

Figure 1.

Typical view propeller shaft and universal joints—Models 1-08A, 2-26A and Propeller Shaft front and rear and centre bearing—Models 3-59A, 6-71A, 8-65A, 8-71A and 8-71A-D.

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|--|---|
| 1 — Propeller shaft front. | 16 — Washer. |
| 2 — Propeller shaft rear. | 17 — Felt washer. |
| 2a - Propeller shaft—Models 1-08A, 2-26A, 2-33A. | 18 — Bearing centre. |
| 3 — Yoke propeller shaft flange. | 19 — Bearing housing. |
| 4 — Bolt propeller shaft flange yoke. | 20 — Oil seal. |
| 5 — Nut propeller shaft flange yoke. | 21 — Oil seal housing. |
| 6 — Washer propeller shaft flange yoke. | 22 — Oil seal housing gasket. |
| 7 — Journal propeller shaft. | 23 — Centre bearing grease nipple. |
| 8 — Journal propeller shaft oil seal. | 24 — Centre bearing housing bolt. |
| 9 — Retainer oil seal. | 25 — Centre bearing housing nut. |
| 10 — Bearing. | 26 — Centre bearing housing washer. |
| 10a - Snap ring. | 27 — Centre bearing dust thrower. |
| 11 — Bearing cap. | 28 — Centre bearing dust thrower screw. |
| 12 — Lockplate. | 29 — Centre bearing distance piece. |
| 13 — Bolt. | 30 — Centre bearing flange. |
| 14 — Yoke propeller shaft. | 31 — Centre bearing flange nut. |
| 15 — Dust cap. | 32 — Split pin. |

NOTE.—Model 2-33A will be fitted with a two piece centre bearing type propeller shaft. Service information will be issued per medium of a Service Bulletin.

UNIVERSAL JOINTS

All model trucks covered herein are equipped with cross and roller type universal joints. On models 3-59A, 6-71A, 8-65A, 8-71A and 8-71A-D, two propeller shafts are fitted having universal joints and supported in the centre by a heavy duty self-aligning double row ball bearing.

The universal joints are so designed that correct assembly is a simple matter. No hand fitting or special tools are required. The trunnions and roller bearings are the only parts subjected to wear, and if it becomes necessary to replace these, proceed as follows:

- (1) Remove snap rings (10a, Figure 1) or plates holding the needle bearing assemblies in the propellar shaft yokes.
- (2) Remove needle bearing assemblies by lightly tapping on the exposed face of one of the needle bearing cages until the opposite bearing is pushed from the yoke. Turn the joint over and drive the first bearing back out of its lug by driving on the exposed face of the journal. Use a soft, round drift about $\frac{1}{2}$ inch diameter smaller than the hole in the yoke, otherwise there is a possibility of damaging the bearing.
- (3) Repeat this operation for the other two bearings.
- (4) The trunnion can now be removed by sliding it to one side of the yoke, tipping it so that the trunnion journal clears the yoke bearing orifice and lifting it out of position.

To re-assemble, reverse the foregoing operations. Smear the needle bearings with vaseline and be sure to hold the bearings in a vertical position to prevent bearings from dropping out of the bearing race. When assembled, if the joint appears to bind, tap the lugs lightly with a hammer which will relieve any pressure of the bearings on the end of the journal.

The universal joints are fitted with lubrication nipples, and should be lubricated in accordance with the instructions given in the Lubrication Section.

REMOVAL AND INSTALLATION OF CENTRE BEARINGS — MODELS 3-59A, 6-71A, 8-65A, 8-71A and 8-71A-D.

- (1) Disconnect front universal joint of rear propeller shaft.
- (2) Remove screws holding bearing cage.
- (3) Remove centre bearing flange cotter pin and nut. Remove flange, spacer, oil seal housing, oil seal and gasket.
- (4) Disconnect front universal joint of front propeller shaft.
- (5) Drive shaft through bearing using soft hammer or drift, taking care not to burr thread. If the shaft is tight in the bearing, remove the mud slinger screw and slide the slinger back and use a suitable puller to withdraw the shaft.
- (6) Remove bearing from bearing cage.

To assemble, reverse the foregoing operations.

Noise at the centre bearing may, in some cases, be corrected by loosening the centre bearing housing bolts, then, jack up the rear wheels and drive the propeller shaft with the engine, allowing the bearing to seek its own alignment. Tighten the housing bolts. In extreme cases, it may be necessary to shim the bearing housing.

MAINTENANCE.

No adjustments are provided to compensate for wear on any of the universal joint parts. The universal joints should be reconditioned, when excessive play exists between the bushing and roller assemblies and the cross. When bushings are replaced, the cross should be carefully examined to make certain that it is smooth and not excessively worn.

SERVICE DIAGNOSIS

Conditions — Possible Causes — Remedies

1. PROPELLER SHAFT VIBRATION.

Possible Causes.

- (a) Sprung propeller shaft.
- (b) Worn universal joint bearings.
- (c) Worn splines on shaft or yoke.
- (d) Loose companion flange nut.
- (e) Loose centre bearing support.

Remedies.

- (a) Check propeller shaft and replace as necessary. Inspect universal joints for excessive wear.
- (b) Disassemble universal joints. Replace parts as required.
- (c) Check splines on yoke and shaft for excessive wear. Replace parts as required.
- (d) Tighten transmission companion flange nut and rear axle pinion shaft nut.
- (e) Tighten loose centre bearing support nuts.

2. UNIVERSAL JOINT NOISE.

Possible Causes.

- (a) Improper lubrication.
- (b) Worn universal joint bearings.
- (c) Loose propeller shaft flange bolts.
- (d) Centre bearing worn, rough or loose.
- (e) Brinelled joints.

Remedies.

- (a) Disassemble universal joints. Inspect all parts for possible damage and replace as required. Pack bearings with suitable lubricant and re-assemble.
- (b) Replace worn bearings.
- (c) Check universal joints for possible damage. Tighten propeller shaft flange bolts.
- (d) Replace centre bearing.
- (e) Disassemble, clean and inspect the universal joints. Replace damaged parts as required. At re-assembly, pack the universal joints with the correct amount of the proper lubricant. Refer to Lubrication Section.

