

## **Transaxle**

<b>Clutch .....</b>	<b>12-1</b>
<b>Manual Transmission .....</b>	<b>13-1</b>
<b>Automatic Transmission .....</b>	<b>14-1</b>
<b>Differential .....</b>	<b>15-1</b>
<b>Driveshafts .....</b>	<b>16-1</b>



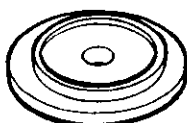
## **Clutch**

<b>Special Tools .....</b>	<b>12-2</b>
<b>Illustrated Index .....</b>	<b>12-3</b>
<b>Clutch Pedal</b>	
<b>Adjustment .....</b>	<b>12-4</b>
<b>Clutch Master Cylinder</b>	
<b>Removal/Installation .....</b>	<b>12-5</b>
<b>Slave Cylinder</b>	
<b>Removal/Installation .....</b>	<b>12-6</b>
<b>Pressure Plate</b>	
<b>Removal/Inspection .....</b>	<b>12-7</b>
<b>Clutch Disc</b>	
<b>Removal/Inspection .....</b>	<b>12-8</b>
<b>Flywheel</b>	
<b>Inspection .....</b>	<b>12-9</b>
<b>Replacement .....</b>	<b>12-9</b>
<b>Clutch Disc, Pressure Plate</b>	
<b>Installation .....</b>	<b>12-10</b>
<b>Release Bearing</b>	
<b>Removal/Inspection .....</b>	<b>12-11</b>
<b>Installation .....</b>	<b>12-12</b>



# Special Tools

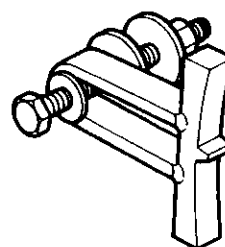
Ref. No.	Tool Number	Description	Qty	Page Reference
①	07JAF - PM7011A	Clutch Alignment Disc	1	12-7
②	07JAF - PM7012A	Clutch Alignment Shaft	1	12-7, 8, 10, 11
③	07LAB - PV00100 or 07924 - PD20003	Ring Gear Holder	1	12-7, 9, 10, 11
④	07746 - 0010100	Attachment, 32 x 35 mm	1	12-10
⑤	07749 - 0010000	Driver	1	12-10
⑥	07936 - 3710100	Handle	1	12-7, 8, 10, 11



