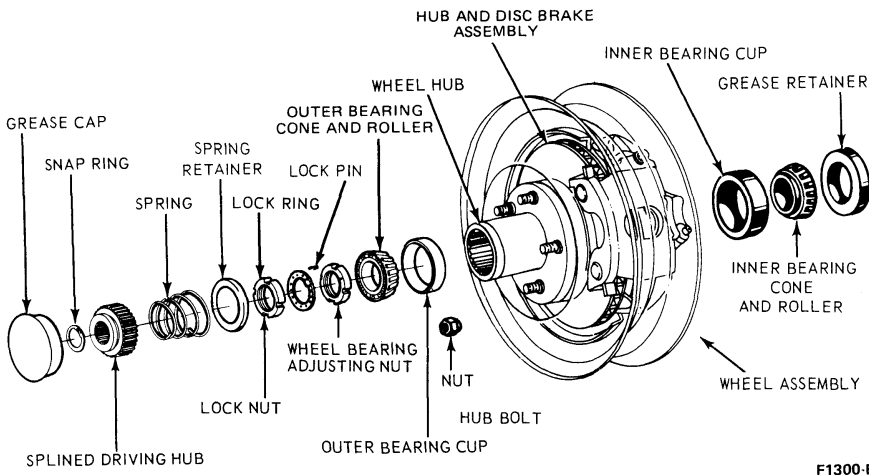


FIG. 3 Front Hub Installation—Four-Wheel Drive

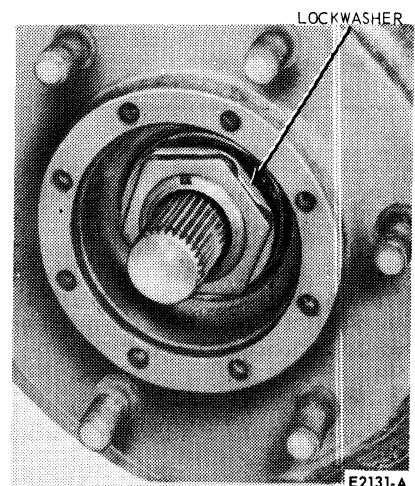


FIG. 5 Lock Nut and Washer Assembled

REMOVAL AND INSTALLATION

FREE-RUNNING HUB (INTERNAL-TYPE)

Bronco, F-100, F-250 (3300-lb. Axle)

Removal

- Remove the free-running hub screws and washers (Fig. 6).
- Remove the hub ring and the knob. Wipe the parts clean.
- Remove the internal snap ring from the groove in the hub.
- Remove the cam body ring and clutch retainer (as an assembly) from the hub. Disassemble the parts.
- Remove the axle shaft snap ring. For easier snap ring removal, push inward on the gear and, at the same time, pull out on the axle with a bolt.

