

Chapter 9

Clutch

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Specifications

Type	Single dry plate
Operation	Hydraulic, self adjusting
Pressure plate spring	Diaphragm
Release bearing	Ball thrust type prelubricated and sealed
Fluid type	Dot 3 brake fluid
Driven plate:	
Maximum runout	0.8 mm
Wear limit	0.3 mm
Pressure plate:	
Maximum runout	0.5 mm
Finger wear —	
Maximum depth	0.6 mm
Maximum width	5.0 mm
Maximum flywheel runout	0.1 mm
Clutch pedal:	
Height	213 – 223 mm
Free travel	5 – 15 mm
Pushrod freeplay	1 – 5 mm

TORQUE WRENCH SETTINGS

Clutch housing to engine bolts	72 Nm
Clutch housing to transmission bolts	36 Nm
Flywheel to crankshaft	85 Nm
Hydraulic pipe unions	15 Nm
Master cylinder:	
Damper valve	47 Nm
Mounting nuts	12 Nm
Pressure plate retaining bolts	19 Nm
Release lever pivot bolt	47 Nm
Slave cylinder:	
Mounting bolts	13 Nm
Bleeder valve	8 Nm
Starter motor retaining bolts	39 Nm

Description

The clutch consists of a single dry driven plate assembly, splined to slide on the transmission input shaft, and a diaphragm type pressure plate assembly which is bolted to the engine flywheel.

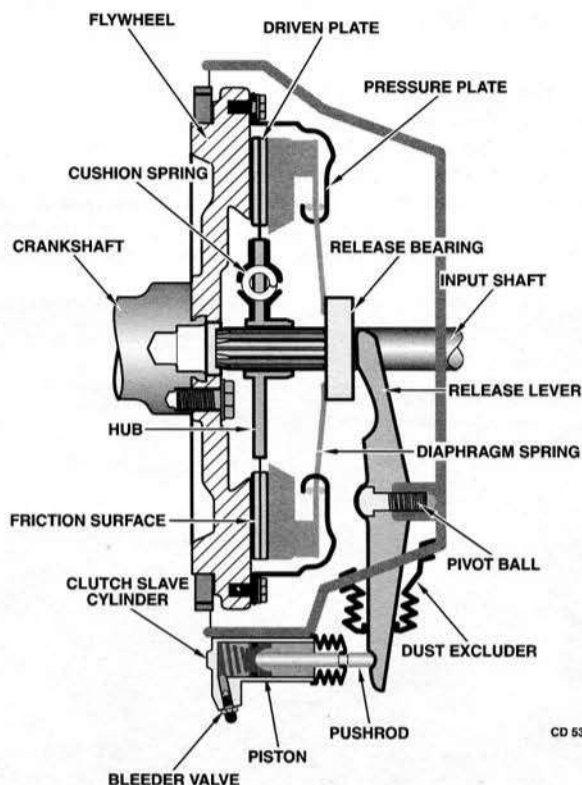
The driven plate is clamped between the pressure plate and the flywheel and transmits the drive from the engine to the transmission.

Cushion springs are positioned between the hub of the driven plate assembly and the plate facings, to cushion the driving force.

If the clutch driven plate or the pressure plate is worn, it is recommended that the driven plate, pressure plate and release bearing are renewed as a unit to ensure a long service life.

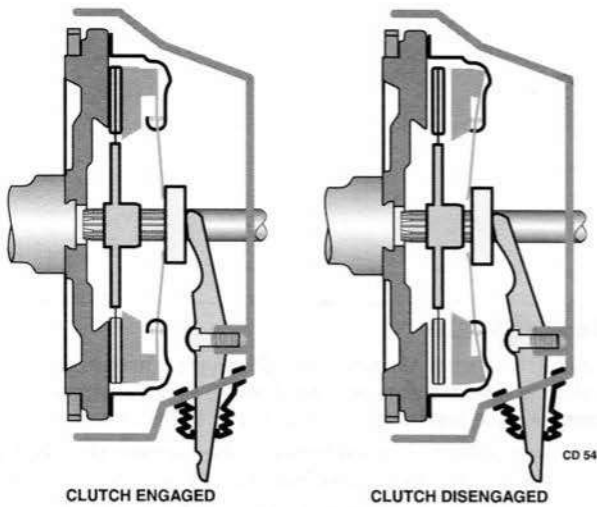
The release mechanism is activated hydraulically by the clutch pedal via a clutch master cylinder and slave cylinder. The release mechanism consists of the release bearing, release lever and the diaphragm spring in the pressure plate assembly.

Operation of the clutch pedal moves the release lever, which pushes the release bearing and the centre of the diaphragm towards the transmission. When the diaphragm deflects, the pressure is relieved from the driven plate, and the clutch disengages.



Cross-sectional view of clutch components.

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The slave cylinder piston is spring loaded towards the release lever, which keeps the pushrod in constant contact with the release lever, allowing the slave cylinder a self adjusting capability. As the driven plate wears, the slave cylinder piston repositions itself, thus keeping the clutch pedal engagement height consistent.

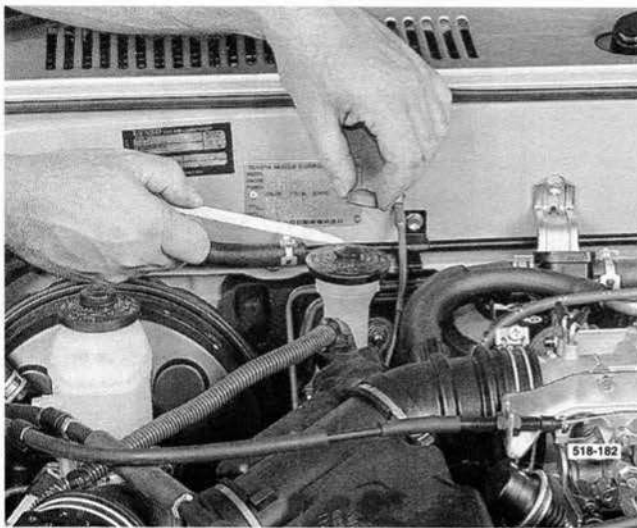
A damper valve is installed to the master cylinder to provide smooth clutch operation.