WHEELS AND TYRES

REMOVAL AND INSTALLATION

1. FRONT WHEEL—ALL MODELS, AND MODELS FITTED WITH SINGLE REAR WHEELS.

- (1) Raise the front end or rear end of the truck with a jack so that the wheel clears the ground.
- (2) Remove the hub cap on model 1-08A only by prying it off with a screw driver.
- (3) Remove the wheel hub studs or nuts and lift off the wheel.

Note.—To remove wheel stud nuts, turn the nuts on the left hand wheels clockwise, and turn the nuts on the right hand wheels counter clockwise.

To re-assemble, reverse the foregoing operations.

2. REAR DUAL WHEELS.

- (1) Raise the rear end of the truck with a jack so that the wheels clear the ground.
- (2) Remove the wheel attaching nuts and remove the outer wheel. The inner wheel can now be removed.

To assemble, reverse the foregoing operations.

SERVICE STANDARDS

Tyre Size	No. of Plies	Normal Tyre Pressure (cool)
6.50 x 16	6	40 p.s.i.
7.00 x 16	6	40 p.s.i.
7.00 x 20	8	55 p.s.i.
7.00 x 20	10	60 p.s.i.
7.50 x 16	6	40 p.s.i.
7.50 x 16	8	45 p.s.i.
7.50 x 20	8	55 p.s.i.
8.25 x 20	10	60 p.s.i.
8.25 x 20	12	70 p.s.i.
9.00 x 20	10	65 p.s.i.
9.00 x 20	12	75 p.s.i.

TIGHTENING REFERENCE

PART NAME	MODEL	TORQUE (foot pounds)
Front and Rear Wheel Studs.....	1-08A	70-80
Front and Rear Wheel Nuts.....	2-26A and 2-33A	70-80
Front and Rear Wheel Nuts.....	All models except 1-08A, 2-26A and 2-33A	140-160

NOTE.—When assembling wheels on all models, it is important that attaching studs or nuts be tightened to the proper torque as specified in the tightening reference.

WHEEL BALANCING.

The front wheels and tyre assemblies must be balanced to prevent wheel tramp, shake and shimmy. While correct front wheel alignment is necessary for easy steering and maximum tyre life, the cause of unstable steering can frequently be traced to improper front wheel and tyre assembly balance.

When this condition exists, the front wheels should be removed and properly balanced. The tyre and tube, wheel, hub and drum form the wheel assembly, which must be considered as a unit for balancing purposes.

Tyre patches, and certain types of vulcanized or retreaded tyres may cause an unbalanced condition in a wheel and tyre assembly that cannot be overcome by a balancing operation. In such cases, the tyre would have to be replaced before attempting to balance the wheel and tyre assembly.

There are two conditions which should be considered when balancing wheels.

1. Static balance.
2. Dynamic balance.

STATIC BALANCE.

A wheel out of balance statically has a tendency to bounce up and down. This is called tramp, and its effect is similar to shimmy. Static balancing is performed while the wheel is stationary, by attaching weights to the rim flange to offset an opposite heavy point in the wheel and tyre assembly.

A wheel and tyre that has been statically balanced may rotate freely without bouncing or shimmying, if the amount of weight added to the rim flange does not throw the assembly out of dynamic balance.

BALANCING A WHEEL STATICALLY.

Wheels may be balanced on the steering knuckle spindle of the truck, although the use of a balancing fixture greatly facilitates the operation.

Remove the oil seal and grease from the bearing to permit free rolling of the wheel. After this is done, instal the wheel hub and drum assembly on the steering knuckle spindle or fixture. (If installed on the spindle the brakes must be fully released so they do not drag.) The wheel should be allowed

to rotate freely. It will stop (come to rest) with the heavy part of the wheel and tyre assembly to the bottom. Instal two external balance weights (Figure 1) directly opposite the heavy side of the wheel and gradually move them apart, equal distance from the starting point, until the wheel is in balance. The wheel is in balance when it will stand in any position without rotating on its own accord. The wheel **MUST** be free rolling while it is being balanced.

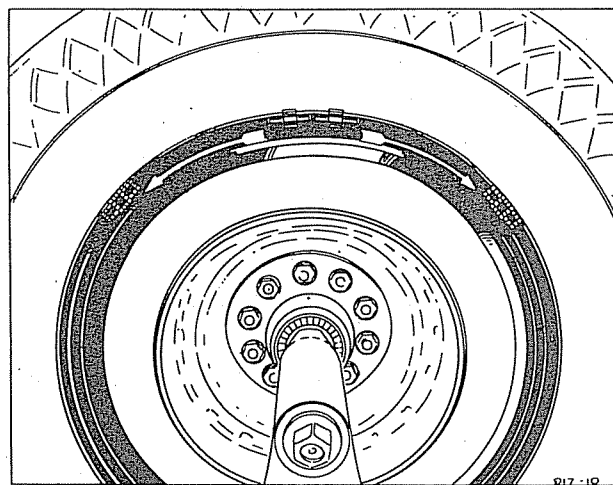


Fig. 1—Balancing Wheel (Static Balance).

DYNAMIC BALANCE.

Before attempting to balance a wheel dynamically, it must be in balance statically. If a wheel and tyre assembly is out of balance dynamically, special shop equipment is required to determine the amount it is out of balance, and where the correct weight should be added to put the wheel in balance, without disturbing its static balance.

The wheel and tyre must be rotated rapidly while determining these conditions. Correct dynamic balance in a wheel and tyre assembly is obtained by determining the heavy point in the assembly while it is rotated. Then one half of the required weight should be attached to the rim flange directly opposite the heavy point and the remaining one half of the required weight to the rim flange diagonally across, or 180° around the rim flange (Figure 2).

By dividing the required weight in this manner, it is possible to correct dynamic balance without changing the static balance of the wheel and tyre assembly.

Alternatively, static and dynamic balance can be

checked by the use of reputable electronic balancing equipment.