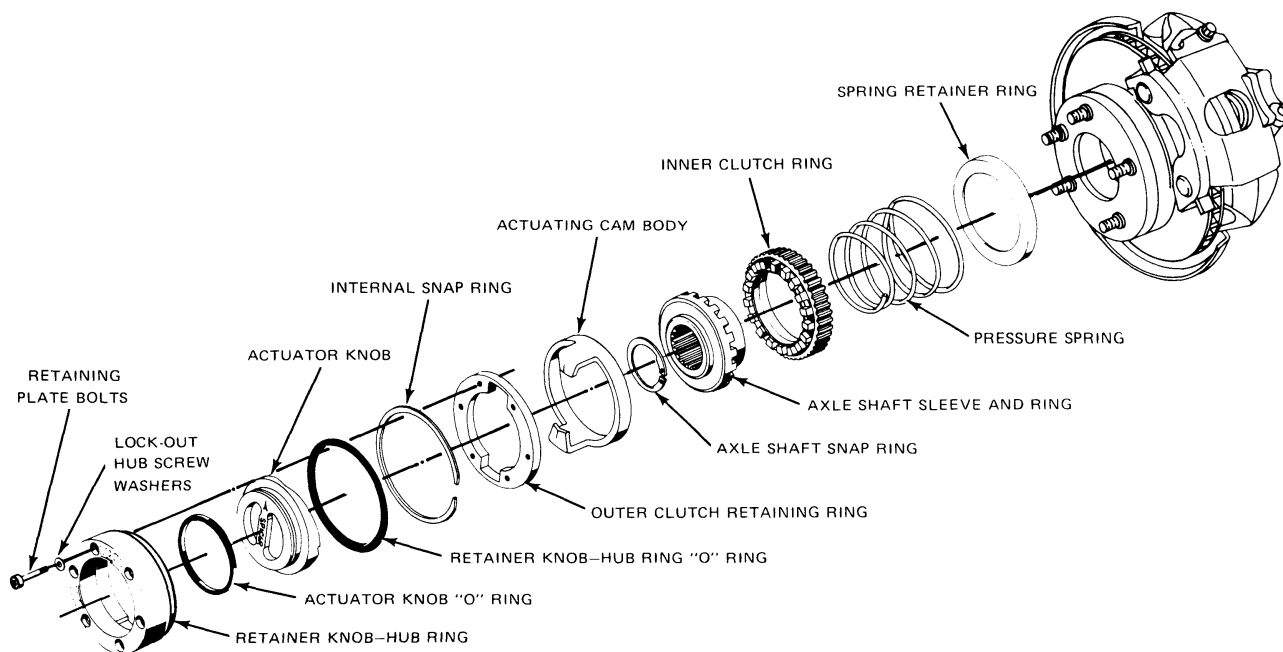
- Remove the drive gear and clutch gear. A slight rocking of the hub may make them slide out easier.
- Remove the coil spring.
- Remove the spring retainer ring.

Installation

- Grease the hub inner spline with Moly grease (Fig. 7).
- Install the spring retainer ring, positioned as shown (Fig. 8) with recessed undercut area going in first. Be sure ring seats against the bearing.
- Install the coil spring with large end entering first (Fig. 9).
- Grease with Moly grease and install the axle shaft sleeve and ring and the inner clutch ring. Be sure that the teeth are meshed together in a locked

position for easy assembly. It may be necessary to rock the hub back and forth for spline alignment. Keep the two gears in locked position (Fig. 10).

- Install the axle shaft snap ring. Push inward on gear and, if necessary, pull out axle shaft with bolt to allow groove clearance on shaft for the snap ring. Be sure snap ring is fully seated in the snap ring groove on the shaft (Fig. 11).
- Install the actuating cam body ring into the outer clutch retaining ring. Assemble into hub (Fig. 12).
- Install the internal snap ring. Be sure snap ring is fully seated in the snap ring groove of the hub (Fig. 13).



E2298-B

FIG. 6 Free-Running Hub—Internal-Type—Bronco, F-250 (3300-lb. Axles) Optional F-100

