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# CLUTCH OVERHAUL



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## GENERAL

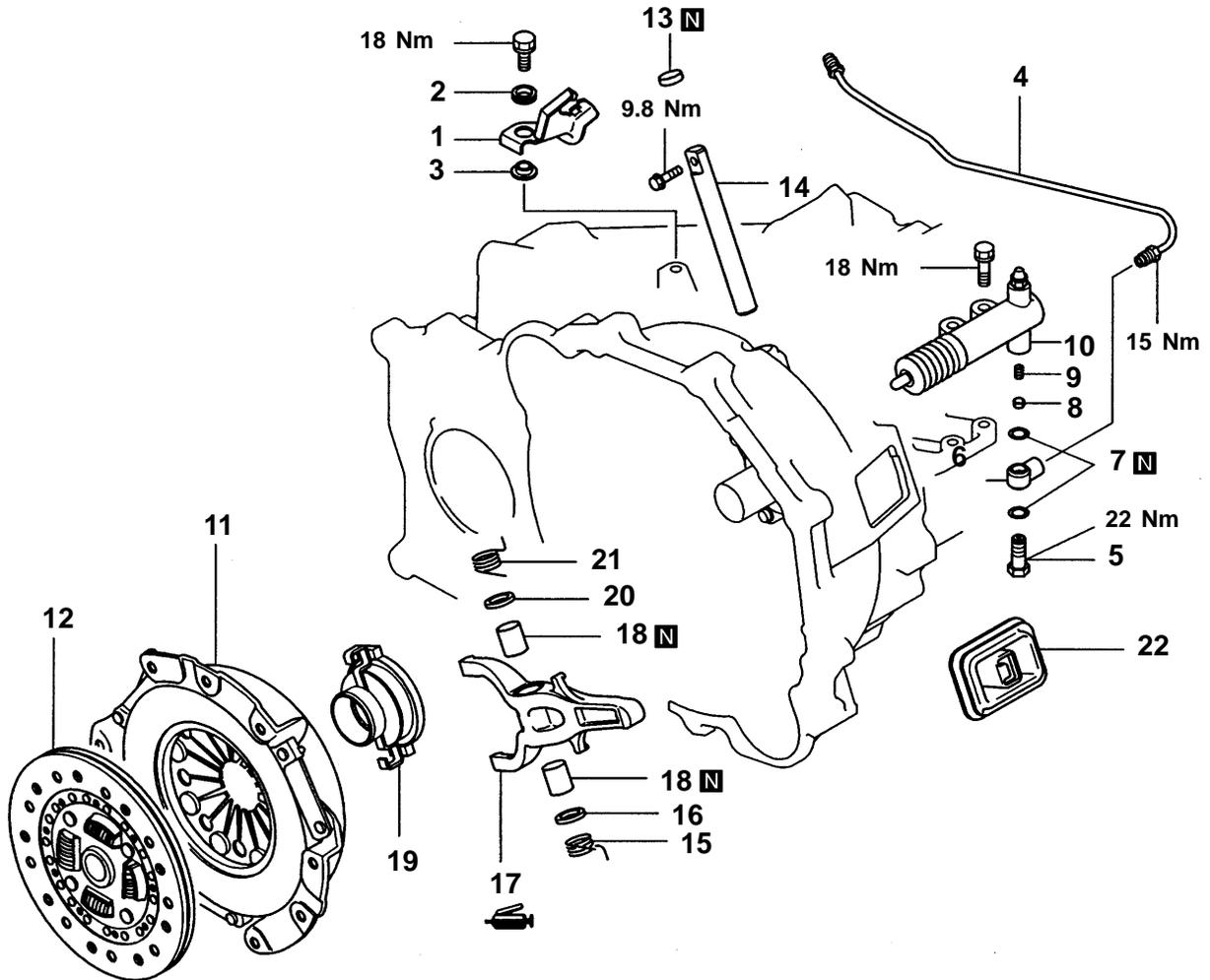
### OUTLINE OF CHANGE

The following service procedures have been established.

