

21-208 TIGHTENING REFERENCE

Location	Foot Pounds
MANUAL A390 3-SPEED	
Access Cover to Case Screw	22
Back Up Light Switch	15
Extension Housing to Case Bolts	50
Extension Housing to Crossmember Bolts	50
Gearshift Operating Lever Nuts	18

Manual "Overdrive-4"	Foot Pounds
Back Up Light Switch	15
Drive Pinion Bearing, Retainer Bolts.....	30
Extension Housing to Case Bolts	50
Gearshift to Mounting Plate.....	24
Gearshift Mounting Plate to Extension.....	12
Flange Nut	125

Location	Foot Pounds
4-SPEED TRANSMISSION 435-445	
Cover Screw	20-40
Drive Gear Retainer Screw	15-25
Front Countershaft Retainer Screw	15-25
Front Countershaft Bearing Washer Screw ..	12-22
Flange Nut	125

Location	Foot Pounds
5-SPEED TRANSMISSION 540-542	
Cover Screw	20-40
Drive Gear Retainer Screw	15-25
Front Countershaft Retainer Screw	15-25
Front Countershaft Bearing Washer Screw ..	12-22
Flange Nut	125
Mainshaft Rear Retainer Screw	20-40

Location	Foot Pounds
Input Shaft Bearing Retainer Bolts	30
Shift Fork to Shift Rail Screw	10
Transmission to Clutch Housing Bolts	50
Transmission Drain Plug	25
Transmission Fill Plug	15

	Foot Pounds
Reverse Detent Spring Retainer	50
Reverse Detent Spring Retainer Plug	24
Shift Lever Nuts	18
Transmission to Clutch Housing Bolts	50
Transmission Drain Plug.....	15
Brake Link Shoulder Screw	20-40

Location	Foot Pounds
Mainshaft Rear Retainer Screw	15-25
Rear Countershaft Retainer Screw	15-25
PTO Cover Screw	8-12
Filler and Drain Plug	25-45
Reverse Idler Shaft Lock Screw	20-40
Brake Link Shoulder Screw	20-40

Location	Foot Pounds
Rear Countershaft Retainer Screw	20-40
PTO Cover Screw	8-12
Filler and Drain Plug	25-45
Reverse Idler Shaft Lock Screw	20-40
Bar Brake Screw	70-110
Bell Housing Screw	70-110
Brake Link Shoulder Screw	25-45

203 TRANSFER CASE

Location	Ft. Lbs.
Adapter to Transmission Attaching Bolt ...	31
Adapter to Transfer Case Attaching Bolts ..	30
Range Box to Chain Case	30
Differential Housing to Chain Case	30
Front Input Bearing Retainer Bolts	20
Front Output Front Bearing Retainer Bolts ..	30
Front Output Rear Bearing Retainer Bolts ..	30
Differential Carrier Bolt	55
Rear Output Bearing Retainer Assembly	
Bolts	30
Output Shaft Yoke Nuts	120
Lockout Shift Poppet Plug	20
Range Shift Poppet Plug	20
Power Take-Off Cover Bolts	15
Shifter Assembly to Adapter Bolts	30
Shift Lever to Shifter Assembly Nut	30
Knob Assembly Jam Nut	10
Range and Locknut Shift Lever Lock Nut ..	20
Shift Rod Swivel Clamp Screw	11
Filler Plug	30
Adapter to Insulated Plate Bolt	150
Insulated Plate to Crossmember Bolt	150
Skid Plate Attaching Bolt and	
Retaining Nut	50

T223 TRANSFER CASE

Location	Thread Size	
Front Retainer Nut	7/16-20	45
PTO Screw	1/2-13 & 3/8-16	15
Poppet Screw	1/2-13	20
Breather	1/8-27	10
Brake Support Nut	3/8-24	35
Brake Retaining Screw	3/8-16	30
Brake Retainer Nut	3/8-24	35
Idle Cover Screw	5/16-18	20
Drain and Filler Plugs	3/4-14	30
Flange and Idler Shaft Nut	7/8-16	125
Top Cover	3/8-16	40
Bearing Caps (all)	3/8-16	40
Brake Drum	7/16-14	63
Brake Mounting	7/16-14	63
Retainer Screws	3/8-16	30
Input Shaft	1-20	350
Front Output Shaft	1-20	350
Rear Output Shaft	1-20	350
Brake Drum Nut		150
Idler Shaft Nut		150
Input Shaft Flange Nut		150
Front Output Shaft Flange Nut ..		150
Propeller Shaft Mating Flange		
Nuts		35
Bearing Pre-Load		5-30 (in.-lbs.)

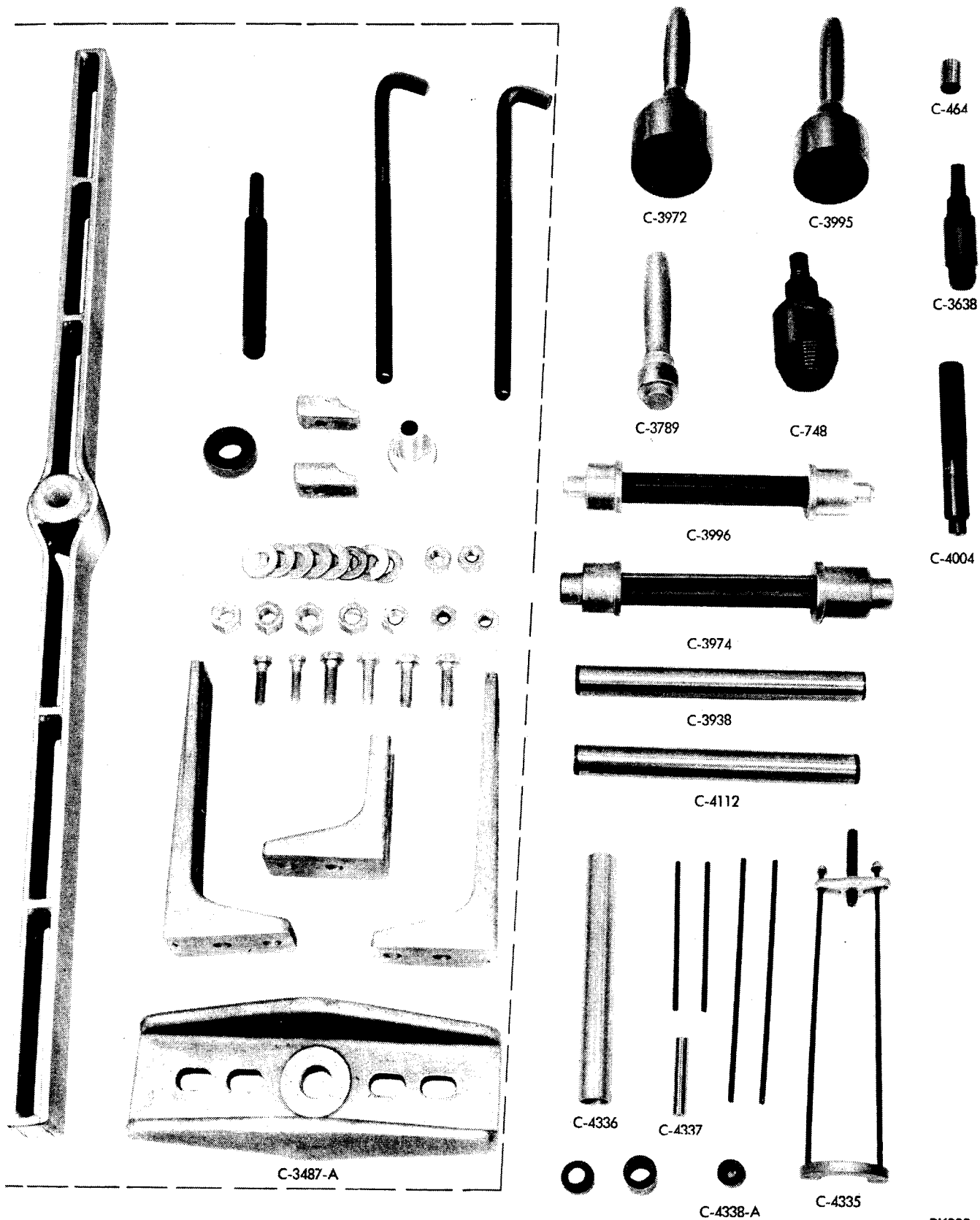
LOADFLITE A-727

Location	Ft. Lbs.	In. Lbs.	Location	Ft. Lbs.	In. Lbs.
Cooler Line Fitting	—	110	Oil Pump Housing to Trans-		
Cooler Line Nut	—	85	mission Case Bolt	—	175
Converter Drain Plug	—	90	Output Shaft Support Bolt	—	150
Converter Drive Plate to Crankshaft Bolt	55	—	Overrunning Clutch Cam Set		
Converter Drive Plate to Torque			Screw	—	40
Converter Bolt	—	270	Pressure Test Take-Off Plug	—	110
Extension Housing to Transmission			Reaction Shaft Support to Oil		
Case Bolt	24	—	Pump Bolt	—	160
Extension Housing to Insulator			Reverse Band Adjusting Screw		
Mounting Bolt	50	—	Lock Nut	30	—
Governor Body to Support Bolt	—	100	Speedometer Drive Clamp Screw	—	100
Kickdown Band Adjusting Screw			Transmission to Engine Bolt	28	—
Lock Nut	35	—	Valve Body Screw	—	35
Kickdown Lever Shaft Plug	—	150	Valve Body to Transmission		
Neutral Starter Switch	24	—	Case Bolt	—	100
Oil Pan Bolt	—	150			

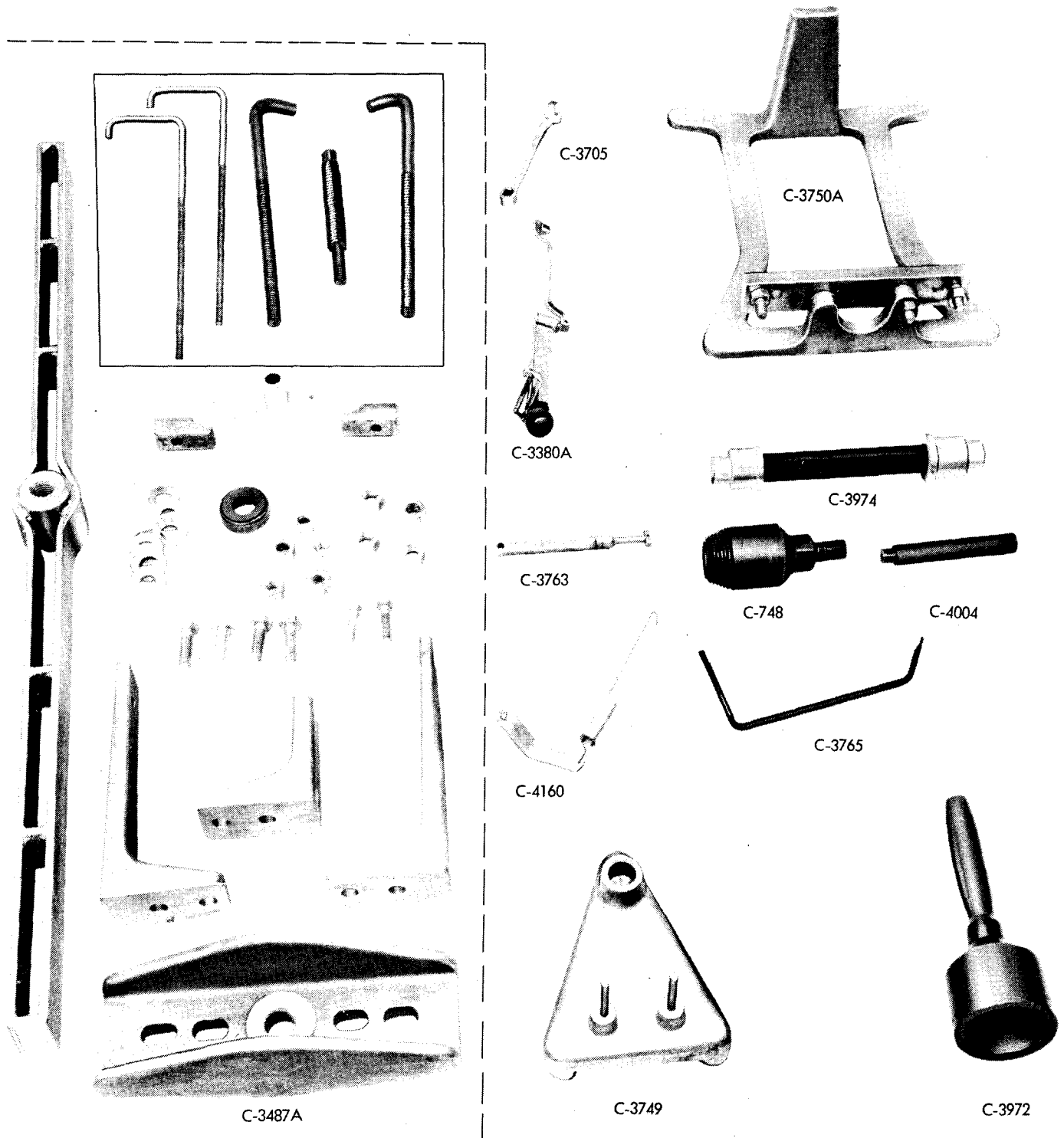
NEW PROCESS A-345

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Cooler Line Nuts	—	85	Kickdown Lever Shaft Plug	—	150
Cooler Line Fittings	—	110	Neutral and Back-Up Lamp Switch	24	—
Compounder Adapter Housing to			Oil Pan Bolts	—	150
Transmission Bolts 5/16-18 x 1-1/4 (4) .	17	—	Oil Pump Housing to Transmission		
3/8-16 x 1-1/4 (6) .	30	—	Case Bolts	—	175
Compounder Extension Housing to			Output Shaft Flange Nut	175	—
Adapter Bolts	30	—	Overrunning Clutch Cam Set Screw		
Converter Drain Plug	—	90	(Transmission)	—	40
Converter Drive Plate to to			Pressure Test Take-Off Plug	—	75
Crankshaft Bolts	55	—	Reaction Shaft Support to Oil Pump		
Converter Drive Plate to Torque			Bolt (Transmission)	—	160
Converter Bolts	—	270	Reverse Band Adjusting Screw		
Extension Housing to Crossmember			Lock Nut	30	—
Mounting Bolts	50	—	Speedometer Drive Cover Screw	—	100
Extension Housing to Crossmember			Transmission to Engine Bolts	28	—
to Frame Bolts	75	—	Valve Body Screws	—	35
Governor Cover Bolts	—	200	Valve Body to Transmission Case Bolts .	—	100
Kickdown Band Adjusting Screw					
Lock Nut	35	—			

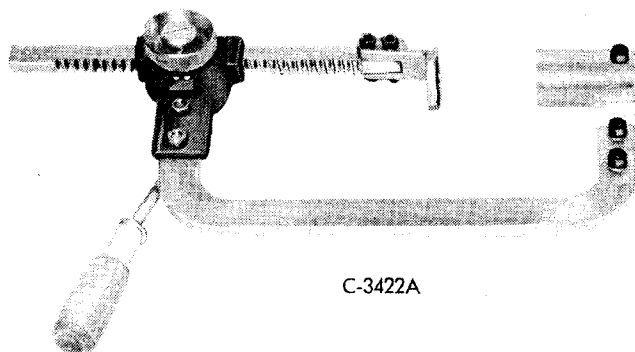
MANUAL TRANSMISSION SPECIAL SERVICE TOOLS (1 OF 1)



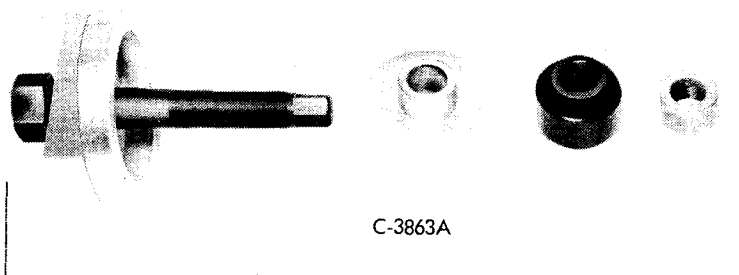
AUTOMATIC TRANSMISSION SERVICE TOOLS (1 OF 3)



AUTOMATIC TRANSMISSION SERVICE TOOLS (2 OF 3)



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C-3863A



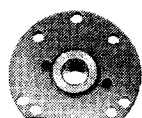
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C-4220



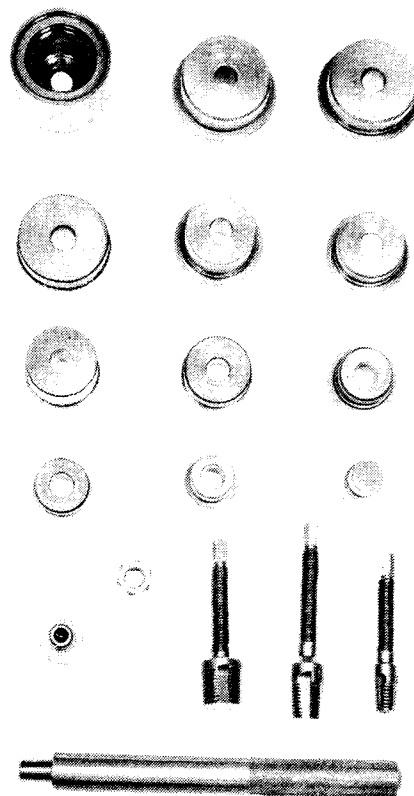
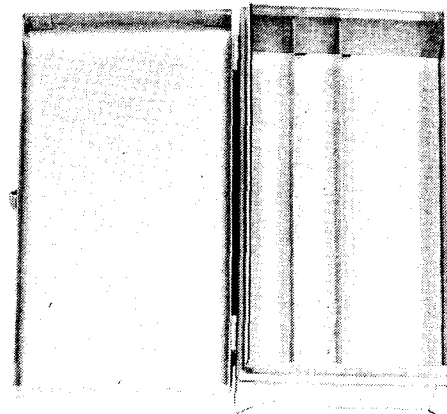
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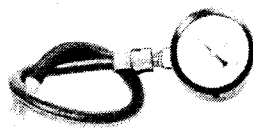


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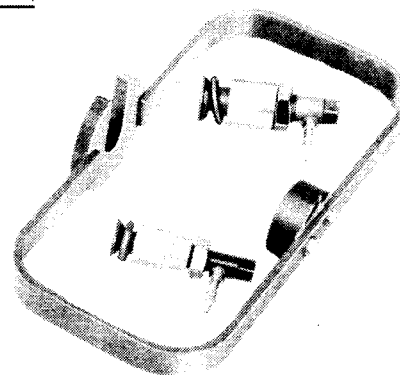


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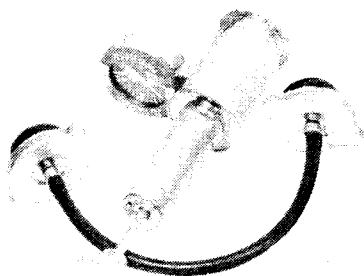
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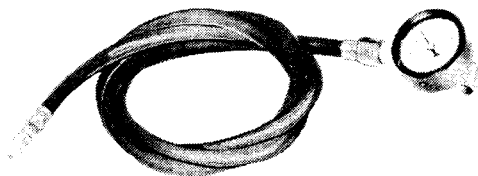
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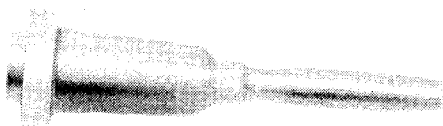
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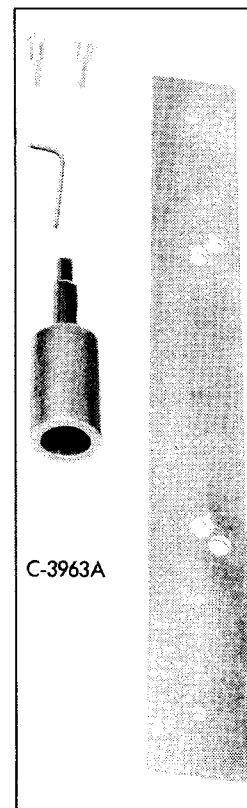
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C-3861



C-3752



C-3963A



C-3288B



C-3283A

WHEELS AND TIRES

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GENERAL INFORMATION

Wheels, wheel parts, rims and tires are designed to give maximum durability and performance when properly maintained. Tires as specified in this manual require special tools for proper stud tightening and therefore operators are advised to change equipment themselves only when proper facilities are not immediately available.

Wheel bearing lubrication instructions are detailed in Group 0. Wheel bearing removal, installation and wheel alignment instructions are detailed in Groups 2 and 3.

Proper wheel/tire balances and front end alignment must be maintained for extended tire life. Inflation pressures as associated with tire sizes are specified in the tire charts at the rear of this group.

To maintain quality of rims and wheels with which models specified in this manual are equipped, a continuous inspection program is recommended. These procedures should be carried out both during routine tire inspection and at time of tire changes.

SERVICE PROCEDURES

WEAR INDICATORS

An inspection of tires, together with information as to locality of operation will usually indicate abnormal wear due to operating conditions or mechanical faults. Any abnormal wear so indicated should be corrected. Various types of abnormal tire wear with their related causes and corrections are shown in Fig. 1.

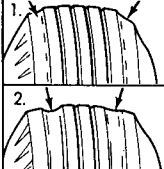
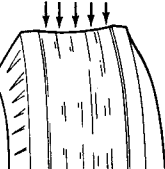

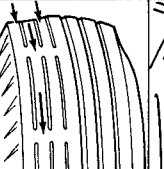
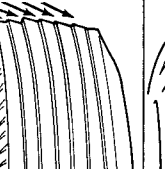

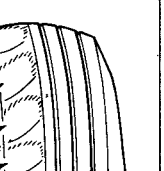
Specifications are determined on the basis of tire size, construction, vehicle operating speed and most important, the load to be carried. See Tire Pressure charts at rear of this group.

Underinflation

For maximum results in stability, handling, and tire life, tire inflation pressures should not be allowed to go below the recommended level. Underinflation results in much faster wear particularly at the shoulders.

Overinflation

By maintaining specified tire inflation pressure, even wear will take place over the entire road surface. Overinflation causes faster wear at the center of the tread and increases the possibility of cuts and punctures.

CONDITION	RAPID WEAR AT SHOULDERS	RAPID WEAR AT CENTER	CRACKED TREADS	WEAR ON ONE SIDE	FEATHERED EDGE	BALD SPOTS	SCALLOPED WEAR
EFFECT							
CAUSE	UNDER-INFLATION OR LACK OF ROTATION	OVER-INFLATION OR LACK OF ROTATION	UNDER-INFLATION OR EXCESSIVE SPEED*	EXCESSIVE CAMBER	INCORRECT TOE	UNBALANCED WHEEL OR TIRE DEFECT*	LACK OF ROTATION OF TIRES OR WORN OR OUT-OF-ALIGNMENT SUSPENSION.
CORRECTION	ADJUST PRESSURE TO SPECIFICATIONS WHEN TIRES ARE COOL ROTATE TIRES			ADJUST CAMBER TO SPECIFICATIONS	ADJUST TOE-IN TO SPECIFICATIONS	DYNAMIC OR STATIC BALANCE WHEELS	ROTATE TIRES AND INSPECT SUSPENSION SEE GROUP 2

*HAVE TIRE INSPECTED FOR FURTHER USE.

PF1048A

Fig. 1—Wear Patterns

Cracked Treads

This is the result of one or more of the following: alternate under and over inflation, exceeding the recommended full rated load, high temperature, high speed driving, or an over-age tire.

Excessive Camber Wear

Excessive wheel camber, either positive or negative causes the tire to run at an angle to the road, causing one side of tread wear more than the other. For best corrective results have front wheel camber adjusted to specifications. See Group 2 for steering and alignment specifications.

Toe-in or Toe-out Tread Wear

Excessive toe-in and toe-out causes wear on edges of front tires. An excessive amount of either toe-in or toe-out actually drags tire instead of letting tire roll true. This wear condition will usually produce a tapered or feathered edge on the tread ribs. Have toe-in or toe-out adjusted to specifications to correct. Noting the direction of feathering will indicate which direction is present. Feathering on inboard edges of tread bars indicate excessive toe-in; feathering on the outboard edges indicate excessive toe-out.

Thin Spot, Cupped or Scalloped Tire Tread Wear

Cupping, scalloping and spotting of tires is associated with wear on a vehicle driven mostly at highway speeds without recommended tire rotation and with unbalance conditions. Regardless of cause of cupped wear on either front tire, no alignment or balance job can prevent future excessive wear of the spots. Once a front tire acquires flat or cupped spots additional wear will continue at a rapid rate.

To correct this condition, tire rotation and wheel balance are necessary. A cupped tire will partially true itself up on a rear wheel.

ROTATION OF TIRES

Generally, it is preferred practice to "break in" new tires on front wheels, however, there are special cases and conditions where this may not always be advisable. "Breaking in" tires on an easy position generally increases the overall tire life.

Movement of tires from front to various rear wheel positions depends upon the type of unit being operated. It is always wise to use tires with good non-skid tread design on drive wheels.

Tires with least tread design should be used on trailer wheels, and particularly on the rear of tandem wheels. Cuts are found more often on the trailer and rear tandem tires and by using well worn tires on these wheels, loss on tires due to road hazards is minimized.

When all tires on vehicle are of same size and type, it is strongly recommended that with normal condi-

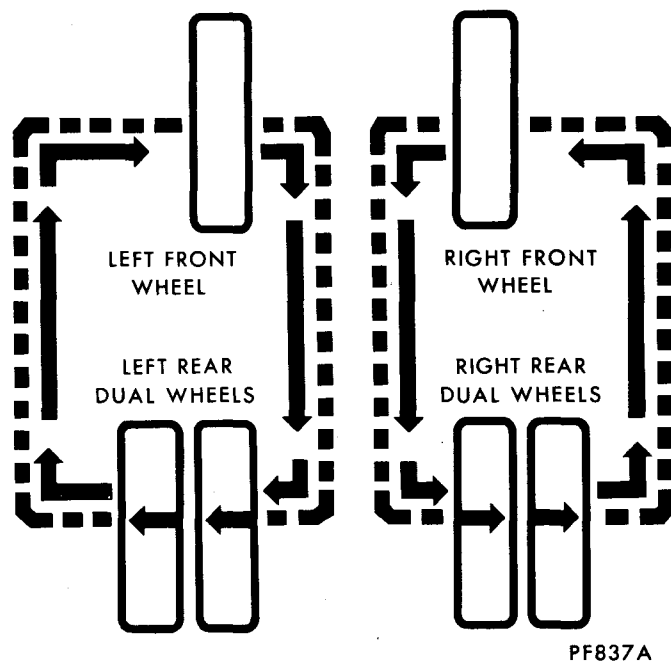


Fig. 2—Tire Rotation for Dual Rear Wheels

tions, tires be rotated no later than every second oil change.

Tire inspection at every oil change is also strongly recommended. Should excessive tread wear be evident, as suggested in Figure 1, an immediate investigation as to cause is recommended.

Figure 2 and 3 for similar size tires indicates the recommended sequence for rotation. Under conditions of severe service as in trailer towing, tires should be rotated more frequently.

Radial ply tires provide improved tread life, road hazard resistance and smoother high speed ride. The radial ply tires available as optional equipment from Chrysler Corporation are identified by the letter "R" in their size description. For example: HR 78-15 as compared with H78-15 for regular construction and are selected to complement the ride and handling characteristics. However, there are significant differences in the ride and handling characteristics

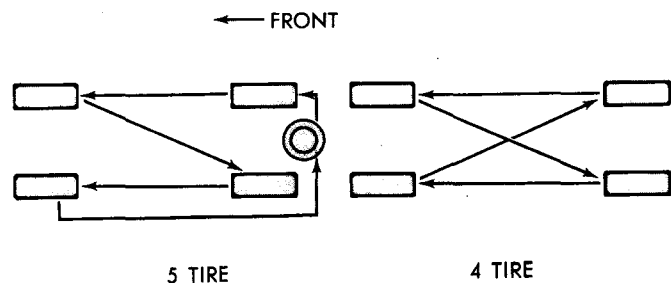


Fig. 3—Tire Rotation for Single Rear Wheels

of vehicles equipped with radial ply tires. You may initially find these unfamiliar characteristics require some adjustment in your driving habits.

Radial ply tires have the same load carrying capacity as bias or bias-belted tires of the same letter size and use the same recommended inflation pressures.

Mixing of radial ply tires with bias or bias-belted tires is not recommended. Many combinations of radial ply and bias or bias-belted tires, when installed on the same vehicle, will deteriorate vehicle handling.

Radial ply tires must always be used in sets of five and under no circumstances should they be used on the front only.

As long wearing tires can be more susceptible to irregular tread wear, it is very important to follow the tire rotation interval shown to achieve tread life potential in these tires (Fig. 4).

BALANCE

The need for tire and wheel assembly balancing is noticeable with heavy vibration of the steering wheel when driving at or above 40 miles an hour.

Proper wheel balancing is concerned with two major problems:

- Static Balance
- Dynamic Balance

Other factors to be considered in wheel balance is the use of tires that have been vulcanized, retreaded, booted or heavily patched. Such assemblies may be difficult to balance without use of a large number of weights. In these cases it is usually advisable to exchange them with a rear wheel and tire assembly where balance irregularity is less noticeable.

Static Balance

Static (still) balance is equal distribution of the weight of wheel and tire around the spindle, so that the assembly has no tendency to rotate by itself. An assembly that has a heavy spot is statically out of balance and can produce a bouncing motion.

Correction for static unbalance is made by first finding location of the heavy spot, then adding sufficient

weight to counterbalance it. Half the balance weight should be added inside of wheel and the other half to outside to prevent excessive dynamic unbalance. Always follow the equipment manufacturer's recommendations.

Dynamic Balance

A wheel and tire, to be in dynamic balance, must first be in static balance as already described and also be in balance from inside to outside. A wheel not in dynamic balance can produce wobble or shimmy.

If a wheel and tire assembly is out of balance dynamically, special shop equipment must be used to determine how much weight must be added on the rim flange to correct the dynamic balance of the assembly. Dynamic must be performed without disturbing the static balance of the assembly. While performing the above check, the wheel and tire assembly must be rotated rapidly. Always follow equipment manufacturer's recommendations.

Summary

Off-the-vehicle tire and wheel balancing is the preferred method. Balancing tires on vehicle essentially balances tire, wheel and brake drum or rotor. This balance condition is lost when tires are rotated to equalize tire tread wear, or when tires are removed for any reason and not reinstalled in the same position and indexed on the studs exactly as before removal.

When wheel and tire balance is required on vehicles equipped with dual rear wheels, it is necessary that wheel and tire assemblies be removed from vehicle for balancing.

RUN-OUT

A tire and wheel assembly may have radial or lateral runout, or a combination of both. Although initial readings are normally made on the tire, any run-out found could be due to irregularity of either the tire or wheel, or both. Therefore, when excessive radial or lateral runout is found, tire should be removed from wheel and wheel checked alone. This procedure should enable determination of which part is at fault. Figure 5 specifies runout checking points.

The radial run-out at each point indicated by "A" and lateral run-out at each point indicated by "B" should not exceed the following specifications.