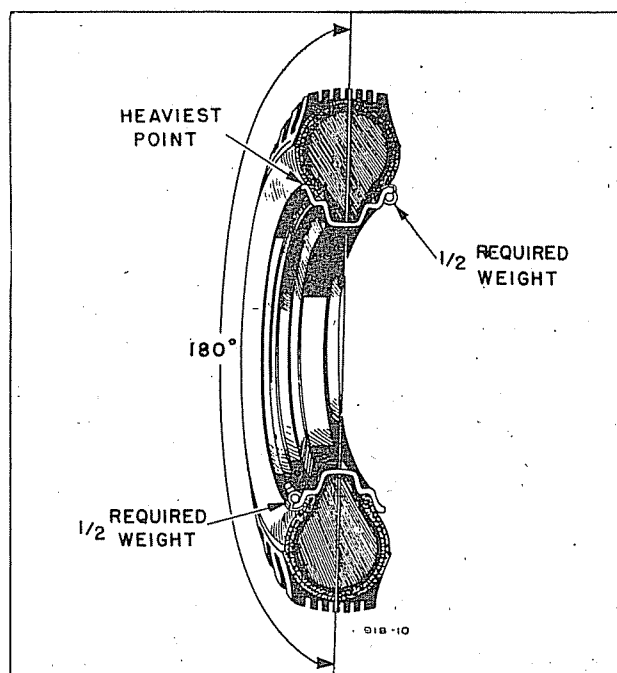


Fig. 2—Balancing Wheel (Dynamic Balance).

CHECKING WHEEL AND TYRE ASSEMBLY RUN-OUT AND ECCENTRICITY.

Wheel and tyre assemblies which are eccentric or run out excessively, will cause premature tyre wear. This condition may be checked as follows:

- (1) Jack up the truck so that wheels can be rotated freely.
- (2) Check wheel bearings for correct adjustment.
- (3) Using a fixed pointer, check the wheel for eccentricity at the underside of the rim and for run-out at the side of the rim.
- (4) Check the tyre for eccentricity at the centre of the tread and run-out at centre of the side wall.

In checking wheels and tyres for eccentricity and run-out, it must be understood that greater tolerances must be allowed for the larger size units (wheels and tyres) than for smaller ones. For example, either the eccentricity or run-out on a large size wheel or tyre might safely be as much as $\frac{1}{8}$ in. while for the smaller units the allowable limits would be less.

Excessive tyre eccentricity or run-out can occasionally be brought within allowable limits by deflating the tyre and working it to another position on the rim. Bent rim flanges frequently cause a tyre to run out excessively.

CHANGING TYRES.

REMOVAL AND INSTALLATION OF TYRES—DROP CENTRE RIMS.

The life of the tyre depends largely upon load and inflation. It is important that the pressures specified in the service standards be followed carefully.

The toe of each tyre bead has a soft rubber tip which must not be damaged when mounting or removing a tyre. The tip protects the tube from chafing.

Be careful not to pinch the tube with tyre tools.

If it requires too much force to pry the bead off the flange of the rim, it is an indication that the bead is not down in the well on the opposite side of the tyre. Inside each tyre bead is a loop of wire which must not be broken, kinked or unnecessarily strained.

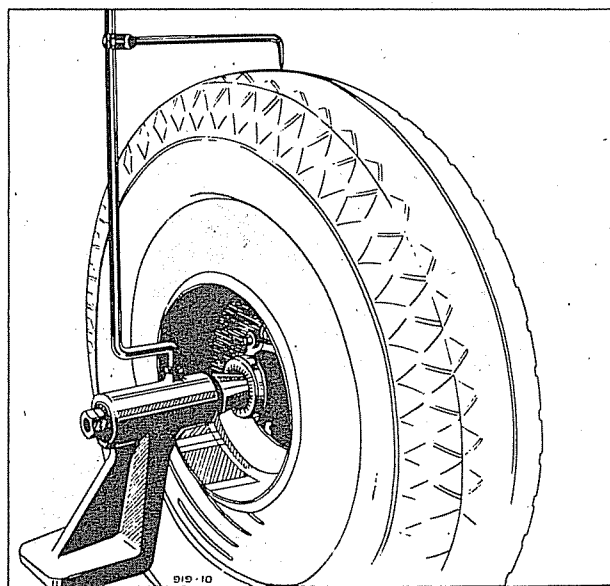


Fig. 3—Checking Tyre Eccentricity.

Before inflating the tyre, make certain the tyre is centred on the rim. For tyres having centreing ribs, the ribs must show uniformly above the flange.

Tyres which have a coloured dot on the wall should be installed with this identification at the valve stem.

Changing a tyre is made easier by coating the base of the tyre bead with soapy water. This also protects the soft rubber tip of the tyre bead. **DO NOT USE OIL OR GREASE.**

The tube must be completely deflated before removal.

To instal the tyre, inflate the tube sufficiently just to round it out to prevent the tube falling out of the casing, or being pinched during the mounting operation.

CHANGING TYRES (FLAT BASE RIMS).

To remove a tyre from a truck equipped with flat base rims, it is only necessary to pry the tyre loose from both sides of the rim, remove the lock ring and slide the tyre off the wheel.

CHANGING DIRECTION OF TYRE ROTATION.

It is recommended and it is good practice that truck owners reverse the direction of the front tyre rotation, for maximum front tyre life, even wear and quietness, by interchanging the front wheel assemblies, including tyres, tubes and wheels, from right to left and left to right.

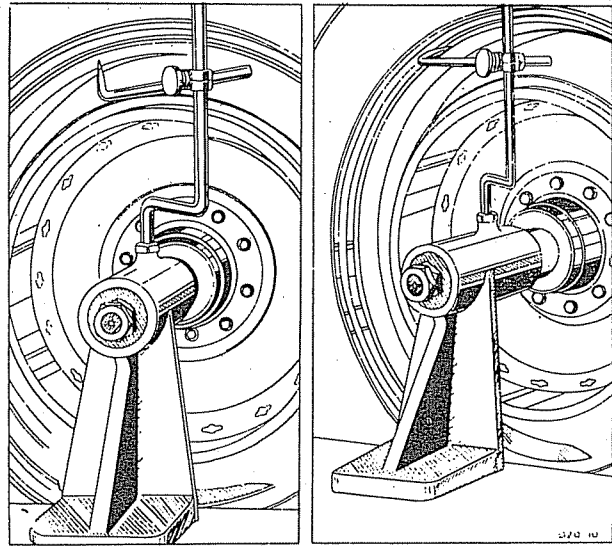
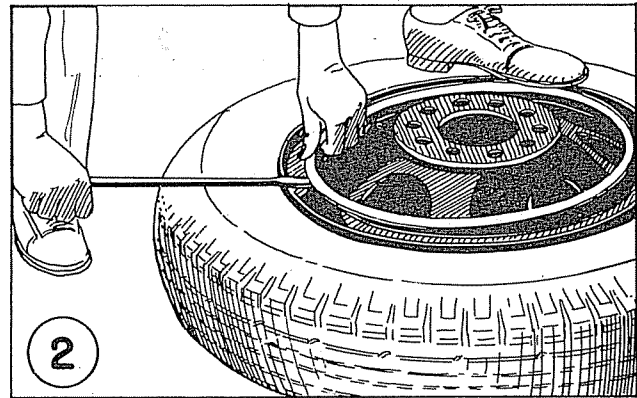
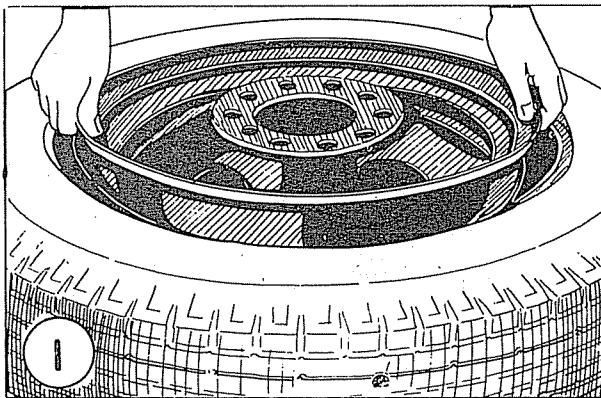