Pedal free travel and height is adjusted at the pedal stop bolt and the master cylinder pushrod.

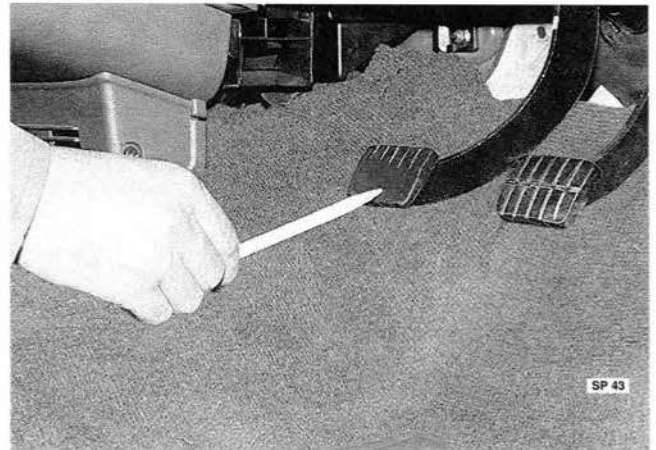
Routine Maintenance

TO CHECK CLUTCH FLUID

The clutch fluid level should be checked regularly ensuring that the level is between the Min and Max marks on the side of the reservoir. If the level is low, clean any dirt around the cap. Remove the cap and top up the reservoir with the specified type of fluid. If the clutch fluid is very low, check for any signs of fluid leakage from the clutch master cylinder, slave cylinder, pipes and fittings.



Clutch master cylinder location.



The clutch pedal pad should be regularly inspected for splitting and other signs of wear.

TO RENEW CLUTCH FLUID

The clutch fluid should be renewed at regular intervals and it is suggested that it is done when renewing the brake fluid. Renewing the clutch fluid follows the same basic procedure as bleeding the clutch fluid so refer to the relevant heading later in this chapter, with attention to the following points:

- 1 Before commencing to change the fluid, withdraw as much old fluid as possible from the clutch master cylinder using a syringe.
- 2 Continue bleeding until a constant stream of new fluid, without any air bubbles is being discharged from the slave cylinder.

LUBRICATION

There are no items which require regular lubrication. Lubrication of the release lever, pressure plate fingers and input shaft splines is only necessary during clutch overhaul.

PEDAL PAD

The clutch pedal pad should be regularly inspected for splitting and other signs of wear. The pedal pad should be renewed if split or the tread is worn.

Trouble Shooting

CLUTCH SLIPPING

- 1 Insufficient clutch pedal free travel: Check and adjust the free travel.
- 2 Worn driven plate facings: Check and renew the clutch driven plate.
- 3 Weak or broken pressure plate diaphragm spring: Check and renew the pressure plate assembly.
- 4 Faulty master or slave cylinder: Check and overhaul as necessary.
- 5 Worn, scored or distorted pressure plate face or flywheel: Check and renew components as necessary.
- 6 Oil on the driven plate facings: Check and renew the clutch driven plate. Rectify the oil leak.
- 7 Worn release bearing guide: Renew the release bearing guide in the front of the transmission.



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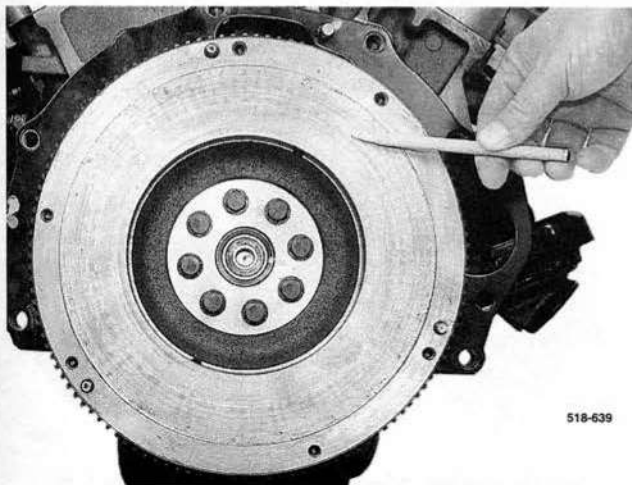
Renew the driven plate, if the friction material is worn to within 0.3mm.

TIP Usually clutch slippage is first indicated by a marked increase in engine speed, for no apparent reason, when driving up a steep hill.

The clutch condition can be positively identified as follows: With the handbrake firmly applied and the wheels chocked, place the transmission in top gear. With the engine speed at approximately 1 500 rpm, slowly release the clutch pedal. Clutch slippage is evident if the engine does not stall. Perform the test as quickly as possible to prevent any further clutch damage. Ensure that the clutch pedal free travel is correct prior to performing this test.

CLUTCH SHUDDER

- 1 Oil on the driven plate facings: Check and renew the clutch driven plate. Rectify the oil leak.
- 2 Scored pressure plate or flywheel face: Renew the pressure plate assembly and machine or renew the flywheel.
- 3 Loose or damaged engine mountings: Check and renew the engine mountings as necessary.



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Check the flywheel for scoring, cracks and heat spots.

- 4 Loose or damaged driven plate hub: Check and renew the clutch driven plate.
- 5 Loose driven plate facings: Renew the clutch driven plate.
- 6 Cracked pressure plate face: Renew the clutch pressure plate assembly.