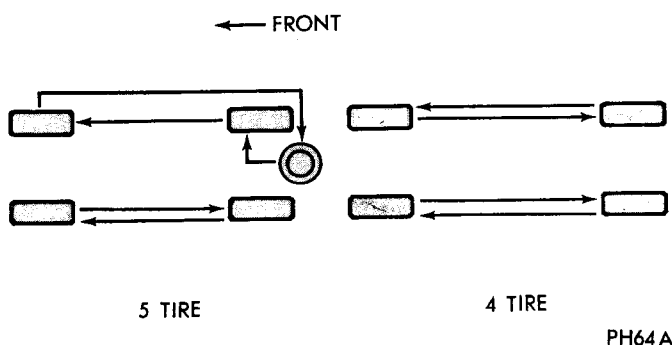


Fig. 4—Tire Rotation—Single Rear Wheels (Radials)

Wheel Size	Point "A" Radial Run-Out	Point "B" Lateral Run-Out
15 x 5.5	.035	.045
15 x 6.0	.035	.045
16 x 5.0	.030	.045
16.5 x 6.75	.045	.045
16.5 x 6.0	.045	.045
16 x 5.5	.050	.050
17.5 x 5.25	.050	.050
19.5 x 6.0	.060	.060

22-4 WHEELS AND TIRES

Under no circumstances should point indicated by "C" in Figure 5 be used for checking run-out as this metal has been sheared in the manufacturing process and as a result is not an even surface.

When checking wheel for run-out, attach wheel to a hub that is free to rotate but tight enough to prevent wobble. The dial indicator should be of known accuracy and attached to a firm surface to assure steadiness while taking readings.

MOUNTING

D300 models are equipped with disc wheels and with dual disc wheel on rear axles. These chassis utilize 8-stud disc wheel and flanged type wheel nuts.

All wheels have four (4) equally-spaced stud holes which are coined inward and four (4) equally-spaced stud holes which are coined outward. The outer wheel must be installed so that coined stud holes match coined stud holes of inner wheel. Line up wheels with locating pin.

The locating pin in hub will assist in properly orienting inner and outer wheels. The tires of both dual wheels must be completely off the ground when tightening to insure wheel centering and maximum wheel clamping.

Tighten dual rear wheel nuts in the numbered sequence. Retighten wheel nuts in same sequence again but this time torque to 325 foot-pounds. Go through sequence again to verify specified torque has been achieved.

Wheel stud nuts should be torqued as specified at every lubrication interval (2000 miles) thereafter. Also, when changing a wheel, that wheel should be retightened at 100 miles and 500 miles thereafter.

On D300, and W300 Models a 1-1/8 inch flange type wheel stud nut is being used when equipped with dual rear wheels. Only right hand threaded nuts and studs are being used. This flange type nut requires inspection and torque checking every 2,000 miles and can be used on previous model vehicles. However, when using these nuts on previous models, both right hand and left hand thread nuts along with a proper wheel wrench will be required. The wrench is necessary to properly tighten the nuts to required torque of 325 foot-pounds.

20 Inch Disc Wheels

(1) Tighten the small inner nuts first. This tightens the inner wheel only.

(2) Tighten the large outer nuts last. This tightens the outer wheel (Fig. 6).

Cast Wheels

(1) Lightly tighten hex nuts 1, 2, and 3 until tires are aligned.

(2) Tighten rest of nuts in sequence. Torque all hex nuts to recommended torque.

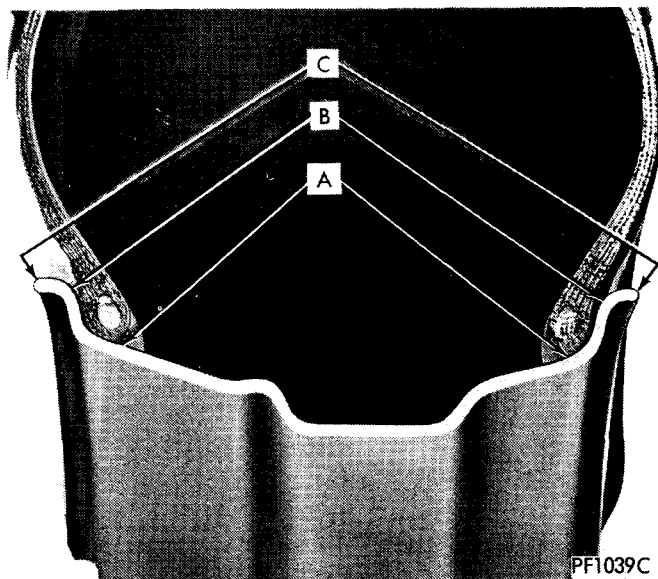


Fig. 5—Run-Out Check Points

(3) Check torque on all studs and recheck tire alignment.

Dual Cast Spoke Wheels

In order to assure proper spacing and alignment of dual mounted tires, a spacer is installed between the inner and outer wheel. Spacing is necessary to assure proper distance between dual mounted tires (Fig. 7).

When the space between dual mounted tires is too small, tires will run hot especially when the truck is heavily loaded due to lack of space for proper cooling. In extreme conditions tires may chafe and wear casings.

When the space between dual mounted tires is too great, the outside tire will be subjected to excessive dragging and scuffing due to turning.

Dual Disc Wheels

The outer nut bears only against outer wheel and does not apply pressure on inner wheel. If this nut is not properly tightened, the mounting stud nuts may loosen.

When outer nuts are tightened, only outer wheel will be secured. The inner wheel may be loose enough to move on the mounting studs, causing stud holes in wheel to wear and result in possible wheel or stud breakage.

To prevent inner wheel from becoming loose, the following tightening operation consistent with established torque ratings is specified:

(1) Raise axle to allow tire to clear floor.

(2) Loosen large outer nuts on outer wheel.

(3) Due to fact that inner wheel cannot be tightened by tightening outer nut, tighten small inner nuts first and then tighten large outer nuts.

This procedure applies when tightening is necessary as well as when assembling wheels to hubs.

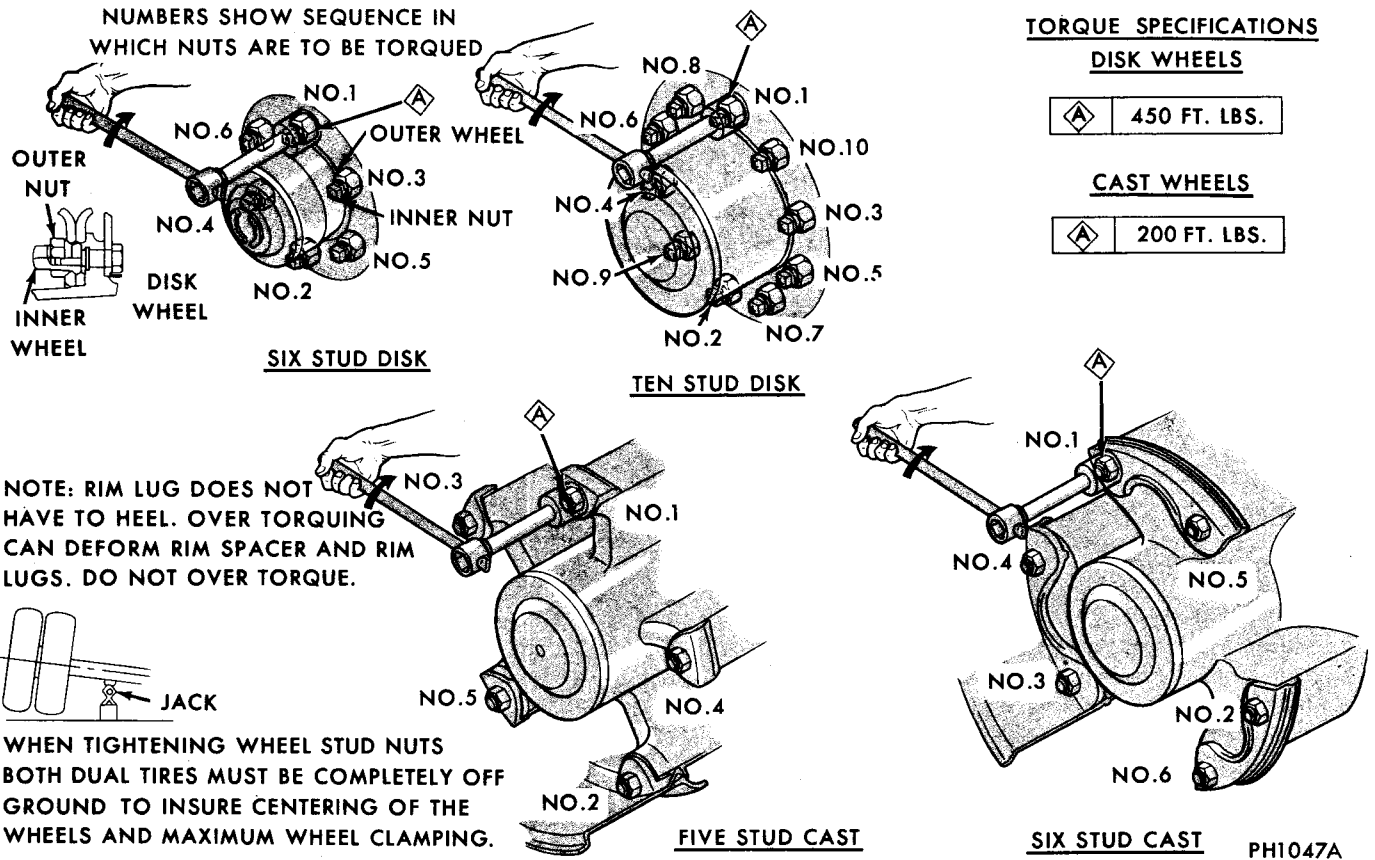


Fig. 6—Wheel Tightening—D500, D600, S600, S700, D800

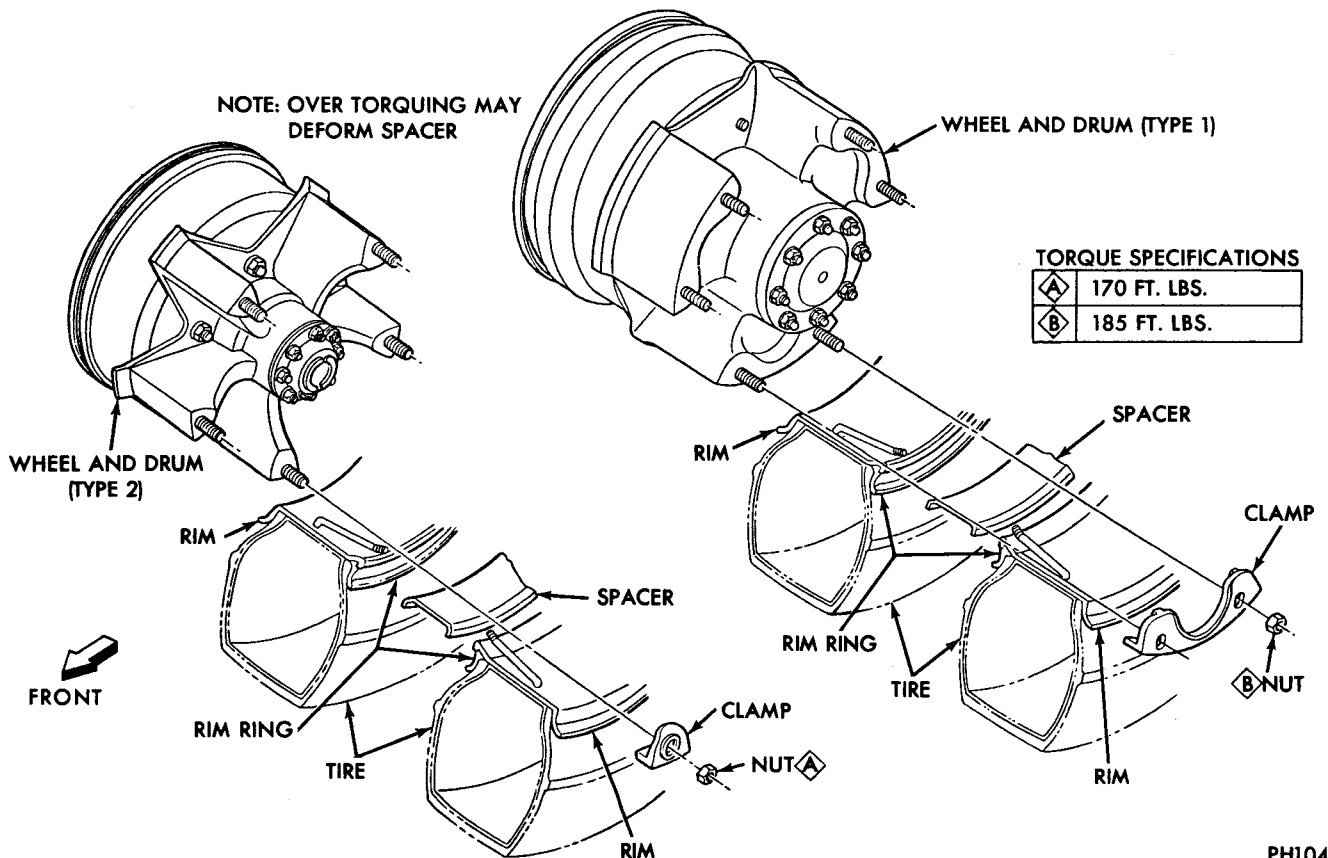


Fig. 7—Dual Cast Wheel Mounting—D600, S600, S700, D800

SPECIFICATIONS

SUFFIX LETTERS USED IN TIRE SIZE DESIGNATIONS

Suffix letters are included, when necessary, as part of Tire Size Designations to differentiate between tires designed for service conditions which may require different loads and inflations and/or tires designed for and must be used on different types of rims. Definitions are as follows:

LT—Identifies a tire designed for service on Trucks, Busses, Trailers and Multipurpose Passenger Vehicles used in normal highway service, used with 5° tapered rims of nominal .032" diameters. This suffix is intended to differentiate among tires for Passenger Car, Truck-Bus and other vehicles or other services which use a similar designation. Example: 7.00-15, 7.00-15LT and 7.00-15TR.

TR—Identifies a tire designed for service on Trucks, Busses and other vehicles with rims of nominal diameter +.156" or +.250". This suffix is intended to differentiate among tires for Passenger Car, Light Truck, and other vehicles or other services which use similar designations. Example: 7.00-15, 7.00-LT and 7.00-15NHS.

The term "Load Range" with a letter (A,B,C, etc.) in tire identification is used to identify a given size tire with its load and inflation limits when used in a specific type of service.

Each load range (ply rating) tire may be inflated up to the maximum pressure shown for it in the tables—no higher than 32 pounds in Load Range B (4-ply rating), 36 pounds in Load Range C (6-ply rating) or 40 pounds in Load Range D (8-ply rating) tires.

When the load you plan to carry calls for inflation pressures higher than the maximum permitted for your tires, either reduce the load or use the same size tire with a higher load range (ply rating) or a larger size designation, and possibly a different rim.

Replaces Ply Rating		Replaces Ply Rating	
Load Range		Load Range	
A	2	G	14
B	4	H	16
C	6	J	18
D	8	L	20
E	10	M	22
F	12	N	24

TIRE CHART

D100

WHEELBASE 115, 131, 133, 149

Tire and Wheel	GVW			Trailer Towing	
	5000	5500	6100	Light Duty (Note 1)	Heavy Duty (Note 2)
G78-15-B (5.5)	STD	N.A.	N.A.	STD	N.A.
G78-15-D (5.5)	EXT	EXT	EXT	EXT	N.A.
H78-15-B (5.5)	EXT	STD	STD	EXT	STD (Note 3)
L78-15-B (6.5)	EXT	EXT	EXT	EXT	EXT
HR78-15-B (6.5)	EXT	EXT	EXT	EXT	N.A.
LR78-15-B (6.5)	EXT	EXT	EXT	EXT	EXT
6.50-26LT-C (5.0)	EXT	EXT	EXT	EXT	N.A.
H70-15-B (8.0)	EXT	EXT	EXT	EXT	EXT

W100

WHEELBASE 115, 131, 133, 149

Tire and Wheel	GVW		Trailer Towing	
	5400	6100	Light Duty (Note 1)	Heavy Duty (Note 2)
G78-15-D (5.5)	EXT	—	EXT	N.A.
H78-15-B (5.5)	STD	—	EXT	
L78-15-B (6.5)	EXT	STD	EXT	STD
HR78-15-B (6.5)	EXT	—	EXT	N.A.
LR78-15-B (6.5)	EXT	EXT	EXT	EXT
10-15LT-B (8.0)	EXT	EXT	EXT	EXT
7.00-15LT-C (6.5)	EXT	EXT	EXT	N.A.
7.00-15LT-D (6.5)	EXT	EXT (Note 4)	EXT	N.A.
6.50-16LT-C (5.0)	EXT	EXT	EXT	N.A.

NOTE: (1) Maximum Trailer Weight 2000 Lbs.

(2) Maximum Trailer Weight 7000 Lbs. for D100 with H78-15-B base tire.

(3) 6.5 JJ wheel mandatory for Heavy Duty Trailer Towing.

(4) Includes Sno-Fiter which is not available with Trailer Towing.

N.A.—Not Applicable.

D200 WITH 131" WHEELBASE

Tire and Wheel	GVW (In Pounds)				
	6200	6900	7500	8100	9000
8.00-16.5-D (6.0)	STD	—	—	—	—
8.00-16.5-E (6.0)	EXT	STD	—	—	—
8.75-16.5-E (6.75)	EXT	EXT	STD	—	—
9.50-16.5-D (6.75)	EXT	EXT	EXT	STD	—
9.50-16.5-E (6.75)	EXT	EXT	EXT	EXT	STD
7.00-16LT-C (5.5)	EXT	—	—	—	—
7.50-16LT-C (5.5)	EXT	—	—	—	—
7.50-16LT-D (5.5)	EXT	EXT	EXT	—	—

D200 WITH 149" WHEELBASE CLUB CAB

8.00-16.5-D (6.0)	STD	—	—	—	—
8.00-16.5-E (6.0)	EXT	STD	—	—	—
8.75-16.5-E (6.75)	EXT	EXT	STD	—	—
9.75-16.5-D (6.75)	EXT	EXT	EXT	STD	—
9.75-16.5-E (6.75)	EXT	EXT	EXT	EXT	STD
7.00-16LT-C (5.5)	EXT	—	—	—	—
7.50-16LT-C (5.5)	EXT	—	—	—	—
7.50-16LT-D (5.5)	EXT	EXT	EXT	—	—

D200 WITH 149" WHEELBASE CREW CAB

8.00-16.5-D (6.0)	STD	—	—	—	—
8.00-16.5-E (6.0)	EXT	STD	—	—	—
8.75-16.5-E (6.75)	EXT	EXT	—	STD	—
9.50-16.5-D (6.75)	EXT	EXT	—	EXT	—
9.50-16.5-E (6.75)	EXT	EXT	—	EXT	STD
7.00-16LT-C (5.5)	EXT	—	—	—	—
7.50-16LT-C (5.5)	EXT	—	—	—	—
7.50-16LT-D (5.5)	EXT	EXT	—	—	—

D200 WITH 165" WHEELBASE CREW CAB

8.00-16.5-D (6.0)	STD	—	—	—	—
8.00-16.5-E (6.0)	EXT	STD	—	—	—
8.75-16.5-E (6.75)	EXT	EXT	—	STD	—
9.50-16.5-D (6.75)	EXT	EXT	—	EXT	—
9.50-16.5-E (6.75)	EXT	EXT	—	EXT	STD
7.00-16LT-C (5.5)	EXT	—	—	—	—
7.50-16LT-C (5.5)	EXT	—	—	—	—
7.50-16LT-D (5.5)	EXT	EXT	—	—	—

NOTE: Light Duty Trailer Towing Pkg. Maximum Weight 2000 lbs. for all GVW's. Heavy Duty Trailer Towing Pkg. Maximum Weight 7000 lbs. for 7500, 8100 and 9000 ONLY.

22-8 SPECIFICATIONS**W200 WITH 131", 149" CLUB CAB, 149" CREW CAB**

Tire and Wheel	GVW (In Pounds)		
	6500	7000	8000
8.00-16.5-D (6.0)	STD	—	—
8.00-16.5-E (6.0)	EXT	(Note 1)	—
8.75-16.5-E (6.75)	EXT	(Note 2)	(Note 3)
9.50-16.5-D (6.75)	EXT	(Note 4)	(Note 4)
7.00-16LT-C (5.5)	EXT	—	—
7.50-16LT-C (5.5)	EXT	(Note 5)	—
7.50-16LT-D (5.5)	EXT	(Note 2)	(Note 6)
9.50-16.5-E (6.75)	EXT	(Note 2)	(Note 2)

Light Duty Trailer Towing Pkg. Maximum Weight 2000 lbs. for all W200 GVW's. Heavy Duty Trailer Tow Pkg. Maximum 7000 lbs. for 8000 GVW ONLY. Trailer Tow Pkg. not available for Sno-Fiter.

NOTE: (1) Standard except Extra Equipment on Sno-Fiter.

(2) Extra Equipment also on Sno-Fiter.

(3) Standard Equipment except Sno-Fiter which is Extra Equipment.

(4) Extra Equipment also on Sno-Fiter Standard Plow and Standard Equipment on Snow-Fiter Heavy Duty Plow.

(5) Extra Equipment except Standard Equipment on Sno-Fiter.

(6) Extra Equipment except Standard Equipment on Sno-Fiter.

W300 WITH 135" WHEELBASE

Tire and Wheel	GVW (In Pounds)	
	8500	10,000
8.75-16.5-E (6.75)	STD	—
9.50-16.5-D (6.75)	EXT	—
9.50-16.5-E (6.75)	EXT	—
Dual Tire and Wheel		
8.00-16.5-D (6.0)	—	STD
8.00-16.5-E (6.0)	—	EXT
7.50-16LT-C (5.5)	—	EXT
7.50-16LT-D (5.5)	—	EXT

Light or Heavy Duty Trailer Tow Pkg. NOT APPLICABLE to W300 vehicles.

D300 WITH 131" WHEELBASE**(10,000 LBS. GVW)**

Dual Tire and Wheel	(10,000 LBS. GVW)	
	Front	Rear
8.00-16.5-C (6.0)	STD	—
8.00-16.5-D (6.0)	EXT	STD
8.00-16.5-E (6.0)	EXT	EXT
7.50-16LT-C (5.5)	EXT	EXT
7.50-16LT-D (5.5)	EXT	EXT

For Trailer Tow vehicles the minimum Tire shown is Standard for GVW shown. Maximum Trailer Weight is 2000 lbs.

D300 WITH 135" WHEELBASE

Tire and Wheel	GVW				
	6600	8000	8600	9000	10,000
8.00-16.5-D (6.0)	STD	—	—	—	—
8.00-16.5-E (6.0)	EXT	—	—	—	—
8.75-16.5-E (6.75)	EXT	STD	—	—	—
9.50-16.5-D (6.75)	EXT	EXT	—	—	—
9.50-16.5-E (6.75)	EXT	EXT	—	STD	—
7.50-16LT-C (5.5)	EXT	—	—	EXT	—
7.50-16LT-D (5.5)	EXT	—	—	—	—
Dual Tire and Wheel					
8.00-16.5-C (6.0)	—	—	STD	STD-FRT	STD-FRT
8.00-16.5-D (6.0)	—	—	EXT	EXT-FRT	EXT-FRT
8.00-16.5-E (6.0)	—	—	EXT	STD-RR	EXT-FRT
				EXT	STD-RR
7.00-16LT-C (5.5)	—	—	EXT	EXT	—
7.50-16LT-C (5.5)	—	—	EXT	EXT	EXT
7.50-16LT-D (5.5)	—	—	EXT	EXT	EXT

For Trailer Tow vehicles the minimum tire size shown is standard for GVW shown. 2000 lbs. Trailer Tow available for all applications shown. 10,000 lbs. Trailer Tow available for 8600, 9000 and 10,000 GVW's.

D300 WITH 149" WHEELBASE (10,000 LB. GVW)

Dual Tire and Wheel	Club Cab		Cab/Chassis	
	Front	Rear	Front	Rear
8.00-16.5-C (6.0)	STD	—	STD	—
8.00-16.5-D (6.0)	EXT	STD	EXT	—
8.00-16.5-E (6.0)	EXT	EXT	EXT	STD
7.50-16LT-C (5.5)	EXT	EXT	EXT	EXT
7.50-16LT-D (5.5)	EXT	EXT	EXT	EXT

For Trailer Tow vehicles the minimum tire size shown is standard for 10,000 lb. GVW. The 2000 lb. and 10,000 lb. Trailer Tow is available for both 149" wheelbase vehicles.

D300 WITH 159" WHEELBASE

Tire and Wheel	GVW				
	6600	8000	8600	9000	10,000
8.00-16.5-C (6.0)	STD	—	—	—	—
8.00-16.5-E (6.0)	EXT	—	—	—	—
8.75-16.5-E (6.75)	EXT	STD	—	—	—
9.50-16.5-D (6.75)	EXT	EXT	—	—	—
9.50-16.5-E (6.75)	EXT	EXT	—	STD	—
7.50-16LT-C (5.5)	EXT	—	—	—	—
7.50-16LT-D (5.5)	EXT	—	—	—	—
Dual Tire and Wheel					
8.00-16.5-C (6.0)	—	—	STD	STD-FRT	STD-FRT
8.00-16.5-D (6.0)	—	—	EXT	EXT-FRT	EXT-FRT
8.00-16.5-E (6.0)	—	—	EXT	STD-RR	EXT-FRT
				EXT	STD-RR
7.00-16LT-C (5.5)	—	—	EXT	EXT	—
7.50-16LT-C (5.5)	—	—	EXT	EXT	EXT
7.50-16LT-D (5.5)	—	—	EXT	EXT	EXT

D300 WITH 165" WHEELBASE

Dual Tire and Wheel	GVW		
	8600	9000	10,000
8.00-16.5-C (6.0)	STD	STD	STD-FRT
8.00-16.5-D (6.0)	EXT	EXT	EXT-FRT
			STD-RR
8.00-16.5-E (6.0)	EXT	EXT	EXT
7.00-16LT-C (5.5)	EXT	EXT	—
7.50-16LT-C (5.5)	EXT	EXT	EXT
7.50-16LT-D (5.5)	EXT	EXT	EXT

For Trailer Tow Vehicles the minimum tire size shown is standard for GVW's shown. The 2000 lbs. Trailer Tow is available for all 159" Wheelbase vehicles. The 10,000 lb. Trailer Tow is available for all GVW's except 6600 and 8000.

NOTE

The Gross Axle Weight Rating "GAWR" for the following models D500, D600, D700, D800, S600 and S700 indicates total weight in pounds for two (2) front tires on wheels and total weight in pounds for four (4) rear tires on wheels.

D500

Tire and Wheel	Tire GAWR Capacity		Wheel GAWR Capacity	
	Front Axle	Rear Axle	Front Axle	Rear Axle
	Tire	Tire	5000 Lb. Rated 6 Stud Disc	13500 Lb. Rated 6 Stud Disc
7.00-20-D (6.0)	5580	9800	6280*	12560*
7.50-20-D (6.0)	6280	11000	6280	12560
7.50-20-D (6.5)	6280	11000	8500	17000
7.50-20-E (6.0)	7060	12400	6280	12560
7.50-20-E (6.5)	7060	12400	8500	17000
8.25-20-E (6.5)	8100	14200	8500	17000

*Standard Wheel and Tire

D600

Tire and Wheel	Tire GAWR Capacity		Wheel GAWR Capacity							
			Front Axle				Rear Axle			
			5500 Lb. Rated		7000 Lb. Rated		15000 Lb. Rated		17000 Lb. Rated	
	Front Axle Tire	Rear Axle Tire	6 Stud Disc	Cast Spoke	6 Stud Disc	Cast Spoke	6 Stud Disc	Cast Spoke	6 Stud Disc	Cast Spoke
7.50-20-D (6.0)	6280	11000	6280	8100	6200	8100	12560*	16200	—	—
7.50-20-D (6.5)	6280	11000	8500	9220	8500	9220	17000	18440	17000	18440
7.50-20-E (6.0)	7060	12400	6280	8100	6280	8100	12560	16200	—	—
7.50-20-E (6.5)	7060	12400	8500	9220	8500	9220	17000	18440	17000	18440
8.25-20-E (6.5)	8100	14200	8500	9220	8500	9220	17000	18440	17000	18440
8.25-20-E (7.0)	8100	14200	9000	10300	9000	10300	18000	20600	18000	20600
8.25-20-F (6.5)	9000	15800	8500	9220	8500	9220	17000	18440	17000	18440
8.25-20-F (7.0)	9000	15800	9000	10300	9000	10300	18000	20600	18000	20600
9.00-20-E (7.0)	9220	16160	9000	10300	9000	10300	18000	20600	18000	20600
9.00-20-E (7.5)	9220	16160	—	—	—	10860	—	—	—	21720
9.00-20-F (7.0)	10300	18080	9000	10300	9000	10300	18000	20600	18000	20600
9.00-20-F (7.5)	10300	18080	—	—	—	10860	—	—	—	21720

*Standard Wheel & Tire

S600

Tire GAWR Capacity			Wheel GAWR Capacity							
Tire and Wheel			Front Axle				Rear Axle			
	Front Axle	Rear Axle	5500 Lb. Rated		7000 Lb. Rated		(Note 1)		17000 Lb. Rated	
	Tire	Tire	6 Stud Disc	Cast Spoke	6 Stud Disc	Cast Spoke	6 Stud Disc	Cast Spoke	6 Stud Disc	Cast Spoke
7.50-20-D (6.0)	6280	11000	6280*	8100	6280	8100	12560*	16200	—	—
7.50-20-D (6.5)	6280	11000	8500	9220	8500	9220	17000	18440	—	—
7.50-20-E (6.0)	7060	12400	6280	8100	6280	8100	12560	16200	—	—
7.50-20-E (6.5)	7060	12400	8500	9220	8500	9220	17000	18440	—	—
8.25-20-E (6.5)	8100	14200	8500	9220	8500	9220	17000	18440	17000	18440
8.25-20-E (7.0)	8100	14200	9000	10300	9000	10300	18000	20600	18000	20600
8.25-20-F (6.5)	9000	15800	8500	9220	8500	9220	17000	18440	17000	18440
8.25-20-F (7.0)	9000	15800	9000	10300	9000	10300	18000	20600	18000	20600
9.00-20-E (7.0)	9220	16160	9000	10300	9000	10300	18000	20600	18000	20600
9.00-20-E (7.5)	9220	16160	—	—	—	10860	—	—	—	21720
9.00-20-F (7.0)	10300	18080	9000	10300	9000	10300	18000	20600	18000	20600
9.00-20-F (7.5)	10300	18080	—	—	—	10860	—	—	—	21720

*Standard Wheel and Tire
 Note (1) 15500 Lb. Single Speed
 15000 Lb. Two (2) Speed

W600

Tire GAWR Capacity			Wheel GAWR Capacity	
Tire and Wheel			Front Axle	Rear Axle
	Front Axle	Rear Axle	6000-7500 Lb. Rated	15000-17000 Lb. Rated
	Tire	Tire	6 Stud Disc	6 Stud Disc
8.25-20-E (6.5)	8100	14200	8500*	17000*
8.25-20-E (7.0)	8100	14200	9000	18000
8.25-20-F (6.5)	9000	15800	8500	17000
8.25-20-F (7.0)	9000	15800	9000	18000
9.00-20-E (7.0)	9220	16160	9000	18000
9.00-20-F (7.0)	10300	18080	9000	18000

*Standard Wheel and Tire.