Fig. 4—Checking Wheel Eccentricity and Wobble.

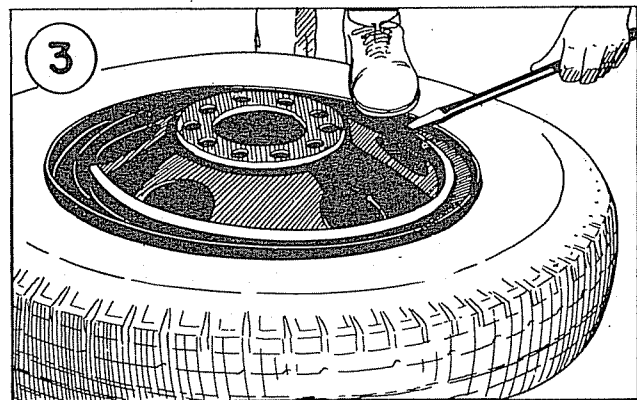
CHANGING TYRES

FLAT BASE RIMS

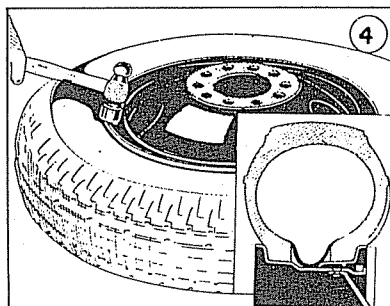


To Mount Tyre

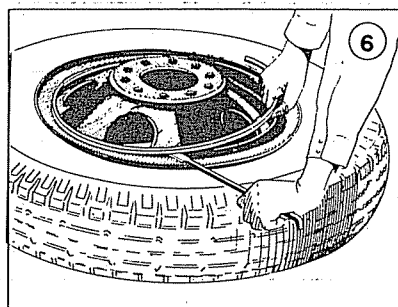
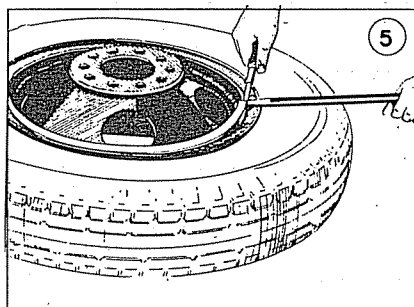
1. Apply tyre and tube in usual manner then place side ring in position.
- 2, 3. Insert tapered end of tyre tool between side ring and the edge of the rim, press down side ring and insert locking ring into the gutter in the rim base. Repeat this operation until assembly is completed.



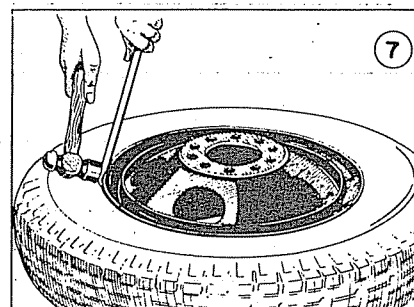
To Dismount Tyre



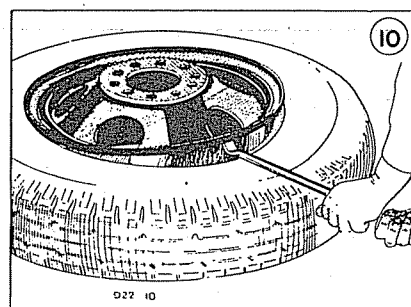
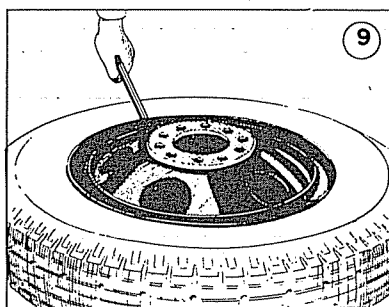
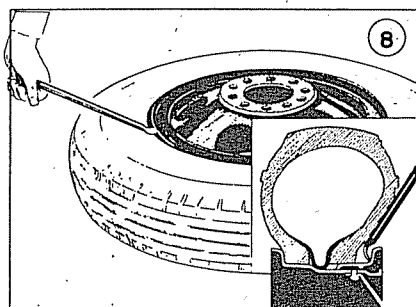
4. Loosen side ring from locking ring. Note cross-section view showing inward movement of the side ring and tyre to obtain sufficient clearance to remove locking ring.



5, 6. Pry locking ring out of the gutter of the ring base.



7. Drive the tyre iron between tyre and ring flange.



8, 9, 10. Pry tyre bead free from rim base as shown in cross section and repeat this operation progressively until tyre is free. Then turn the wheel and tyre over and loosen the inner bead in the same manner.

BODY

1. TO REMOVE AND INSTALL INSIDE DOOR HANDLES

- (1) Press escutcheon plate against trim panel, exposing pin which holds handle to shaft.
- (2) Push the pin out of the shaft with slim rod or special tool, see Figure 1. The handle and escutcheon plate then can be pulled off the shaft.

To instal, reverse operations.