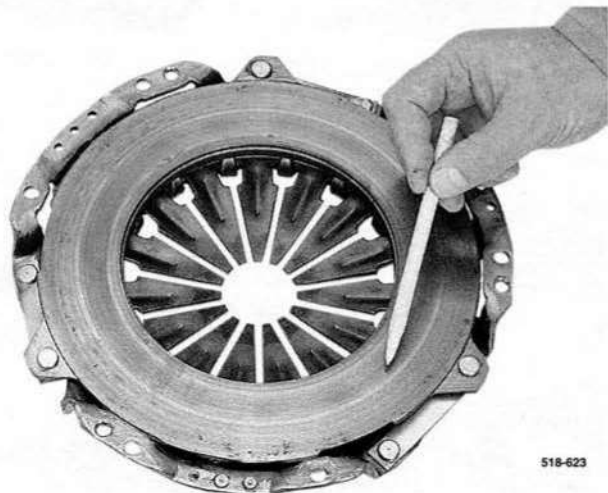
Clutch shudder is usually most evident when reversing up an incline. As loose or damaged engine mountings can cause clutch shudder, thoroughly check the engine mounting rubbers and mounting hardware for damage or looseness before removing the clutch for inspection.

CLUTCH GRAB

- 1 Gummy driven plate facings: Renew the clutch driven plate.
- 2 Cracked pressure plate face: Renew the clutch pressure plate assembly.
- 3 Loose or damaged engine mountings: Check and renew the engine mountings as necessary.
- 4 Clutch slave or master cylinder piston sticking: Check and overhaul the slave and or master cylinder.
- 5 Worn release bearing guide: Renew the release bearing guide.

INSUFFICIENT CLUTCH RELEASE

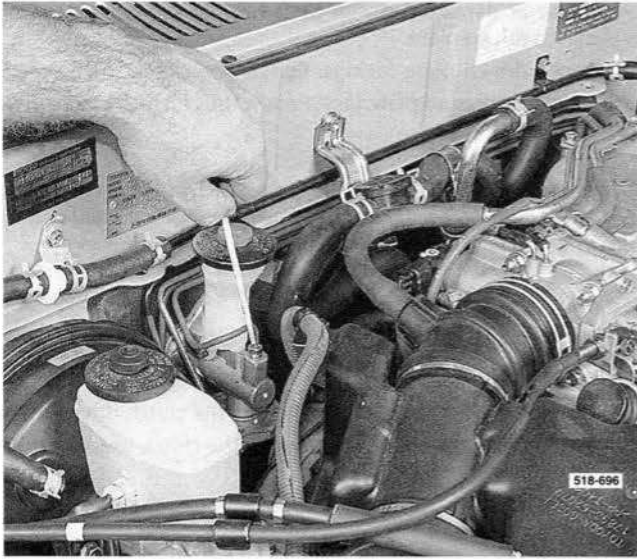
- 1 Broken diaphragm spring in pressure plate: Renew the pressure plate.
- 2 Low fluid level in the master cylinder reservoir: Replenish the fluid in the master cylinder and bleed the system. Check the hydraulic system for leaks.
- 3 Air in the hydraulic system: Check the hydraulic system for leaks and bleed the system.
- 4 Blocked clutch master cylinder breather hole: Remove the cover and clean the breather hole.
- 5 Clutch slave cylinder piston sticking: Check and overhaul the slave cylinder.
- 6 Leaking master cylinder or slave cylinder piston seals: Overhaul the master cylinder or slave cylinder as necessary.
- 7 Faulty clutch release lever: Check and renew the release lever.
- 8 Clutch driven plate distorted: Renew the clutch driven plate.



518-623

Check the pressure plate face for scoring, cracks and wear.

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Check the clutch hydraulic system for fluid leaks, starting with the clutch master cylinder.

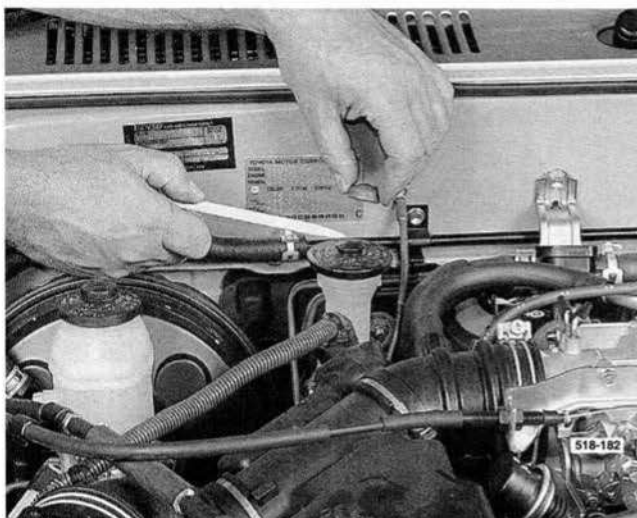
- 9 Driven plate hub tight on the input shaft splines: Check and renew the driven plate or the input shaft.
- 10 Worn release bearing guide: Renew the release bearing guide.



In most cases failure of the clutch to disengage is due to a broken diaphragm spring in the pressure plate or air in the hydraulic system. Check the floor covering under the clutch pedal for signs of fluid leaks. Bleed the hydraulic system and inspect the external operation of the release lever before removing the clutch for inspection.

RELEASE BEARING NOISE

- 1 Dry or worn release bearing: Check and renew the release bearing.
- 2 Damaged pressure plate diaphragm spring: Check and renew the clutch pressure plate assembly.



Check the reservoir cap breather hole for restrictions when topping up the master cylinder.



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Spin the clutch release bearing to check for noisy operation.



Lightly depress the clutch pedal with the engine running to check for release bearing noise. If the release bearing is faulty and has to be renewed, always check the other clutch components.

If the noise is evident only when the clutch pedal is depressed with a gear engaged, a dry or faulty crankshaft spigot bearing is indicated.