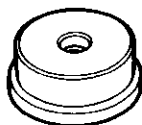
①



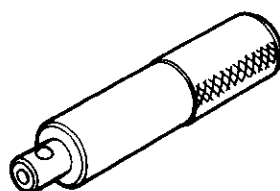
②



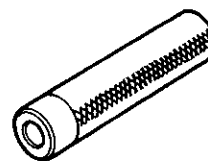
③



④



⑤

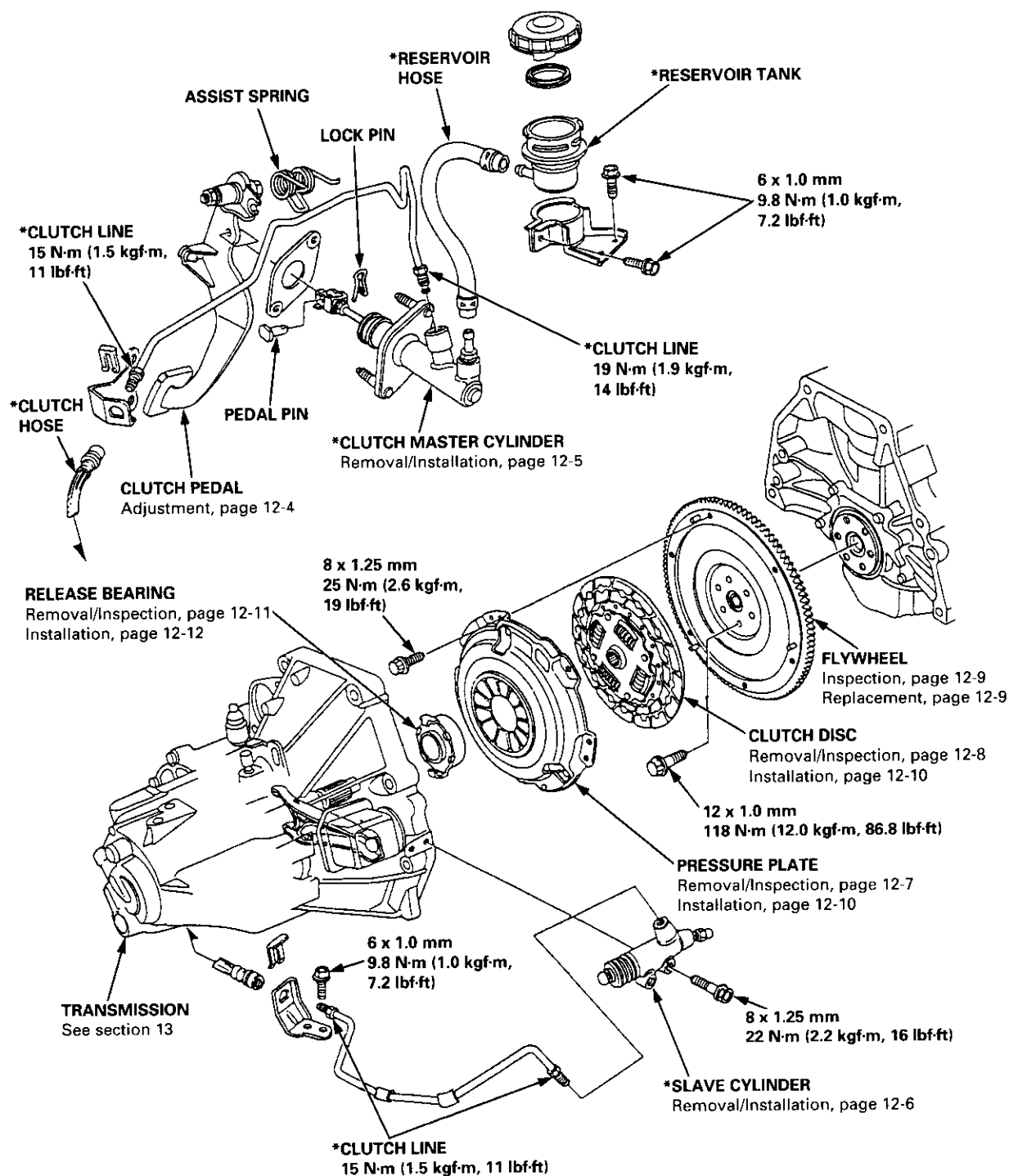


⑥



## NOTE:

- Whenever the transmission is removed, clean and grease the release bearing sliding surface.
- If the parts marked with an asterisk (\*) are removed, the clutch hydraulic system must be bled (see page 12-6).
- Inspect the hoses for damage, leaks, interference, and twisting.



# Clutch Pedal

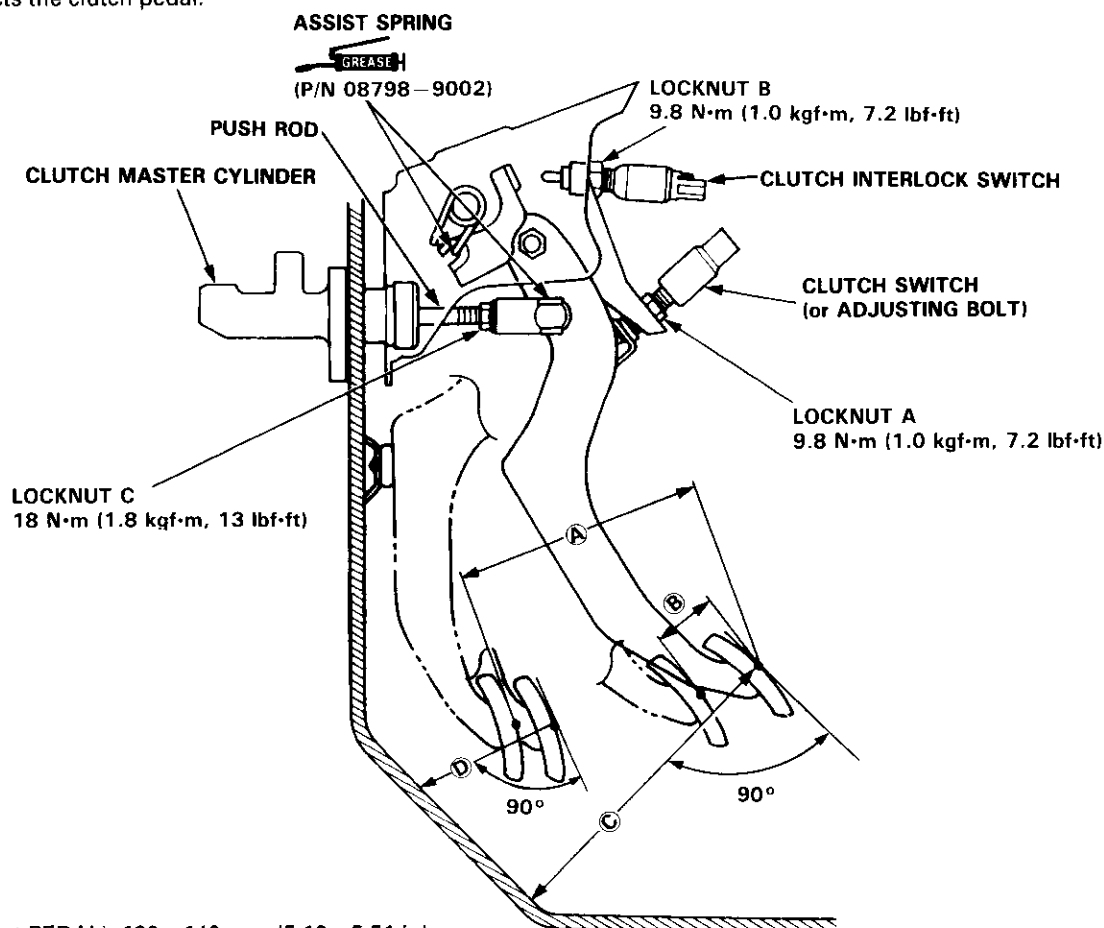
## Adjustment

### NOTE:

- To check the clutch interlock switch and clutch switch, see section 23.
- The clutch is self-adjusting to compensate for wear.

**CAUTION:** If there is no clearance between the master cylinder piston and push rod, the release bearing is held against the diaphragm spring, which can result in clutch slippage or other clutch problems.

1. Loosen locknut A, and back off the clutch switch (or adjusting bolt) until it no longer touches the clutch pedal.
2. Loosen locknut C, and turn the push rod in or out to get the specified stroke (A) and height (C) at the clutch pedal.
3. Tighten locknut C.
4. Thread in the clutch switch (or adjusting bolt) until it contacts the clutch pedal.
5. Turn the clutch switch (or adjusting bolt) in an additional  $\frac{3}{4}$  to 1 full turn.
6. Tighten locknut A.
7. Loosen locknut B on the clutch interlock switch.
8. Measure the clearance between the floor board and clutch pedal with the clutch pedal fully depressed.
9. Release the clutch pedal 15 – 20 mm (0.59 – 0.79 in) from the fully depressed position and hold it there. Adjust the position of the clutch interlock switch so that the engine will start with the clutch pedal in this position.
10. Thread the clutch interlock switch an additional  $\frac{3}{4}$  to 1 full turn.
11. Tighten locknut B.