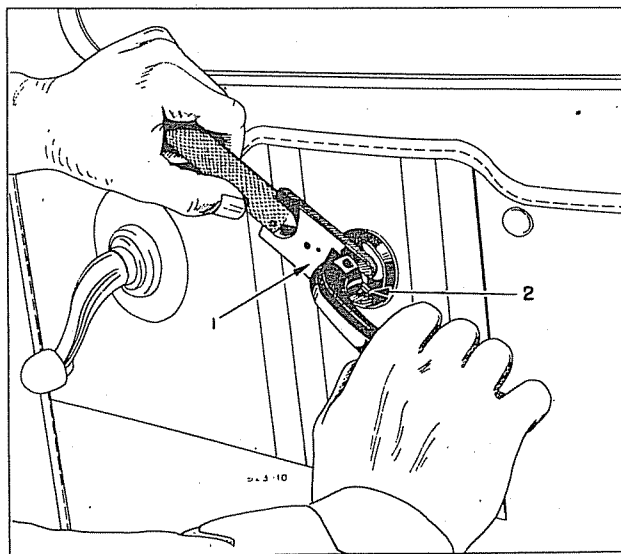


Fig. 1 — Removing Inside Door Handle
1. Tool C-533. 2. Retainer Pin.

2. TO REMOVE AND INSTALL LOCK CYLINDER

- (1) Loosen retaining screw (1) (Figure 2) in edge of door frame.
- (2) Pull out lock cylinder.

INSTALLATION

- (1) Insert the square shaft of the cylinder lock into the hole in the door lock.
- (2) Push the cylinder lock snug against the outer door panel and tighten retaining screw.

3. TO REMOVE AND INSTALL DOOR TRIM PANEL.

- (1) Remove inside door handles.
- (2) Remove bordering screws and washers and lift off trim panel.

To instal, reverse operations.

4. TO REMOVE AND INSTALL DOOR SLIDING GLASS.

- (1) Remove inside door handles.

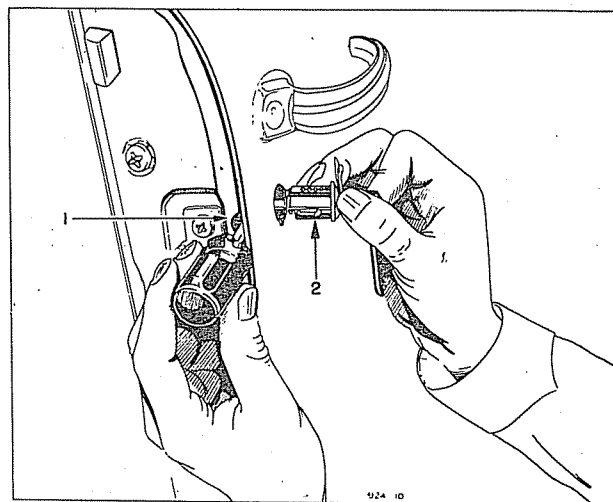


Fig. 2. — Removing Door Lock Cylinder

1. Lock Cylinder Retaining Screw. 2. Lock Cylinder.

- (2) Remove door trim panel.
- (3) Lift bottom rear of vent wing weatherstrip and remove 2 screws attaching the top of front glass run channel. (These 2 screws also hold the vent wing retainer in place).
- (4) Remove bottom glass run attaching screws. Withdraw the glass run channel.
- (5) Remove the two clips holding the glass retainer channel to the door window regulator.
- (6) Lift the glass and retainer channel up and out.
- (7) To remove the glass from the base or retainer channel, pull it out of the channel.

To instal the glass in the channel, drive the channel on to the glass with a rubber mallet. Be certain the channel is in exactly the correct position before driving it into place.

Instal the glass and channel in the door by reversing the foregoing operations.

5. REMOVAL AND INSTALLATION OF VENT WING.

- (1) Lower the door glass to the bottom of its travel.
- (2) Lift back rubber weatherstrip out of its retainer at the bottom for three or four inches and remove 2 screws attaching the vent wing retainer.
- (3) Remove 2 screws attaching the top of the weatherstrip and retainer.
- (4) Remove screw holding front top end of the glass run channel and bend down sufficiently to clear when withdrawing the vent wing assembly.

- (5) Ease the vent wing assembly towards the lock side of the door and lift out.

To instal, reverse the above operations.

6. REMOVAL AND INSTALLATION OF WINDOW REGULATOR (GLASS REMOVED).

- (1) Wind the window regulator to about the half way position.
- (2) Remove four screws attaching the window regulator to the door inner panel.
- (3) Window regulator can now be lifted out through the access hole in the door inner panel.

To instal, reverse operations.

7. TO REMOVE AND INTAL DOOR LOCK AND REMOTE CONTROL.

- (1) Remove inside door handles.
- (2) Remove trim panel.
- (3) Wind door glass up to closed position.
- (4) Remove screws from outside door handle and remove handle.
- (5) Remove cylinder lock.
- (6) Remove four screws attaching door lock to door inner panel and three screws holding the remote control mechanism to the inner panel.
- (7) Remove lock and remote control through the access hole in the inner door panel.

To instal, reverse operations.

8. TO REMOVE AND INSTAL REAR WINDOW GLASS.

- (1) Push glass towards inside of body to remove. It may be necessary to pry the rubber channel loose from the back panel, as when originally installed it is sealed into place with sealing compound.

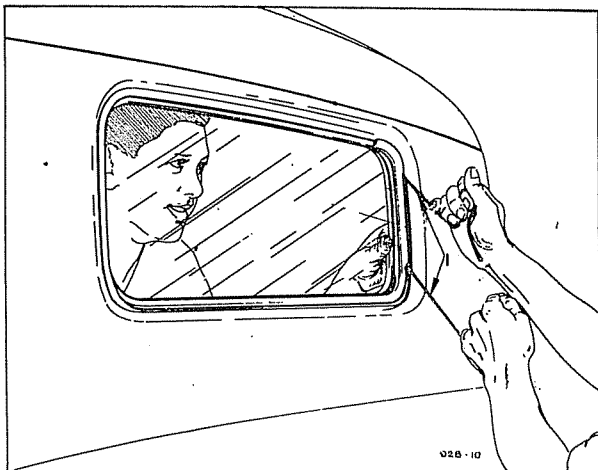


Fig. 3.—Installing Rear Window Glass.

1. Lifting Outer Channel Lip with Draw String.

INSTALLATION (Refer Figures 3 and 4).

- (1) Assemble rubber channel on to glass.
- (2) Place a draw string behind the inner and outer lip of the rubber channel completely around the rear window glass.