Clutch Unit and Release Bearing

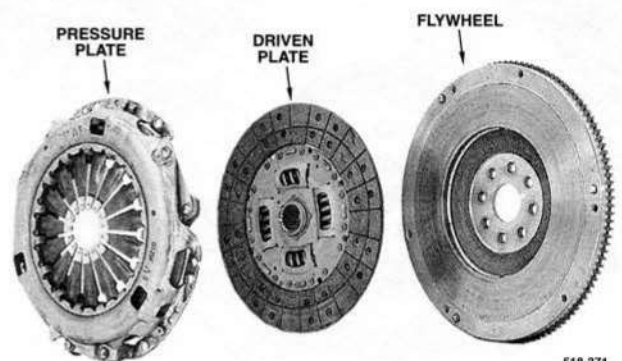


To Install Clutch Unit — Clutch aligning tool

To Renew Spigot Bearing — Puller or slide hammer

TO REMOVE AND DISMANTLE

- 1 Disconnect the negative battery terminal.
- 2 Raise the front and rear of the vehicle and support on chassis stands. Refer to General Information (chapter 1) for the positions of the jacking points.
- 3 Remove the propeller shafts and the transmission assembly as described in Manual Transmission (chapter 10).
- 4 If the pressure plate is to be reused, suitably mark the position of the pressure plate in relation to the flywheel with quick drying paint.



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Clutch pressure plate, driven plate and the flywheel. Note the installed direction of the driven plate.

- 5 Remove the bolts retaining the pressure plate to the flywheel, loosening them evenly to avoid distortion of the pressure plate cover. Withdraw the pressure plate assembly with the clutch driven plate, noting the installed position of the driven plate.
- 6 Remove the dust boot and slide the release lever from the pivot bolt and withdraw the release lever and release bearing assembly from the clutch housing.
- 7 Depress the tabs retaining the release bearing carrier to the release lever lugs and separate the release bearing and carrier assembly from the release lever.

TO CHECK AND INSPECT

i If the clutch has done considerable work, it is recommended that a clutch kit is installed to ensure a long working life for the clutch mechanism. A clutch repair kit normally contains a new pressure plate, driven plate and release bearing.

- 1 Clean the inside of the transmission housing and the release fork using rags and a suitable solvent. Do not immerse the release bearing in solvent.
- 2 Clean the flywheel and pressure plate friction surfaces with methylated spirits
- 3 Check that the driven plate facings are not cracked, glazed or contaminated with oil.
- 4 If the driven plate facings are worn down to the rivets, check the flywheel and pressure plate facings for scoring.

TIP On high mileage vehicles, it is recommended that the flywheel be machined, regardless of its condition to ensure smooth operation and extended service life of the replacement clutch assembly.

- 5 Check the hub of the driven plate for looseness and the cushion springs for wear or breakage.
- 6 Check the pressure plate and flywheel for high spots, glazing, scoring and cracking. If the flywheel is badly scored,

renew the flywheel. Light glazing can be removed with emery paper

- 7 Check the diaphragm spring for bent, cracked, worn or fatigued fingers. Check the surface where the release bearing engages the spring. If the wear exceeds Specifications, renew the pressure plate.

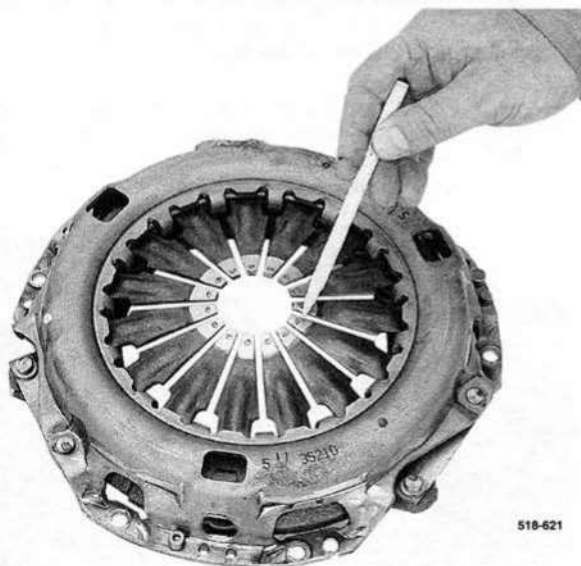
i A cracked diaphragm spring is usually apparent when the height of the diaphragm fingers is uneven.

- 8 Check that the spigot bearing in the end of the crankshaft is in a serviceable condition. If necessary, renew the bearing as described in Engine (chapter 4).
 - 9 Check the release bearing for noise or roughness. Do not immerse the release bearing in cleaning fluid or solvent. The bearing is lubricated when manufactured and requires no further lubrication in service.
- Inspect the release lever and the pivot for cracks and wear. Renew all unserviceable parts.

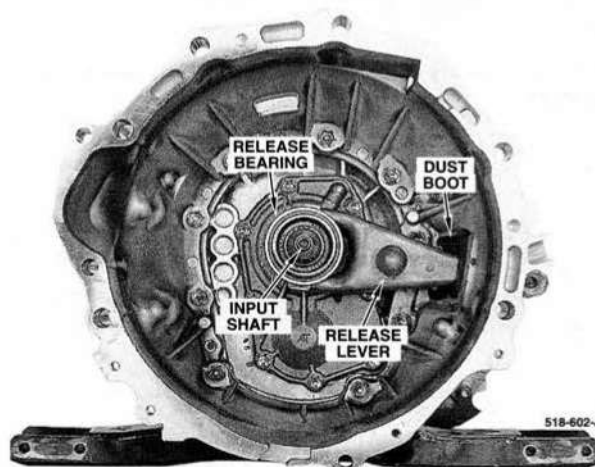
TO ASSEMBLE AND INSTALL

Assembly and installation is a reversal of the removal procedure with attention to the following points:

- 1 Lubricate the release lever pivot, clutch slave cylinder pushrod mating face, release lever to release bearing face, bearing retainer and the inside of the release bearing guide with suitable high melting point grease.
- 2 Install the release bearing to the release lever ensuring that the spring clip is correctly installed.
- 3 Install the release lever and bearing assembly to the transmission. Position the lever over the pivot and press the lever firmly until the retaining clip is locked over the head of the pivot. Check the release lever and bearing for free smooth operation.
- 4 Install the dust boot to the clutch housing.
- 5 Clean the flywheel and pressure plate friction surfaces with methylated spirits.
- 6 Apply a small amount of high melting point grease to the input shaft splines. If a new driven plate is to be installed, slide the driven plate onto the input shaft to test its ease of movement.