D700

Tire GAWR Capacity			Wheel GAWR Capacity							
Tire and Wheel			Front Axle				Rear Axle			
	Front Axle	Rear Axle	5500 Lb. Rated		7000 Lb. Rated		17500 Lb. Rated		18500 Lb. Rated	
	Tire	Tire	Cast Spoke	10 Stud Disc	Cast Spoke	10 Stud Disc	Cast Spoke	10 Stud Disc	Cast Spoke	10 Stud Disc
8.25-20-E (7.0)	8100	14200	10300*	10300	9520	9520	20600*	19040	20600	19040
8.25-20-F (7.0)	9000	15800	10300	10300	9520	9520	20600	19040	20600	19040
9.00-20-E (7.0)	9220	16160	10300	10300	9520	9520	20600	19040	20600	19040
9.00-20-E (7.5)	9220	16160	—	10860	10860	10860	21720	21720	21720	21720
9.00-20-F (7.0)	10300	18080	10300	10300	9520	9520	20600	19040	20600	19040
9.00-20-F (7.5)	10300	18080	—	10860	10860	10860	21720	21720	21720	21720
10.00-20-F (7.5)	10860	19040	—	10860	10860	10860	21720	21720	21720	21720

*Standard Wheel & Tire

22-12 SPECIFICATIONS

D800

Tire and Wheel	Tire GAWR Capacity		Wheel GAWR Capacity							
			Front Axle				Rear Axle			
	Front Axle	Rear Axle	7000 Lb. Rated	9000 Lb. Rated	18500 Lb. Rated	22000 Lb. Rated	7000 Lb. Rated	9000 Lb. Rated	18500 Lb. Rated	22000 Lb. Rated
	Tire	Tire	Cast Spoke	10 Stud Disc	Cast Spoke	10 Stud Disc	Cast Spoke	10 Stud Disc	Cast Spoke	10 Stud Disc
9.00-20-E (7.0)	9220	16160	10300*	9520	10300	9520	20600*	19040	20600	19040
9.00-20-E (7.5)	9220	16160	10860	10860	10860	10860	21720	21720	21720	21720
9.00-20-F (7.0)	10300	18080	10300	9520	10300	9520	20600	19040	20600	19040
9.00-20-F (7.5)	10300	18080	10860	10860	10860	10860	21720	21720	21720	21720
10.00-20-F (7.5)	10860	19040	10860	10860	10860	10860	21720	21720	21720	21720
11.00-20-F (7.5)	11840	20760	10860	10860	10860	10860	21720	21720	21720	21720

*Standard Wheel & Tire

S700

Tire and Wheel	Tire GAWR Capacity		Wheel GAWR Capacity							
			Front Axle				Rear Axle			
	Front Axle	Rear Axle	5500 Lb. Rated	7000 Lb. Rated	17500 Lb. Rated	18500 Lb. Rated	5500 Lb. Rated	7000 Lb. Rated	17500 Lb. Rated	18500 Lb. Rated
	Tire	Tire	Cast Spoke	10 Stud Disc	Cast Spoke	10 Stud Disc	Cast Spoke	10 Stud Disc	Cast Spoke	10 Stud Disc
8.25-20-E (7.0)	8100	14200	10300*	9520	10300	19040	20600*	—	—	—
8.25-20-F (7.0)	9000	15800	10300	9520	10300	19040	20600	—	—	—
9.00-20-E (7.0)	9220	16160	10300	9520	10300	19040	20600	19040	20600	20600
9.00-20-E (7.5)	9220	16160	—	10860	10860	21720	21720	21720	21720	21720
9.00-20-F (7.0)	10300	18080	10300	9520	10300	19040	20600	19040	20600	20600
9.00-20-F (7.5)	10300	18080	—	10860	10860	21720	21720	21720	21720	21720
10.00-20-F (7.5)	10860	19040	—	10860	10860	21720	21720	21720	21720	21720

*Standard Wheel & Tire.

USAGE CHART

6 STUD DISC 8.75 BOLT HOLE CIRCLE WHEELS 10 STUD DISC 11.25 BOLT HOLE CIRCLE WHEELS

Models	20—6	20—6.5	20—7	Models	20—7	20—7.5
D500	X	X	—	D600	X	—
D600	X	X	X	D700	X	X
S600	X	X	X	D800	X	X
W500	—	X	X	S700	X	X

CAST STEEL WHEELS

RIMS

Models	20—6	20—6.5	20—7	20—7.5
D600	X	X	X	—
D700	—	—	X	X
D800	—	—	X	X
S600	X	X	X	—
S700	—	—	X	X

*Bolt hole Circle dimensions are in inches.

INFLATION PRESSURES

Minimum Inflation Pressures

Minimum recommended inflation pressures are to be as indicated for various loads. Inflation pressures may be increased above those indicated when recommended by manufacturer for optimum stability and handling but not to exceed 32 psi for Load Range B tires and 40 psi for Load Range D tires.

Maximum Cold Inflation Pressures

Maximum cold inflation pressure of Load Range B

tires is 32 psi and of Load Range D tires is 40 psi. For sustained high speed driving over 75 mph, cold inflation pressure must be increased 4 psi, but not to exceed maximum of 32 psi for Load Range B tires and 40 psi for Load Range D tires. Where 4 psi pressure adjustment for sustained high speed with maximum vehicle load would require inflation pressures above the maximum allowable, speed must be limited to 75 mph.

PRESSURE CHART

Tires Used as Singles

PASSENGER CAR TIRES (Bias and Radial Ply)

Tire Size Designation	Tire Load Limits at Various Cold Inflation Pressures												
	16	18	20	22	24	26	28	30	32	34	36	38	40
G78-15	1000	1070	1140	1190	1260	1310	1370	1420	1470(B)	1530	1570	1620	1670(D)
H78-15	1090	1170	1240	1310	1370	1440	1500	1560	1610(B)				
L78-15	1220	1300	1380	1460	1530	1590	1670	1730	1790(B)	1860	1910	1970	2030(D)
HR78-15	1090	1170	1240	1310	1370	1440	1500	1560	1610(B)				

LETTER IN PARENTHESES DENOTE LOAD RANGE FOR WHICH UNDERLINED LOADS ARE MAXIMUM.

- NOTE:** (1) Maximum cold inflation pressure of Load Range B tires is 32 psi and of Load Range D tires is 40 psi. For sustained high speed driving over 75 mph, cold inflation pressure must be increased 4 psi, but not to exceed the maximum of 32 psi for Load Range B tires and 40 psi for Load Range D tires. Where the 4 psi pressure adjustment for sustained high speed with maximum vehicle load would require inflation pressures above the maximum allowable, speed must be limited to 75 mph.
- (2) Tire pressures of **less than** 24 psi are not recommended for truck use regardless of load.
- (3) In no case should rear tire pressure be set lower than front tire pressure.

Tires Used as Singles (Cont'd)

TRUCK TIRES

Tire Size	Load Range	Maximum Capacity	Tire Load Limits at Cold Inflation Pressures in lbs. Per Square Inch									
			30	35	40	45	50	55	60	65	70	75
6.50-16LT	C	1610	1270	1390	1500	1610	—	—	—	—	—	—
7.00-15LT	C	1720	1350	1480	1610	1720	—	—	—	—	—	—
7.00-15LT	D	2040	1350	1480	1610	1720	1830	1940	2040	—	—	—
7.00-16LT	C	1800	1430	1560	1680	1800	—	—	—	—	—	—
7.50-16LT	C	2060	1620	1770	1930	2060	—	—	—	—	—	—
7.50-16LT	D	2440	1620	1770	1930	2060	2190	2310	2440	—	—	—
8.00-16.5	C	1730	1360	1490	1610	1730	—	—	—	—	—	—
8.00-16.5	D	2045	1360	1490	1610	1730	1840	1945	2045	—	—	—
8.00-16.5	E	2330	1360	1490	1610	1730	1840	1945	2045	2145	2240	2330
8.75-16.5	E	2680	1570	1720	1850	1990	2110	2240	2350	2470	2570	2680
9.50-16.5	D	2780	1860	2030	2190	2350	2500	2650	2780	—	—	—
9.50-16.5	E	3170	1860	2030	2190	2350	2500	2650	2780	2920	3050	3170
8-17.5	C	2075	1640	1790	1940	2075	—	—	—	—	—	—
8-17.5	D	2455	1640	1790	1940	2075	2205	2335	2455	—	—	—

NOTE: For sustained high speed driving over 60 mph, cold inflation pressures must be increased 10 psi above those specified by the table for the load being carried (but not to exceed 85 psi). Where the 10 psi pressure adjustment for sustained high speed is limited by the maximum of 85 psi, speed must be limited to 60 mph. (COLD INFLATION FOR TRUCK TYPE TIRES PRESSURES MUST NEVER EXCEED 85 PSI).

Tires Used as Singles (Cont'd)

Tire Size	Load Range	Max. Cap. (lbs.)	Tire Load Capacity at Various Cold Inflation Pressures in lbs. Per Square Inch										
			50	55	60	65	70	75	80	85	90	95	100
7.00-20	D	2790	2100	2260	2390	2530	2670	2790	—	—	—	—	—
7.50-20	D	3140	2360	2530	2680	2840	2990	3140	—	—	—	—	—
7.50-20	E	3530	2360	2530	2680	2840	2990	3140	3270	3410	3530	—	—
8.25-20	E	4050	2800	3010	3190	3370	3560	3730	3890	4050	—	—	—
8.25-20	F	4500	2800	3010	3190	3370	3560	3730	3890	4050	4210	4350	4500
8-19.5	C	2410	2110	2270	2410	—	—	—	—	—	—	—	—
8-19.5	D	2800	2110	2270	2410	2540	2680	2800	—	—	—	—	—
9.00-20	E	4610	—	3560	3770	4000	4210	4410	4610	—	—	—	—
9.00-20	F	5150	—	3560	3770	4000	4210	4410	4610	4790	4970	5150	—
10.00-20	F	5430	—	—	4290	4530	4770	4990	5220	5430	—	—	—
11.00-20	F	5920	—	—	4670	4940	5200	5450	5690	5920	—	—	—
11.00-22	F	6290	—	—	4960	5240	5520	5790	6040	6290	—	—	—

NOTE: For sustained high speed driving over 60 mph, cold inflation pressures must be increased 10 psi above those specified by the table for the load being carried.

Tires Used as Duals

Tire Size	Load Range	Max. Cap. (lbs.)	Tire Load Capacity at Various Cold Inflation Pressures in lbs. Per Square Inch									
			30	35	40	45	50	55	60	65	70	75
7.00-16LT	C	1580	1260	1365	1475	1580	—	—	—	—	—	—
7.50-16LT	C	1815	1430	1565	1690	1815	—	—	—	—	—	—
7.50-16LT	D	2140	1430	1565	1690	1850	1930	2040	2140	—	—	—
8.00-16.5	C	1520	1195	1310	1415	1520	—	—	—	—	—	—
8.00-16.5	D	1800	1195	1310	1415	1520	1620	1710	1800	—	—	—
8.00-16.5	E	2050	1195	1310	1415	1520	1620	1710	1800	1885	1970	2050
8-17.5	C	1820	1445	1575	1700	1820	—	—	—	—	—	—
8-17.5	D	2155	1445	1575	1700	1820	1935	2050	2155	—	—	—

NOTE: For sustained high speed driving over 60 mph, cold inflation pressures must be increased 10 psi above those specified by the table for the load being carried.

Tires Used as Duals (Cont'd)

Tire Size	Load Range	Max. Cap. (lbs.)	Tire Load Capacity at Various Cold Inflation Pressures in lbs. Per Square Inch										
			40	45	50	55	60	65	70	75	80	85	90
7.00-20	D	2450	1840	1980	2100	2220	2340	2450	—	—	—	—	—
7.50-20	D	2750	2070	2220	2350	2490	2620	2750	—	—	—	—	—
7.50-20	E	3100	2070	2220	2350	2490	2620	2750	2870	2990	3100	—	—
8.25-20	E	3550	2460	2640	2800	2960	3120	3270	3410	3550	—	—	—
8.25-20	F	3950	2460	2640	2800	2960	3120	3270	3410	3550	3690	3820	3950
8-19.5	C	2110	1850	1990	2110	—	—	—	—	—	—	—	—
8-19.5	D	2460	1850	1990	2110	2230	2350	2460	—	—	—	—	—
9.00-20	E	4040	—	3120	3310	3510	3690	3870	4040	—	—	—	—
9.00-20	F	4520	—	3120	3310	3510	3690	3870	4040	4200	4360	4520	—
10.00-20	F	4760	—	—	3760	3970	4180	4380	4580	4760	—	—	—
11.00-20	F	5190	—	—	4100	4330	4560	4780	4990	5190	—	—	—
11.00-22	F	5520	—	—	4350	4600	4840	5080	5300	5520	—	—	—

NOTE: For sustained high speed driving over 60 mph, cold inflation pressure must be increased 10 psi above those specified in the table for the load being carried.

TIGHTENING REFERENCE

Nut Type	Thread Size	Torque (Ft.-Lbs.)
Cone	1/2-20	105
Cone	5/8-18	200
Flanged	5/8-18	325
Double	(See Note)	450
—CAST SPOKE WHEEL—		
Lug	5/8-11	150
Lug	3/4-10	200

Note: Front Wheel and Inner Dual Wheel Nut is 3/4-16.
Outer Dual Rear Wheel Nut is 1-1/8-16.

BODY

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CONVENTIONAL CAB

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GENERAL INFORMATION

The conventional cab models 100 through 800 include a new medium duty line. The basic cab and door assembly is the same as the D-W 100 through 300. The medium duty, models 500 through 800 are different in the sheet metal from the cowl forward to the front bumpers. The differences for medium duty are noted in the conventional cab manuscript.

Some components are secured with 1/4 inch pop rivets. (Fig. 1). To remove these rivets, drive out the center pin of the rivet with a drift punch then drill out the rivet with a 1/4 inch drill. The component may be reinstalled using either a new rivet or a 1/4-20 nut and screw torqued to 90 inch-pounds.

BUMPERS

Front Bumpers Without Guards

Place the brackets to the bumper, assemble with bolts, plain washer, lock washer and nuts. Tighten 19 to 29 ft. lbs. Line up the bumper brackets with the holes in the frame and secure with bolts, nuts, and washer. When the assembly is mounted to the vehicle, check the alignment to body sheet metal. For assembly procedures refer to (Fig. 2).

Front Bumpers With Guards

Place the bumper guard cushion onto the guard

and secure with nuts. Tighten the nuts 30 to 50 in. lbs. Place the assembly on the face side of the bumper, set the brackets in position on the inner side of bumper. Secure the brackets with a plain washer, and screw routed through the bumper and into the guard. Tighten the assembly 19 to 29 ft. lbs. Line up the bumper and guard assembly to the holes in the frame and secure with bolts, check to see bumper is in alignment with the body sheet metal. Assembly procedures are shown in (Fig. 1).

Front Bumper and Tow Hook (D 5-6-8-W6-S6)

The bumper is bolted to the frame as shown in (Fig. 3). Working from under the bumper, remove mounting nuts and remove bumper from vehicle. The

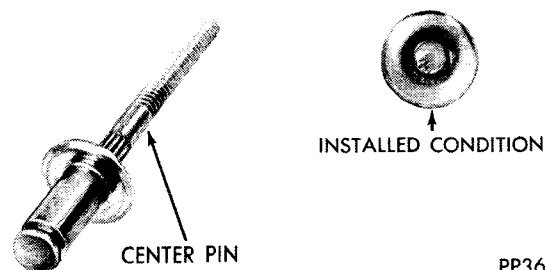


Fig. 1—Pop Rivet

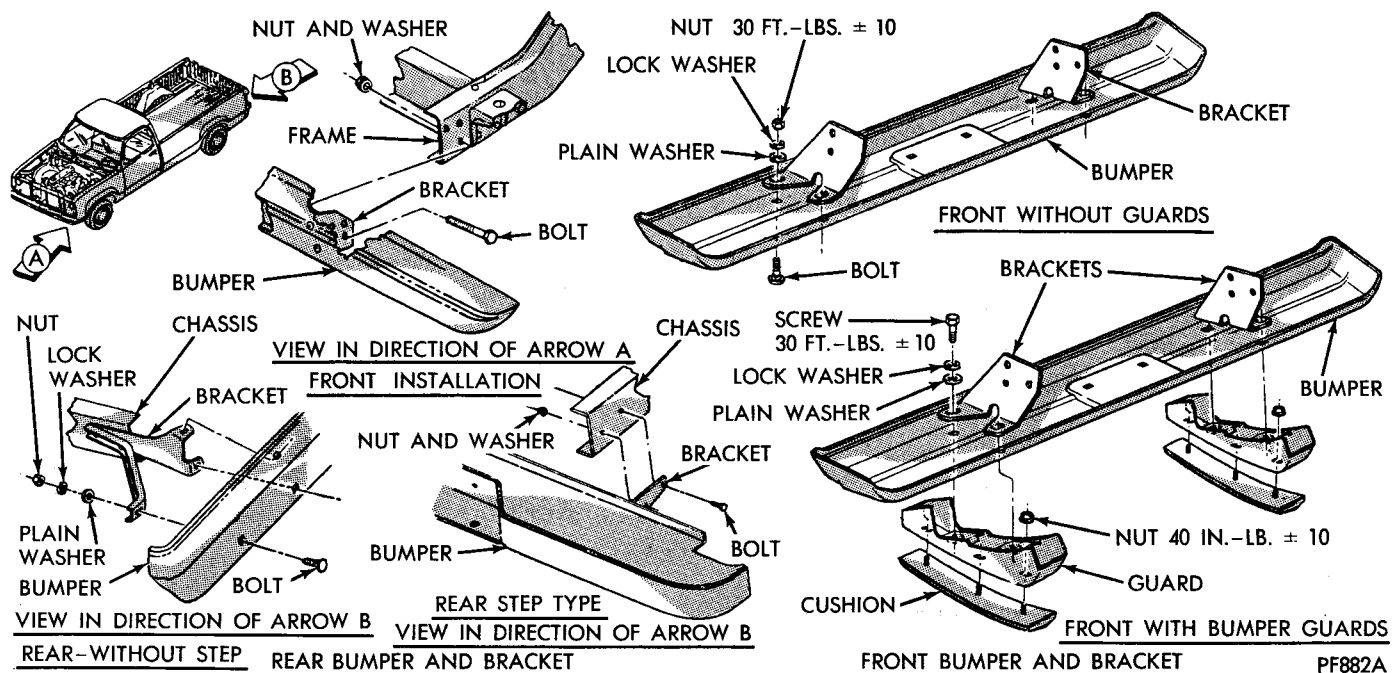


Fig. 2—Bumper Application (D-W 1-2-3)

tow hooks are bolted through the bumper and the frame, to remove the tow hooks, remove the upper mounting nuts only.

Front Bumper With Winch

The bumper is mounted to the front frame extension by a gusset located on the under side of frame and lower section of bumper as shown in (Fig. 4).

Rear Bumpers—Step and Non-Step

The rear bumper is mounted to brackets in the same manner as the front bumpers. The assembly is

then mounted to the chassis with bolts and nuts. Check to see that there is proper alignment with body sheet metal. See (Fig. 2) for installation procedures.

HOOD RELEASE (In CAB Fig. 5)

Removal

- (1) Open hood and remove hood lock shield.
- (2) Disconnect hood latch release cable from lock assembly.
- (3) Release cable assembly from routing clip along body sheet metal.

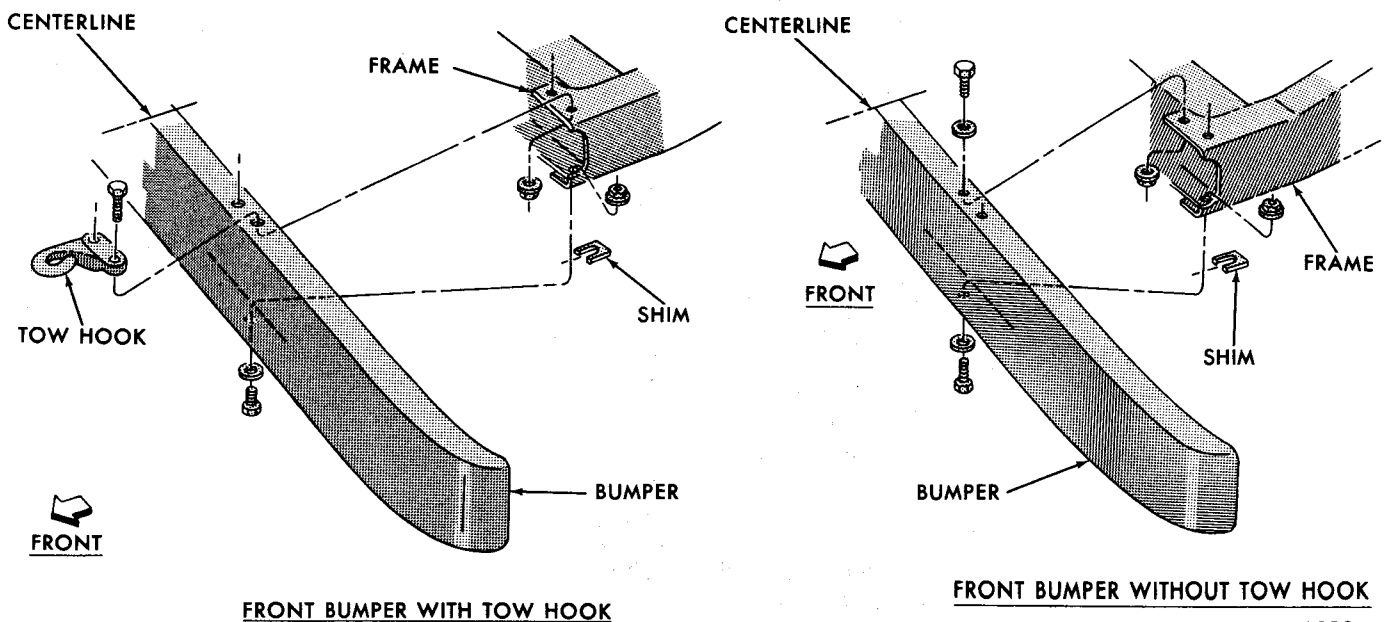


Fig. 3—Front Bumper and Tow Hook (D-5-6-8 W6-S6)

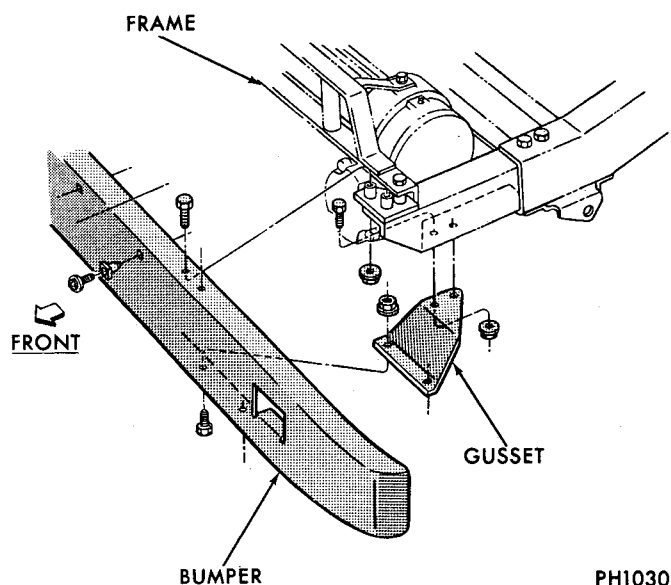


Fig. 4—Front Bumpers with Winch (W-1-2-3)

- (4) Remove grommet from dash.
- (5) From inside the vehicle remove mounting screws securing release handle to lower section of instrument panel.
- (6) Route the hood release cable assembly out of the dash and remove from vehicle.

Installation

- (1) From inside cab, route the hood release cable assembly through the dash.
- (2) Mount the release handle to the lower section of the instrument panel.
- (3) Install grommet to dash panel.
- (4) Secure the cable to the rear routing clip along the body sheet metal.
- (5) Route the cable over the support flange and connect the cable to the latch assembly. Install the lock assembly cover.
- (6) Adjust the cable to shroud clip to insure slack between the clip and the latch.
- (7) Test hood latch release for proper function.

HOOD (D-W-1-2-3)

Adjustments

The hinge screw holes are oversized and elongated to permit up and down adjustment and "fore" and "aft" adjustment at the hood (Fig. 6).

The hinge mounting at the fender panel provides up and down adjustment (Fig. 7). Reset Adjustable Front Bumpers until a moderate closing effort is required to latch the hood.

Hood Alignment (Fore and Aft)

The following sequence of hood alignment and lock and striker adjustment must be followed. An improperly adjusted lock or striker could cause the hood to open to the safety catch.

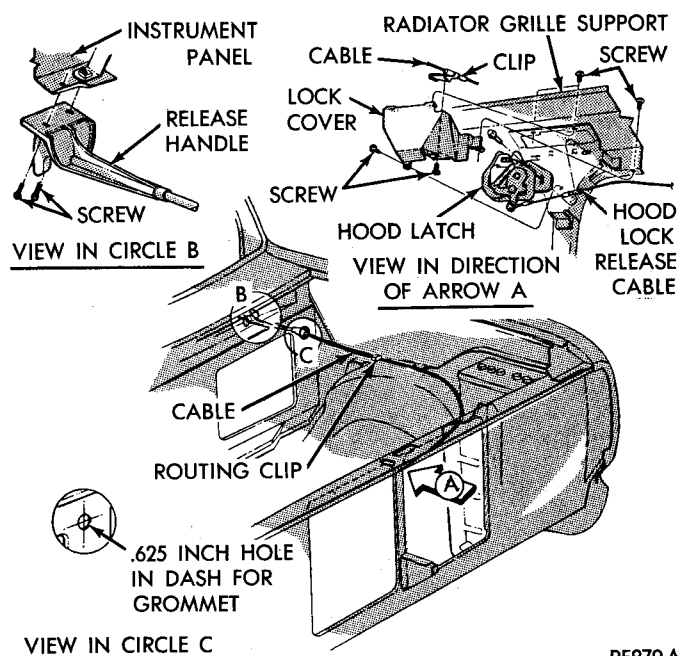


Fig. 5—Hood Release in Cab (D-W 1-2-3)

- (1) Loosen both hinge mounting bolts at hood mounting.
- (2) Loosen hood lock from grille support.
- (3) Close hood and adjust so approximately 3/16 inch clearance is obtained between back of hood and cowl.
- (4) Raise hood to approximately 30 degrees and tighten hinge to hood mounting bolts.
- (5) Tighten lock, and lower the hood and check visually for proper front fender pad pressure.
- (6) Open the hood. Using a substance such as clay or other suitable material capable of receiving an im-

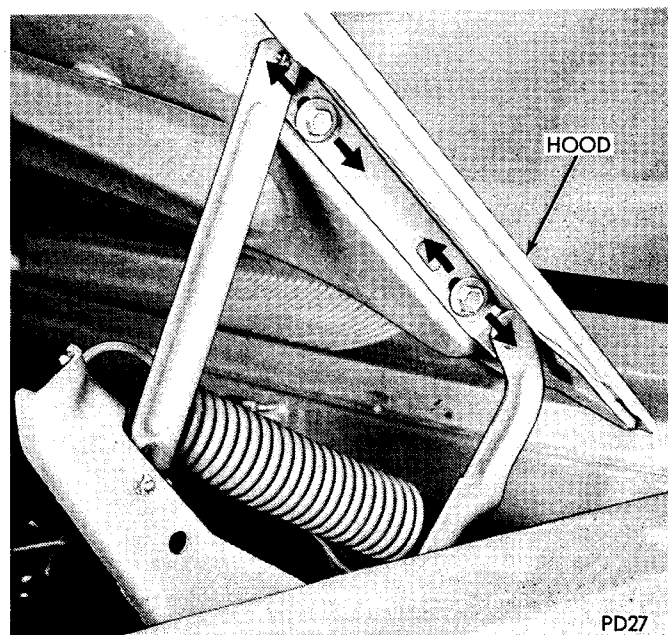


Fig. 6—Hood Adjusting Points

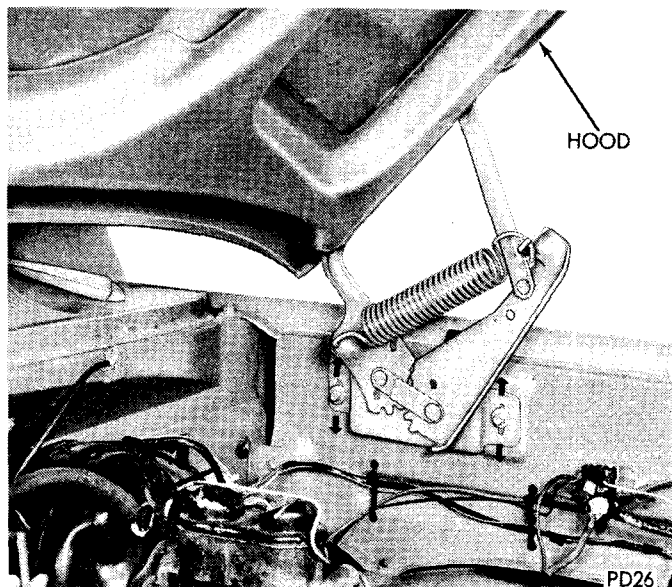


Fig. 7—Hinge Adjusting Points (D-W 1-2-3)

pression, coat top side of primary latch striker arm. Close hood to obtain a full latch position.

(7) Disengage hood lock and check latch imprint in substance used. A properly adjusted lock will show a centered position on striker. If imprint is not proper, readjust hood lock (Fig. 8).

Removal

- (1) Raise hood to full open position.
- (2) With the aid of an assistant remove the bolts and remove the hood from vehicle.
- (3) If new hood is to be installed, remove all serviceable components from hood.
- (4) Inspect hood hinges for proper operation and wipe clean with a suitable solvent.
- (5) Lubricate hood hinges with a suitable lubricant.

Installation

- (1) Install all serviceable components from old hood and any new parts as necessary.
- (2) With an assistant position hood on vehicle and align holes to hinge, install bolts snugly but do not tighten.
- (3) To align hood, latch, and striker, see steps (1) thru (7) under "HOOD ALIGNMENT".

Hinge Replacement

- (1) Raise hood to full open position and loosen hood hinge bolts.
- (2) Support the hood on the side the hinge is being removed from. Remove the hinge.
- (3) Position new hinge against fender shield and install bolts and tighten snugly.
- (4) Align hood to hinge, install bolts snugly, do not tighten.
- (5) To align hood, latch and striker see steps (1) thru (7) under "HOOD ALIGNMENT".

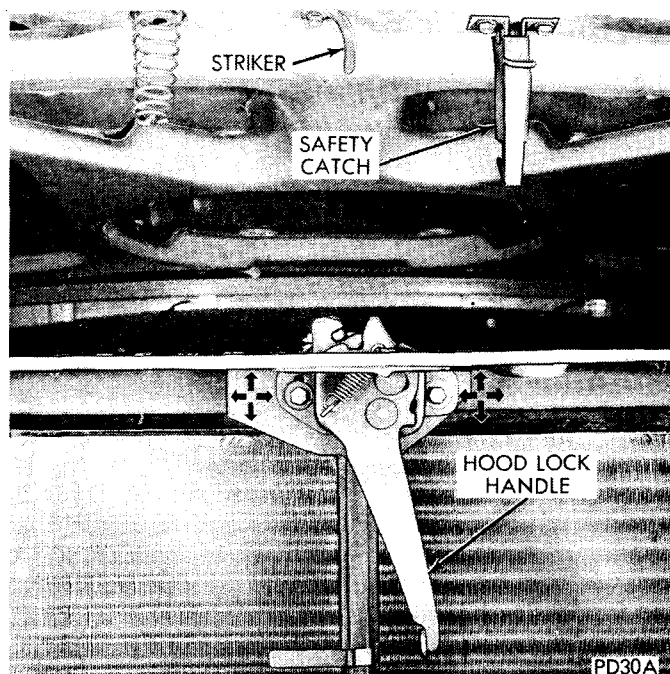


Fig. 8—Hood Lock Striker Adjustment (D-W 1-2-3)

When both hinges are to be replaced, remove the hood and hinges as an assembly.

Lock and Striker

Removal

- (1) Raise hood and remove hood lock striker attaching bolts.
- (2) Remove hood lock striker.
- (3) Loosen and remove attaching bolts of lock assembly and remove lock from grille support.

Installation

When installing a new lock, make sure assembly is well lubricated.

- (1) Position lock assembly and install bolts. The mounting holes are elongated to allow lateral and vertical adjustment. (T-plate floats laterally).
- (2) Position striker assembly and install bolts.