- (A) (STROKE at PEDAL): 130 – 140 mm (5.12 – 5.51 in)  
(B) (TOTAL CLUTCH PEDAL FREE PLAY): 12 – 21 mm (0.47 – 0.83 in) include the pedal play 1 – 10 mm (0.04 – 0.39 in)  
(C) (CLUTCH PEDAL HEIGHT): 165 mm (6.50 in) to the floor  
(D) (CLUTCH PEDAL DISENGAGEMENT HEIGHT): 83 mm (3.27 in) minimum to the floor



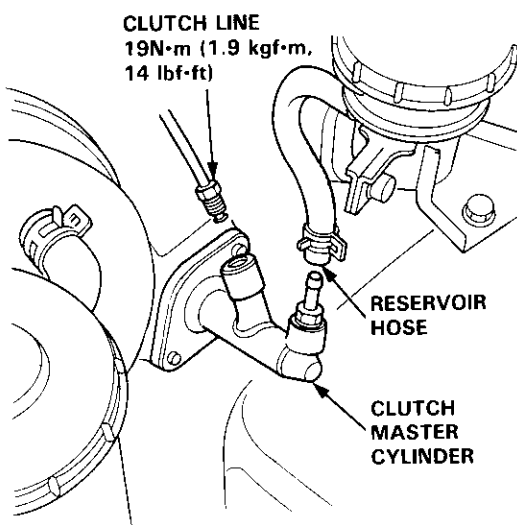
# Clutch Master Cylinder

## Removal/Installation

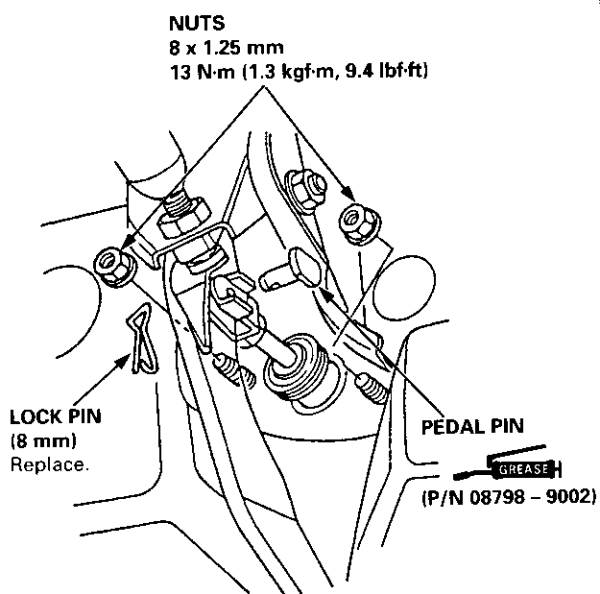
### CAUTION:

- Do not spill brake fluid on the vehicle; it may damage the paint; if brake fluid does contact the paint, wash it off immediately with water.
- Plug the end of the clutch line and reservoir hose with a shop towel to prevent brake fluid from coming out.

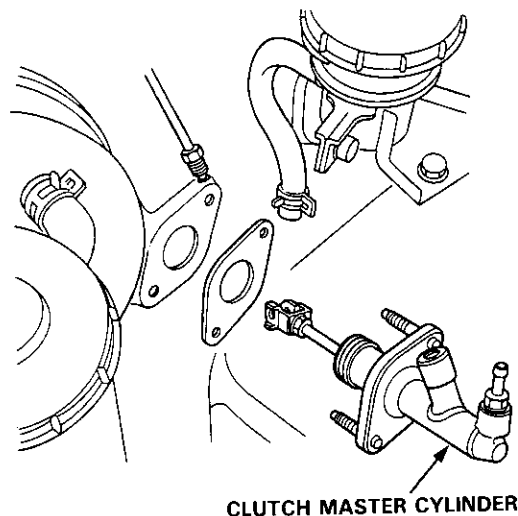
1. The brake fluid can be removed from the clutch master cylinder reservoir with a syringe.
2. Disconnect the clutch line and reservoir hose from the clutch master cylinder.



3. Pry out the lock pin, and pull the pedal pin out of the yoke. Remove the nuts.



4. Remove the clutch master cylinder.



5. Install the clutch master cylinder in the reverse order of removal.


NOTE: Bleed the clutch hydraulic system (see page 12-6).


# Slave Cylinder

## Removal/Installation

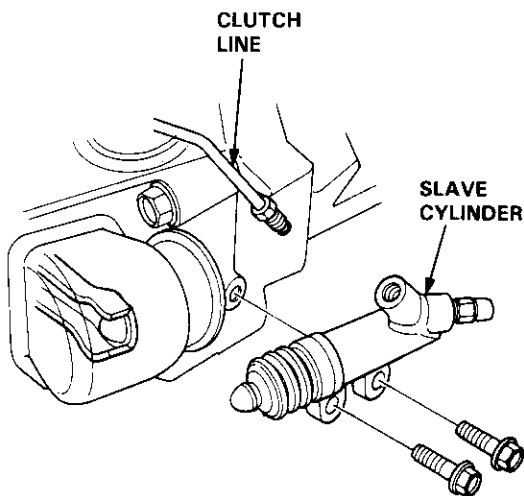
### CAUTION:

- Do not spill brake fluid on the vehicle; it may damage the paint; if brake fluid does contact the paint, wash it off immediately with water.
- Plug the end of the clutch line with a shop towel to prevent brake fluid from coming out.