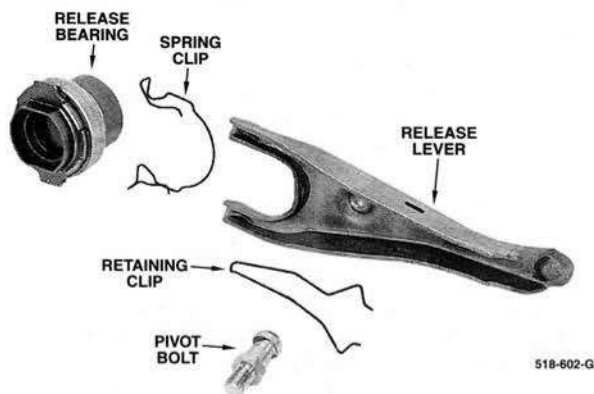


Check the pressure plate fingers for scoring, uneven height or excessive wear.



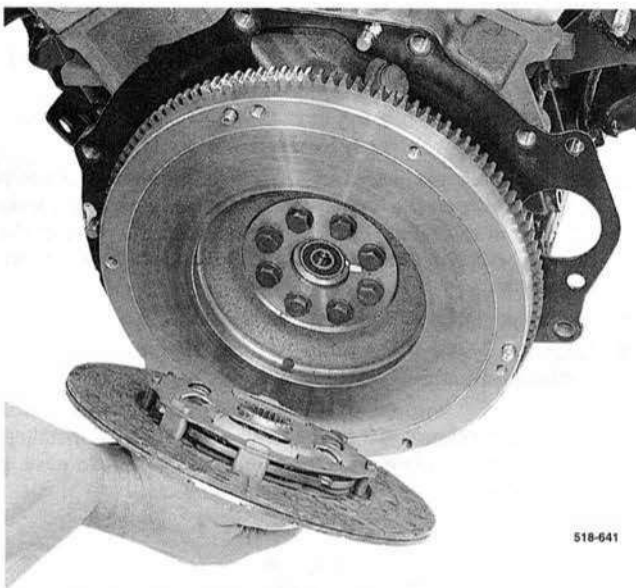
Clutch release components installed.

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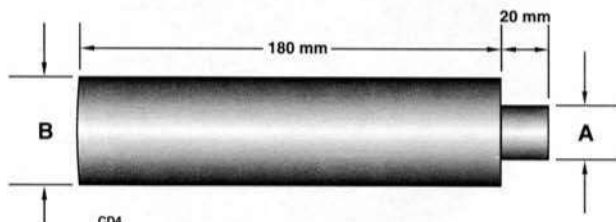
**Clutch release components removed from the clutch housing.**

- 7 Position the clutch driven plate onto the flywheel with the raised spring housing towards the flywheel.

i Some driven plates may be marked "CC SIDE" on the plate. If this marking is visible, it must face towards the pressure plate.



The spring housing of the driven plate must face towards the flywheel.



A clutch aligning tool can be fabricated from a length of round section wood or metal. Dimension A is the diameter of transmission input shaft spigot. Dimension B is the inside diameter of driven plate hub.

- 8 Install the pressure plate to the flywheel. If the original pressure plate is being installed, ensure that the mating marks are aligned.
- 9 Using a clutch aligning tool, align the centre of the driven plate with the spigot bearing in the rear of the crankshaft.
- 10 Tighten the pressure plate retaining bolts evenly and progressively to the specified torque. Withdraw the aligning tool.
- 11 Install the transmission assembly and the propeller shafts as described in Manual Transmission (chapter 10).
- 12 Check and if necessary, adjust the clutch pedal height and free travel as described under the Clutch Pedal heading in this chapter.

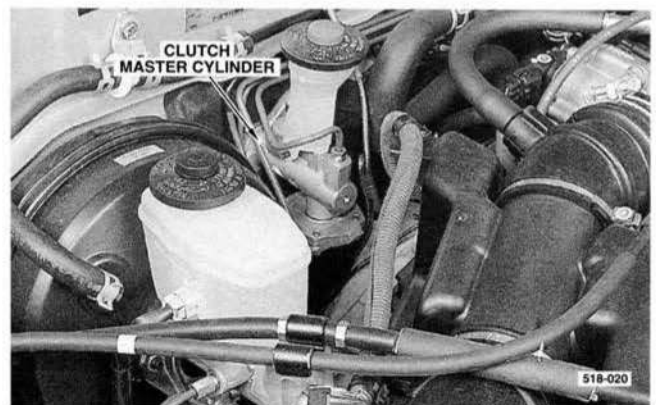
Master Cylinder

TO REMOVE AND INSTALL

- 1 Working under the steering column, remove the lower dash panel as follows:
 - a Remove the screws retaining the bonnet and fuel filler door remote handles. Push the handles toward the front of the vehicle, to release the hooks, and manoeuvre the handles from the lower dash panel.
 - b Remove the bolt and screw retaining the lower dash panel.
 - c Partially remove the panel, disconnect the wiring connectors and withdraw the panel from the dashboard.
- 2 Release the air duct from the fittings, by pulling the ends of the duct firmly downward. Withdraw the duct from under the dashboard.
- 3 Remove the spring clip retaining the clevis pin. Withdraw the wave washer and the pin from the clevis.
- 4 Place protective covers on the right hand front mudguard. Disconnect the hydraulic pipe from the master cylinder. Plug the end of the pipe to prevent the entry of dirt and the loss of fluid.
- 5 Remove the master cylinder retaining nuts and withdraw the master cylinder and reservoir as an assembly from the vehicle, ensuring that hydraulic fluid is not spilled on any painted surface. Discard the gasket.