Adjustment

To adjust hood latch and striker see steps 1 through 7 under Hood Alignment.

HOOD AND LOCK (D 5-6-8-W6-S6)

Removal

- (1) Raise hood.
- (2) With an assistant, remove hood to hinge mounting screws.
- (3) With an assistant raise hood away from vehicle.

Installation

- (1) With an assistant raise hood into position on vehicle.

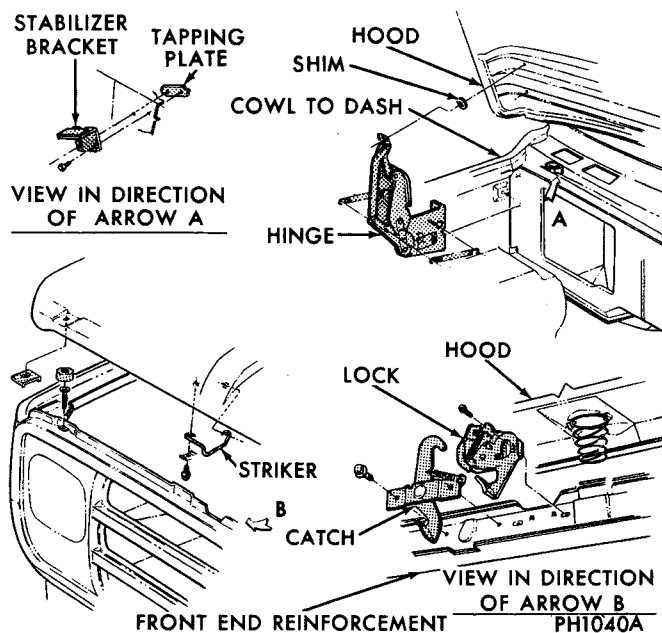


Fig. 9—Hood-Lock-Hinge Adjustments (D5-6-8 W6)

- (2) Install hood to hinge mounting screws.
- (3) Check hood to fender and cowl alignment.
- (4) Check function of hood and latches, for proper operation.

Hood Adjustments (Fig. 9)

- (1) Mount the hood hinges to the cowl, and side shield if removed.
- (2) Install hood latch loosely.
- (3) Install hood safety catch.
- (4) Install hood latch striker.
- (5) Mount the hood rear stabilizer pads, (full down) to the cowl, also lower the front bumpers on the radiator core support.
- (6) Install the fender to hood side bumpers.
- (7) Mount the hood on the hinges with the aid of an assistant. Adjust the hood on the hinges laterally and fore-aft with hood and hinge mounting bolts to align cowl gap and front of hood with sheet metal.
- (8) Close the hood and check hood to fender rear bumper contact.
- (9) Adjust hinge to cowl mounting until firm contact is made; shims can be used to achieve contact, by installing them on the front hinge bolts.
- (10) Adjust the hood latch laterally (Floating Tapping Plate) to center on latch striker.
- (11) Adjust the latch vertically to achieve firm contact with the fender bumpers.
- (12) Reset adjustable front bumpers until a moderate closing effort is required to latch the hood.
- (13) Adjust the hood rear stabilizer pads until firm contact is made with the hood rear reinforcement.
- (14) Place a strip of paper on the pad and extend it up over the cowl.

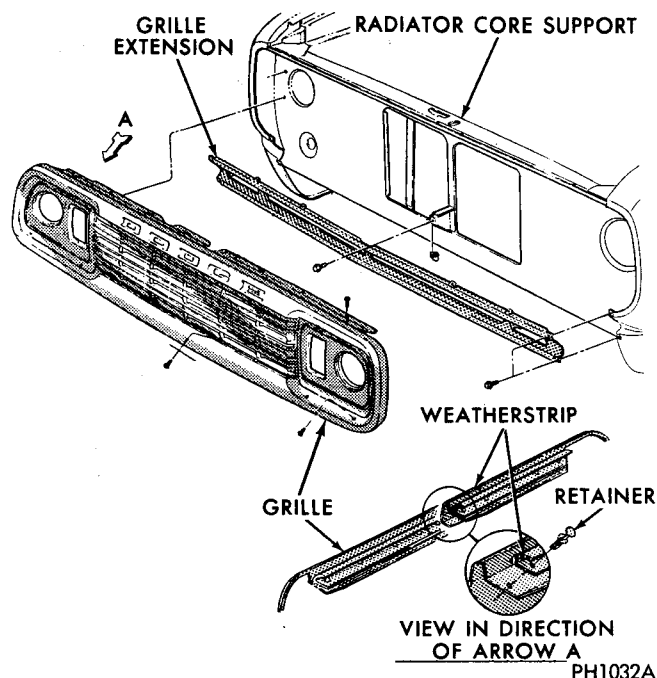


Fig. 10—Grille Assembly (D-W 1,2,3)

- (15) Close hood, check to see that the paper is tight (Paper should not pull free).
- (16) The hood hinge can be adjusted vertically at the dash panel attachment to achieve hood to cowl fit. Additional adjustment can be achieved by adding shims to the front hinge to hood attaching bolts.

GRILLE (D 1-2-3)

Removal (Fig. 10)

- (1) Remove grille upper attaching screws.
- (2) Remove lower grille attaching screws (grille to extension).
- (3) Remove attaching screws at center and at each end of grille extension.

Installation

- (1) Place grille extension in opening and install sheet metal screws loosely.
- (2) Center grille extension and tighten screws.
- (3) Place grille in opening and center, and install screws.

GRILLE AND SUPPORT ASSEMBLY (D 5-6-8-W6-S6)

The removal and installation of the grille and support includes most of the front end sheet metal and radiator.

Follow the procedures listed in the removal and installation section in this text.

Removal

- (1) Disconnect battery cable.
- (2) Drain coolant.

(3) Remove top radiator hose and disconnect the lower hoses.

(4) Remove front splash shields from inner fenders.

(5) Disconnect wiring harness at bulkhead, starter relay, windshield washer pump, horn and both fender and headlight circuits.

(6) Remove screws mounting fender to grille and support assembly, (Fig. 11).

(7) Remove nuts from front end hold down mountings and radiator assembly, (Fig. 11) view 'A'.

(8) Raise assembly and use caution when removing, so as not to hit the lower front end mounting studs.

(9) Remove grille and support assembly (with an assistant) from the vehicle as shown in (Fig. 12), using caution not to damage the radiator during removal.

Installation

(1) With an assistant place the grille and radiator into position on the vehicle.

(2) When installing the front end support assembly, be sure to mount insulators and washers correctly to lower front end mounting pads.

(3) Install the front end hold down and radiator assembly mounting hardware. Seat studs to 16 ft. lbs. \pm 5 ft. lbs. Tighten nuts to 55 ft. lbs. \pm 10 ft. lbs.

(4) Install screws to fender and grille support assembly.

(5) Connect wiring harness at bulkhead, starter relay, windshield washer pump, horn and fender and headlight circuits.

(6) Install front splash shields to inner fenders.

(7) Install radiator hoses.

(8) Replace coolant.

(9) Connect battery cable.

RADIATOR CORE SUPPORT, FENDER AND SPLASH SHIELD (D-W 1-2-3)

The radiator core support and fender assembly attach with u-nuts, screws and nuts. The splash shield mounts on the inner side of sheet metal with screws.

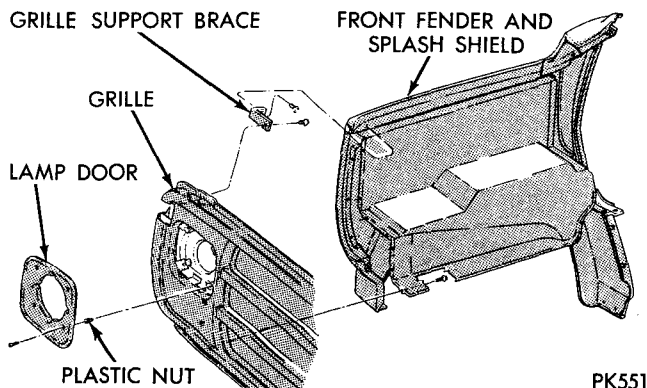


Fig. 11—Grille and Support to Fender

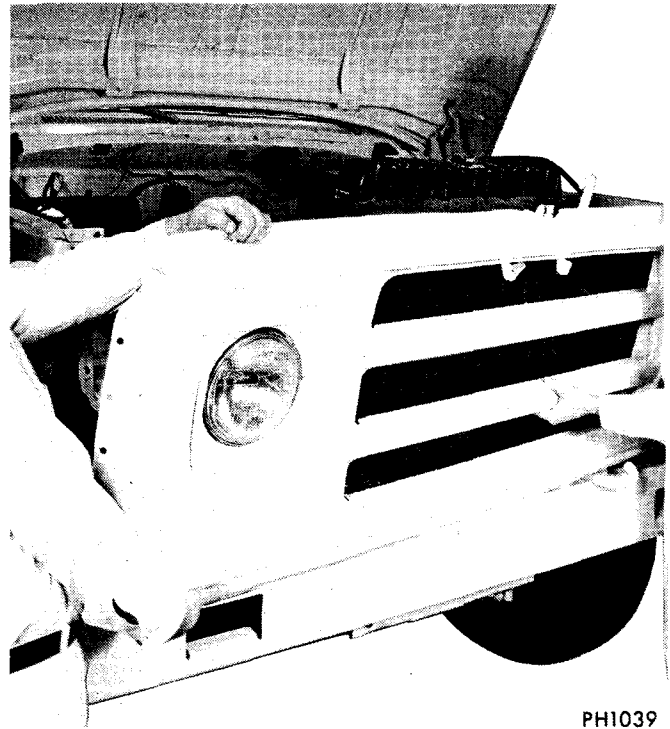


Fig. 12—Removing Grille Support and Radiator From Vehicle

Removal (Fig. 13)

(1) Raise hood and remove battery.

(2) Drain and remove radiator (save coolant).

(3) Remove headlight bezels.

(4) Remove upper and lower grille panels.

(5) Remove both headlights.

(6) Disconnect battery tray from radiator-grille support panel.

(7) Remove horns.

(8) Remove screws from right fender to right

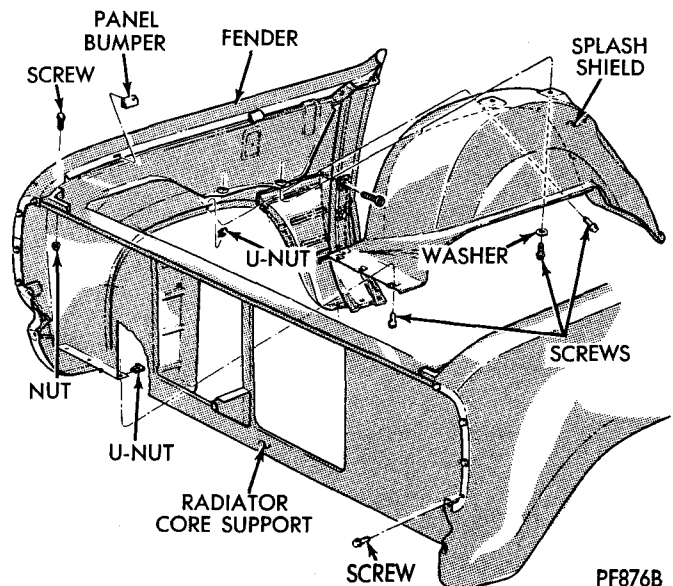


Fig. 13—Radiator Core Support and Splash Shield (D-W 1,2,3)

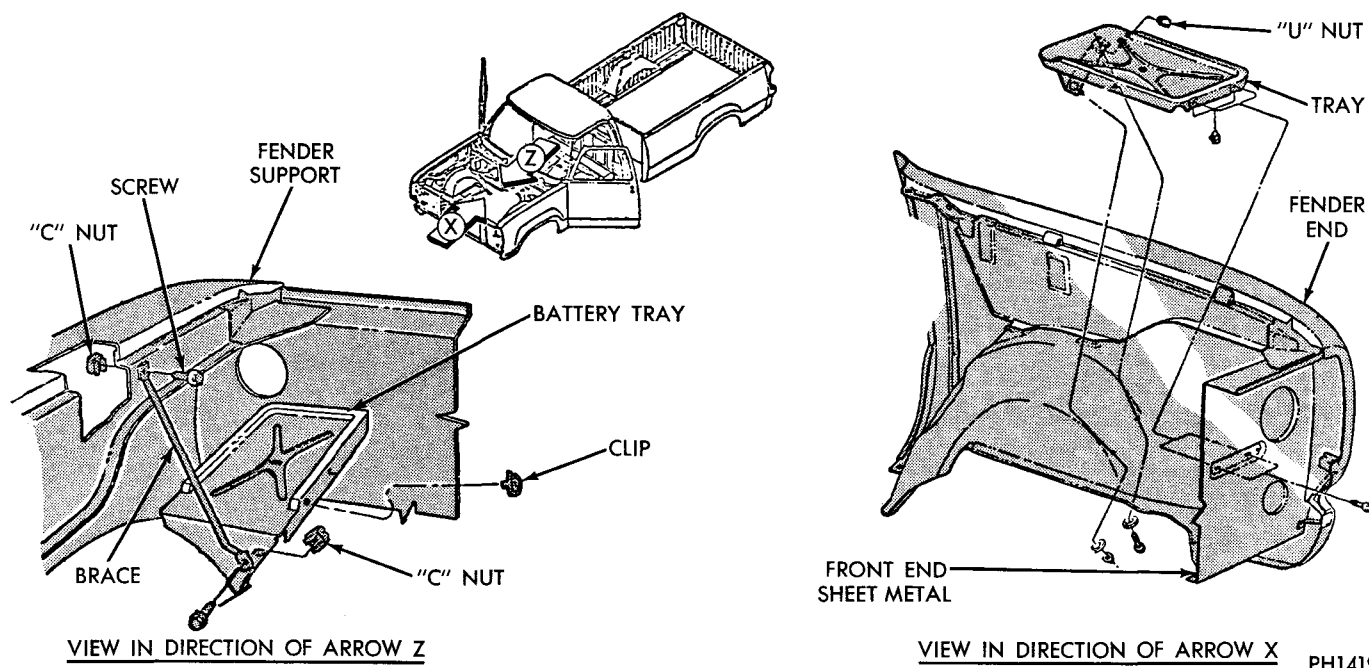


Fig. 14—Battery Tray and Brace (D-W 1,2,3)

wheelhouse so that right fender panel can swing out, pivoting at the cowl, allowing disengagement from radiator-grille support panel.

CAUTION: Care must be taken to avoid damage to fender or cowl panel.

- (9) Remove radiator-grille support panel.

Installation

- (1) Install six (6) "U" nuts on lower flange of radiator-grille support panel and install panel.
- (2) Engage right fender and secure to wheelhouse and radiator-grille support panel. Tighten screws.
- (3) Install horns.
- (4) Install and refill radiator.
- (5) Attach battery tray to radiator-grille support panel.
- (6) Install and aim headlights.
- (7) Install lower and upper grille panels.
- (8) Install headlight bezels.
- (9) Install and connect battery.

BATTERY TRAY AND BRACE (D-W 1-2-3)

Removal (Fig. 14)

- (1) Disconnect battery cables.
- (2) Remove battery hold downs and remove battery from tray.
- (3) Remove "C" nut and screw from lower brace to tray attachment.
- (4) Remove brace from fender housing support.
- (5) Remove tray from front end sheet metal.

Installation

- (1) Place "U" nuts on tray assembly and align to holes.

- (2) Place tray into front end sheet metal.
- (3) Attach with screws, washers and nuts.
- (4) Position brace to fender housing support and secure with "C" nut, screw and washer.
- (5) Position lower end of brace to battery tray.
- (6) Secure with "C" nut, screw and washer.
- (7) Install battery and battery hold downs.
- (8) Connect battery cables to battery posts.

BATTERY TRAY (D-W 5-8)

On D-W 500-800 models the tray is mounted on a shelf on the inner fender support and does not utilize the front grille support. It is bolted to the fender inner reinforcement, and does not contain bracing from the fender housing support to the tray (Fig. 15).

FRONT END MOUNTING TO CAB (D-W 1,2,3)

The front end sheet metal attaches to the cab with spacers between the rear of fender and cowl, to achieve sheet metal alignment at the cowl plenum and grille. For mounting of sheet metal front end to cowl and cowl grille refer to (Fig. 16).

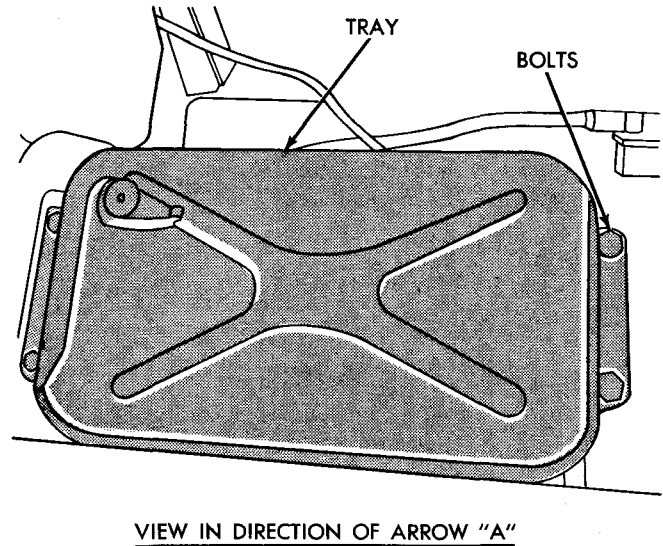
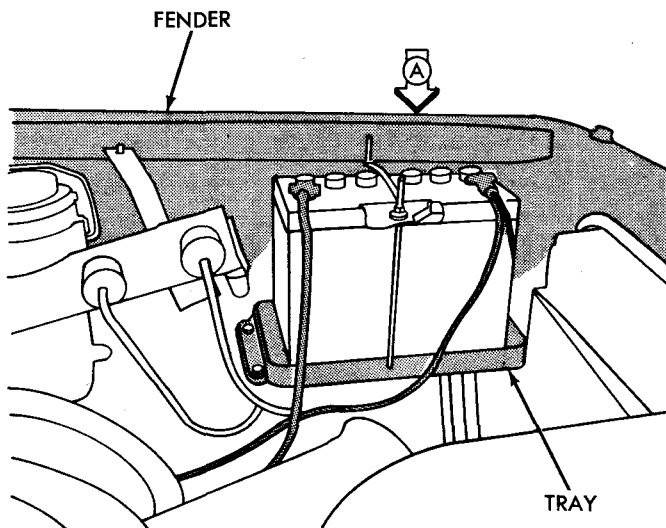
Be sure during removal that the same amount of spacers removed are replaced during installation.

FRONT END TO COWL AND DASH (D 5-6-8-W6-S6)

For assembly or disassembly of front end to cowl and dash refer to (Figs. 17 and 18).

COWL GRILLE ATTACHMENT (ALL MODELS)

The cowl grille is attached to the cowl at the front by eight attaching screws. (Fig. 19).



PH1418

Fig. 15—Battery Tray (D-W 5,6,8, W6)

The grille can be removed by removing the eight front screws. It is also necessary to remove the windshield wiper arms and blades.

FRONT END AND CAB HOLD DOWN MOUNTING (D-W 1-2-3)

For specific mounting of (D-W 1-2-3) model trucks, refer to (Fig. 20) to identify correct hardware. Be sure to torque hold down nuts to specifications shown in illustrations.

FRONT END AND CAB HOLD DOWN (D 5-6-8-W6)

The cab and front end mounting are shown in (Fig. 21). In view 'A', be sure to torque nut to 55 ft. lbs. and stud to 16 ft. lbs. In view 'B' torque nut to 65 ft. lbs. and in view 'C' be sure to torque bolt to 35 ft. lbs. In view 'B' the washers can be placed either at the top or the bottom of the mounting bracket.

RUNNING BOARD AND HANGERS (D 5-6-8-W6)

For assembly or disassembly of board or hangers, remove or install nuts and bolts as shown in (Fig. 22).

When installing running board or hangers, tighten nuts and bolts to 200 in. lbs. + or — 30 in. lbs.

WINDSHIELD

Removal (Fig. 23)

- (1) Cover cowl panel to protect paint finish.
- (2) Remove wiper arms and blades, Refer to Wiper Section in this service manual.
- (3) Pry out one end of retainer and carefully pull retainer from around weatherstrip.
- (4) With an assistant supporting the windshield on

the outside, from inside cab, push one corner of glass out of weatherstrip. Progressively force entire glass out of weatherstrip.

- (5) Remove glass from opening.

(6) The weatherstrip will remain in place on windshield opening if so desired.

Installation (Fig. 24)

Mineral spirits **only** should be used as a lubricant to aid installation.

- (1) Install weatherstrip (if removed) on windshield

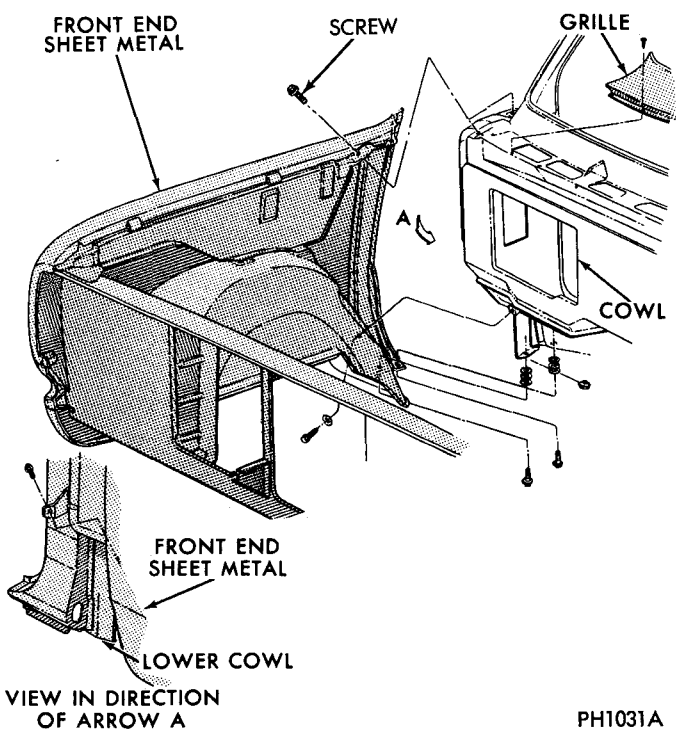


Fig. 16—Front Fender to Cab and Cowl Grille (D-W 1,2,3)

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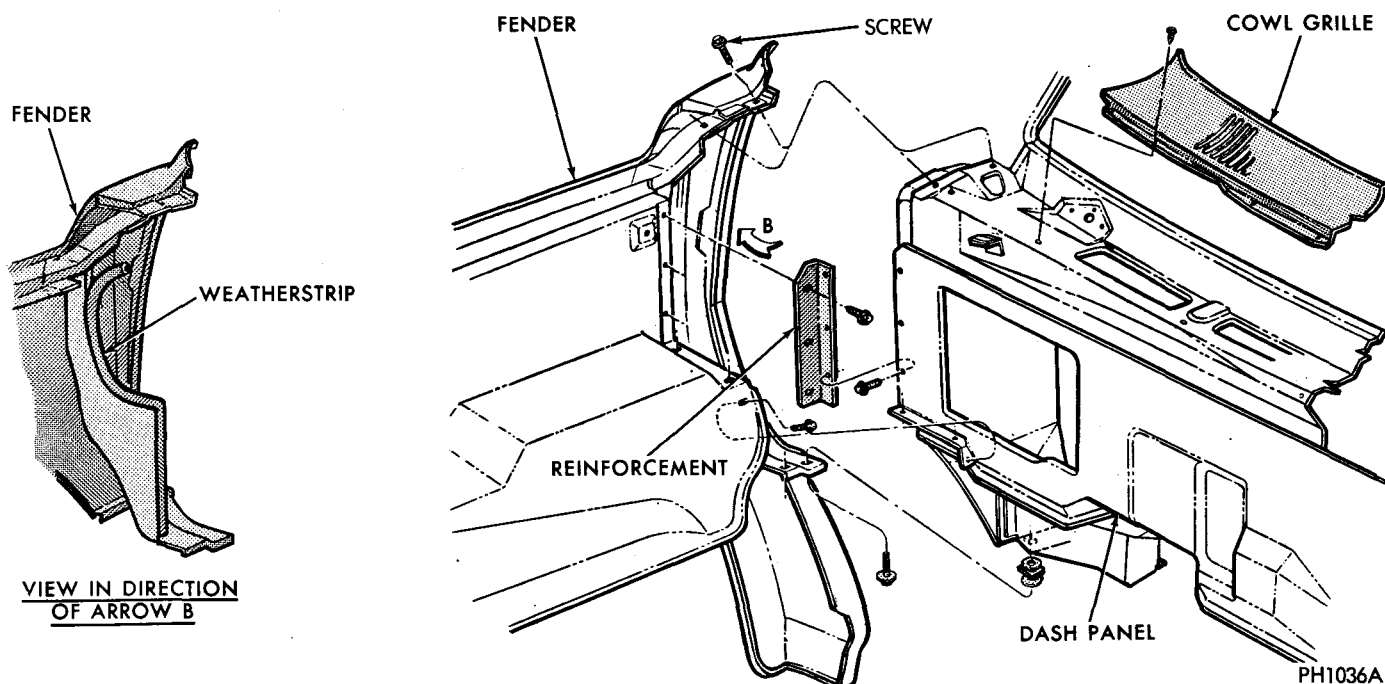


Fig. 17—Front End to Cowl and Dash (D 5,6,8, W6)

opening fence carefully, making sure weatherstrip is properly seated.

(2) With an assistants aid, slide one corner of glass into lower glass groove of weatherstrip.

(3) Move glass into groove as far as possible and using a fiber wedge force lip of weatherstrip over glass around its entire circumference.

(4) Start at one of lower corners of windshield and insert retainer in groove. Care should be taken not to overstretch locking strip when installing in weatherstrip.

(5) Water test windshield area and inspect for leaks.

(6) Install windshield wiper arms and blades.

REAR WINDOW

Replacement

The removal and installation procedures for rear window glass (Fig. 25) are similar to those of the windshield, except the replacement of the rear glass can be done by one person and the locking strip should be positioned as shown in (Fig. 26).

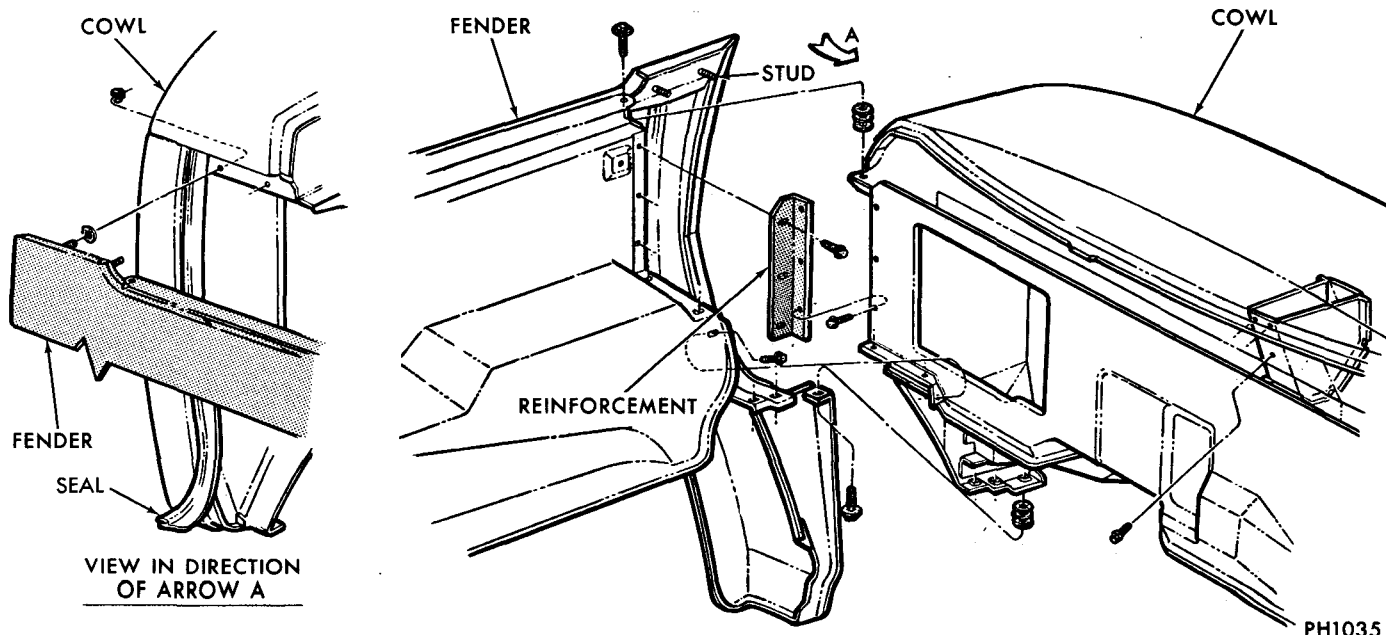


Fig. 18—Front End to Cowl and Dash (D-5, 6 S6)

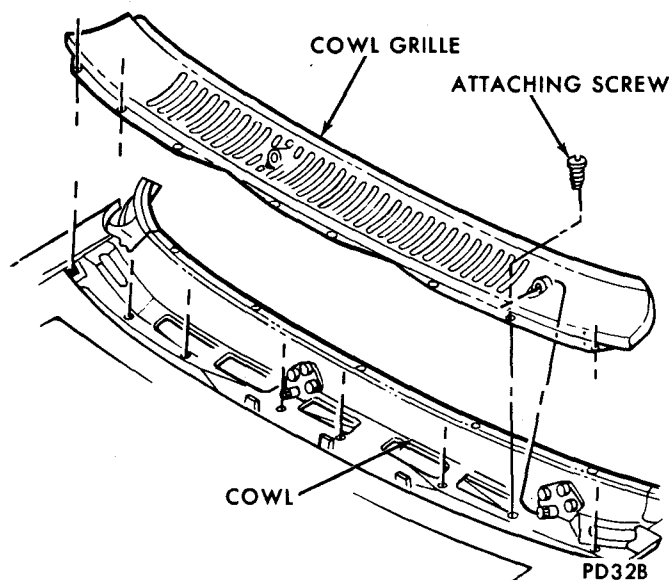


Fig. 19—Cowl Grille Cover—All Models

REAR WINDOW (SLIDING GLASS TYPE Fig. 27)

The procedure for service on the sliding glass window assembly is similar to the standard rear window.

To service the sliding glass sections follow this procedure.

Sliding Glass Section

Removal

- (1) Remove the complete rear window assembly.
- (2) Place assembly in a clean padded area.
- (3) Loosen screws located on the bottom of the frame.

- (4) Carefully spread frame apart.
- (5) Remove sliding glass section from assembly.

Installation

- (1) Install sliding glass section into track in assembly.
- (2) Tighten all screws on frame assembly.
- (3) Check correct travel and latching of sliding sections.
- (4) Install rear window assembly to vehicle.
- (5) Check to see that drain holes are clear.

Latch and Catch

The latch and catch are located on the sliding glass sections on the inside of cab with screws.

To service the latch or catch remove or replace screws.

FRONT DOOR ASSEMBLY

(Fig. 28) is meant to serve as an index or component guide. It is meant to show component name and location. Service procedures on individual components can be found in this section also. Use (Fig. 28) as a tool to identify the part and its location on or in the door assembly.

VENT WING AND GLASS RUN ASSEMBLY (Fig. 29)

Removal

- (1) Lower glass and remove inner weatherstrip.
- (2) When removing inner weatherstrip use care not to scratch the beltline paint.