 **GREASE**: Super High Temp Urea Grease (P/N 08798-9002).

 **GREASE**: Brake Assembly Lube or equivalent rubber grease.

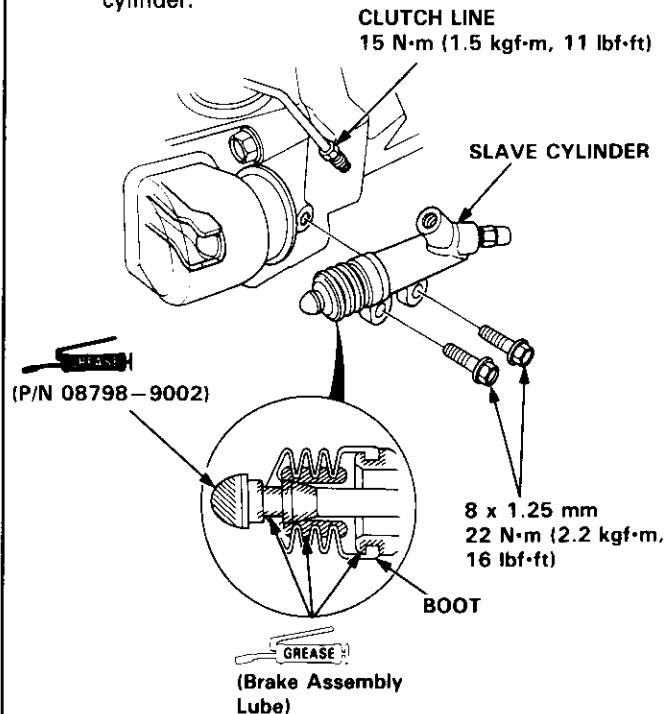
1. Disconnect the clutch line from the slave cylinder.



2. Remove the slave cylinder from the clutch housing.

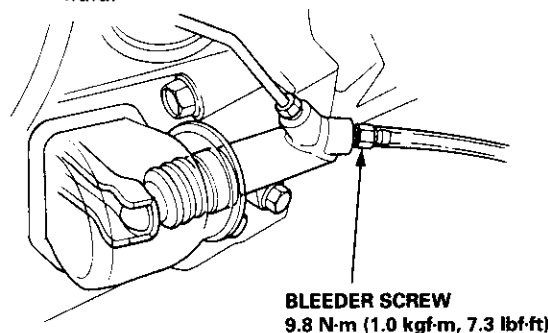
3. Install the slave cylinder in the reverse order of removal.

NOTE: Make sure the boot is installed on the slave cylinder.



4. Bleed the clutch hydraulic system.

- Attach a hose to the bleeder screw, and suspend the hose in a container of brake fluid.
- Make sure there is an adequate supply of fluid at the clutch master cylinder, then slowly pump the clutch pedal until no more bubbles appear at the bleeder hose.
- Refill the clutch master cylinder with fluid when done.
- Always use Genuine Honda DOT 3 Brake Fluid. Using a non-Honda brake fluid can cause corrosion and decrease the life of the system.
- Confirm clutch operation, and check for leaking fluid.



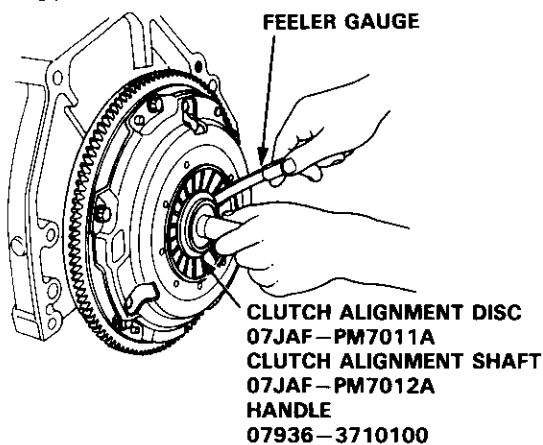


## Removal/Inspection

1. Inspect the fingers of the diaphragm spring for wear at the release bearing contact area.
2. Check the diaphragm spring fingers for height using the special tools and a feeler gauge.

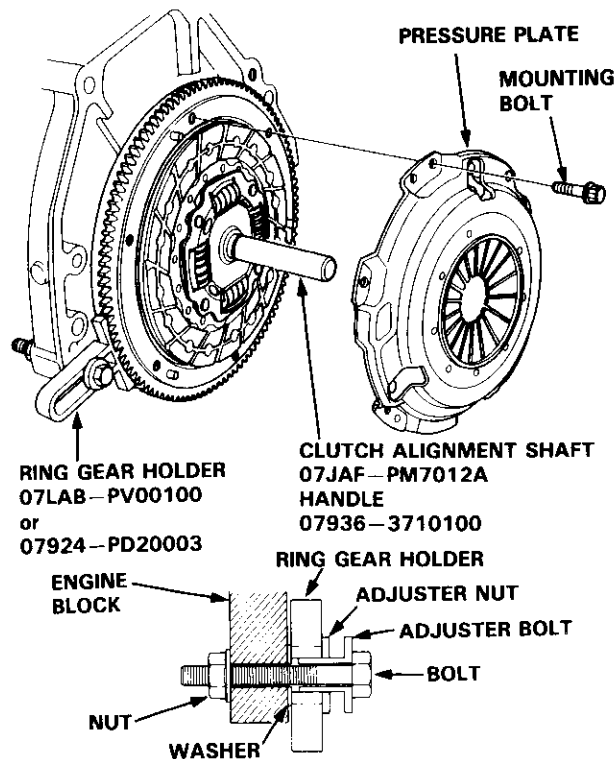
**Standard (New):** 0.6 mm (0.02 in) max.

**Service Limit:** 1.0 mm (0.04 in)



If the height exceeds the service limit, replace the pressure plate.