If clutch fluid is spilt on the paintwork, wash the area immediately with clean water and allow to dry naturally. Do not wipe the area with a cloth. Ensure that no water enters the hydraulic pipe.



Clutch master cylinder location.

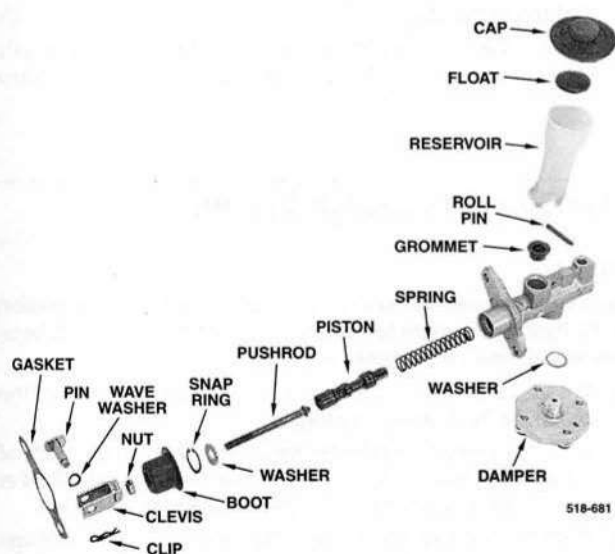
Installation is a reversal of the removal procedure with attention to the following points:

- 1 Fill the master cylinder reservoir with clean brake fluid and pump the piston until fluid emerges from the pipe aperture in the master cylinder body prior to installation.
- 2 Renew the gasket and tighten the mounting nuts to the specified torque.
- 3 Bleed the hydraulic system as described later in this section.
- 4 Check and if necessary, adjust the clutch pedal height and free travel as described under the Clutch Pedal heading in this chapter.
- 5 Road test the vehicle and check for correct clutch operation.

TO DISMANTLE

If the master cylinder is worn or leaking it is often more economically viable to install a new or exchange cylinder rather than recondition the old one. Check the price difference before proceeding.

- 1 With the master cylinder removed as previously described, drain and discard the fluid from the master cylinder reservoir.
- 2 Remove the roll pin and separate the reservoir from the master cylinder. Discard the sealing grommet.
- 3 Fold back the rubber boot and slide it along the master cylinder pushrod.
- 4 Depress the pushrod and remove the snap ring from the end of the master cylinder. Withdraw the pushrod, washer and the rubber boot from the master cylinder.
- 5 Tap the end of the cylinder on a piece of timber and remove the piston assembly from the master cylinder bore. Alternatively, low air pressure may be carefully applied to the hydraulic pipe aperture, using a wad of cloth to cover the end of the bore in case the piston ejects with force.
- 6 If necessary, suitably mark the installed position of the nut and the clevis and remove them from the pushrod. Withdraw the boot and the washer from the pushrod.
- 7 If necessary, remove the damper from the master cylinder, by turning the damper in an anticlockwise direction. Discard the sealing washer.



Clutch master cylinder dismantled.



The damper should not be further dismantled, as it is only available as an assembly.

TO CLEAN AND INSPECT

- 1 Thoroughly clean the master cylinder components and the inside of the cylinder with methylated spirits. Do not use petrol or other mineral spirits. Dry the components with compressed air if available.
- 2 Inspect the cylinder bore for pitting, scoring, damage or wear. Renew the master cylinder assembly if necessary.



Do not hone the master cylinder. If the bore is pitted or worn, renew the master cylinder as an assembly.

- 3 Inspect the piston assembly for wear, corrosion and scoring and the return spring for breakage and loss of tension, paying particular attention to the seals.
- 4 Check the pushrod and dust boot for wear and damage. Clean any sediment which may have accumulated in the bottom of the reservoir.
- 5 Check the roll pin for wear and renew if necessary.

TO ASSEMBLE



Where possible, always use a genuine repair kit which contains preassembled seals and piston. The use of a genuine kit will ensure a thorough overhaul, and long service from the unit.

Assembly is a reversal of the dismantling procedure with attention to the following points:

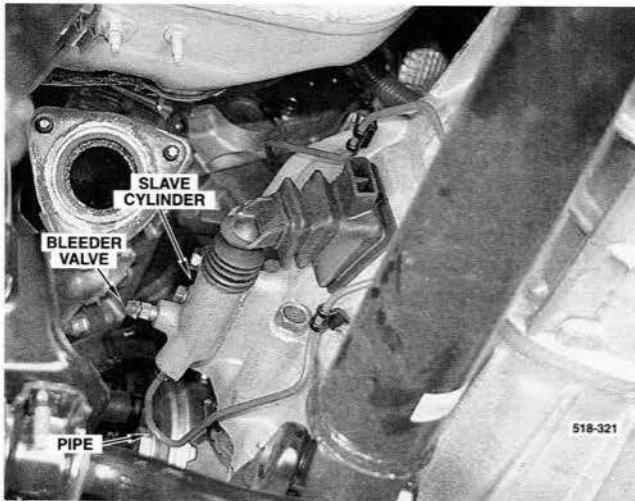
- 1 If dismantled, install the washer and the boot to the pushrod. Install the nut and the clevis in the position noted during removal.
- 2 Lightly smear the piston and seal contact surfaces with rubber grease or dip the assembly in clean brake fluid. Ensure that the seals are installed with the lip facing towards the return spring.
- 3 Install the piston and spring assembly to the cylinder bore, install the pushrod, securing it with a new snap ring.
- 4 Install the rubber boot onto the cylinder.
- 5 Install the reservoir sealing grommet to the master cylinder.
- 6 Install the reservoir to the master cylinder and install the roll pin until the pin protrudes at least 1.5 mm each side of the reservoir mounting lugs.
- 7 If removed, install the damper, using a new sealing washer and tighten the damper to the specified torque.
- 8 Using a new gasket, install the master cylinder to the vehicle as previously described.