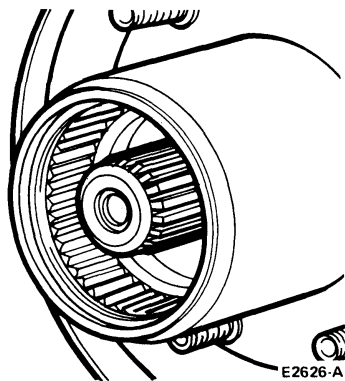


FIG. 7 Grease Application

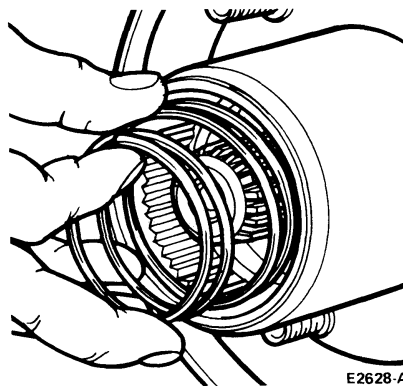


FIG. 9 Coil Spring Installation

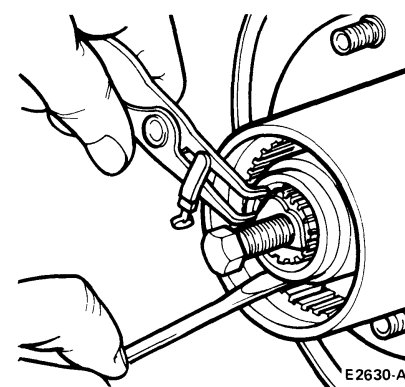


FIG. 11 Installing Axle Shaft Snap Ring

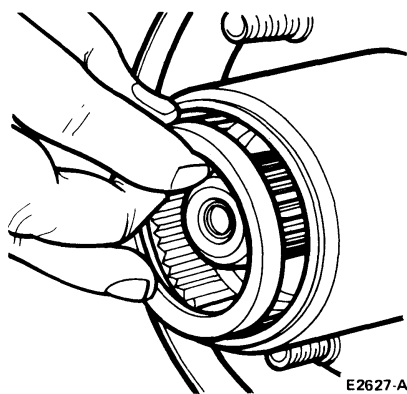


FIG. 8 Spring Retainer Ring Installation

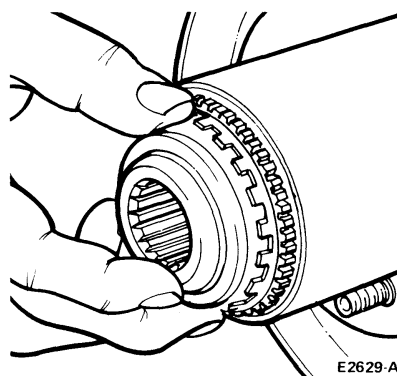


FIG. 10 Axle Shaft Sleeve and Ring Installation

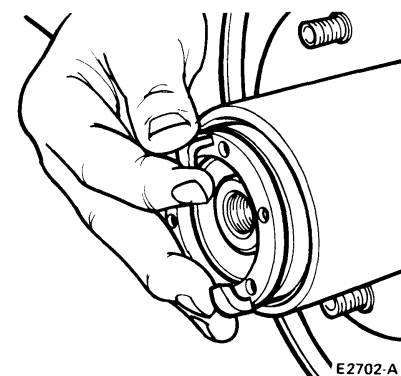


FIG. 12 Installing Cam Body Ring into the Clutch Retaining Ring

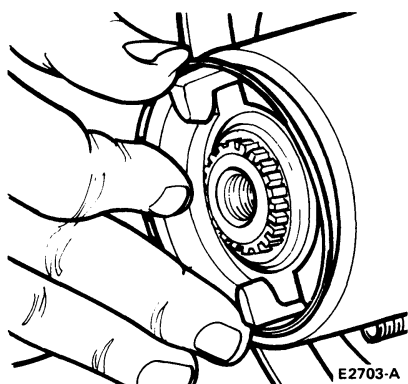


FIG. 13 Installing Internal Snap Ring

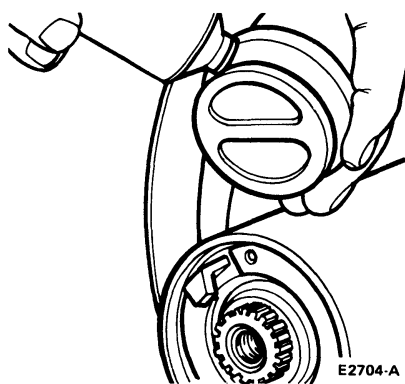


FIG. 14 Lubrication Areas

8. Apply a small amount of Lubriplate grease on the ears of the cam (Fig. 14).

9. Apply a small amount of Parker O-ring lube in groove of actuating knob before assembling outer O-ring (Fig. 14).
10. Assemble knob in hub ring and assemble to axle with knob in locked position. Assemble screws and washers alternately and evenly, making sure the retainer ring is not cocked in the hub.
11. Tighten the six lock-out hub screws to 30 to 35 in-lb. Be sure the washers are under each retaining screw. Each free-running hub will fit either wheel.

Do not drive vehicle until you are sure that both free-running hubs are engaged or disengaged. When vehicle is driven in water deep enough to cover the hubs, it is recommended that the internal parts be disassembled and inspected for possible water or dirt. After inspection, re-lubricate all parts before assembly to prevent rusting or corrosion.