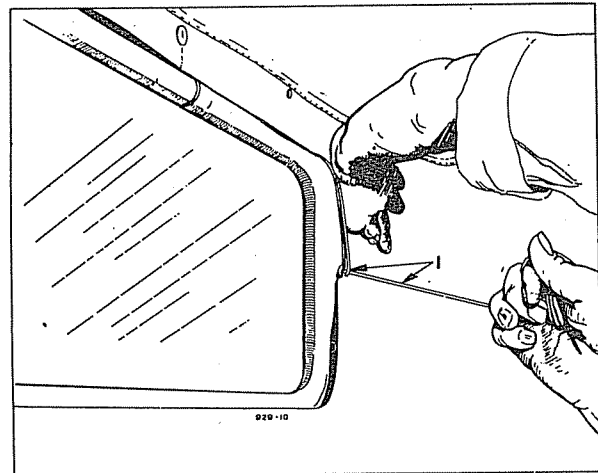


Fig. 4.—Installing Rear Window Glass.

1. Lifting Inner Channel Lip with Draw String.

- (3) Insert the glass from the inside and hold the rubber channel tightly into place in the body opening. The wide lip of the rubber weatherstrip should be to the inside of the vehicle.
- (4) While holding the glass in position have a helper pull the outer draw string to lift the lip of the weatherstrip over the back panel.
- (5) Seat the glass firmly in position by tapping with a rubber mallet.
- (6) Pull the inner draw string to lift the lip of the weatherstrip over the body trim panel.
- (7) Seal around the outside, between the weatherstrip and back panel and between the glass and weatherstrip with sealing compound.

9. TO REMOVE AND INSTAL CORNER LIGHT GLASS.

- (1) Push the glass towards the inside of the body to remove. The end opposite the curved corner piece should be removed first.

INSTALLATION.

- (1) Assemble rubber weatherstrip on glass.
- (2) Place a piece of draw string behind the inner and outer lip of the weatherstrip, completely around the corner glass.
- (3) Insert the glass from the inside, first positioning the curved corner piece. Hold the glass and weatherstrip tightly into place. The wide lip of the rubber channel should be to the inside of the vehicle.

- (4) While holding the glass, have a helper pull the outer draw string to lift the lip of the weatherstrip over the back panel.
- (5) Seat the glass firmly by tapping with a rubber mallet.
- (6) Pull the inner draw string to lift the lip of weatherstrip over trim panel.
- (7) Seal around the outside between the weatherstrip and the glass and weatherstrip and back panel with sealing compound.
- (5) Seat the glasses securely by tapping with a rubber mallet.
- (6) Seal around the outside between the weatherstrip and panel and weatherstrip and glass down the centre strip with sealing compound.
- (7) Replace garnish moulding and pull screws up evenly.
- (8) Water test the windshield to make sure it does not leak.

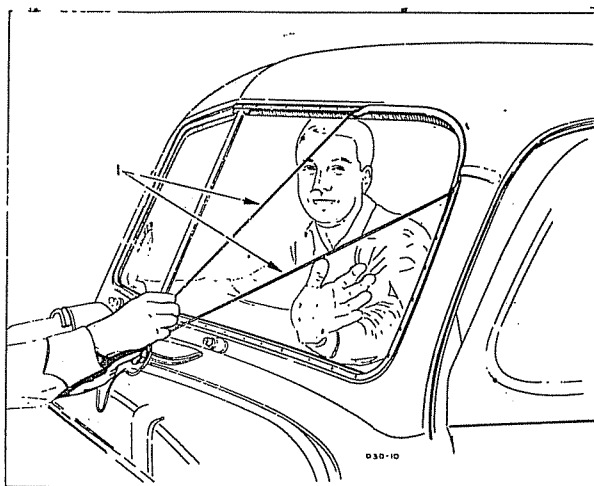


Fig. 5.—Installing Windshield Glass

1. Lifting Channel Lip with Draw String.

10. REMOVAL AND INSTALLATION OF WINDSHIELD GLASS.

- (1) Remove windshield wiper arm and blade.
- (2) Remove the windshield centre division bar and garnish moulding.
- (3) Loosen weatherstrip where it contacts the outside of the windshield opening.
- (4) Push the glass in, starting at the upper outside top corners. Remove windshield glass assembly.
- (5) Place the glass and weatherstrip assembly on a bench and remove the weatherstrip.

INSTALLATION (Refer to Figure 5).

- (1) Insert both glasses in weatherstrip. Make sure both glasses are firmly embedded in centre section of channel.
- (2) Place a piece of draw string around the outer lip of the weatherstrip and cross the ends of the cord.
- (3) Remove all traces of old sealing compound from the windshield opening.
- (4) Insert the glass and weatherstrip assembly from the inside. Hold the assembly firmly against the opening and have a helper draw the cord to lift the lip of the weatherstrip over the panel.

11. STRAIGHTENING WARPED DOORS.

A warped door may be straightened as follows:

- (1) Run the window down all the way.
- (2) Place a block between the lock pillar and the door at the top or bottom as required.
- (3) Then, push the door in at the end opposite to the block and bend door slightly.
- (4) Try the door for fit and repeat if necessary.

12. ADJUSTING DOORS.

Door adjustment is made by bending the hinges after it is known the door is not warped. Eliminate the warp first and always lower the window all the way before making any adjustments.

To move a door closer to or away from the body, loosen the hinge screws in the pillar half of the hinge and move in or out as required.

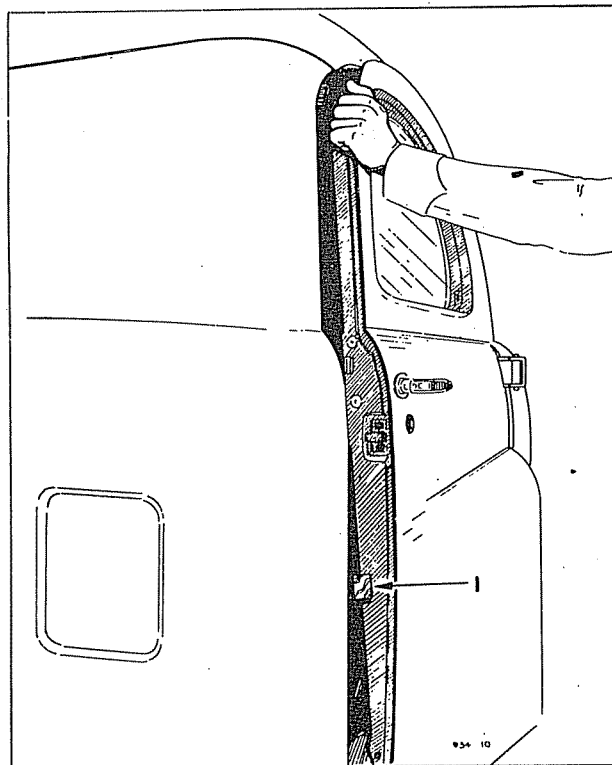


Fig. 6.—Correcting Warped Door by Use of Wood Block.