Slave Cylinder

TO REMOVE AND INSTALL

- 1 Raise the front of the vehicle and support on chassis stands. Refer to General Information (chapter 1) for the positions of the jacking points.
- 2 Place a suitable container beneath the slave cylinder.

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Clutch slave cylinder installed.

- 3 Disconnect the hydraulic pipe from the slave cylinder. Seal the pipe to prevent the entry of dirt and the loss of fluid.
- 4 While holding the cylinder, remove the retaining bolts and withdraw the slave cylinder from the vehicle.

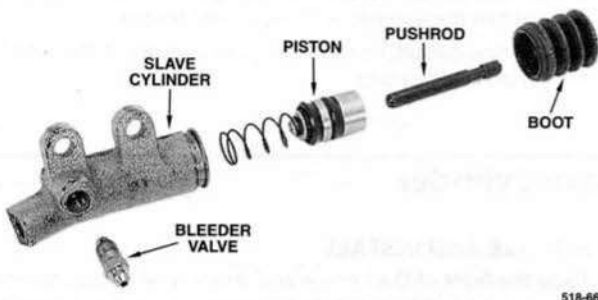
Installation is a reversal of the removal procedure with attention to the following points:

- 1 Ensure that the pushrod engages the release lever correctly.
- 2 Tighten the hydraulic pipe securely. Tighten the slave cylinder retaining bolts to the specified torque.
- 3 Bleed the hydraulic system as described later in this chapter.
- 4 Road test the vehicle and check for correct clutch operation.

TO DISMANTLE

If the slave cylinder is worn or leaking it is often more economically viable to install a new or exchange cylinder rather than recondition the old one. Check the price difference before proceeding.

- 1 With the slave cylinder removed as previously described, remove the rubber boot and pushrod from the end of the cylinder.
- 2 Remove the piston and spring from the slave cylinder bore by tapping the end of the cylinder on a piece of timber. Alternatively, low air pressure may be carefully applied to the hydraulic pipe aperture, using a wad of cloth to cover the end of the bore in case the piston ejects with force.
- 3 Remove the bleeder valve from the cylinder body.



Clutch slave cylinder dismantled.

- 4 If required, remove the spring and dismantle the piston assembly, noting the installed position and direction of the rubber seals.

TO CLEAN AND INSPECT

- 1 Thoroughly clean the slave cylinder components and the cylinder bore with methylated spirits. Do not use petrol or other mineral spirits.
- 2 Inspect the cylinder bore for pitting, scoring, damage or wear. Renew the cylinder if necessary.
- 3 Inspect the piston for wear and the spring for breakage and loss of tension. Renew as necessary.



If the condition of the seals or the piston is suspect, it is advisable to install a genuine repair kit which contains a preassembled piston and other components necessary to perform a thorough overhaul and ensure long service from the unit.

- 4 Inspect the bleeder valve for blockage. Clear or renew as necessary.

TO ASSEMBLE

If the seals have been removed, ensure that the new seals are installed with the seal lips towards the spring end of the piston.

- 1 If the piston assembly was dismantled, lightly smear the piston and seals with rubber grease or brake fluid and assemble the components in the direction and position, as noted during dismantling. Install the spring to the piston assembly.
- 2 Dip the assembly in clean brake fluid and install the piston to the cylinder bore, ensuring that the lip of the seals are not turned back on installation. Push the piston fully into the cylinder.
- 3 Install the pushrod and the boot to the cylinder, ensuring that the end of the boot is located correctly in the slave cylinder groove.
- 4 Install the bleeder valve to the cylinder body, but do not tighten at this stage.
- 5 Install the slave cylinder to the vehicle as previously described and bleed the hydraulic system as described under the following heading.

Bleeding the Clutch System**TO BLEED**

Bleeding the hydraulic system is necessary when some portion of the hydraulic system has been disconnected or fluid has been drained, allowing air to enter the system.

- 1 Where applicable, drain the master cylinder reservoir of the old brake fluid, using a syringe.
- 2 Refill the master cylinder reservoir with the correct grade of clean brake fluid. Ensure that the fluid level is maintained at least three quarters full throughout the entire operation.
- 3 If fitted, remove the rubber cap from the slave cylinder bleeder valve and attach a transparent hose to the valve.



Bleeding the clutch hydraulic system.

Immerse the other end of the hose in a small glass container partially filled with clean brake fluid.



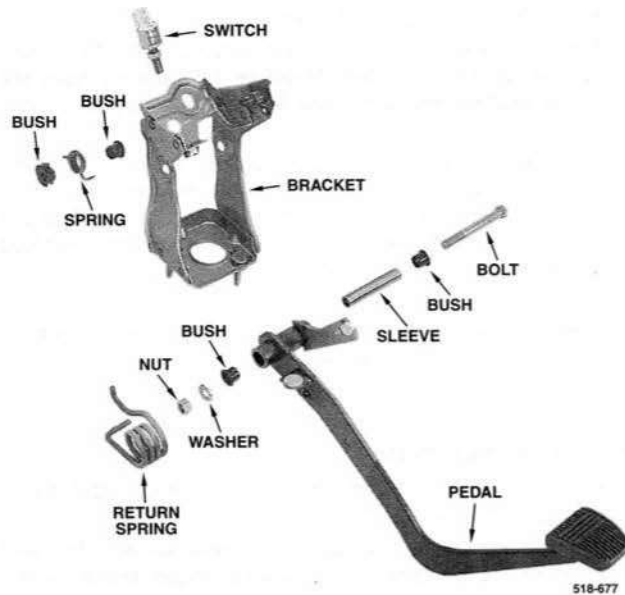
If desired a one person bleeding kit may be used. These kits usually consist of a transparent tube with a one way ball valve. With a one person bleeding kit, it is not necessary to close the bleeder valve after each pedal stroke, however follow the kit manufacturers instructions.