3. Install the special tools.



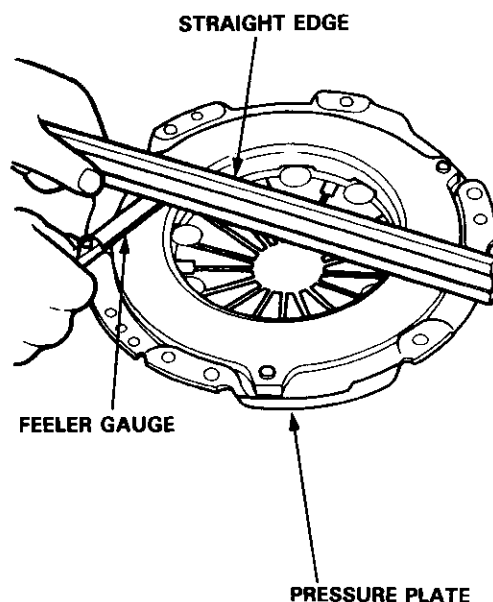
4. To prevent warping, unscrew the pressure plate mounting bolts in a crisscross pattern in several steps, then remove the pressure plate.

5. Inspect the pressure plate surface for wear, cracks, and burning.
6. Inspect for warpage using a straight edge and feeler gauge.

**NOTE:** Measure across the pressure plate at three points.

**Standard (New):** 0.03 mm (0.001 in) max.

**Service Limit:** 0.15 mm (0.006 in)



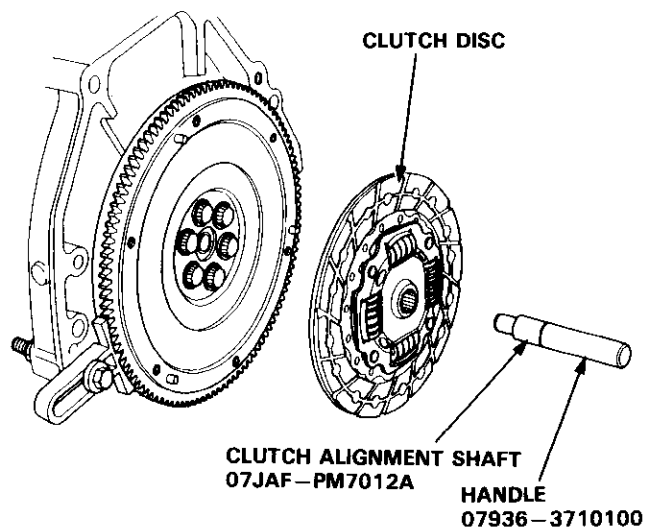
If the warpage exceeds the service limit, replace the pressure plate.



# Clutch Disc

## Removal/Inspection

1. Remove the clutch disc and special tools.

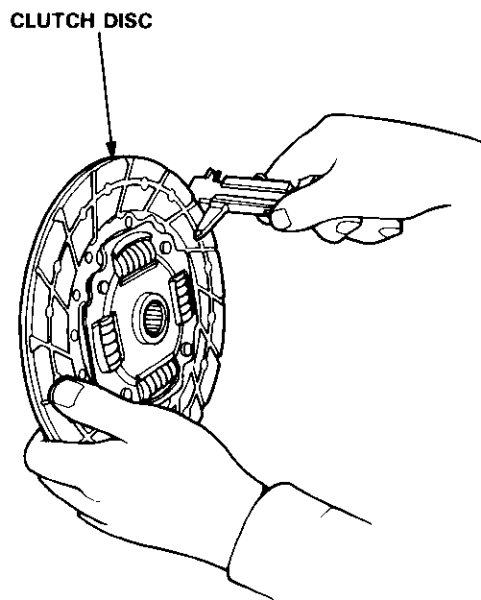


2. Inspect lining of the clutch disc for signs of slipping or oil. If it is burned black or oil soaked, replace it.
3. Measure the clutch disc thickness.

### Clutch Disc Thickness:

**Standard (New):** 8.5 – 9.1 mm (0.33 – 0.36 in)

**Service Limit:** 5.5 mm (0.22 in)



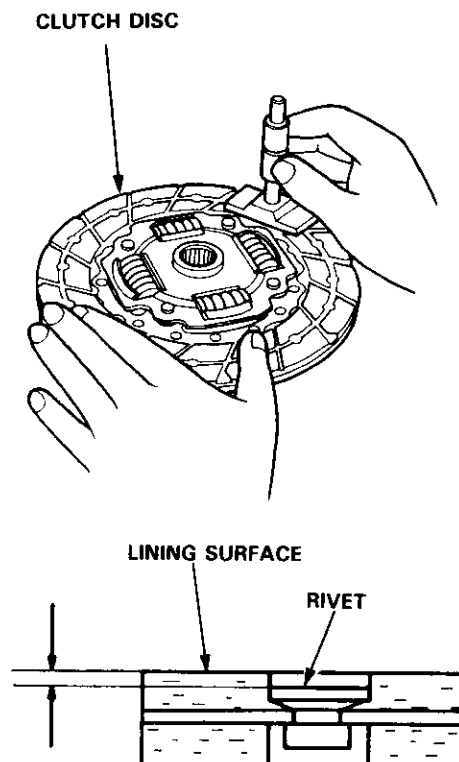
If the thickness is less than the service limit, replace the clutch disc.

4. Measure the depth from the lining surface to the rivets, on both sides.

### Rivet Depth:

**Standard (New):** 1.3 – 1.9 mm (0.05 – 0.07 in) min.

**Service Limit:** 0.2 mm (0.01 in)



If the depth is less than the service limit, replace the clutch disc.