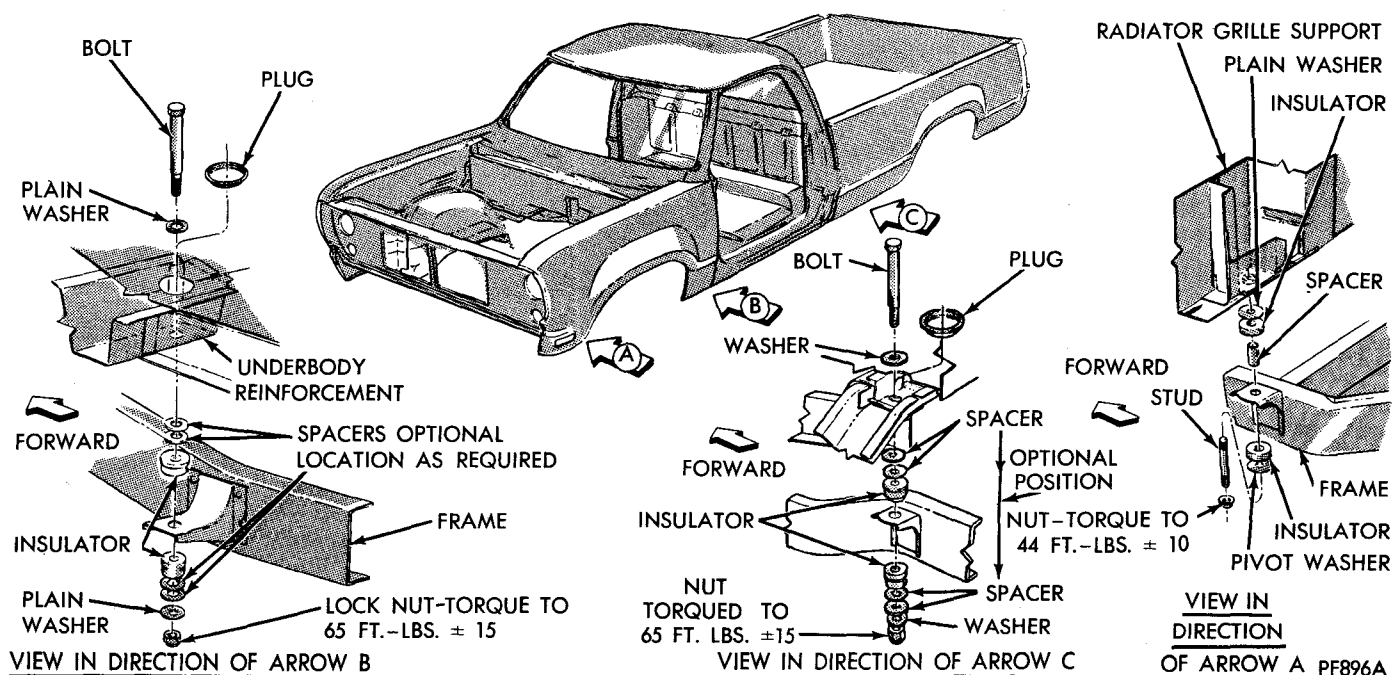


Fig. 20—Front End and Cab Hold Down Mounting (D-W 1-2-3)

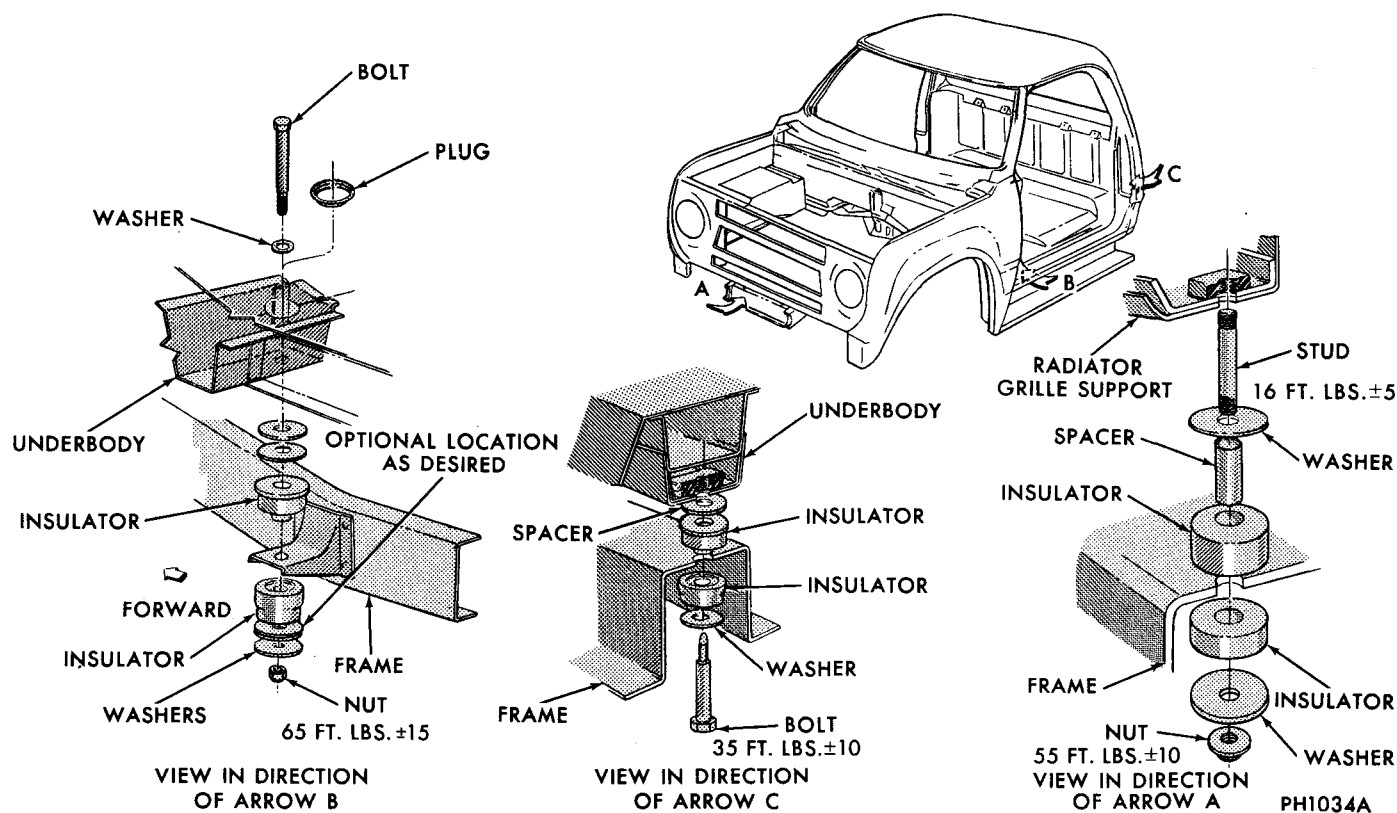


Fig. 21—Front End and Cab Hold Down (D-5,6,8, W6)

(3) Free the clip on the inner section of the weatherstrip with a wire hook or suitable tool as shown in (Fig. 30).

(4) Pull back upper glass run 8 to 10 inches.

(5) Remove upper and lower vent wing attaching screws.

(6) Remove vent wing, taking care to avoid paint damage from glass lower pivot adjusting screws.

Installation

(1) Install plastic nut and 'U' nut on vent wing assembly.

(2) Install vent wing assembly into door taking care not to damage paint with lower pivot adjusting screw.

(3) Install upper and lower vent wing attachment screws, loose.

(4) Move glass run back to vent wing by placing run adjacent to door channel and press into channel using wide bladed screw driver or similar tool. Press at both inside corners to insure hidden lip engages in channel.

(5) Install weatherstrip by aligning clips to holes in door and press in.

(6) Raise or lower vent to maintain a .06 fore-aft

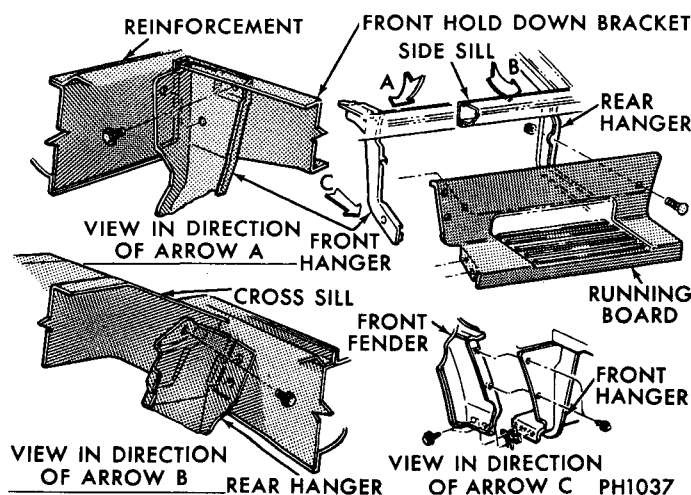


Fig. 22—Running Board and Hangers (D-5,6,8, W6)

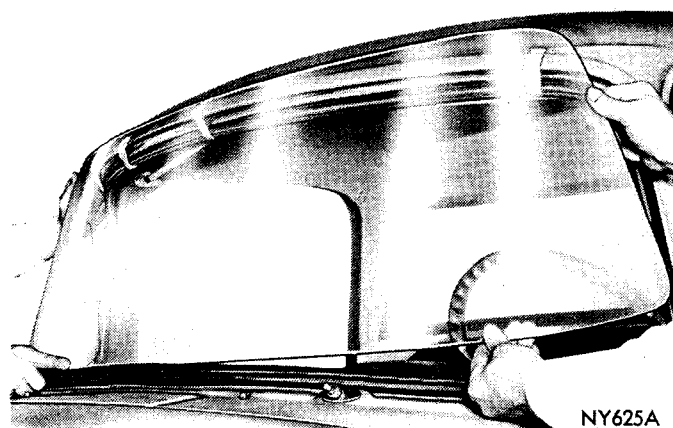


Fig. 23—Windshield Removal (Typical)

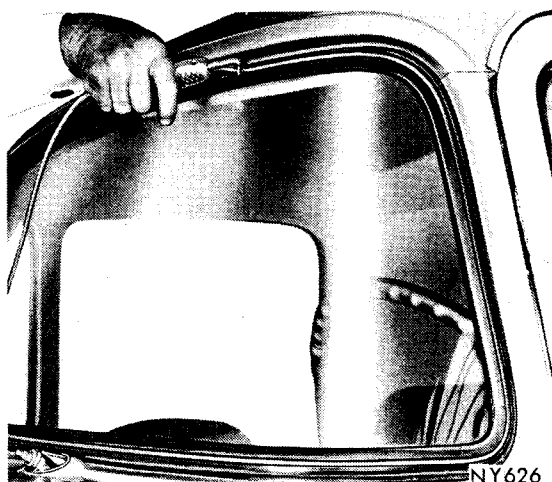


Fig. 24—Windshield Installation (Typical)

glass freeplay then with glass up, tighten upper screws.

(7) Hold vent against glass (glass down) and tighten lower screws.

GLASS AND WEATHERSTRIP—FRONT DOOR

To assemble window glass to door (Fig. 30) insert glass to everseal. Place channel assembly onto everseal. Press seal onto channel securely and lubricate channel. Lower regulator to down position. Place glass and channel assembly into slot opening in door and lower it to the bottom of door. Reach through the access hole in door and install regulator to lower channel on glass, and to upper channel. Install vent wing. Test glass for proper movement. Adjust vent up to eliminate fore and aft freeplay. Then install the weatherstrip assembly front and rear to door as shown in (Fig. 30).

DOOR WEATHERSTRIP

The weatherstrip is cemented to the door opening by applying adhesive to the body and allowing it to

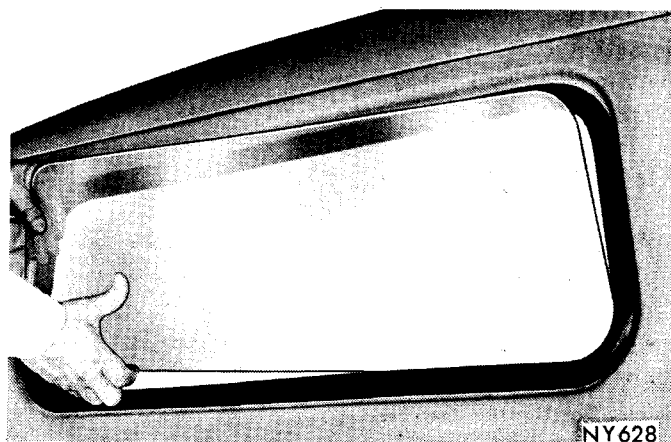


Fig. 25—Rear Window Removal (Typical)

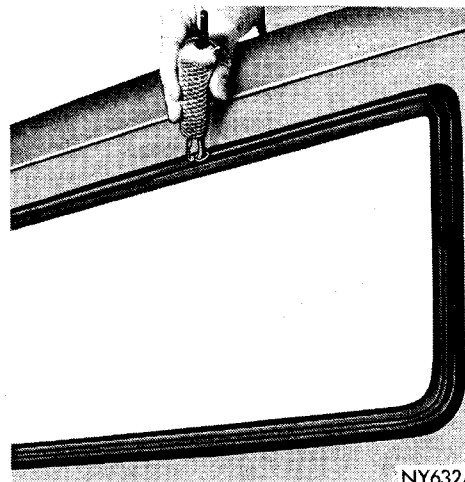


Fig. 26—Rear Window Installation (Typical)

dry until tacky. Apply adhesive to the weatherstrip and apply to body opening as shown in (Fig. 31). After installation, do not close door, allow adhesive to dry then check to see that the weatherstrip is making good sealing contact with the door.

WINDOW REGULATOR—FRONT DOOR

The regulator is installed through the access hole in the inner door panel and is mounted to the inner sheet metal with screws. The arms of the regulator are inserted into the regulator channel guides. To remove a regulator from the door assembly you remove the trim panel, remote and regulator handle, arm rests if applicable, watershield and mounting screws. Guide the assembly out of the access hole and use caution when removing the regulator arms out of the run channels. For service procedures refer to (Fig. 32).

LATCH, LOCK AND LINKAGE (Fig. 33)

Assembly

- (1) Install the latch assembly to door.
- (2) Install the lock to door.
- (3) Connect the linkage from the handle to the latch release lever.
- (4) Connect the linkage from the lock cylinder to the latch.
- (5) Install linkage from the knob to the latch.
- (6) Install clip to remote control and latch linkage. Using a 5/16" diameter hole in the door latch face, loosen the door latch adjustment screw spring tension. Cycle outside handle several times, using push button. Tighten adjusting screw. Lever is spring loaded and will self adjust. To identify left hand parts look for a green paint mark.
- (7) Test door for proper function of all linkage.
- (8) Install watershield and trim panel.

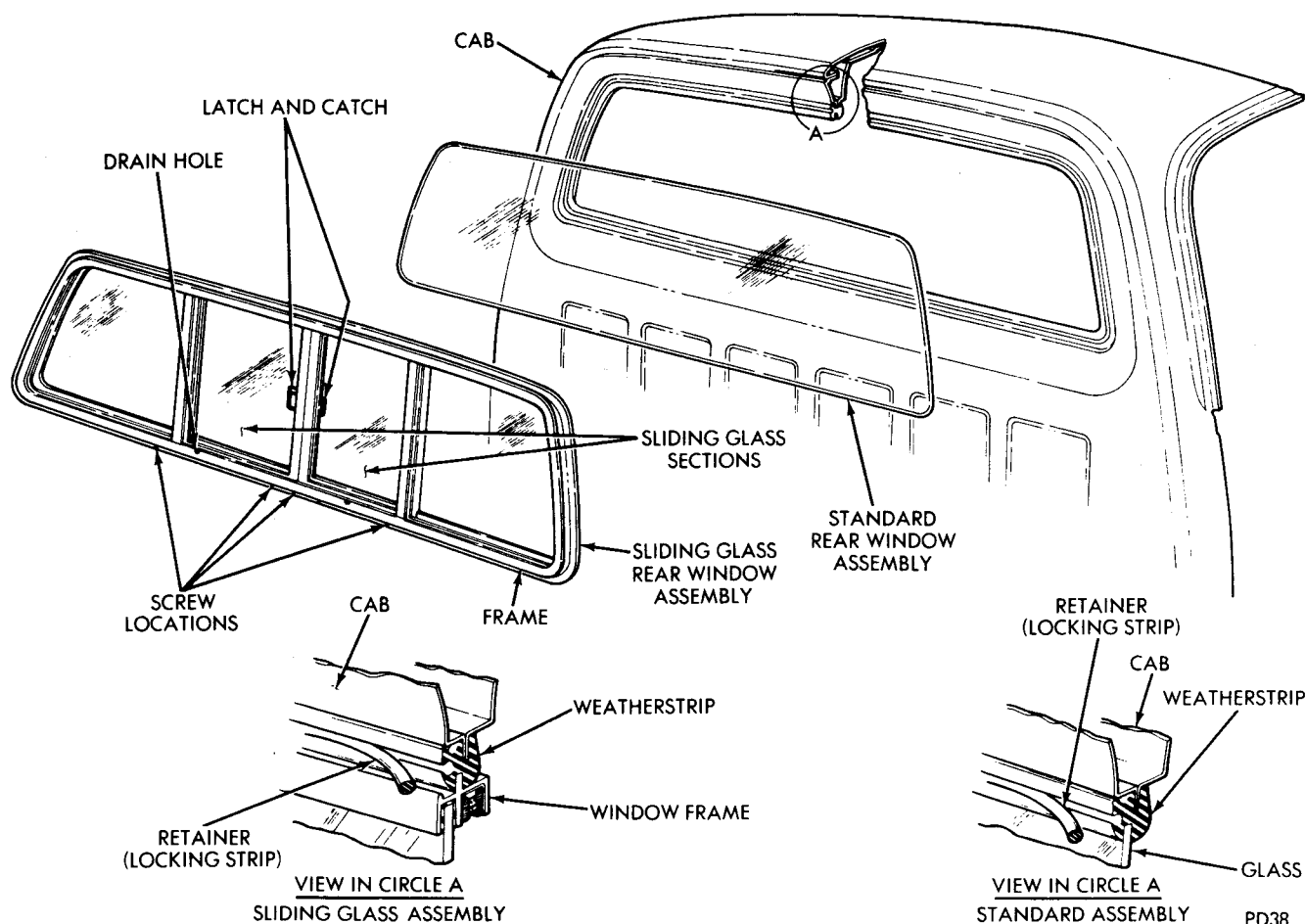


Fig. 27—Rear Window (Sliding Glass Type)

(9) Install remote control handle and regulator handle.

(10) Install arm rests.

REMOTE CONTROL AND REGULATOR HANDLE—FRONT DOOR (Fig. 34)

Removal

- (1) Remove door regulator window glass handle shown in (Fig. 34).
- (2) Remove remote control handle.
- (3) Remove trim panel.
- (4) Working through access hole remove linkage and mounting plate to remote control.

Installation

- (1) Slide remote control mounting plate through access hole and into door.
- (2) Connect linkage and install screws to remote control assembly.
- (3) Install remote control handle and adjust forward to eliminate excess handle travel.
- (4) Install trim panel.

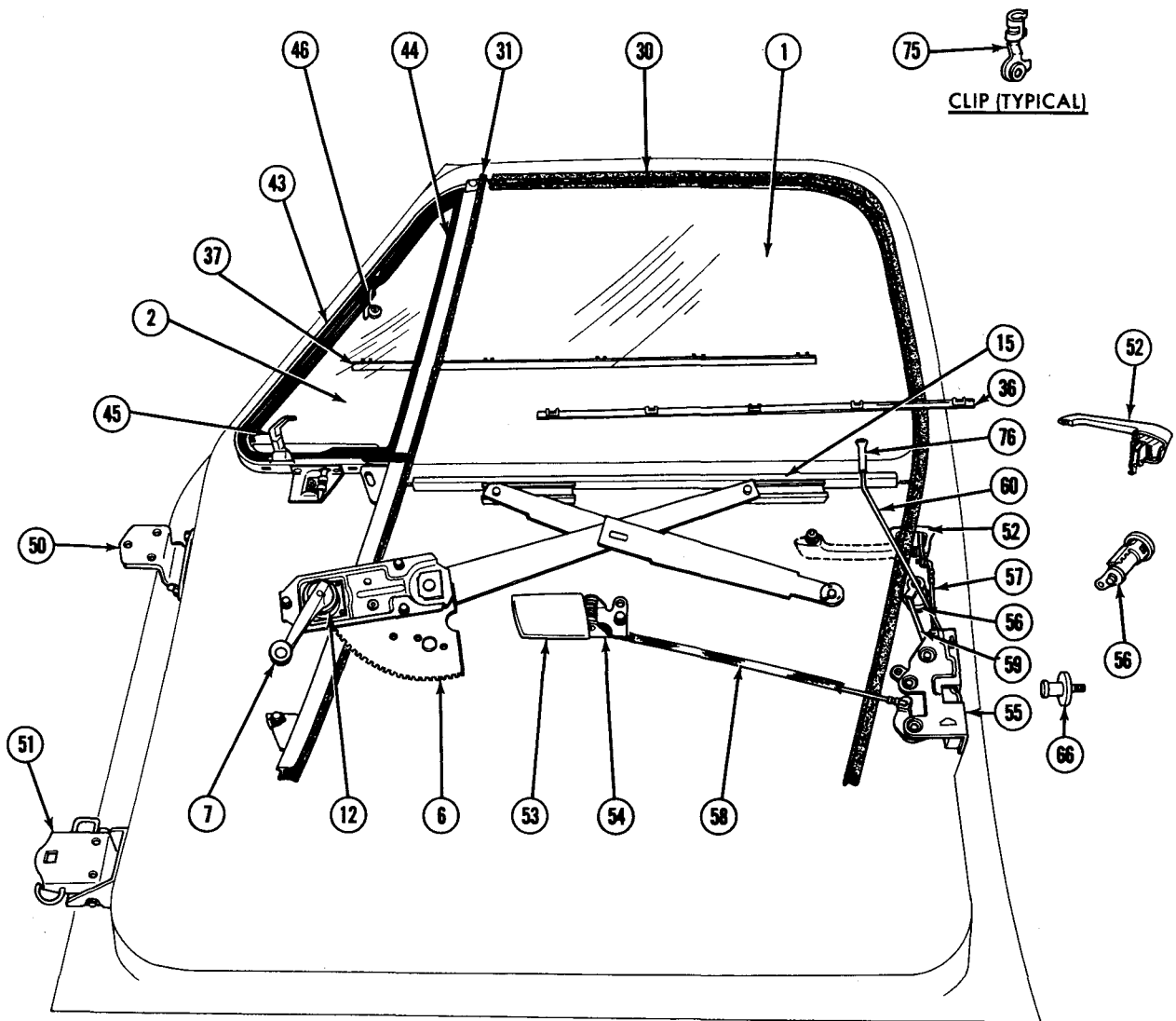
UPPER-LOWER TRIM AND ARM RESTS

The upper trim plastic panel is mounted with a reinforcement in the arm rest area, and secured with screws. The panel is mounted to the door with clips and screws. For assembly refer to (Fig. 35).

The upper plastic panel used on (D-W 1-2-3) is mounted to the door with clip type retainers. When removing the lower pocket assembly, use a suitable flat tool and pry out as close to clip location as possible. When installing the assembly, line fasteners to holes in door and press firmly, replace any damaged fasteners.

BUCKET SEAT ASSEMBLIES (D-1-2-3)

The bucket seat and console seat assembly in (Fig. 36) is mounted to the left and right seat adjusters. The seat and adjuster assembly is then mounted to the seat riser and rod. The assemblies are held to the risers with screws, washers, and clamps. Tighten all screws and nuts and test seat for proper movement and adjustment.



AD-PD-D100-200-300
AW-PW-W100-200-300

PPT234

Fig. 28—Front Door Assembly (D-1,2,3,5,6,8, W6)

- | | |
|--|-----------------------------------|
| 1. Door Glass | 50. Upper Hinge |
| 2. Vent Glass | 51. Lower Hinge |
| 6. Front Door Regulator | 52. Outside Door Handle |
| 7. Regulator Handle | 53. Inside Remote Handle |
| 12. Regulator Handle Spacer | 54. Remote Control |
| 15. Glass Lift Channel | 55. Door Latch |
| 30. Door Glass Run | 56. Door Lock Cylinder |
| 31. Door Glass Run on Division Channel | 57. Link, Outside Handle to Latch |
| 36. Outer Belt Weatherstrip | 58. Link, Remote Control to Latch |
| 37. Inner Belt Weatherstrip | 59. Link, Lock Cylinder to Latch |
| 43. Vent Frame | 60. Link, Pushrod to Latch |
| 44. Vent Weatherstrip | 66. Door Latch Striker |
| 45. Vent Handle | 75. Linkage Clips |
| 46. Vent Pivot | 76. Locking Knob |

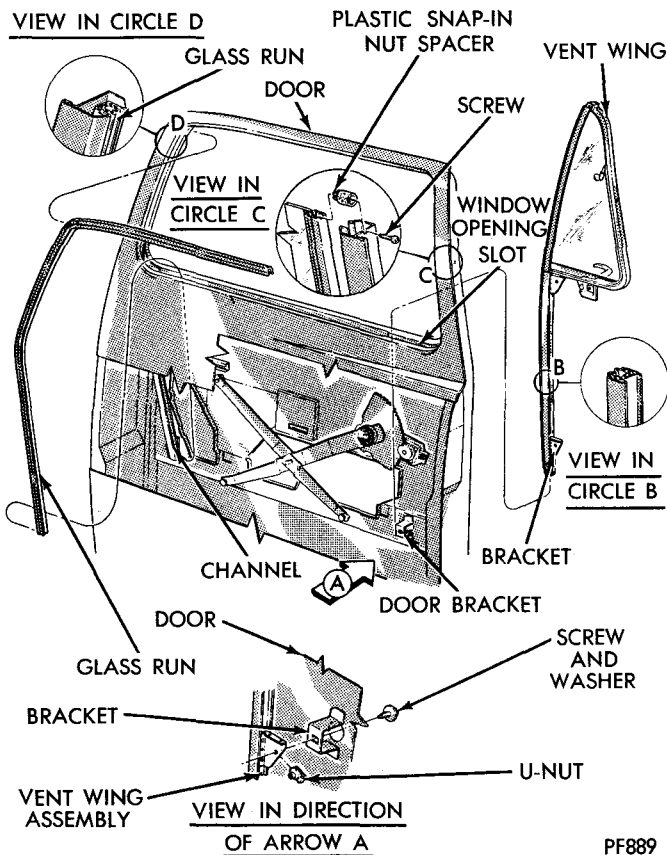


Fig. 29—Vent Wing and Glass Run Assembly

REAR VIEW MIRROR (D-W-1-2-3)

On models that have the mirror mounted to the windshield, remove the set screw. Should the button

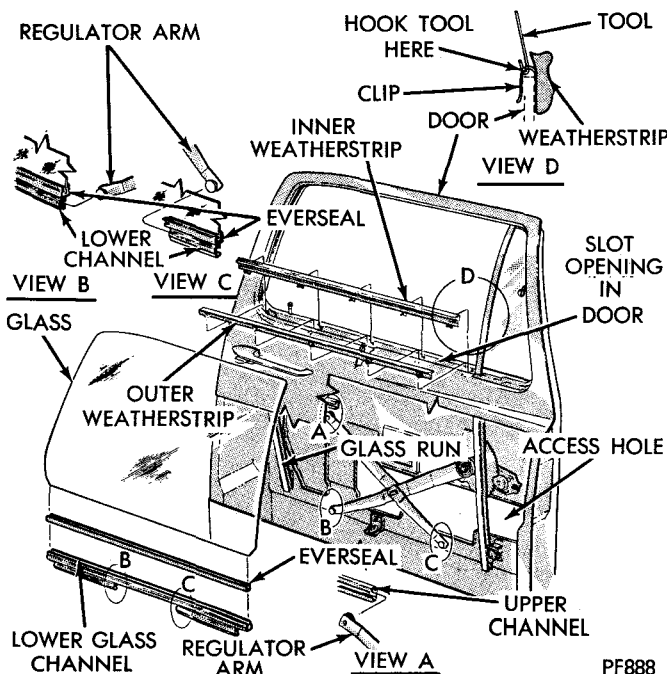


Fig. 30—Glass and Weatherstrip—Front Door

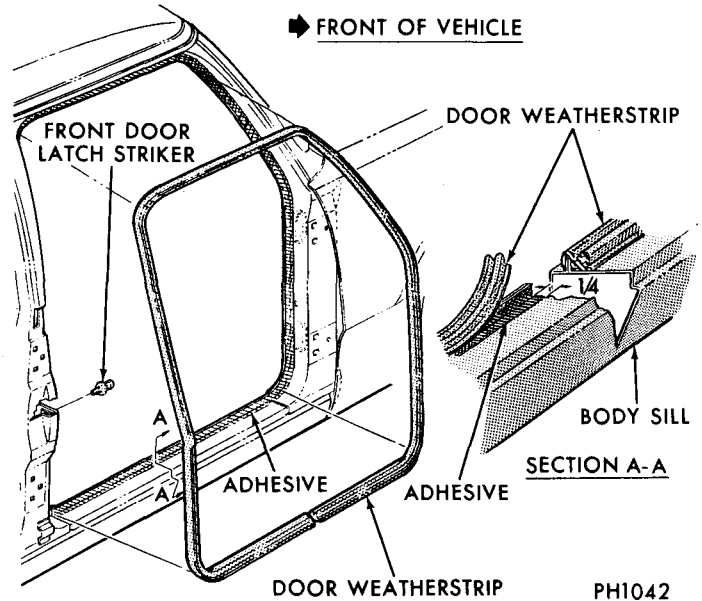


Fig. 31—Door Weatherstrip

need replacement the following steps should be done.

(1) Using a wax pencil, locate and mark the mounting position of the button on the outside of the windshield.

(2) If the vinyl pad had remained on the windshield glass, apply "low heat" to it with an electric heat gun until the vinyl softens; then peel the vinyl pad from the glass; or, use a razor knife to remove.

CAUTION: USE CARE TO PREVENT DAMAGE TO WINDSHIELD.