- 4 Have an assistant slowly pump the clutch pedal several times and then hold the pedal to the floor.
- 5 Open the bleeder valve and allow the fluid and air to flow into the container. Close the bleeder valve when all the fluid and air stops flowing from the hose.
- 6 Repeat this procedure until a constant stream of new brake fluid, without any air bubbles, is being discharged into the glass jar.
- 7 Remove the hose, install the rubber cap to the bleeder valve and check the operation of the clutch. If necessary, top up the reservoir with the specified brake fluid to the Maximum mark and install the reservoir cap.

Clutch Pedal

TO REMOVE AND INSTALL

- 1 Working under the steering column, remove the lower dash panel as follows:
 - a Remove the screws retaining the bonnet and fuel filler door remote handles. Push the handles toward the front of the vehicle, to release the hooks, and manoeuvre the handles from the lower dash panel.
 - b Remove the bolt and screw retaining the lower dash panel.
 - c Partially remove the panel, disconnect the wiring connectors and withdraw the panel from the dashboard.
- 2 Release the air duct from the fittings, by pulling the ends of the duct firmly downward. Withdraw the duct from under the dashboard.
- 3 Remove the spring clip retaining the clevis pin. Withdraw the pin from the clevis, ensuring that the wave washer remains with the pin.



Clutch pedal dismantled.

- 4 Place protective covers on the right hand front mudguard and remove the nuts retaining the clutch master cylinder to the firewall. Carefully pull the master cylinder out of the firewall, until the pushrod emerges.
- 5 Working under the steering column, disconnect the cruise control wiring connector, where fitted.
- 6 Remove the bolt retaining the pedal bracket to the vehicle body and manoeuvre the clutch pedal assembly from the vehicle.
- 7 If necessary, dismantle the clutch pedal as follows:
 - a While the pedal is fully depressed, remove the return spring.
 - b Loosen the clutch pedal pivot bolt and slide the pivot bolt from the bracket and the pedal.
 - c Noting their installed position, remove the bushes from the clutch pedal.
 - d Inspect the bushes, pivot bolt, clevis pin and pedal pad for wear and renew worn components as necessary.
 - e Inspect the return spring for fatigue, renew if necessary.

Installation is a reversal of the removal procedure with attention to the following points:

- 1 Apply a small amount of multipurpose grease to the bushes and pivot pin.
- 2 Check and if necessary adjust the pedal free travel, as described later in this chapter.
- 3 On models with cruise control, check and if necessary adjust the clutch switch as follows:
 - a Loosen the nuts retaining the switch to the bracket.
 - b With the clutch pedal in the fully released position adjust the switch so that the plunger is fully depressed.
 - c Tighten the nuts securely. Connect the wiring connector to the switch.

TO ADJUST CLUTCH PEDAL HEIGHT

The clutch pedal height is measured at right angles from the floor panel, with the carpet removed, to the top face of the pedal pad.

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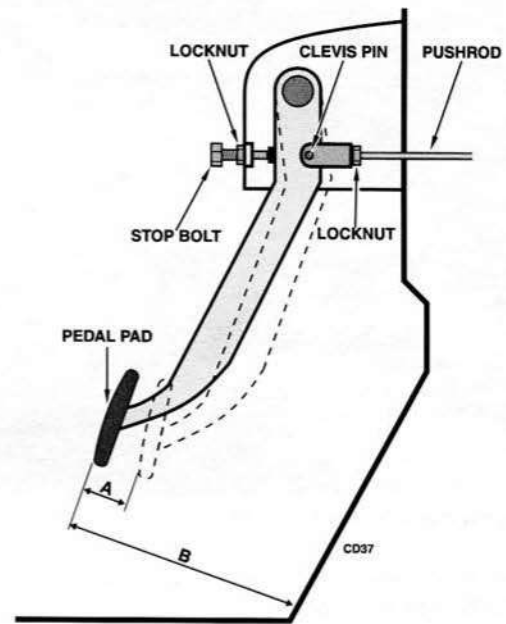
- 1 Fold back the carpet below the clutch pedal to reveal the insulation covering the floor panel.
- 2 Position a ruler to the side of the clutch pedal with the end resting on the insulation. Measure the distance from the centre of the pedal pad to the floor as shown in the illustration.
- 3 If the distance is not within specifications, loosen the locknut and adjust the pedal stop bolt until the pedal height is correct then tighten the locknut. Once the clutch pedal height is correct, check the pedal free travel as described under the following heading.



On models with cruise control, the clutch switch is used to adjust the clutch pedal height.

TO ADJUST FREE TRAVEL

- 1 Position a ruler to the side of the clutch pedal with the end resting on the insulation.
- 2 Depress the pedal by hand until resistance is felt and measure the free travel on the ruler as shown in the illustration.
- 3 If the distance is not within specifications, loosen the pushrod locknut and adjust the pushrod as necessary until the specified free travel is obtained. Tighten the locknut securely.



Clutch pedal measuring and adjusting points.
Dimension A = Clutch pedal free travel, 5 – 15 mm
Dimension B = Clutch pedal height, 213 – 223 mm

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