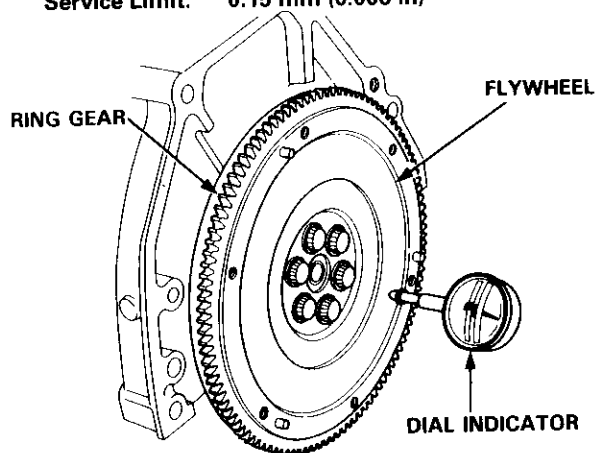
## Inspection

1. Inspect the ring gear teeth for wear and damage.
2. Inspect the clutch disc mating surface on the flywheel for wear, cracks, and burning.
3. Measure the flywheel runout using a dial indicator through at least two full turns. Push against the flywheel each time you turn it to take up the crankshaft thrust washer clearance.

NOTE: The runout can be measured with engine installed.

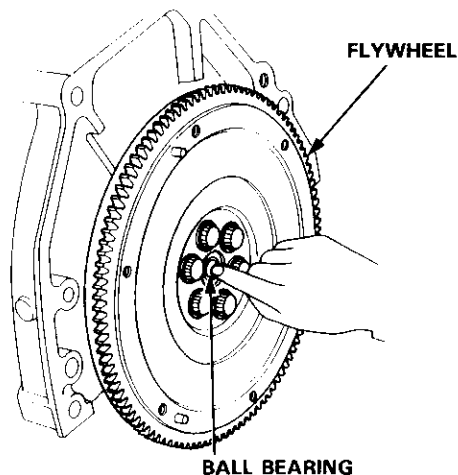
**Standard (New):** 0.05 mm (0.002 in) max.

**Service Limit:** 0.15 mm (0.006 in)



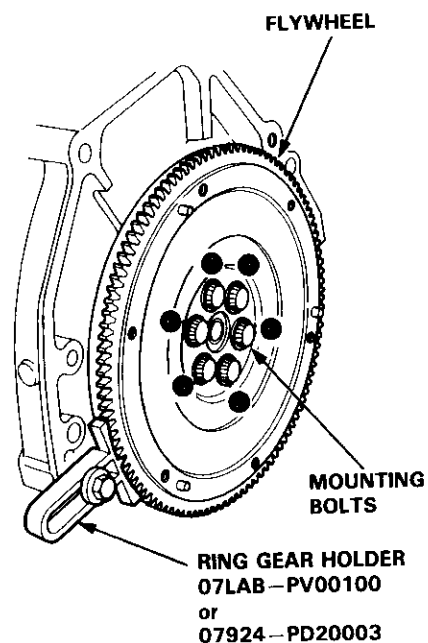
If the runout exceeds the service limit, replace the flywheel.

4. Turn the inner race of the ball bearing with your finger. The ball bearing should turn smoothly and quietly. If the inner race does not turn smoothly and quietly, replace the bearing. Check that the ball bearing outer race fits tightly in the flywheel. If it is loose, replace the ball bearing.

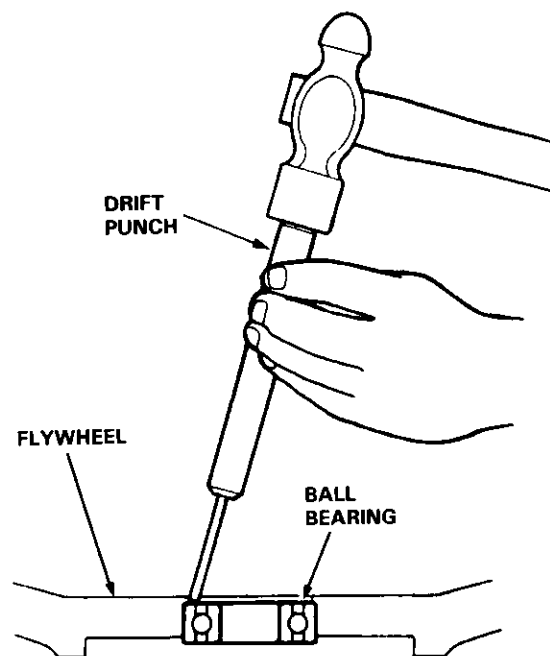


## Replacement

1. Install the special tool.



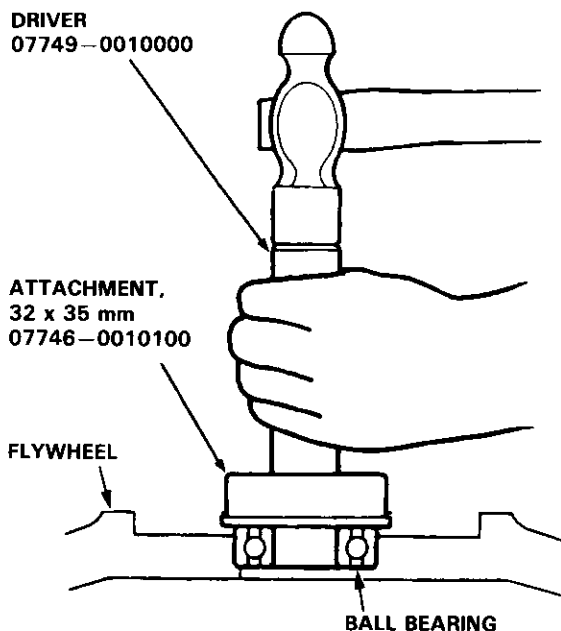
2. Remove the flywheel mounting bolts in a crisscross pattern in several steps as shown, and remove the flywheel.
3. Remove the ball bearing from the flywheel.