- Clutch overhaul
- Clutch release cylinder overhaul

# CLUTCH

## REMOVAL AND INSTALLATION (Not applicable to twin plate type clutch)

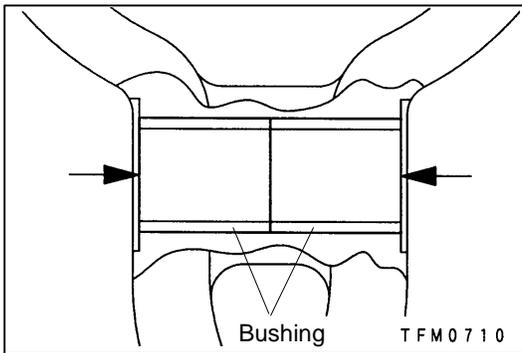


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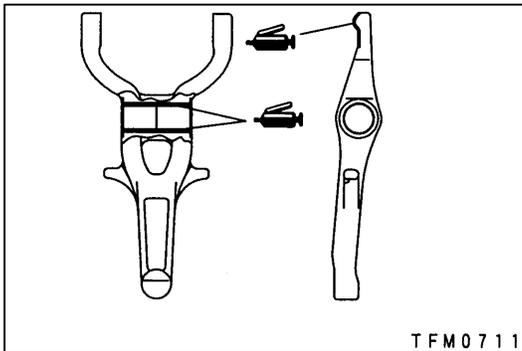
### Removal steps

- |   |  |
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| <ul style="list-style-type: none"> <li>▶▶E◀◀ 1. Clutch fluid line bracket</li> <li>▶▶E◀◀ 2. Insulator</li> <li>▶▶D◀◀ 3. Washer</li> <li>▶▶E◀◀ 4. Clutch tube</li> <li>▶▶E◀◀ 5. Union bolt</li> <li>▶▶E◀◀ 6. Union</li> <li>▶▶E◀◀ 7. Gasket</li> <li>▶▶E◀◀ 8. Valve plate</li> <li>▶▶E◀◀ 9. Valve plate spring</li> <li>▶▶E◀◀ 10. Clutch release cylinder</li> <li>▶▶E◀◀ 11. Clutch cover</li> </ul> | <ul style="list-style-type: none"> <li>▶▶C◀◀ 12. Clutch disc</li> <li>▶▶C◀◀ 13. Sealing cap</li> <li>▶▶C◀◀ 14. Release fork shaft</li> <li>▶▶C◀◀ 15. Support spring (L)</li> <li>▶▶C◀◀ 16. Packing</li> <li>▶▶B◀◀ 17. Release fork</li> <li>▶▶A◀◀ 18. Bushing</li> <li>▶▶A◀◀ 19. Clutch release bearing</li> <li>▶▶A◀◀ 20. Packing</li> <li>▶▶A◀◀ 21. Support spring (R)</li> <li>▶▶A◀◀ 22. Release fork boot</li> </ul> |
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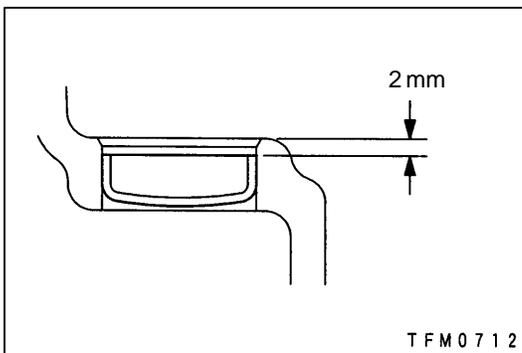
**INSTALLATION SERVICE POINTS****▶A◀ BUSHING INSTALLATION**

Press-fit the bushing in the release fork up to the illustrated positions.

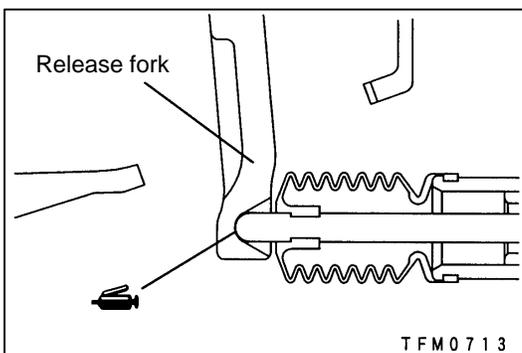
**▶B◀ RELEASE FORK INSTALLATION**

Apply grease to the illustrated positions of the release fork.