1. Block of Wood

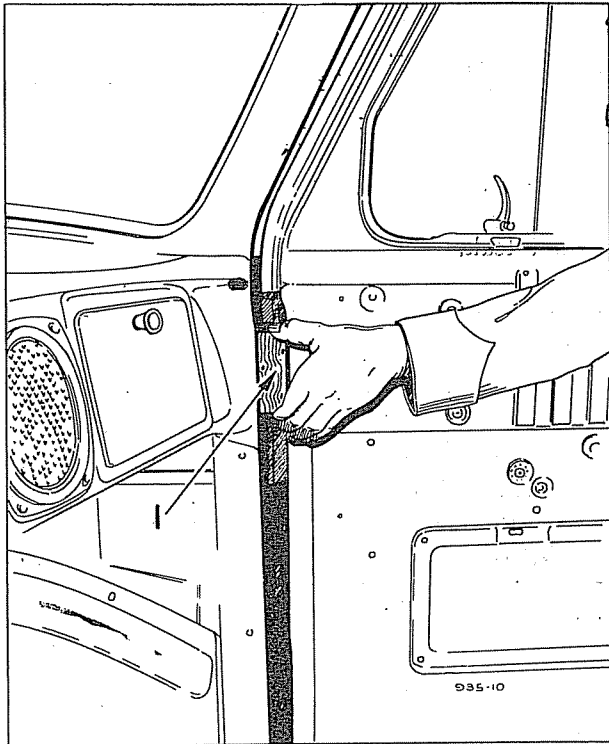


Fig. 7.—Moving Door Down and Closer to Latch Post
(Typical View)

1. Block of Wood

To move the lock side of the door down put a block of wood (Figure 7) between the open halves of the upper hinge and press the door towards the closed position sufficiently to slightly spring the hinge. Try the door without the block and repeat if necessary.

To move the lock side of a door up, spring the lower hinge in the same way. This also moves the door nearer the lock pillar.

To move the door closer to the hinge pillar, spring the hinges in the opposite direction.

Always tighten hinge screws after carrying out adjustments to doors.

13. WATER LEAKS.

Water leaks at doors are caused by improperly fitted or located weatherstrips. The weatherstrips should fit tightly when the door is closed. The weatherstrip is held to the door by means of rubber cement and fasteners driven into holes provided in the door inner panel.

14. COWL VENTILATOR.

The cowl ventilator lid should fit tightly around the rubber seals on the top sides, slotted holes are provided in the ventilator lid where it is mounted on the hinge. The hinge is mounted on a bracket with slotted holes. The lid may be moved up or down, forward or back, as required, to fit the opening in the cowl.

15. REMOVAL AND ADJUSTMENT OF FENDER AND RADIATOR ASSEMBLY.

- (1) Remove the hood and centre panel.
- (2) Drain water from the radiator.
- (3) Disconnect wiring at junction box.
- (4) Disconnect inlet and outlet radiator hoses.
- (5) Disconnect the fenders at rear and remove the radiator support bolts.
- (6) Remove fender and radiator as an assembly as shown in Figure 8.

To instal, reverse the foregoing operations. Do not tighten the attaching bolts securely until the hood has been properly aligned.

ADJUSTMENTS.

The fender housing and front end sheet metal as an assembly are completely adjustable for alignment. The radiator support and rear fender brackets are movable in all directions. Since the mounting holes for radiator support studs are elongated, the front end sheet metal and fender housing can be moved to obtain a proper fit between the cab doors, cowl, and hood and cowl.

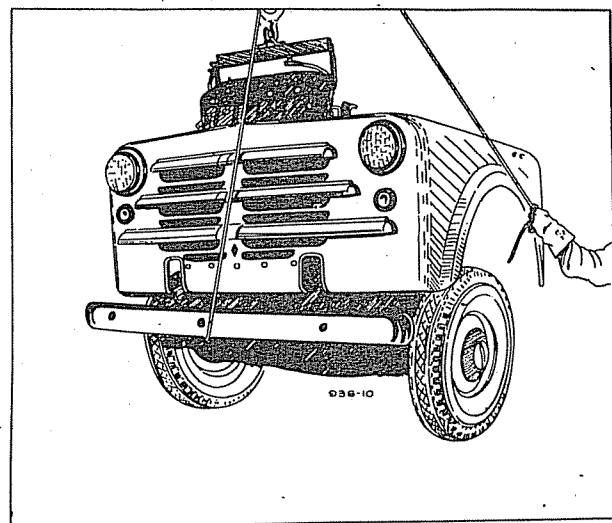


Fig. 8.—Removing Fender and Radiator Assembly.

16. SEAT ADJUSTMENTS.

Seat adjustments are provided for maximum comfort. The seat may be moved backwards or forward by lifting up the front seat and sliding to the desired position. Dowels are located on the underside of the seat frame and fit into dowel holes situated in the front seat support cross strainer. Three positions are provided.

17. CAB MOUNTINGS.

The cab is mounted on rubber insulators. If the necessity arises to remove the cab from the mountings, take particular notice of sequence of the parts that make up the mounting, as they are disassembled. This is important as the various parts have been designed to eliminate annoying rattles.

The alingment of the cab can be changed whenever necessary by adding or removing spacer washers between the insulator and cab floor. It is essential that the mounting bolt nuts be securely tightened and checked at regular intervals.

18. CLEANING LEATHER TRIM.

If the leather upholstery becomes soiled in any manner, its original lustre may be restored by rubbing the surface with a cloth moistened in clean water, using ordinary laundry soap.

Next apply a cloth that has been moistened in clean water only and finish by rubbing dry with a clean soft cloth. The friction produced by the dry cloth used will restore the surface to its original brilliancy.

Do Not apply cleaning fluid of any nature to this type of trim material or immediate deterioration will result.