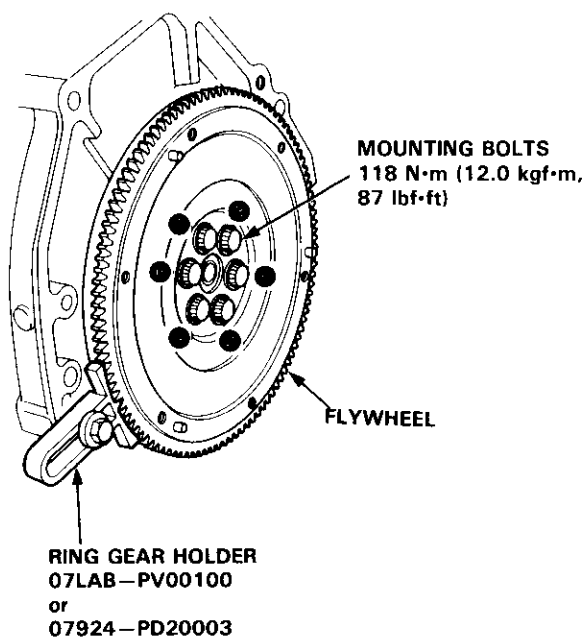
(cont'd)

## Replacement (cont'd)

4. Drive the new ball bearing into the flywheel using the special tools as shown.

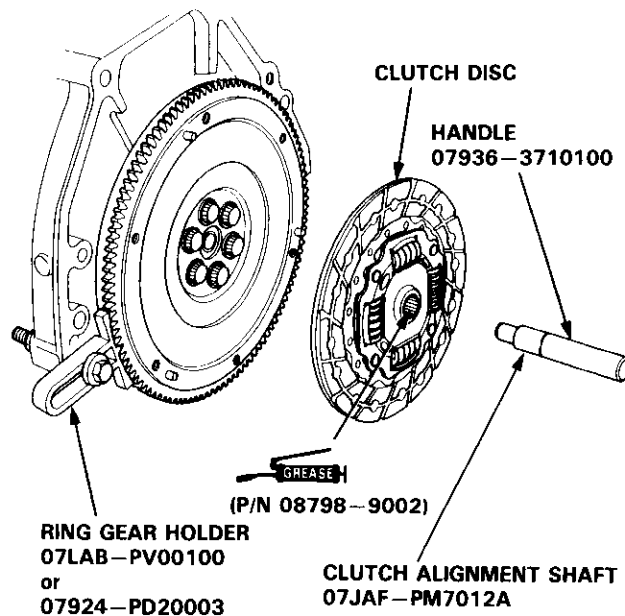


5. Align the hole in the flywheel with the crankshaft dowel pin and install the flywheel. Install the mounting bolts finger-tight.
6. Install special tool, then torque the flywheel mounting bolts in a crisscross pattern in several steps as shown.