(3) Thoroughly clean the inner surface of the windshield glass in the mounting area of the mirror button using a mild abrasive cleaning powder on a

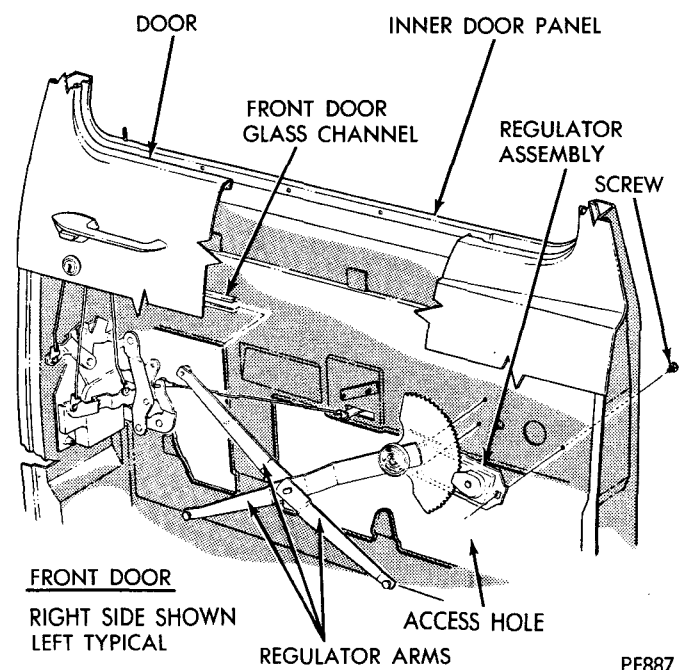


Fig. 32—Window Regulator—Front Door

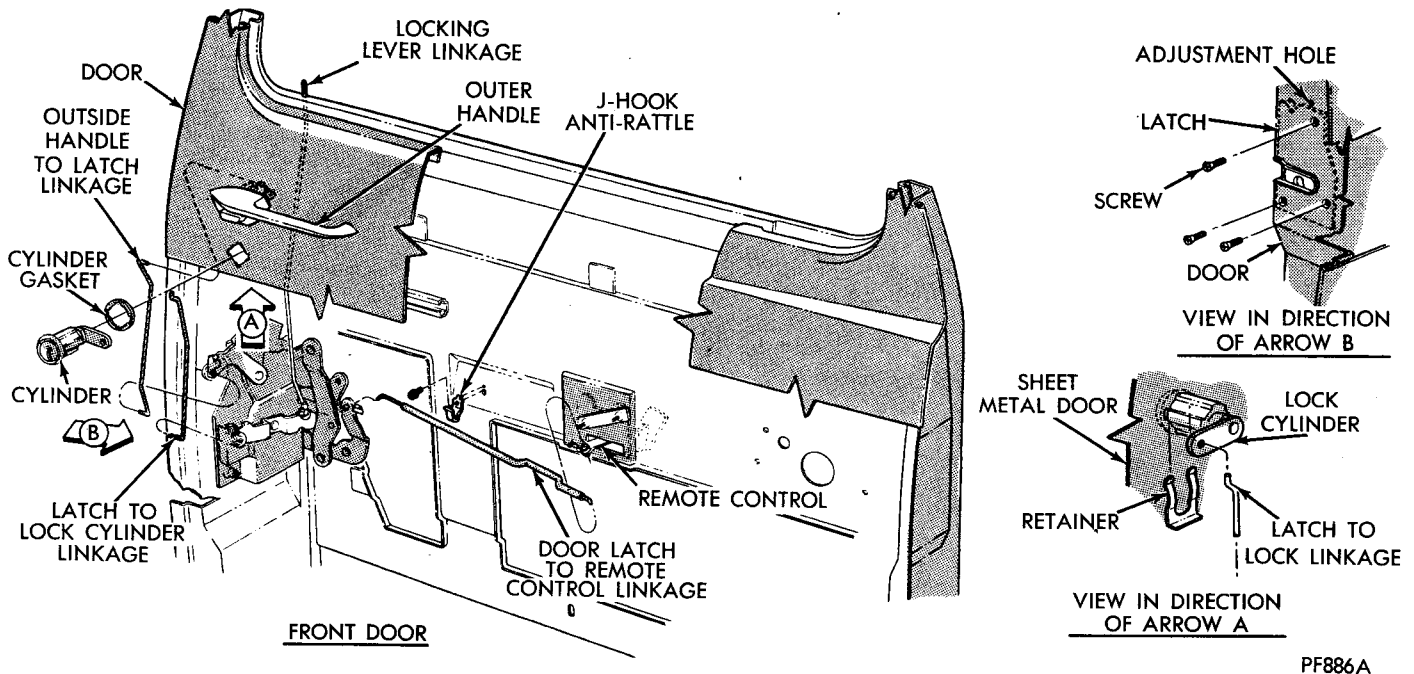


Fig. 33—Latch-Lock-Linkage

clean cloth saturated with alcohol.

Then apply alcohol to paper towel and wipe off any traces of remaining cleaner.

(4) Thoroughly abrade (scrape) the windshield mount-

ing surface (the smaller side) of the mirror button with a clean piece of fine grit sandpaper and wipe the surface clean with a clean paper towel saturated with alcohol.

(5) Using Kit #3796906 or an equivalent kit, crush the vial in the plastic housing of the accelerator, #2654418 or equivalent. This saturates felt applicator. Remove paper sleeve. Apply a generous amount of accelerator on the mounting surface of the mirror button, #3760532 or equivalent.

(6) Allow the accelerator to dry for five minutes. Do not touch the mounting surface of the button or glass.

(7) Apply a thin film of accelerator to the inner surface of the windshield in the button mounting area. Allow one minute to dry. Do not touch the surface.

(8) Apply one drop of adhesive #2654385 or equivalent to the center of the windshield mounting surface of the mirror button and, using the bottom of the adhesive tube, quickly distribute the adhesive evenly over the entire bonding surface of the button.

(9) Position the bottom straight edge of the mirror button on the horizontal line and center it on the vertical line; then, press it firmly to the glass and apply pressure for about one minute. Proper location is essential as cement sets up very fast.

(10) Allow five minutes for the adhesive to set and then remove any excess adhesive residue from the windshield in the attachment area using an alcohol-dampened cloth.

When using alcohol or any other chemical, be sure to take proper safety precautions, such as safety

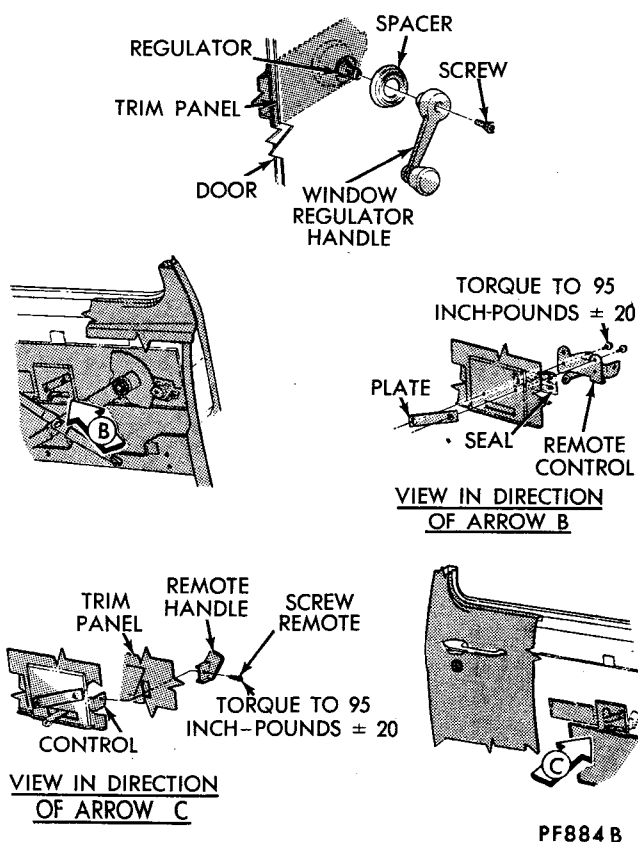


Fig. 34—Remote Control and Regulator Handle—Front Door

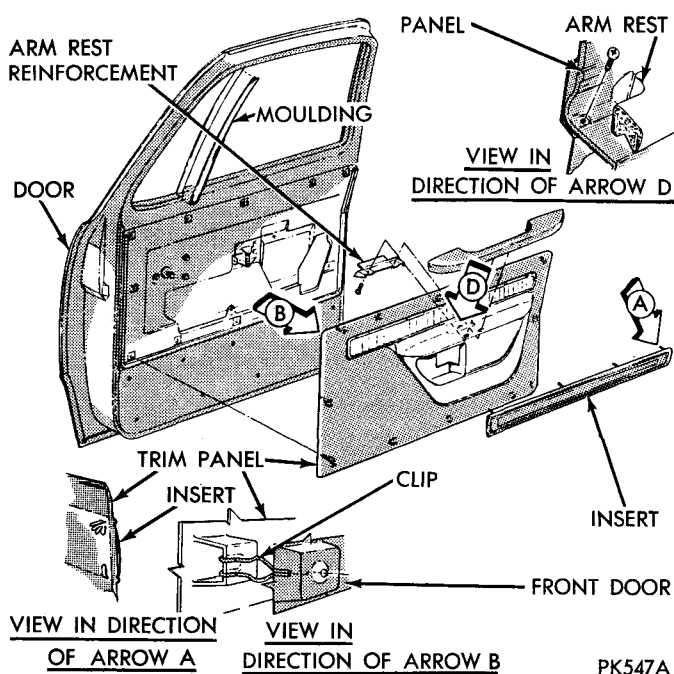


Fig. 35—Upper-Lower Trim and Arm Rest

glasses and adequate ventilation.

(11) Slide the mirror downward onto the button and tighten the screw with an Allen Wrench.

ROOF HEADLINER (Fig. 38)

The headliner is applied with tape located on the liner. Use a roller to compress tape during installation. To remove the liner from roof panel, peel liner

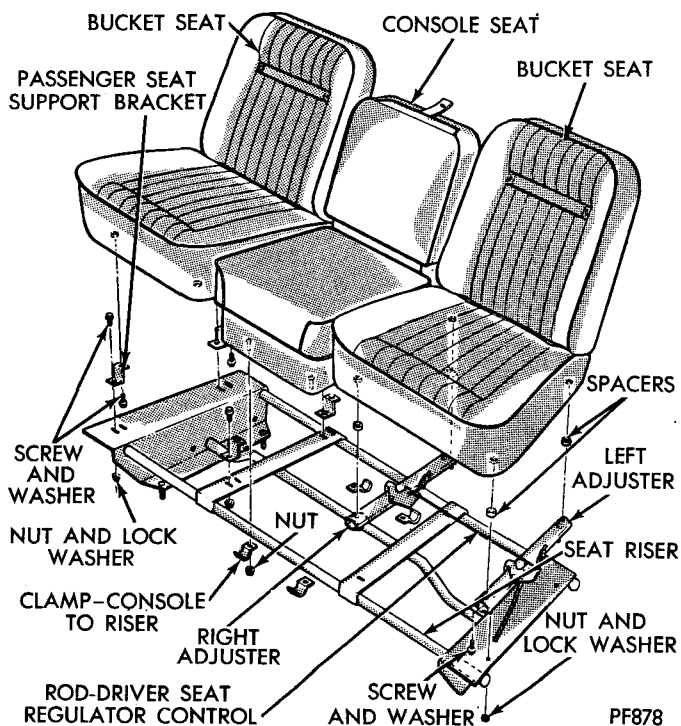


Fig. 36—Bucket Seat Assemblies (D-1,2,3)

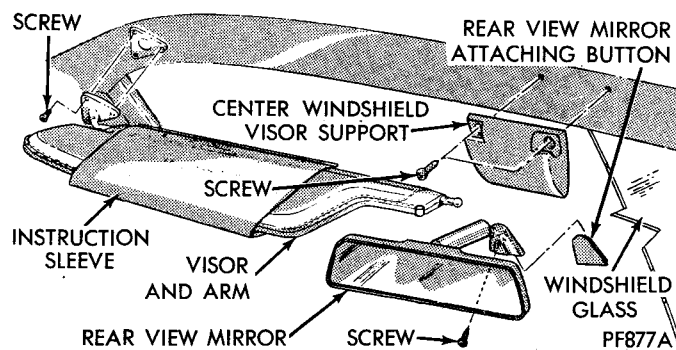


Fig. 37—Visor and Rear View Mirror (D-1,2,3)

away carefully. If adhesion is lost during replacement, use a suitable cement in areas of tape and reinstall, then check for good adhesion.

OUTSIDE AIR VENT (Fig. 39)

The air vent is mounted on the lower side cowl (Drivers side) with mounting screws. To operate the vent push or pull handle located on the vent assembly. To remove vent assembly, remove screws and remove assembly. To install vent assembly, place assembly into position and secure with mounting screws.

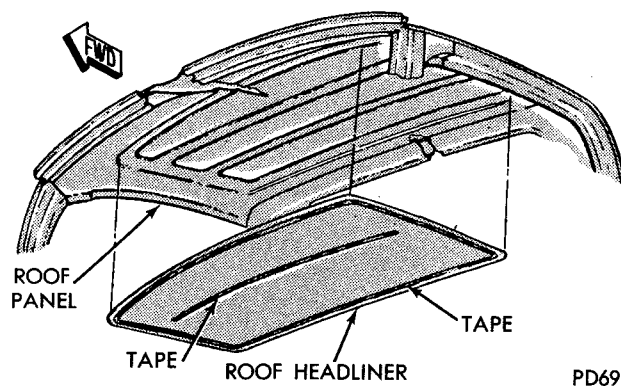


Fig. 38—Roof Headliner Application

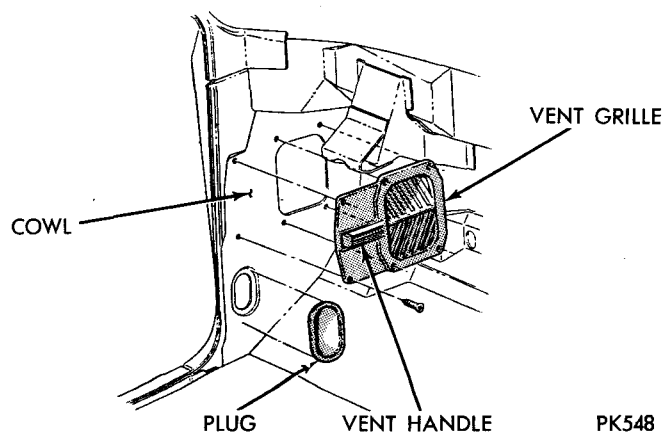
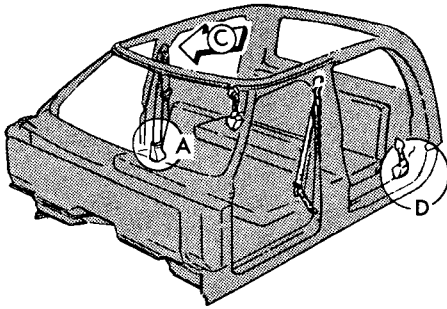
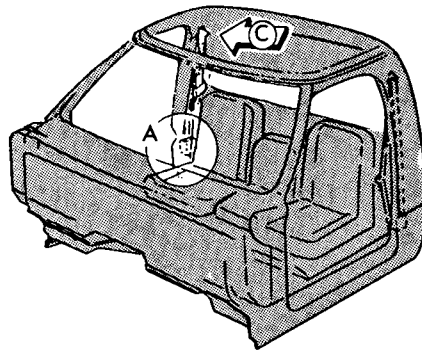


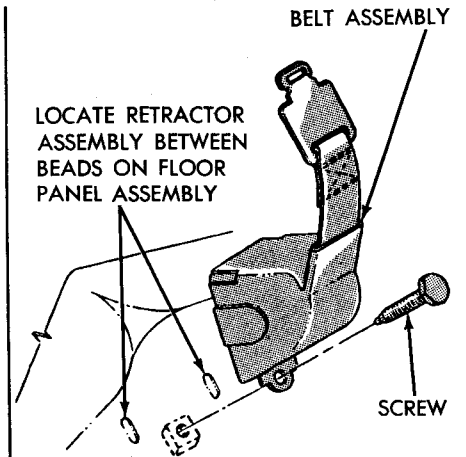
Fig. 39—Outside Air Vent



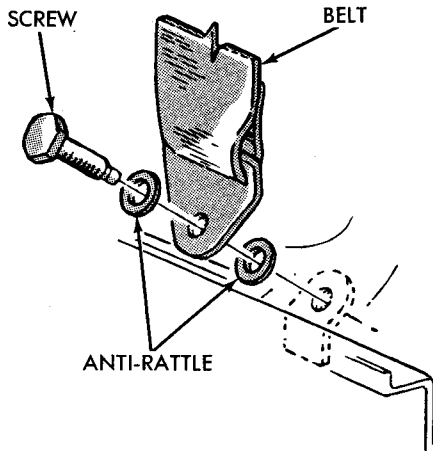
CREW CAB



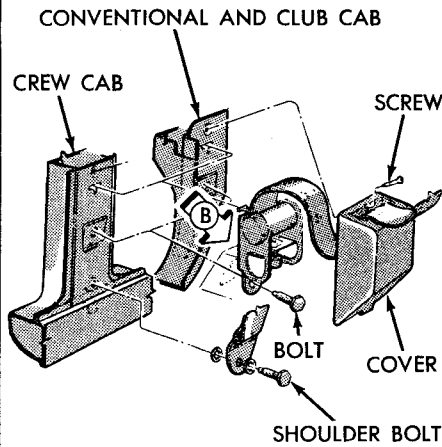
CONVENTIONAL CAB
CLUB CAB



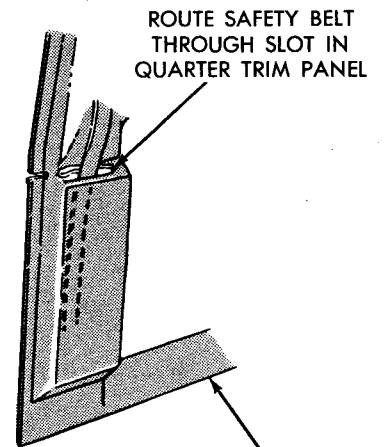
VIEW IN CIRCLE D
REAR SEAT LAP (CREW CAB)



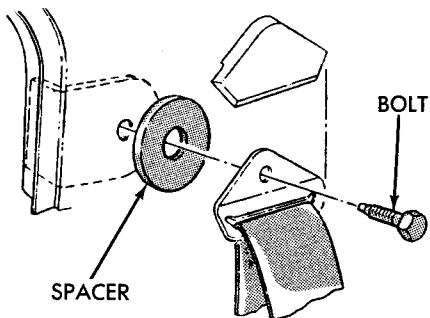
VIEW IN DIRECTION OF ARROW B
CONVENTIONAL AND CLUB CAB



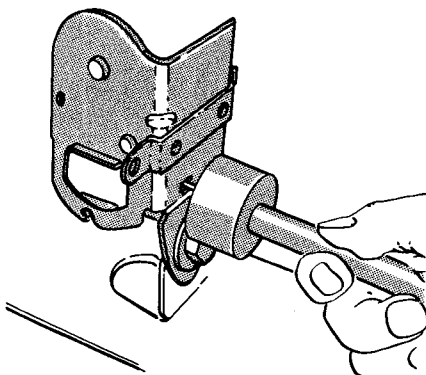
VIEW IN CIRCLE A



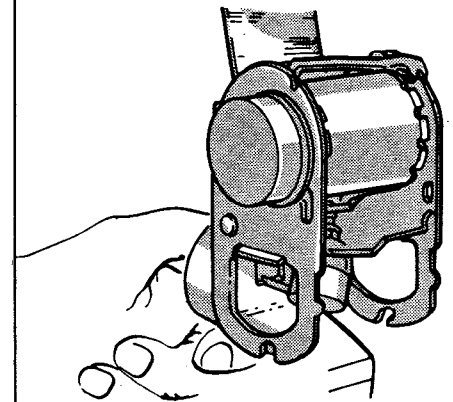
CLUB CAB
ONLY QUARTER
INNER TRIM PANEL



VIEW IN DIRECTION OF ARROW C



PENDULUM



PENDULUM TEST

SEAT BELTS AND RETRACTORS (Fig. 40)

For installation of seat belts and retractors refer to (Fig. 40). The views shown are typical for standard, and crew cab. When assembling belts be sure to place belts in order shown.

SEAT BELT AND HARNESS OPERATION (Fig. 40)

A hard pull on the shoulder belt will NOT lock the belt. The retractor has a pendulum weight which locks the shoulder belt during rapid deceleration of the vehicle. To check the operation, remove the trim cover.

(1) Insert the special testing tool in the end of the slot towards the back of the car.

(2) Push the tool in so the face of the tool handle is flat against the retractor. Pull on the shoulder harness. It **SHOULD NOT** lock. If it locks, replace the harness assembly.

(3a) For retractors with a V groove in the slot: Push the tool towards the front of the car until it rests in the V groove. Keep the face of the tool handle flat against the retractor. Pull the shoulder harness. It **SHOULD** lock. If it does not lock, replace the harness assembly.

(3b) For retractors without a V groove: Push the tool towards the front of the car as far as possible. Keep the face of the tool handle flat against the retractor. Pull the shoulder harness. It **SHOULD** lock. If it does not lock, replace the harness assembly.

Belts from different models are not interchangeable and no attempt should be made to mix belt lengths.

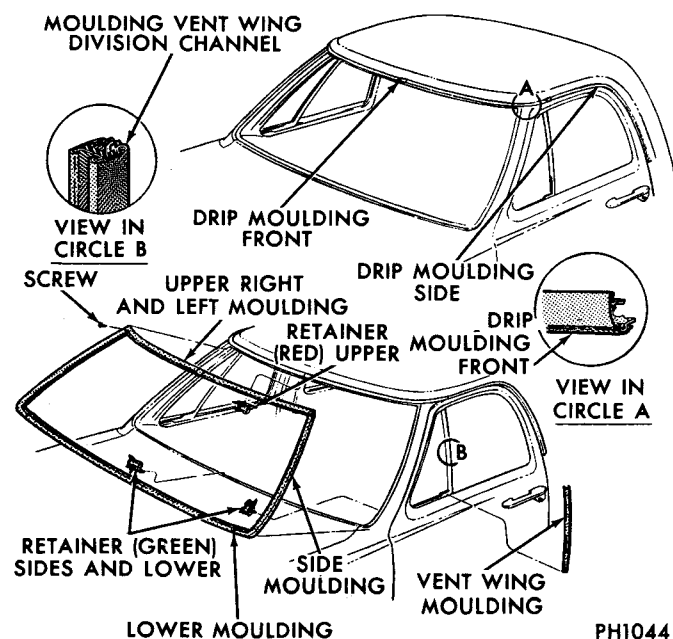


Fig. 41—Windshield and Drip Mouldings (D-5,6,8, W6)

TRIM MOULDINGS

Windshield and Rear Window Glass Weatherstrip Mouldings (Figs. 41 and 42)

Removal

(1) Using a windshield and installer moulding Tool C-4009-A, remove mouldings from windshield or rear window.

(2) Pry up as close as possible to moulding retainer clips when removing mouldings.

(3) Replace all distorted moulding clips.

Installation

(1) Place moulding retainers into position on the cab windshield or rear window and secure.

(2) Place the right and left side mouldings on the moulding clips and secure using a rubber mallet or suitable tool.

(3) Place the upper right and left and lower mouldings into position and secure to moulding clips with rubber mallet or suitable tool.

TRIM MOULDINGS—NAME PLATES—DECALS

The trim mouldings are attached in various manners depending on model. The basic mounting uses retainers, weld studs and nuts. The name plates are usually attached with integral studs and nuts. Decals are usually applied with a tape installation.

SEAT MOUNTING AND SHOULDER BELTS (Fig. 42)

The seat mounting shown in view "B" are typical installations for conventional and crew cab models. This installation is used on the front and rear and left and right sides.

The seat mounting shown in view "C" is for the conventional cab only due to the seat mounting bracket application.

The shoulder belt stowage clip hole locations are typical for front seat mounting. They are also similar in mounting on the left and right side. For application and mounting dimensions to conventional or crew cab models see view in circle "F".

TAILGATE

Tailgate (Fig. 43)

Removal

(1) Open tailgate.

(2) Angle gate so slot in check arm lines up with body hinge.

(3) Slip check arm away from hinge.

(4) Remove bottom of gate from slot in lower hinge on right side, facing gate.

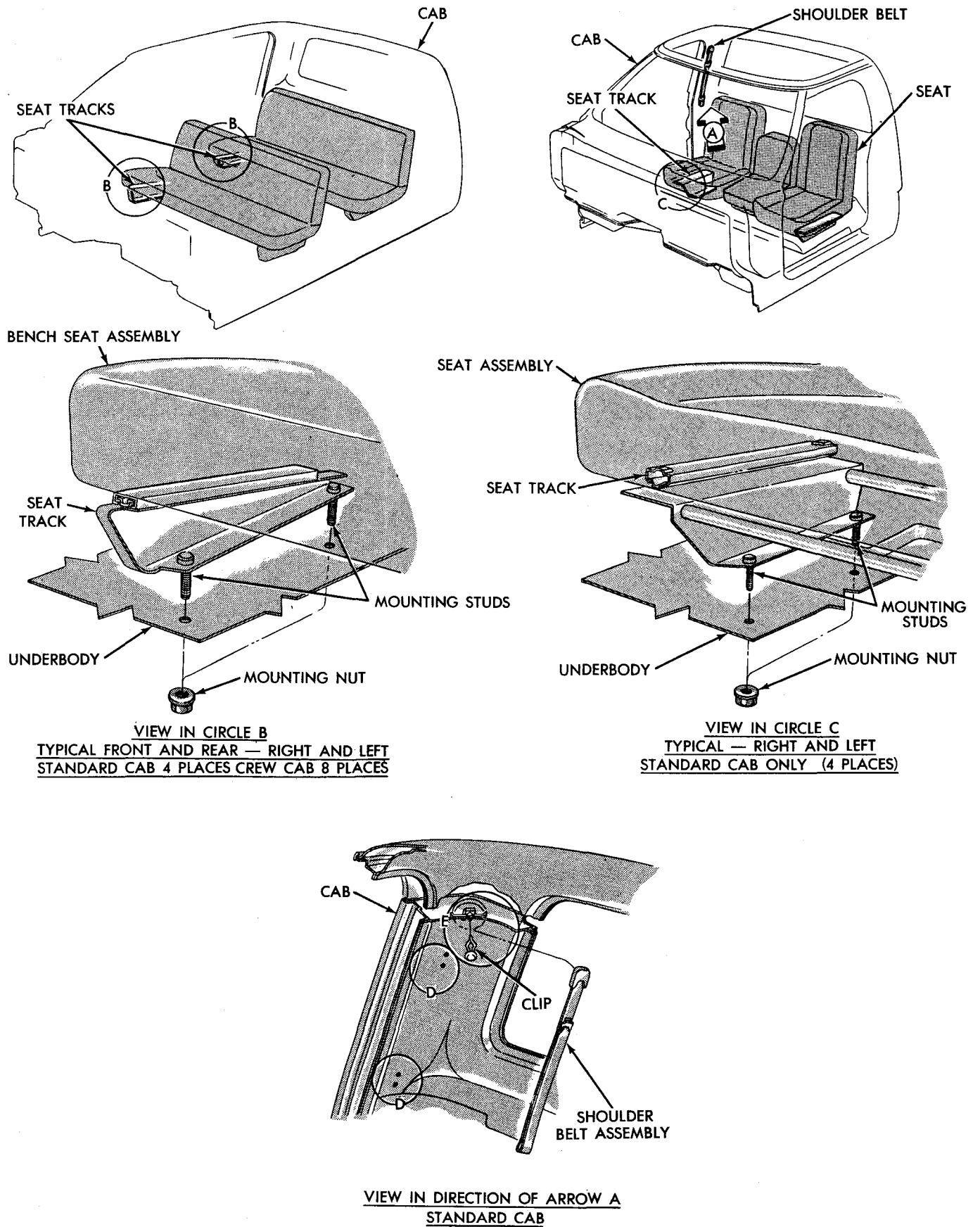


Fig. 42—Seat Mounting and Shoulder Belts

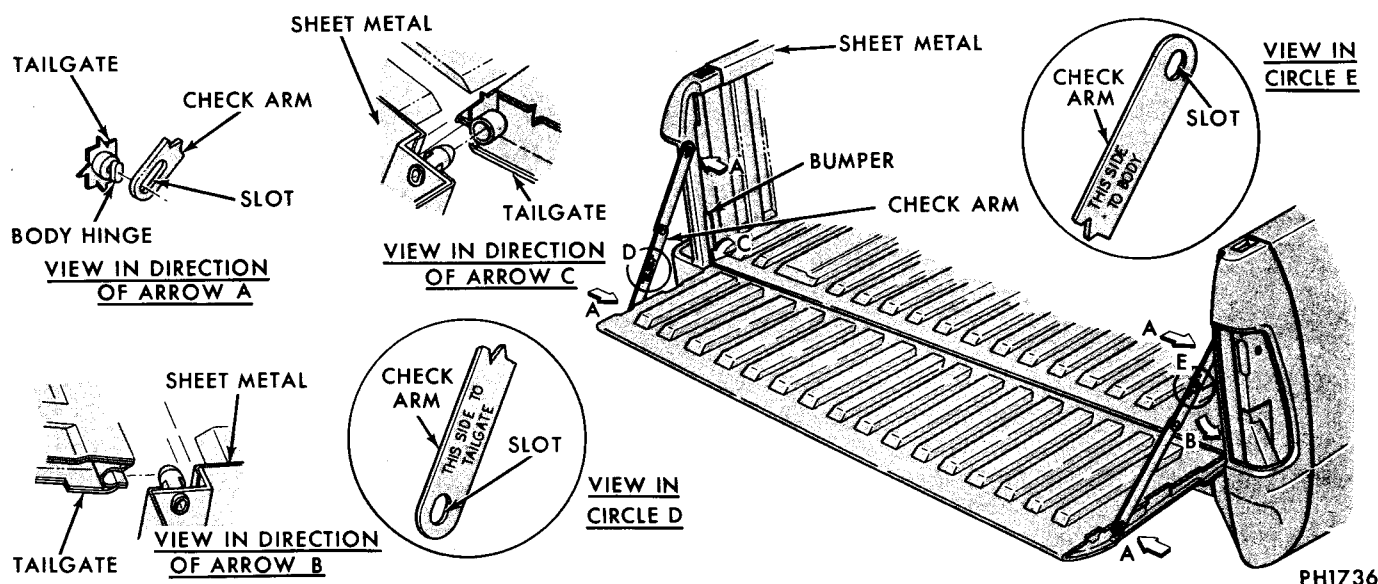


Fig. 43—Tail Gate to Body

(5) Remove left side of gate by sliding out of lower hinge.

Installation

- (1) Slide gate into left lower hinge.
- (2) Place right side into slotted hinge.
- (3) Install check arms to gate, noting marking to correct position of arm and body.
- (4) Bring gate up till top of check arm slotted section slips onto hinge.

Tailgate, Lock and Linkage (Fig. 44)

Removal

- (1) Remove screws mounting lock to inner tailgate sheet metal.
- (2) Lower handle and lock assembly out of opening

in front tailgate sheet metal.

- (3) Disconnect clip from lock to linkage.
- (4) Remove striker plates on left and right ends of tailgate.
- (5) Remove linkage through ends of gate.

Installation

Lubricate locks before installation.

- (1) Insert lock into opening of tailgate.
- (2) Guide linkage into ends of tailgate.
- (3) Secure striker plates to end of gate.
- (4) Insert linkage into lock assembly and install clips.
- (5) Secure lock to tailgate with screws.
- (6) Check locks for proper function, adjust fore and aft to eliminate gate rattles.

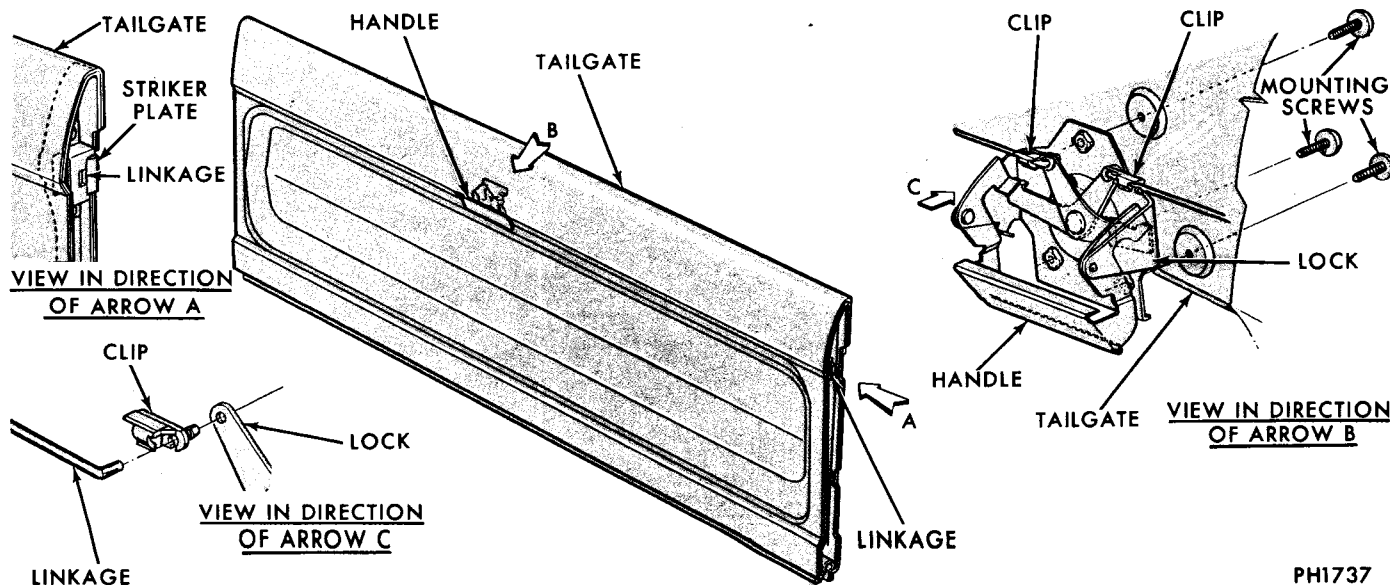


Fig. 44—Tail Gate Lock and Linkage

CLUB CAB

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GENERAL INFORMATION

The club cab is similar to the conventional cab in door and glass adjustment, removal and installation. Refer to conventional cab door service for club cab. The difference is that the club cab offers a rear auxiliary jump seat located behind the front seat with fixed glass on the rear of the cab sides. The club cab also offers trim panels on the interior and floor covering.