FREE-RUNNING HUB (EXTERNAL-TYPE)

F-250(3550-lb Axle)

Removal

1. Remove the free-running hub screws and washers (Fig. 15).
2. Loosen the gear hub housing and slide it away from the hub and drum assembly.
3. Remove and discard the inner metal gasket, remove gear hub housing, and remove and discard the outer gasket. Wipe clean the exposed parts.
4. Remove the snap ring while holding pressure on the clutch gear.

5. Ease the clutch gear and pressure spring out of the assembly. The actuator knob should be in the lock position for this step.
6. Turn the actuator knob to the free position. With a drift, drive the cam lock pin out of the assembly.
7. Remove the actuating cam from the knob.
8. Remove the knob retainer snap ring and remove the knob from the knob retainer.
9. Using a capscrew, pull out slightly on the axle shaft and remove the snap ring which retains the bushing and inner clutch gear assembly.
10. Remove these parts and disassemble. If wear or damage are evident on either the inner or outer clutch gear, they should both be replaced as a set.

Installation

Before assembling free-running hubs, inspect the splines of the axle shaft to make sure they are free of any possible nicks or burrs.

Threaded screw holes in the wheel hub should be cleaned before assembling new retainer screws. These holes can be cleaned by directing compressed air into the threaded holes.

1. Apply Moly XL hi-speed grease to the back face and the thrust face of the bushing, also to the splines of the inner clutch gear.
2. Assemble inner clutch gear into bushing.
3. Install the bushing and inner clutch gear onto axle shaft, making sure the

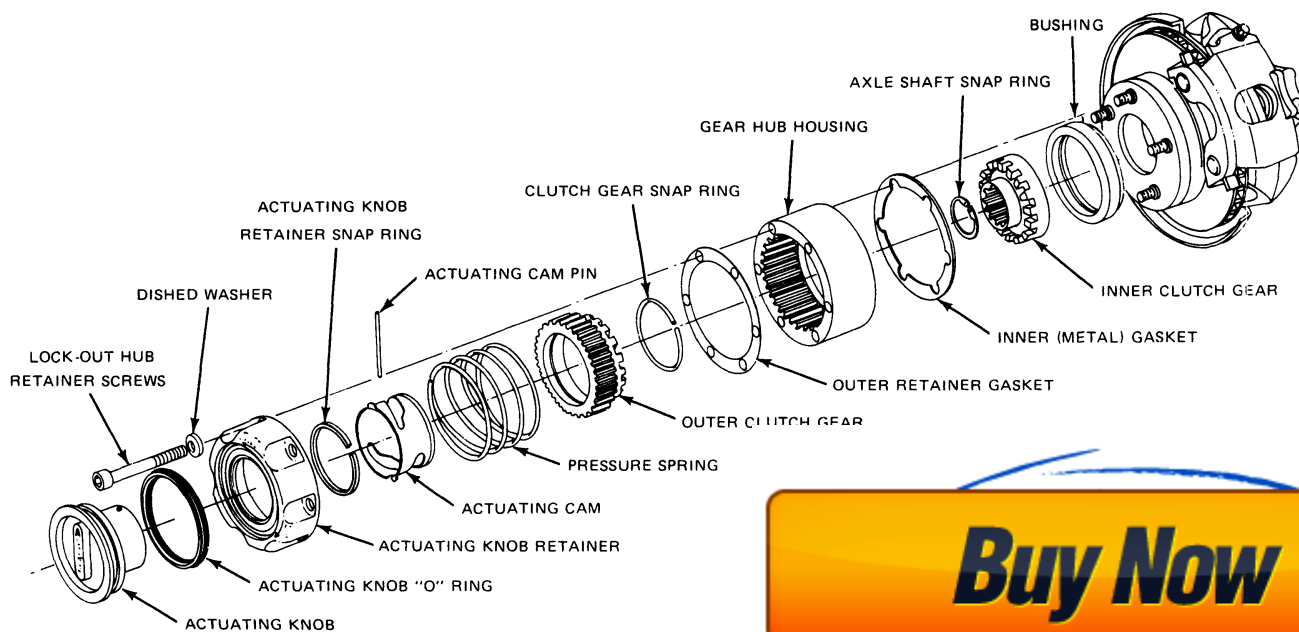


FIG. 15 Free-Running Hub—External-Type (F-250-3500 lb. Axles)