19. CARE OF BODY FINISH.

In order to assist in preserving the lacquer finish on your vehicle, it is essential that regular washing, polishing and inspection should be carried out if the lacquer is to endure and retain its full lustre and beauty.

To maintain the original appearance of the lacquer, the following points should be observed and closely watched.

- (1) Your vehicle should be housed or garaged whenever possible when not in use.

The lacquer gives a high degree of protection against the weather, but it should be realised that wear and deterioration of the finish occurs when the vehicle is exposed to the elements for prolonged periods. The combination of sun, wind and rain causes the lacquer film to become dull and collect dirt and grime, and if the vehicle is exposed to the weather permanently without attention the lacquer finish would lose its beauty.

- (2) Regular washing.

Wash the vehicle regularly, preferably with running water, making sure that all surface dirt, grit, tar or other foreign matter is removed. Always use clean chamois leather sponges or rags which are free from dirt and grit which is likely to scratch the surface. Always remove as soon as possible any foreign matter likely to stain the finish, for example, tar, bird droppings, etc. Tar or bitumen stains may be removed with petrol.

- (3) Polishing.

MOPAR super glaze and MOPAR automobile polish are recommended. These polishes have the correct degree of abrasive properties and are adjusted to render them non-injurious to the lacquer whilst effectively performing its required function by removing "traffic film", grease and dirt, and developing a high lustre.

After washing and drying off the vehicle apply MOPAR super glaze and MOPAR automobile polish, according to the directions on the container.

- (4) Inspection.

Regular inspection of the vehicle should be made for scratch marks, cracks, damaged areas or rusting, which may have developed in the lacquer finish. Any deep scratches, cracks, or breakdown in the lacquer finish should be repaired without delay. Care should be taken to ensure that any rusting is counteracted immediately, otherwise rust creeps from damaged areas may occur and result in extensive breakdown of the paint film, or in extreme cases, the whole of the finish and destruction of the metal. This applies particularly to sub-tropical areas or coastal districts where the moist or salt laden atmosphere accelerates rusting if allowed to develop through neglect.

20. ALIGNMENT.

Any condition of misalignment which may develop will, in a majority of instances be visible only in the body or noticeable on the road, since the front and rear wheels may not follow in the same track. This can result from a broken spring, bent axle or spring hanger and can be corrected by replacing the affected parts.

Misalignment of the body itself can be isolated by comparing diagonal dimensions taken from the interior of the body at different heights and different angles.

Measurements, diagonal or otherwise, taken at any side of the body, should compare with the opposite side or comparable diagonal dimension.

Once the misalignment is located it may be necessary to straighten a bent brace or body pillar. In extreme cases it may be necessary to remove the affected part, straighten, and then gas weld back into place. Be sure the body is correctly aligned before welding the affected part or parts into position. In some cases it may be economical to replace the affected part with a new one. This will depend upon the nature of the damage that must be repaired.

Slight body misalignment indicated by poor door fits can usually be corrected by shimming the body at the body mountings.

Careful and thorough analysis of each individual case of body misalignment will help speed adjustment with a minimum of labour.

21. REPAIRING BODY PANELS.

It is seldom necessary to replace a body panel. With proper equipment an experienced body man may repair the affected part more economically than by replacing the whole panel. However, if the occasion does arise to replace an entire panel, these are available through Chrysler Australia Limited's MOPAR distributors and dealers.

22. RESHAPING AND WELDING.

Dent knocking and sheet metal welding should be performed by experienced operators using special tools and equipment found in good body repair shops. Since each individual job of body and sheet metal repair requires a different method of procedure no reference is made to this phase of body maintenance.

If welding or dent knocking is necessary on sheet metal lined with sound deadener remove the felt pads before proceeding with the work.

Re-install them after the job has been completed by cementing them to the interior of the body panel.

23. WELDING SUGGESTIONS.

- (1) The metal surfaces to be welded must be free from all grease, paint, rust or other impurities. It is advisable to polish the metal to be welded with a polishing wheel or wire wool to ensure a clean surface.
- (2) Pack wet asbestos around the area to be welded to protect painted parts in the region of the repair and to prevent the metal from buckling due to expansion.
- (3) Remove trim parts adjacent to the area to be welded before starting the welding operation.
- (4) Use the correct nozzle on the welding torch. A nozzle too large will cause blow holes and excessive heat will tend to buckle the panel.
- (5) When welding metal that has been tinned for soldering, first remove all trace of the solder by burning with a torch and scraping with a wire brush. It will be necessary to heat the metal to a cherry red to ensure complete oxidation of the solder film.
- (6) Eliminate unnecessary smoothing of welded part by being careful not to pile up welding rod.

- (7) In smoothing up, it is advisable to hammer the weld down into a "V" shape and flow solder into the depression rather than weaken the joint by filing.
- (8) To break a spot weld, drill a hole in the centre of the weld approximately $\frac{3}{8}$ inch diameter, and pry the two pieces of metal apart with a cold chisel.

24. TORCH SOLDERING.

Before sheet metal can be soldered, it must be tinned. In order to tin welded, painted, or corroded surfaces, a polishing wheel should be used to cut down to the original metal. It is important that the area to be tinned be thoroughly cleaned.

Then the solder flux may be applied. Molten solder should next be wiped over the surface with a cloth, at the same time heating the sheet metal with a torch, as the operation is being carried out. Then apply sufficient solder to fill the depression, playing the torch on the solder to keep it in a molten state. Smooth the solder to compare with the contour of the body panel with a hardwood paddle, lubricate with tallow, beeswax, paraffin wax, etc.

CAUTION.

Remember solder does not add strength to the body panel, but merely acts as a filler to form a smooth base for the application of paint. All soldering flux must be removed from the area of repair before finishing. Be sure to wash the surface to be refinished, after soldering with a solution of bicarbonate of soda and water to neutralise any acids which may be present on the surface of the metal.

25. TESTING FOR WATER LEAKS.

When checking a cab for water leaks, it is advisable to start with the cowl ventilator lid. Then spray the water on the windshield wiper pivot, the windshield and then the rest of the cab. Start at the bottom and work the stream of water upwards. If this procedure is reversed by starting at the top of the cab, and working the stream of water downwards, it will be difficult to isolate a leak.

Also, water test a small section of the cab at a time. Never play a strong force of water directly on the cab because under such conditions a cab that is perfectly sealed may leak.



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