REAR AUXILIARY JUMP SEAT

The back assembly is mounted to the side window opening area of the cab sheet metal with nut and washer without trim panel, with trim panel the back is mounted to the panel assembly. Refer to (Fig. 1) for assembly of back. The folding jump seat is mounted to the trimmed underbody of the cab. Place the seat assembly support studs through holes in floor pan and secure with nut and washers. The floor covering is embossed on the backside for location of holes for jump seat installation. Refer to (Fig. 1) for assembly of seat to bracket and mounting to cab underbody.

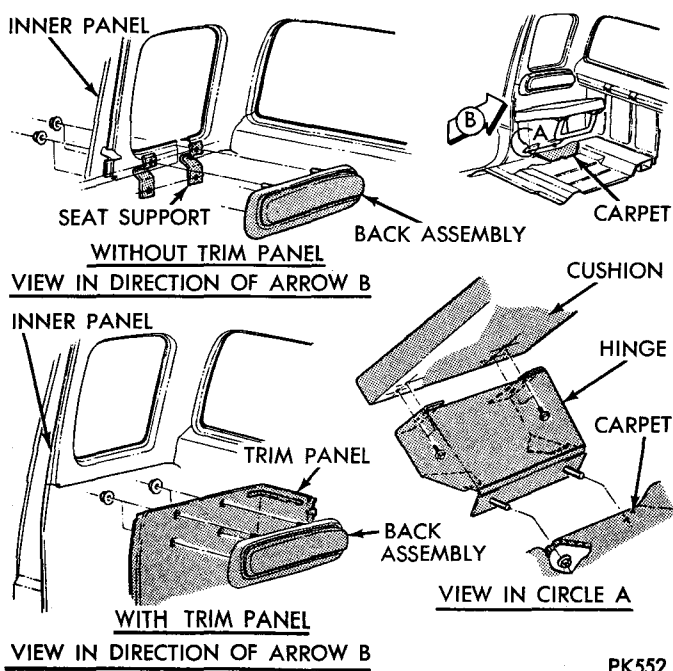


Fig. 1—Rear Auxiliary Jump Seat

STATIONARY GLASS—CLUB CAB (Fig. 2)

Removal

- (1) Insert fiber stick between glass weatherstrip retainer and panel.
- (2) With an assistant gently force glass and weatherstrip retainer away from frame.
- (3) Remove glass and weatherstrip retainer assembly from panel.

Installation

- (1) Install cord in weatherstrip retainer (Fig. 3).
- (2) Install glass and weatherstrip assembly to door glass opening.
- (3) Install the assembly to the door frame by using an installation cord.
- (4) Clean glass.

TRIM PANEL—CLUB CAB

The trim panels are installed to the side and rear of the club cab with screws, clips, u-nuts and retainers, (Fig. 4). When installing the panels, use care not to over tighten screws and align panels prior to securing trim panels.

SEAT BELTS AND RETRACTORS

For assembly and views refer to (Fig. 5). The center belt mountings are typical. Be sure when belts or

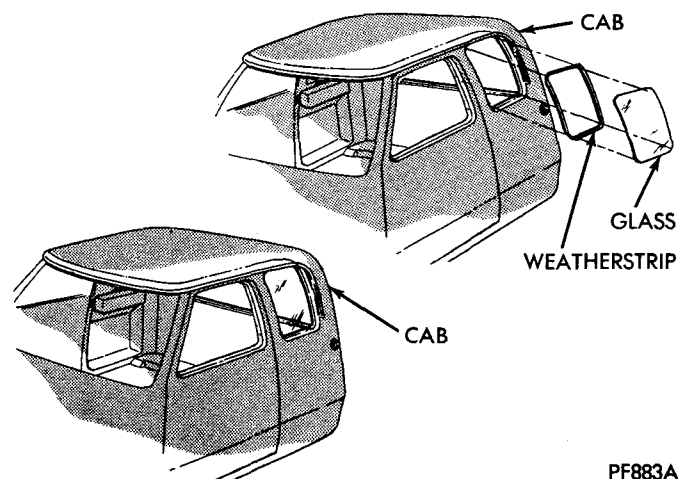


Fig. 2—Club Cab Stationary Glass

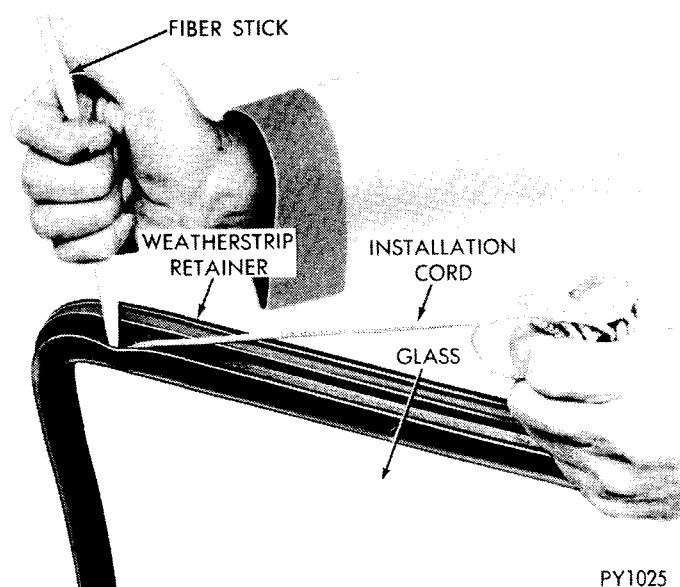


Fig. 3—Cord to Weatherstrip

retractors are replaced that the bolts are tightened to 350 in. lbs. \pm 150 in. lbs. for safety requirements.

On bucket seat models the inboard and outboard belts are mounted to the underbody with bolts torqued to 350 inch pounds \pm 150 inch pounds. The tip half (inboard) belts go through loops on the seats. When belts are not installed, plugs are installed into mounting locations as shown in (Fig. 5).

FRONT SEAT BACK RELEASE

Removal

- (1) Remove bezel and button from actuator, (Fig. 6).

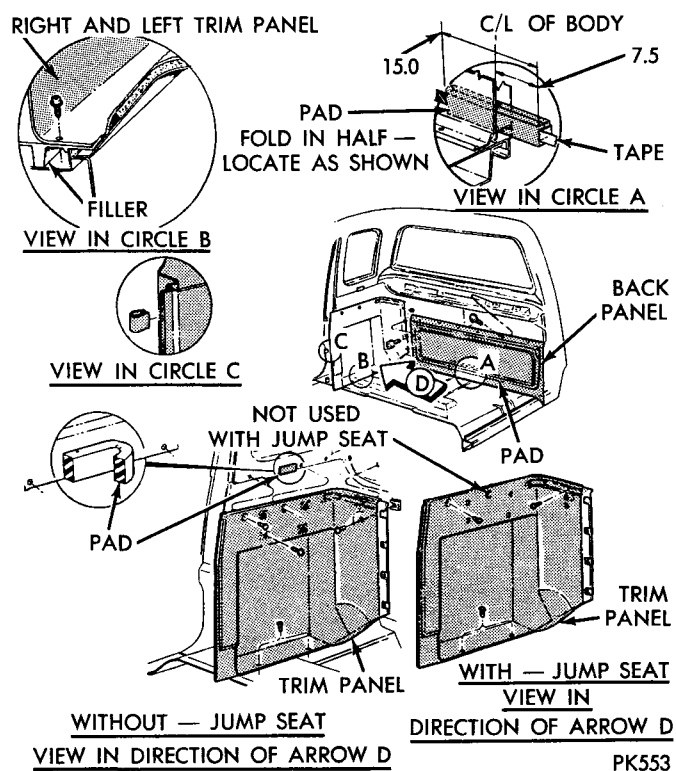


Fig. 4—Trim Panels—Club Cab

- (2) Remove back cover.
- (3) Remove screw from bracket of latch and cable assembly.
- (4) Remove screw from actuator assembly.
- (5) Remove actuator and cable from seat.
- (6) Remove cable latch assembly from actuator.

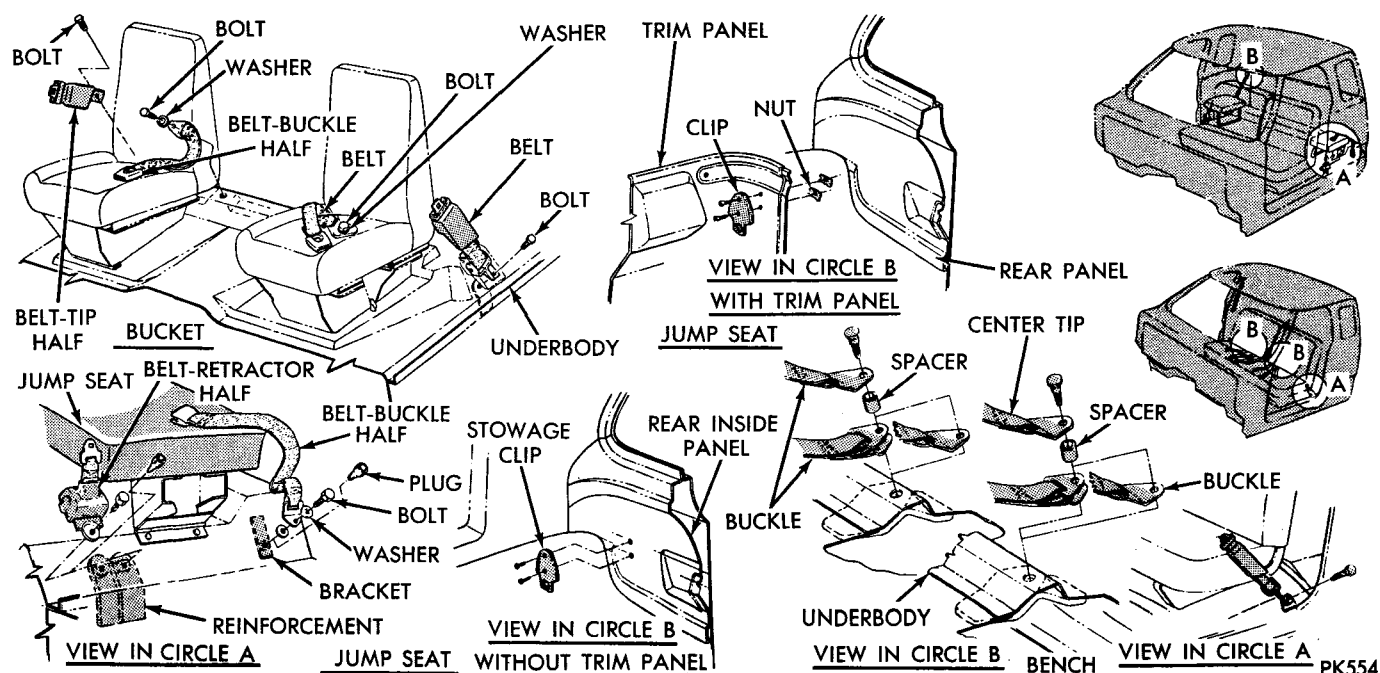


Fig. 5—Seat Belts and Retractors

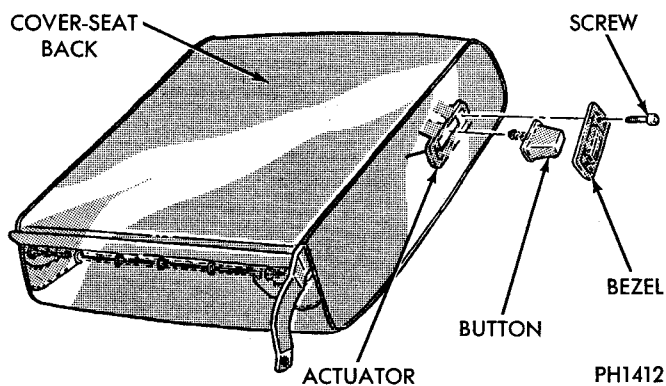


Fig. 6—Bezel and Button from Actuator

Installation

- (1) Install the upper end of cable and latch assembly into the lever hole in the actuator assembly.
- (2) Position and secure the mounting bracket on cable and latch assembly to the actuator assembly.
- (3) Position and secure the actuator to seat spring frame.
- (4) Route the cable and latch along the seat frame, insert bracket of latch and cable into a hole in the lower portion of the seat back assembly, and secure with screw.
- (5) Place cover on seat back, tighten material so it doesn't wrinkle or sag and secure with hog rings.
- (6) Position button and bezel to actuator and secure with screws.

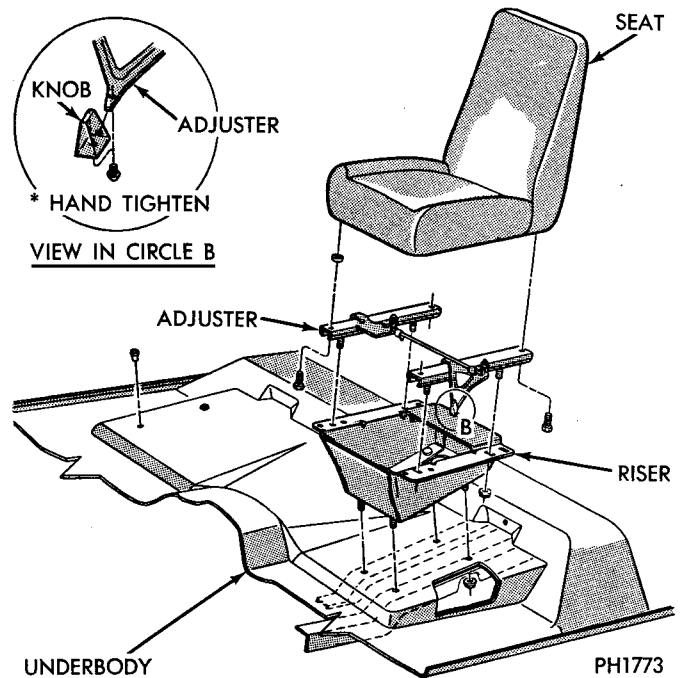


Fig. 7—Bucket Seat—Driver's Side

BUCKET SEAT—DRIVERS SIDE (Fig. 7)

Removal

- (1) To remove complete seat, adjuster, and riser, remove nuts mounting riser to underbody.
- (2) To remove individual assemblies refer to the assembly in (Fig. 7).

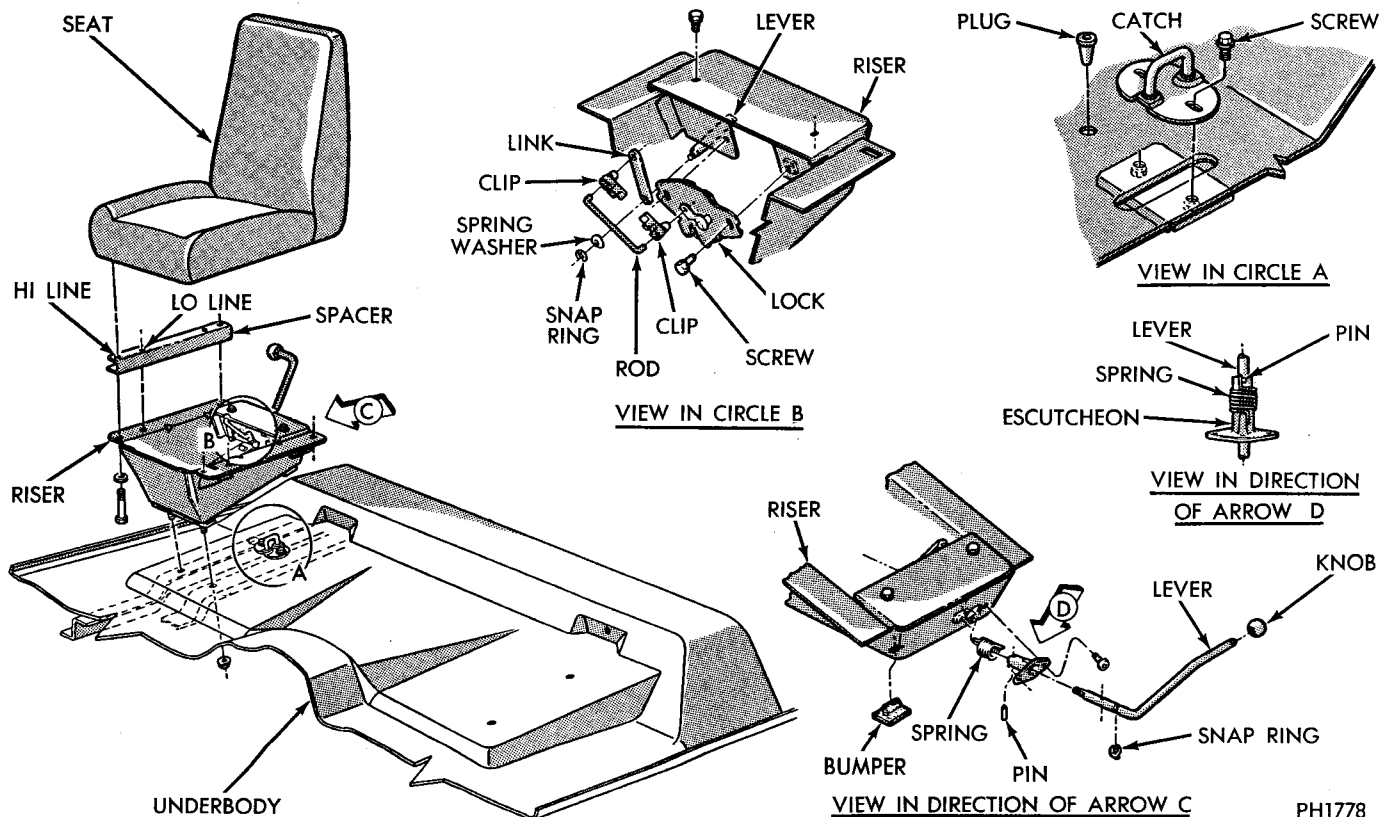


Fig. 8—Bucket Seat—Passenger Side

Installation

(1) To install complete seat adjuster and riser as one assembly, place assembly into position in vehicle and secure nuts to riser located on underbody.

(2) To install individual assemblies refer to (Fig. 7).

BUCKET SEAT—PASSENGER SIDE (Fig. 8)

The passenger seat is equipped with a tilt seat riser as extra equipment for access to the rear seating area. A lock and release lever are mounted on the rear of the seat riser.

Removal

(1) To remove the seat assembly, remove the nuts mounting the hinge section of the riser to the underbody of vehicle.

(2) Release the lock from the lock catch and remove the seat assembly from vehicle.

(3) The seat may be removed without the riser, by removing bolts from seat to riser spacer.

Installation

(1) To install seat assembly, secure the hinge section of the riser to the underbody with nuts.

(2) The seat can be installed by mounting seat to riser spacers.

(3) Lock should line up with lock catch mounted on the underbody.

Lock Assembly**Removal**

(1) To remove lock from riser, remove screws securing lock to riser.

(2) Remove clip from inside end of link.

(3) Remove lock from riser.

Installation

(1) Install lock to riser.

(2) Install linkage to lock lever clip.

(3) Adjust lock to eliminate vertical freeplay at rear of seat.

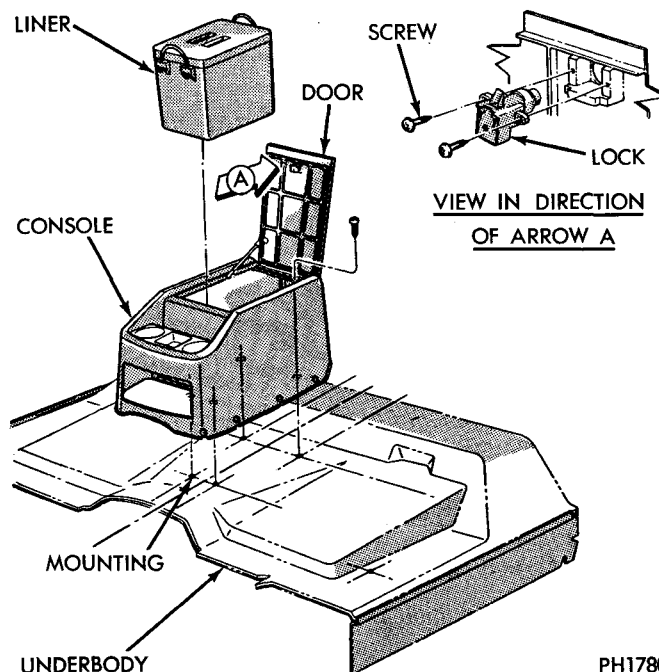
Lock Catch

The lock catch is mounted to the underbody with screws. To remove lock catch, remove screws and remove catch.

The lock catch can be adjusted with slotted holes in mounting area.

Latch Lever

The latch lever assembly has a knob, lever handle, escutcheon, spring pin and snap ring. For removal or installation of assembly, refer to view 'C' of (Fig. 8).



PH1780

Fig. 9—Console**CONSOLE (Fig. 9)****Removal**

(1) Remove console door.

(2) Remove liner assembly.

(3) Located in the bottom of the console, are screws mounting console to underbody, remove these screws.

(4) Remove console from vehicle.

Installation

(1) Place console into position in vehicle.

(2) Secure console with mounting screws.

(3) Insert liner into console.

(4) Close console door.

Console Lock**Removal**

(1) Open console door.

(2) Remove mounting screws on inner portion of door.

(3) Remove lock from door.

Installation

(1) Place lock into position in door.

(2) Secure with mounting screws.

(3) Close door and check for correct latching and key cylinder operation.

CREW CAB INDEX

	Page		Page
Door Glass and Stationary Glass-Rear Door	26	Rear Door-Latch-Linkage	27
General Information	26	Rear Door Assembly-Crew Cab	26
Rear Door Trim Panel	29	Regulator and Glass Run	27
Rear Door-Hinges and Handles	28	Weatherstrip-Rear Door	28

GENERAL INFORMATION

The front door service is similar to the club cab and conventional cab; refer to conventional cab for front door service. The crew cab has a rear seat and two rear doors, making it different from other models. The rear door and glass is covered in this unit.

REAR DOOR ASSEMBLY—CREW CAB

Figure (1) is meant to serve as an index or component guide. It is meant to show component name and location. Service procedures on individual components can be found in this section also, use (Fig. 1) as a tool to identify the component and its location in or on the door assembly.

DOOR GLASS AND STATIONARY GLASS—REAR DOOR (Fig. 2)

Rear Door Stationary Glass

Removal

(1) Remove division channel attaching screws at upper and lower ends, and remove channel.

(2) Move the glass and weatherstrip assembly forward and out of window opening.

(3) Inspect the weatherstrip (Fig. 2).

Installation

(1) Position glass and weatherstrip assembly to window opening and insert into upper frame.

(2) Insert division channel run into channel.

(3) With front glass in down position, insert division channel into door and move firmly against stationary glass weatherstrip.

(4) Install upper and lower attaching screws but **do not tighten**.

(5) Adjust the door glass to the channel.

(6) Tighten the channel against the stationary glass and check for good sealing to weatherstrip.

Side Glass Replacement

Removal

(1) Remove rear stationary glass.

(2) Remove inner and outer weatherstrips.

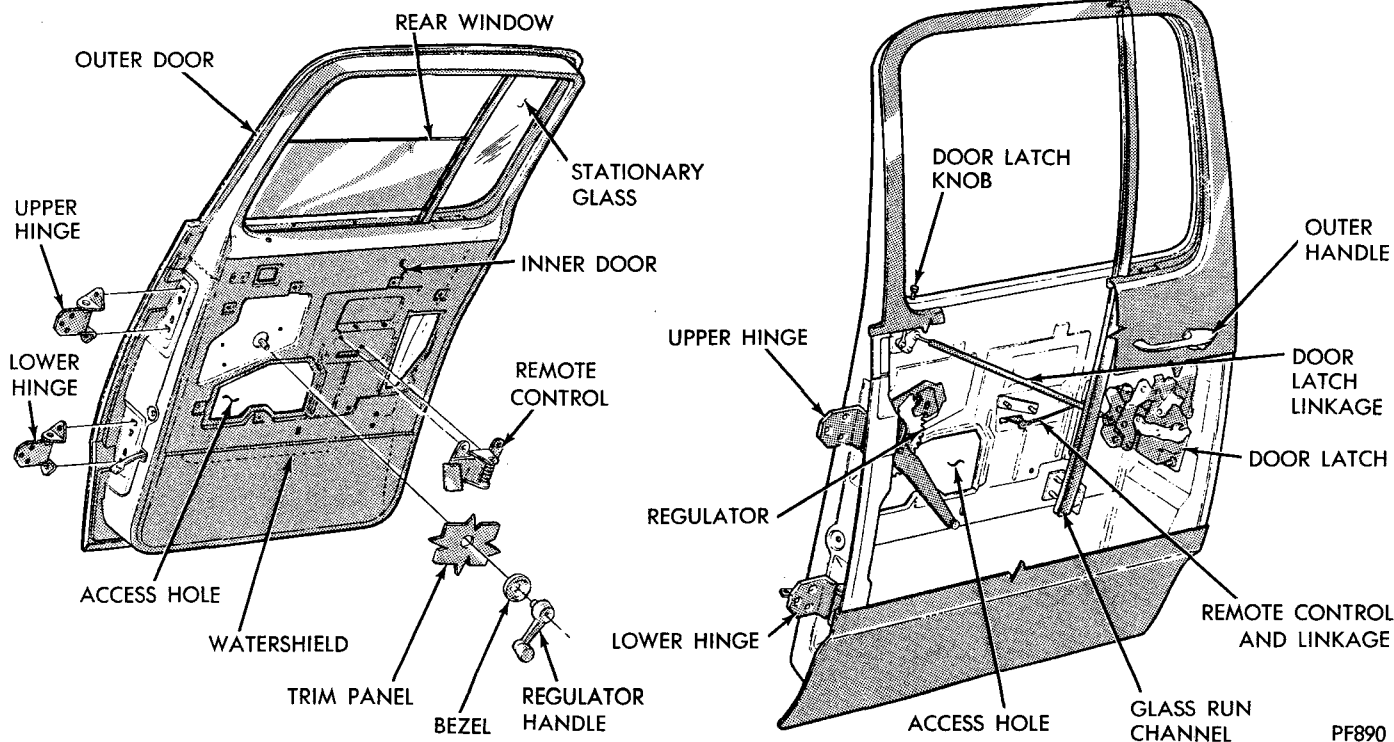


Fig. 1—Rear Door Assembly—Crew Cab

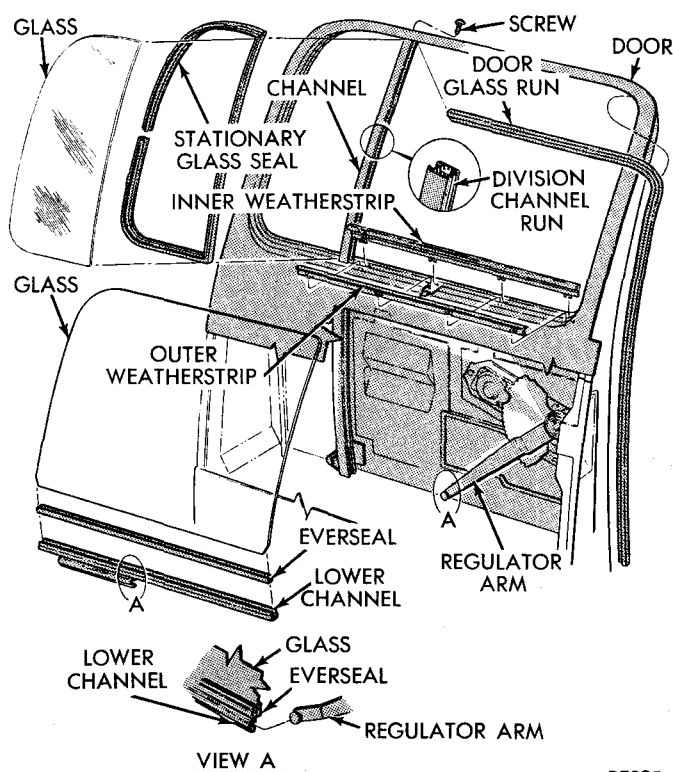


Fig. 2—Door Glass and Stationary Glass Rear Door

- (3) Remove regulator arm from lower channel.
- (4) Remove glass from door.
- (5) Remove lower channel from glass.

Installation

Before installing glass, lubricate all moving parts of regulator with lubriplate.

- (1) Install lower channel on glass.
- (2) Position glass into door opening.
- (3) Install regulator arm roller into channel of glass lift bracket.
- (4) Position glass into run channels and adjust glass.
- (5) Install rear stationary glass.
- (6) Install inner and outer weatherstrips.

REGULATOR AND GLASS RUN

The regulator is mounted to the inner door sheet metal by inserting it through an access hole in the door, and mounting it with screws to the door. The regulator arm is inserted into the glass lift channel. The glass run channel is inserted through the slot in the door and is mounted to the lower glass run bracket on the door with screws. The top of the run channel is mounted to the upper door frame with screws as shown in (Fig. 3).

REAR DOOR LATCH AND LINKAGE (Fig. 4)

The latch assembly is installed through the access hole in the sheet metal door with screws securing it to the inner door sheet metal.