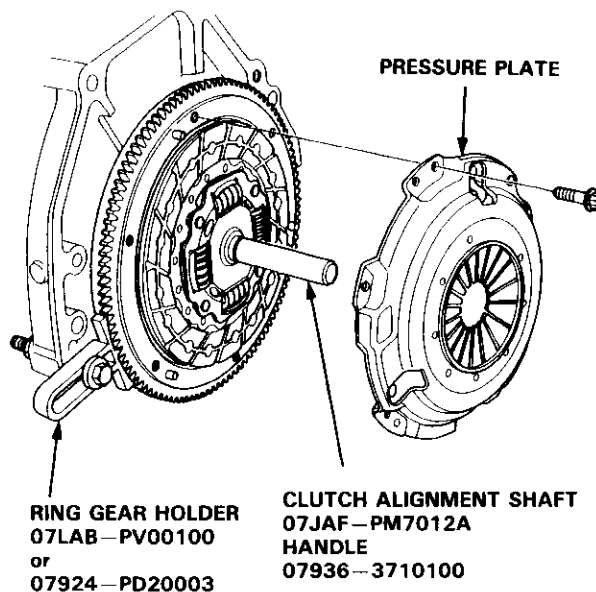


## Installation

1. Install the special tool.

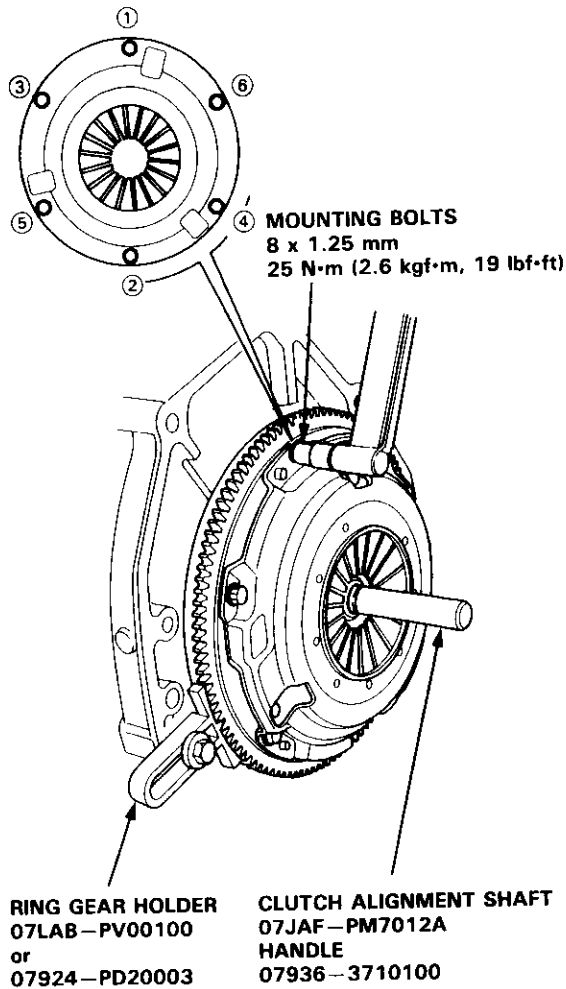


2. Install the clutch disc using the special tools.
3. Install the pressure plate.



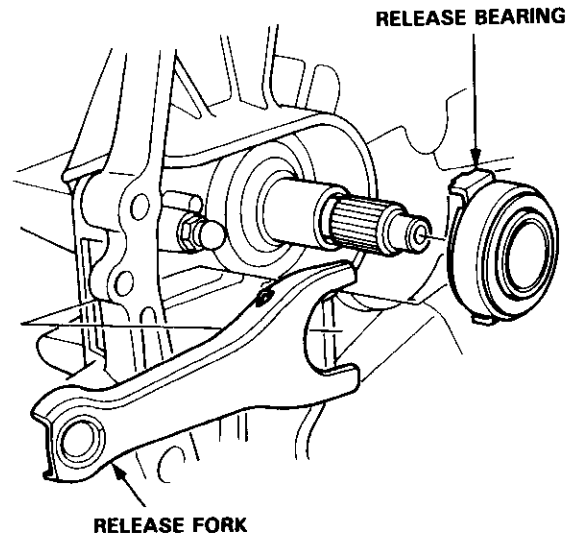


4. Torque the mounting bolts in a crisscross pattern as shown. Tighten them in several steps to prevent warping the diaphragm spring.



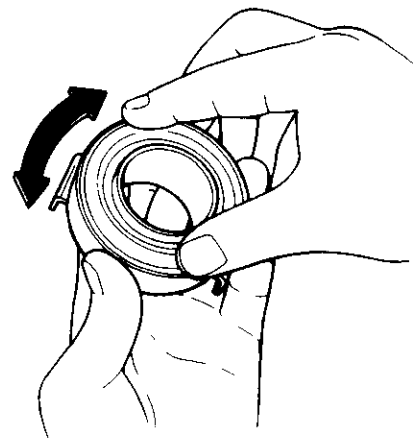
## Removal/Inspection

1. Remove the release fork boot from the clutch housing.
2. Remove the release fork from the clutch housing by squeezing the release fork set spring with pliers. Remove the release bearing.



3. Check the release bearing for play by spinning it by hand.

**CAUTION:** The release bearing is packed with grease. Do not wash it in solvent.



If there is excessive play, replace the release bearing with a new one.

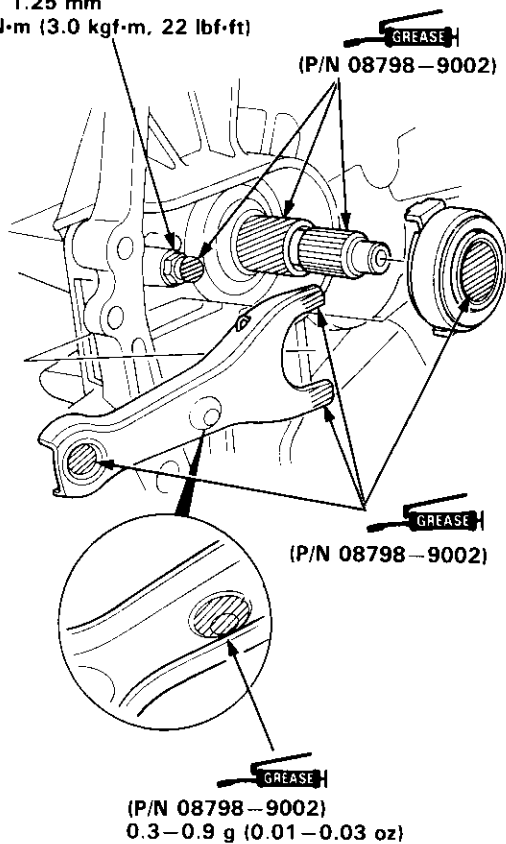
# Release Bearing

## Installation

NOTE: Use only Super High Temp Urea Grease (P/N 08798-9002).

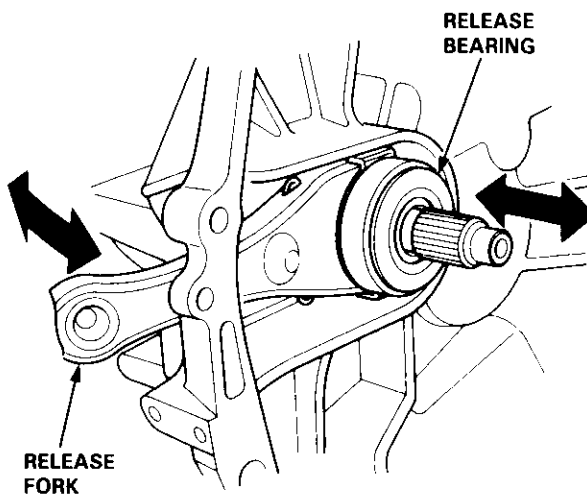
1. With the release fork slid between the release bearing pawls, install the release bearing on the main-shaft while inserting the release fork through the hole in the clutch housing.

RELEASE FORK BOLT  
12 x 1.25 mm  
29 N·m (3.0 kgf·m, 22 lbf·ft)



2. Align the detent of the release fork with the release fork bolt, then press the release fork over the release fork bolt squarely.

3. Move the release fork right and left to make sure that it fits properly against the release bearing, and that the release bearing slides smoothly.



4. Install the release fork boot; make sure the boot seals around the release fork and clutch housing.