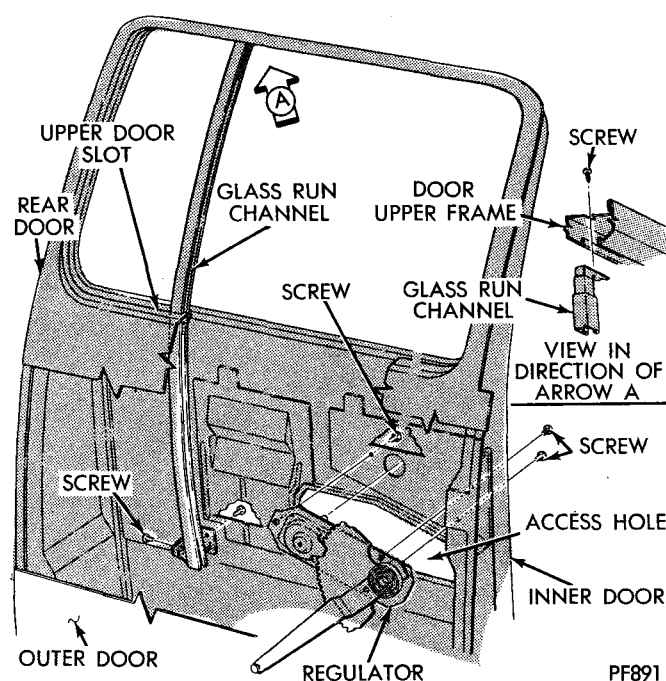


Fig. 3—Regulator and Glass Run

When installing the linkage note that the outside handle linkage to latch must be installed on the right side with the green paint mark on the end of the part towards the bottom of the door. On the left side install the part with green paint mark towards the top of the door. Install the handle to latch linkage. Install the lower end of the door latch locking control link-

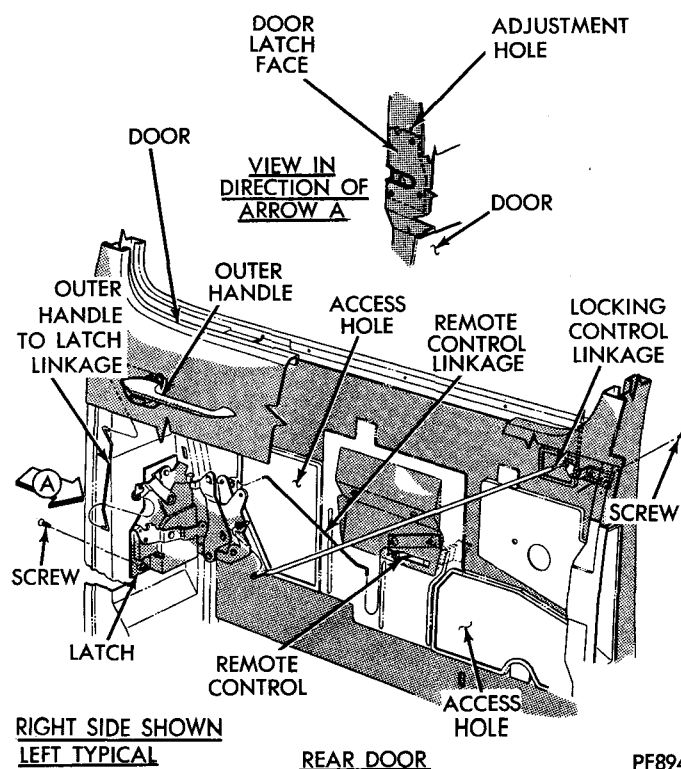


Fig. 4—Rear Door Latch and Linkage

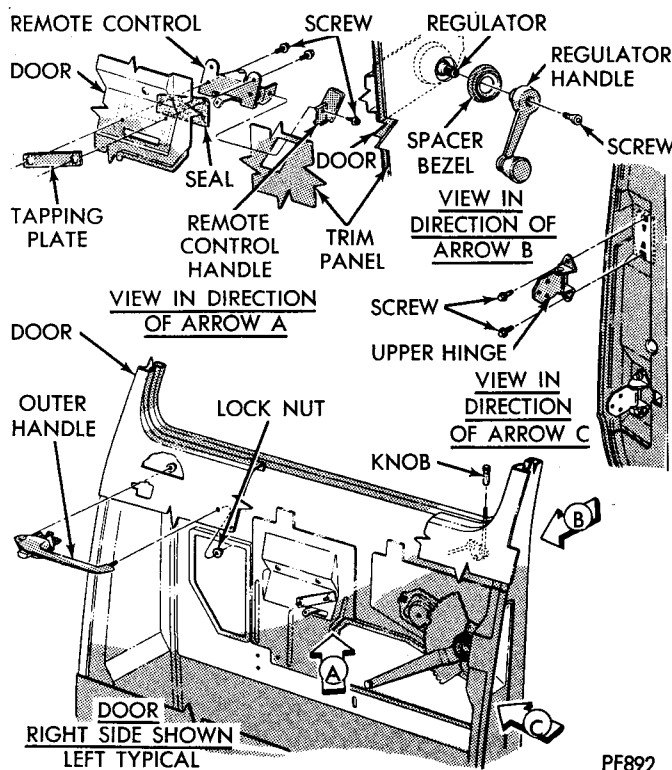


Fig. 5—Rear Door Hinges and Handles

age to the latch assembly. Position the upper end of the control and attach to the sheet metal with screws. Install the remote control link to the latch assembly and to the remote control, using clips.

Using a 5/16 inch hole in the door latch face, loosen the door latch adjustment screw spring tension. Move the latch release lever to its proper place by reaching through the panel access hole and pushing up on the lever to remove all slack in the linkage system to the outside handle. Tighten the adjusting screw with the other hand while holding the lever in position.

REAR DOOR HINGES AND HANDLES (Fig. 5)

Hinges

The hinges are mounted with screws to the door, refer to (Fig. 5) for installation.

Remote Control Handle

The remote control handle is mounted to the control unit with a screw. The unit is found on the inner door trim panel.

Outer Door Handle

The outer door handle is mounted to the sheet metal door. It is mounted with nuts located in the outer door sheet metal. To assemble the handle to the door, work through the access hole. Connect linkage and secure nuts from inner door.

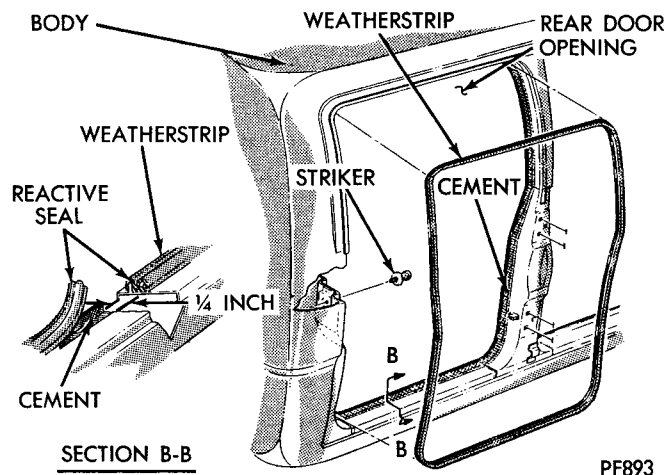


Fig. 6—Weatherstrip—Rear Door

Regulator Door Handle

The regulator door handle is mounted to the inner door trim panel. Place the spacer bezel on the regulator shaft, set handle in a acceptable position on the regulator shaft serration and secure the handle with a screw.

WEATHERSTRIP-REAR DOOR (Fig. 6)

To install weatherstrip to door opening on the body, apply cement to both sides of the door flange opening. Be sure to apply cement to complete perimeter of door opening. Install weatherstrip over flange of door opening and press on by hand. Using roller, secure weatherstrip to complete perimeter of door opening. Cut excess weatherstrip away if new strip is being installed.

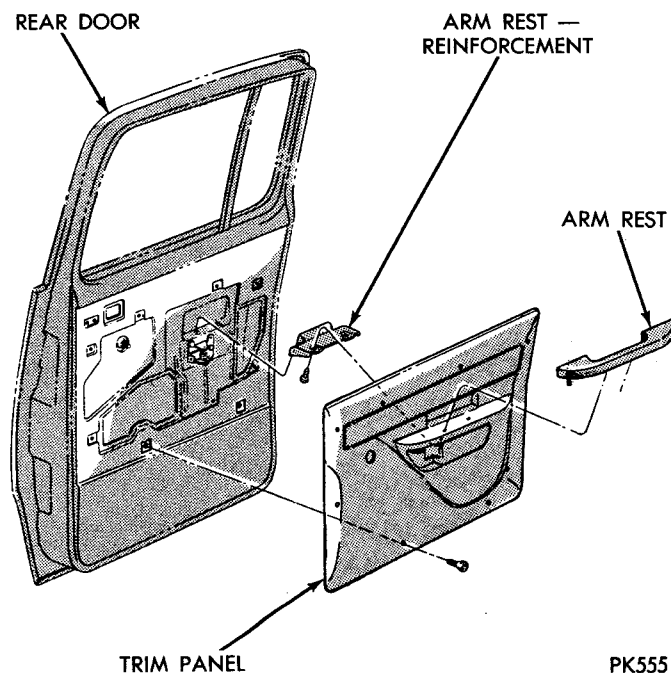
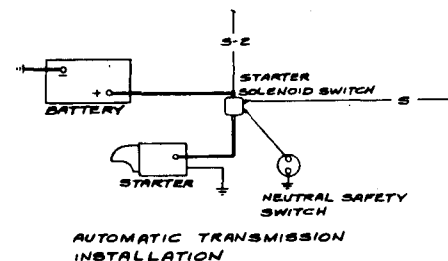
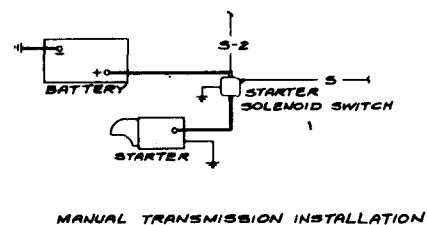
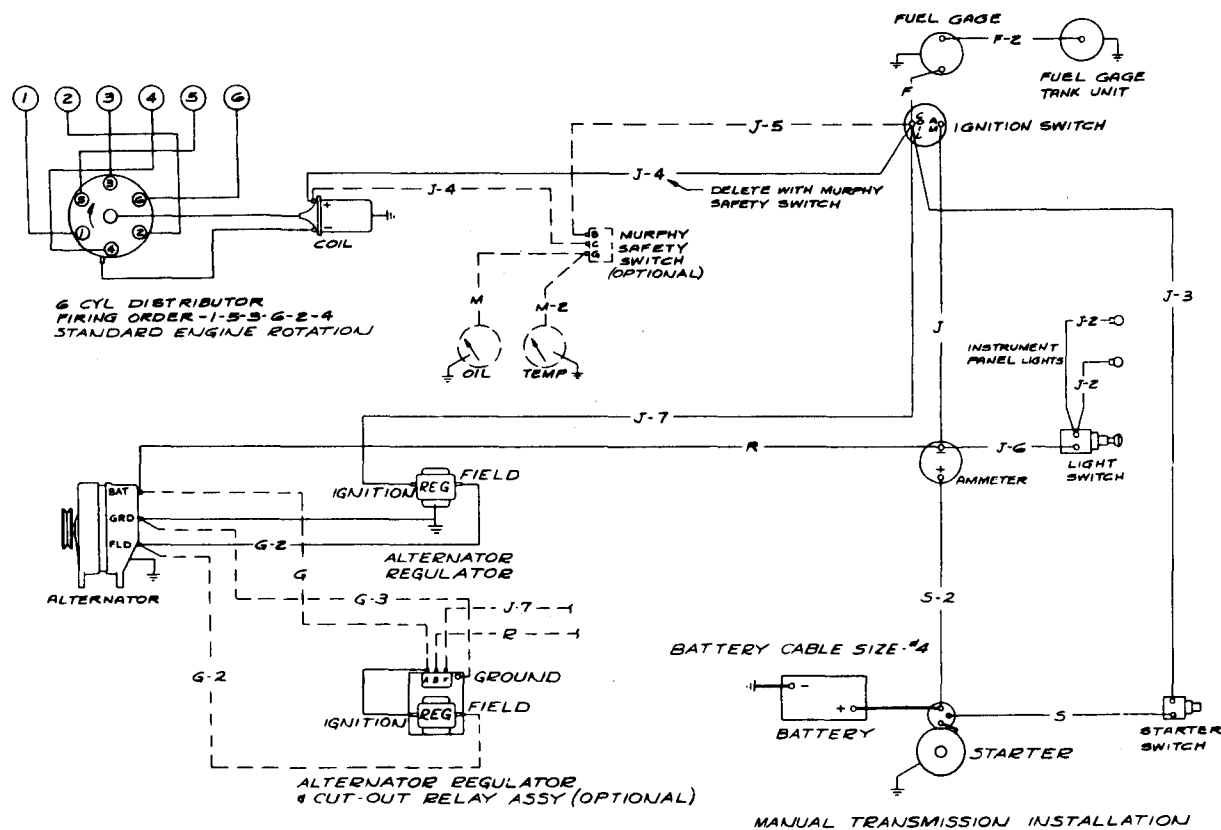


Fig. 7—Rear Door Trim Panel

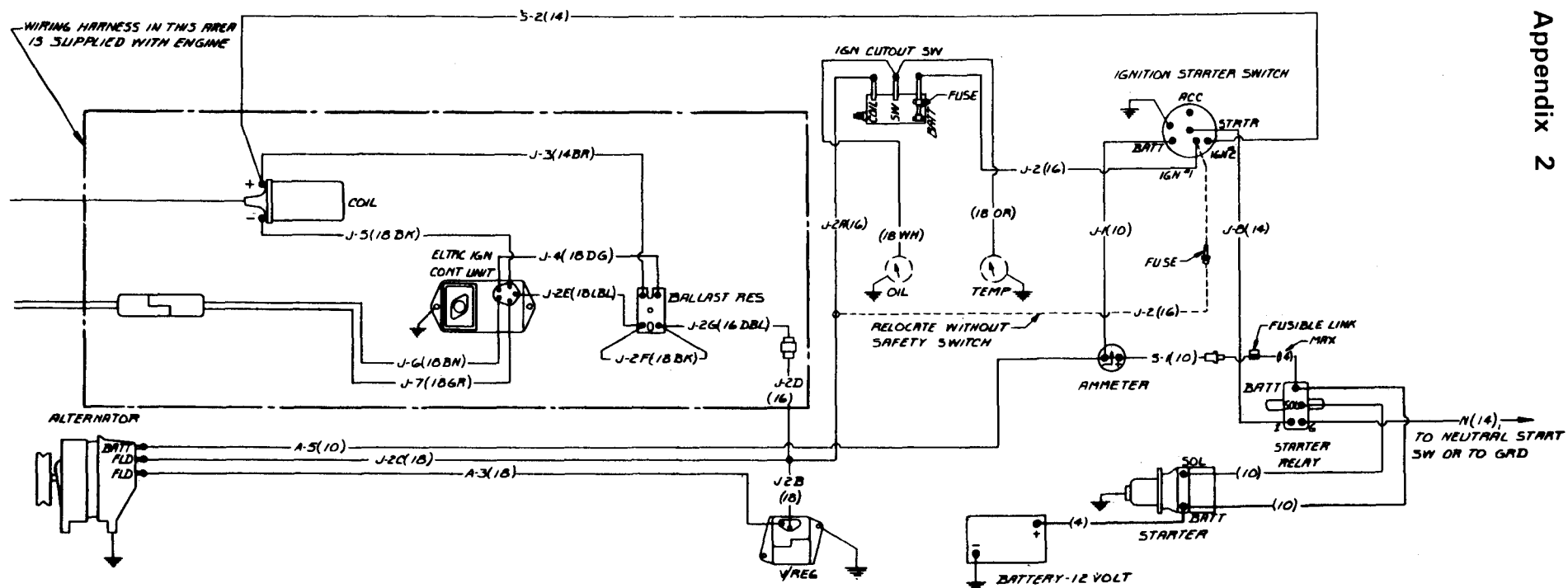


NOTE:
ALTERNATOR NOT TO BE USED
WITH POSITIVE GROUND SYSTEM

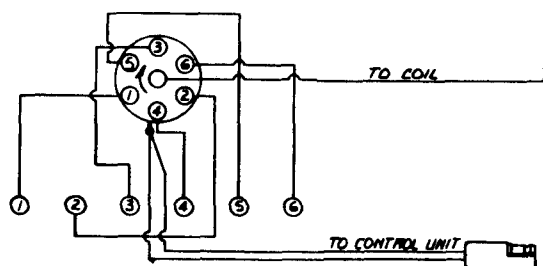
61X426

SYMBOL	SIZE	COLOR
F	16	BLACK/YELLOW
F-2	16	BROWN
O	10	RED
G-2	12	YELLOW
G-3	14	BLACK/YELLOW
J	10	BROWN
J-2	16	BLACK
J-3	10	GREEN
J-4	14	RED
J-5	14	BLACK
J-6	16	BLUE
J-7	16	WHITE
M	16	GREEN
M-2	16	GREEN
R	10	BLACK
S	10	BLACK/YELLOW
S-2	8	RED

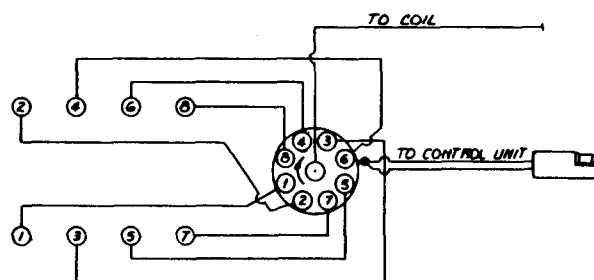
Wiring Diagram - Breaker Point Type Ignition
(6 Cylinder Model shown)



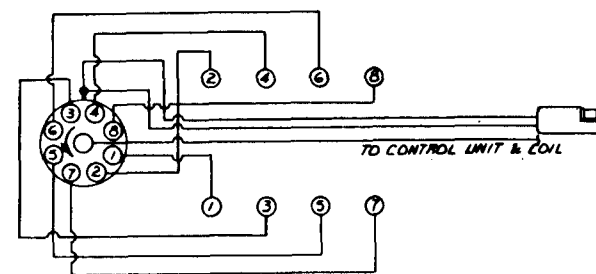
CIRCUIT "A"
BALLAST SHORTING CIRCUIT
IN IGNITION SWITCH



6 CYL DISTRIBUTOR "RG" ENGINES
FIRING ORDER: 1-5-3-6-2-4
CLOCKWISE DIST ROTATION
CLOCKWISE ENG ROTATION



8 CYL DISTRIBUTOR "A" ENGINES
FIRING ORDER: 1-8-4-3-6-5-7-2
CLOCKWISE DIST ROTATION
CLOCKWISE ENG ROTATION



8 CYL DISTRIBUTOR "B" & "RB" ENGINES
FIRING ORDER: 1-8-4-3-6-5-7-2
COUNTERCLOCKWISE DIST ROTATION
CLOCKWISE ENG ROTATION

NOTE: WIRE SIZES SHOWN UNLESS OTHERWISE SPECIFIED
ARE MINIMUM REQUIRED

WH	WHITE
OR	ORANGE
DGN	DARK GREEN
DBL	DARK BLUE
BK	BLACK
LBL	LIGHT BLUE
BR	BROWN
GR	GRAY
SYM	COLOR

Wiring Diagram - Electronic Ignition
Circuit "A" (For use with Neutral Start Switch)

MECHANICAL PIERCE GOVERNOR

This mechanical governor is mounted on the distributor support housing and is gear driven from the distributor. It is lubricated by engine oil through the restrictor elbow in the governor housing. The tachometer cable is driven by nylon gears at the upper end of the governor shaft. The tachometer gears are sealed away from engine oil and should be cleaned and lubricated with lubriplate at regular intervals. If excessive oil leakage occurs at governor, inspect governor oil inlet restrictor elbow. The elbow fitting should be restricted to .040 inch I.D. and open.

ADJUSTMENT

Before adjusting the governor for specified engine speed, the linkage to the carburetor should be adjusted to a length which will permit full carburetor throttle opening when the governor lever is full forward. (See Throttle Linkage).

REMOVAL

1. Remove distributor.
2. Disconnect oil line, linkage to carburetor and tachometer cable (if so equipped).
3. Remove hold-down bolt at lower end of support housing that also holds down distributor (if so equipped).
4. Remove ignition distributor adapter and governor from engine as an assembly.

DISASSEMBLY

1. Remove tachometer housing assembly.
2. Remove roll pin from tachometer drive gear and remove gear and spacer from governor shaft.
3. Remove governor spring adjusting eye bolt and the housing attaching bolts.
4. Remove governor body and remove oil seal from body.
5. Remove roll pins and both lever assemblies from the rocker shaft.
6. Remove bolts holding the yoke to the rocker shaft and remove yoke.
7. Remove rocker shaft from governor body.
8. Remove shaft oil seal retainers and oil seals.
9. Remove needle bearing assembly. Leave the two bushings and the oil line fitting in the body. If oil leakage occurs at governor, inspect governor oil inlet elbow fitting. The fitting should be restricted to .040 inch I.D. and open.
10. Remove the snap ring from the governor shaft and remove the thrust bearing and sleeve.
11. Remove the shaft retainer screws from the adapter shaft and remove the shaft assembly (Fig. 28).
12. Remove drive gear pin and remove gear from shaft.

13. Remove bearing retainer ring, bearing and spacer.
14. Mark governor weights for location in reassembly.
15. To remove the weight assemblies, remove hair-pin cotters from plain end of governor weight pins and drive pins out from plain ends.

CLEANING AND INSPECTION

1. Clean parts in kerosene, mineral spirits or other solvent and dry with compressed air.
2. Test the two bearings for roughness and excessive wear. Coat with engine oil to prevent rust.
3. Examine gears for excessive wear or damage.
4. Examine yoke for alignment and wear. Contact area on both forks should be equal in size and uniform in appearance.
5. Spider and shaft assembly should be straight, without surface irregularities in bushing and seat contact areas.
6. Thrust sleeve should show little, if any, wear in weight contact area and should be free-moving on shaft.
7. Rocker shaft should have a smooth, unbroken finish.
8. Body bushings should be smooth. Try the shafts in the bushings. Replace the bushings if worn excessively.
9. Oil line fitting in body is of the restrictor type. Hole in fitting should be round and undamaged. Do not probe or alter size of hole. The .040 orifice should be cleaned.
10. Governor weight rivets should be tight and the pin holes round. Weights should have a free fit in spiders. Pins should be smooth, without ridges or excessive wear. The fit should be free in the weights and snug in the spider.

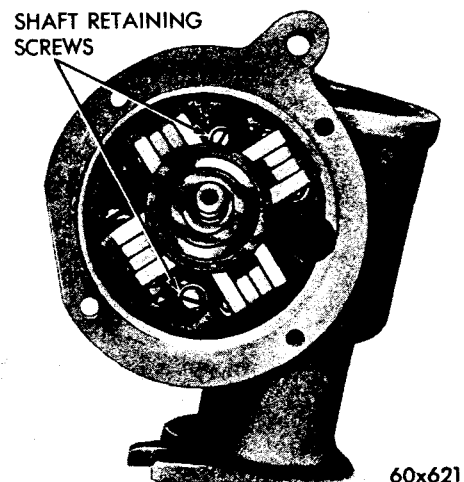


Fig. 28—Location of Governor Shaft Retaining Screws

ASSEMBLY

1. Install ball bearing, spacer and retainer ring on spider and shaft assembly.
2. Install governor seal and roll pin on shaft.
3. Install weights as marked before removal, with stop lamination to the left. Install hairpin clips.
4. Place thrust sleeve on shaft and install lock ring in groove in shaft.
5. Place shaft assembly in ignition distributor adapter and install retaining screws and washers with the washers extending over the bearing to act as retainers for the shaft assembly.
6. Install the needle bearing in the governor body and install the rocker shaft.
7. Install yoke on rocker shaft.
8. Install oil seals and retainers on both ends of the rocker shaft.
9. With fork resting against the end of the body, install short (spring) lever and washer on right end of shaft with end of lever toward tachometer drive. Install roll pin.
10. Install long (throttle) lever and washer on left end of shaft with end of lever extending beyond tachometer drive. Install roll pin.
11. Install body gasket on adapter and thrust bearing on thrust sleeve with the larger race (with large chamfer) toward the sleeve.
12. Install body on adapter while holding fork against end of body and with the hole in short lever toward the drive gear side of adapter. Install short bolt nearest the distributor mounting. Tighten bolts securely.
13. Install oil seal clip.
14. Install spacer and tachometer drive pinion and install roll pin.
15. Install tachometer drive housing assembly.

INSTALLATION

1. With the distributor drive shaft in proper mesh with the camshaft gear, install the adapter on the engine and install hold-down bolt.
2. Install the ignition distributor.
3. Connect the oil line and the tachometer cable (if so equipped).
4. Adjust linkage to proper length and connect to governor. (See Throttle Linkage Adjustment).
5. Connect governor adjusting spring.
6. Start and run engine to operating temperature.
7. Adjust tension on governor adjusting spring to control engine speed.

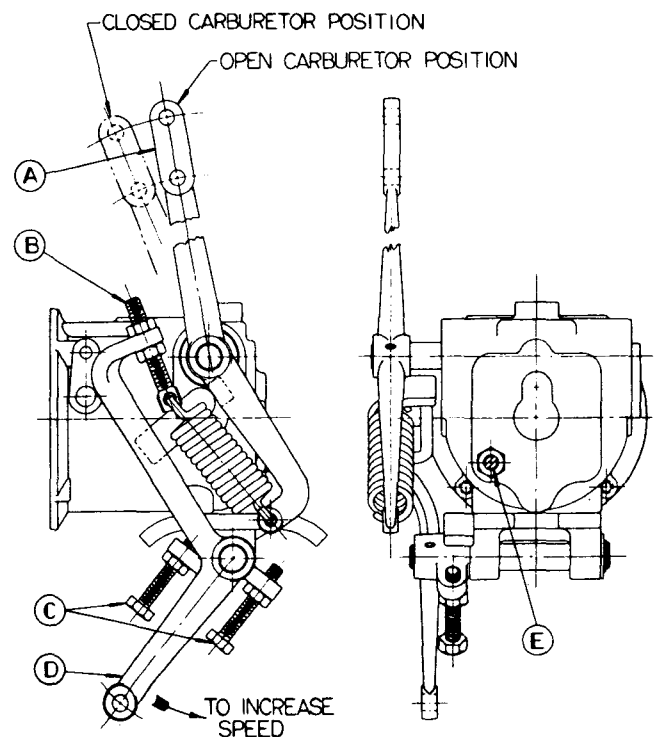
PIERCE LONG RANGE GOVERNORS**ADJUSTMENTS**

1. Place tension on governor spring with adjusting screw (B). Install linkage from throttle lever (A) to carburetor or valve box bellcrank, adjusting length of linkage to hold throttle just at wide open position. Release all spring tension and operate throttle lever manually to check for binding or lost motion in linkage.
2. Back out bumper screw (E) until only three or four threads are engaged and lock with locknut.
3. Start engine and run at fast idle until it is warmed to operating temperature.

Constant Speed Operation

4. Move speed change lever (D) by use of the stop screws (C) to approximately $\frac{1}{2}$ wide open position. Adjust screw (B) to obtain top no-load speed. Check regulation by applying and removing engine load. If regulation is too broad, move speed change lever (D) approximately $\frac{1}{4}$ " toward closed position and readjust screw (B) to again obtain no-load speed.

If governor surges under load, decrease spring tension with screw (B) and move speed change lever toward open position to obtain top no load speed. Repeat until desired regulation is obtained. Lock stop screws (C).



Long Range Operation

5. Move speed change lever (D) to approximately $\frac{3}{4}$ of wide open position. Adjust and check regulation as in step 4. When desired regulation is obtained, adjust stop screw (C) to stop speed change lever travel at top operating speed. Move speed change lever (D) toward low speed position until desired low speed is obtained and adjust stop screw (C) to check lever travel at this point. Lock securely with locknuts.
6. **Bumper screw (E) is used to remove a no-load surge only.** If governor is used for long range operation, the bumper screw can be used at the low speed only. If a no load surge is encountered, turn bumper screw (E) in a turn at a time until the surge is removed. **Do not turn in far enough to increase no-load speed of engine.** Lock with locknut.

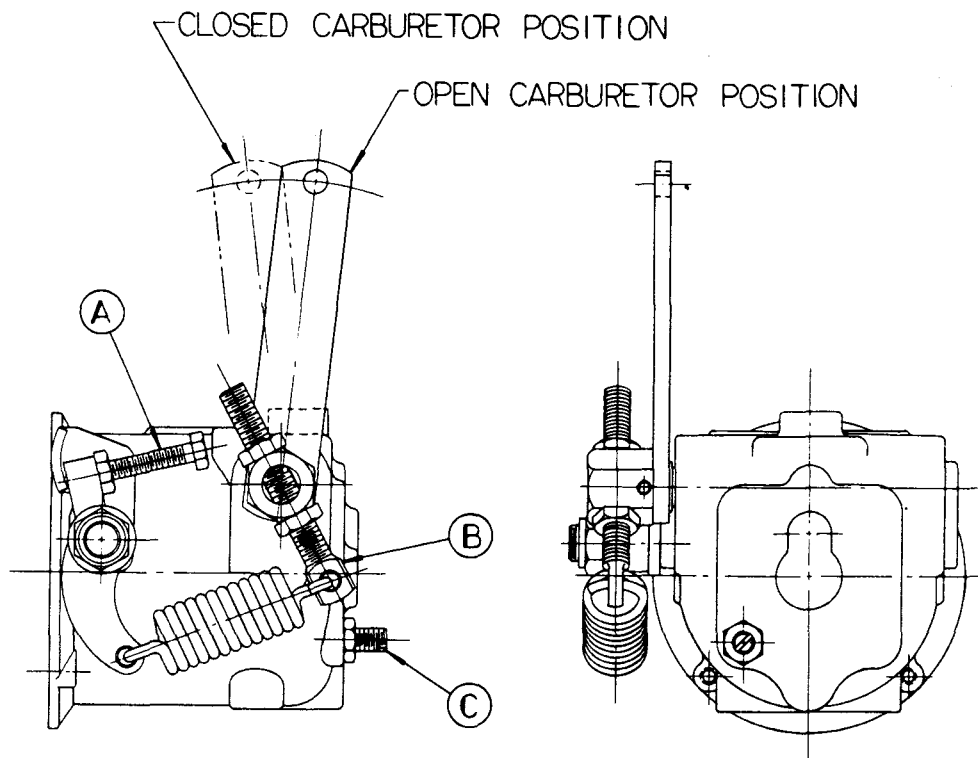
PIERCE CONSTANT SPEED GOVERNORS

ADJUSTMENTS

1. Place tension on governor spring with adjusting screw (A). Install linkage from governor throttle lever to carburetor or valve box bellcrank, ad-

justing length of linkage to hold bellcrank just at wide open position. Release all spring tension and operate throttle lever manually to check for binding or lost motion in linkage. Binding and lost motion must be eliminated to obtain satisfactory governor control of the engine.

2. If governor is equipped with bumper screw (C), back out bumper screw until only three or four threads are engaged and lock with locknut.
3. Start engine and operate at fast idle until warmed to operating temperature.
4. Secure specified no-load speed with adjusting screw (A).
5. Check regulation by applying and removing engine load. If regulation is too broad (too great a variation in engine speed between no-load and full-load) adjust regulation screw (B) to draw spring nearer lever hub. If governor surges under load, adjust screw (B) to move spring away from hub. Repeat until desired regulation is obtained.
6. Recheck speed adjustment after making regulation adjustment.
7. **Bumper screw (C) is used to remove a no-load surge only.** If governor surges at no-load, turn screw (C) in, a turn at a time, until the surge is removed. **Under no circumstances should bumper screw (C) be turned in far enough to increase the no-load speed of the engine.**



SERVICE HINTS FOR PIERCE GOVERNORS

When installing the governor, carefully follow the instructions for installation and adjustment. To aid further in checking your installation and servicing of the governor after it has been in use, check the following trouble shooting hints.

Engine Speed Falls Off Too Greatly When Load Is Applied

1. Governor improperly adjusted.
2. Friction in throttle linkage.
3. Load too great for engine at operating speed.
4. Engine worn, compression too low.
5. Timing slow.
6. Governor running too slow.
7. Springs in carburetor or throttle mechanism opposing governor action.
8. Governor worn internally.

Governor Surges Under Load

1. Governor improperly adjusted.
2. Friction in throttle linkage.
3. Governor belt slipping.
4. Carburetor mixture too lean or too rich.
5. Timing too fast.
6. Faulty ignition.
7. Governor running too fast.
8. Governor worn internally.

Governor Surges at No-Load

1. Friction in throttle linkage.
2. Governor belt slipping.
3. Carburetor mixture too lean or too rich.
4. Timing set too fast.
5. Faulty ignition.
6. Governor worn internally.

Engine Overruns Too Much When Unloaded

1. Governor belt slipping.
 2. Governor running too slow.
 3. Friction in throttle linkage.
 4. Governor improperly adjusted.
 5. Friction in carburetor or valve box.
 6. Springs in carburetor or throttle mechanism opposing governor action.
 7. Governor worn internally.
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INSTRUCTIONS FOR MANUALLY LUBRICATED GOVERNORS

After installing governor, remove the cap from the oil fitting marked "oil level." Add oil to the oil cup until it runs out of the hole in the oil level check. Replace cap tightly.

Check the oil every 10 service hours and replace the oil every 500 hours.

Use the same type and viscosity of oil that is being used in the crankcase of the engine.