**Specified grease: Molywhite TA No. 2**

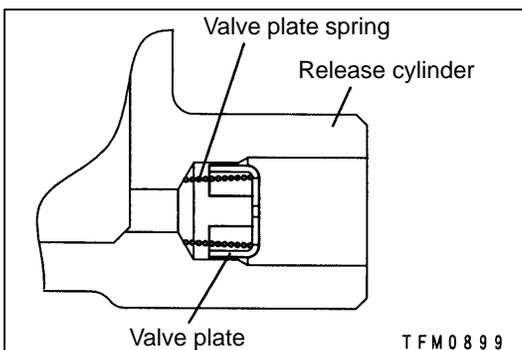
**▶C◀ SEALING CAP INSTALLATION**

Press-fit the sealing cap up to the illustrated position while using care not to tilt it.

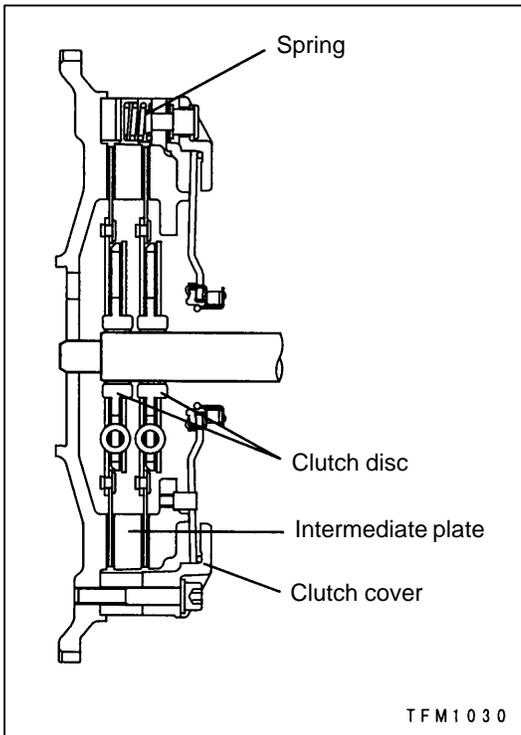
**▶D◀ CLUTCH RELEASE CYLINDER INSTALLATION**

Pack the pit in the release fork with grease (see illustration).

**Specified grease: Molywhite TA No. 2**

**▶E◀ VALVE PLATE SPRING / VALVE PLATE INSTALLATION**

Install the valve plate and its spring in the release cylinder as shown; direct the larger diameter side of the spring toward the valve plate.



### ►F◄ CLUTCH COVER/CLUTCH DISC/INTERMEDIATE PLATE/SPRING INSTALLATION

- (1) Temporarily assemble the clutch cover, spring, clutch discs (two) and intermediate plate to each other using three M6 bolts.
- (2) Bring the splines of two clutch discs in alignment using the input shaft or a similar tool, then install the assembly on the flywheel so that the centers of the splined holes in the clutch discs may be coaxial with the center of the flywheel hole. Tighten the three M6 bolts and then six M8 bolts to the specified torques.

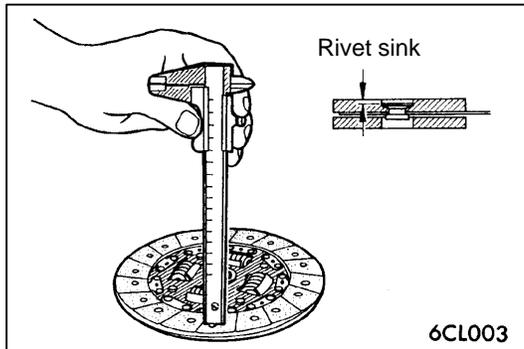
#### **Caution**

**Be sure to align the paint marks on the clutch cover, intermediate plate and flywheel with each other.**

**INSPECTION****CLUTCH COVER**

Check the pressure plate surface for wear, cracks and discoloration.

Check the rivets of the strap plate for looseness. If loose, replace the clutch cover.

**CLUTCH DISC****Caution**

**Don't clean the clutch disc in a cleaning fluid.**

Check the facing for loose rivets, uneven contact, evidence of seizure, or deposited oils and greases. If defective, replace the clutch disc.

Measure the rivet sink and replace the clutch disc if it is out of specification. (Not applicable to twin plate type clutch)

**Limit: 0.3 mm**

Measure the clutch disc thickness. Replace the clutch disc if the limit is exceeded. (Twin plate type clutch)

**Limit: 2.6 mm**

Check the torsion spring for looseness and damage. If defective, replace the clutch disc.

Combine the clutch disc with the input shaft and check for sliding condition and play in the rotating direction. If poor sliding condition is evident, clean, reassemble, and recheck. If excessive looseness is evident, replace the clutch disc and/or input shaft.

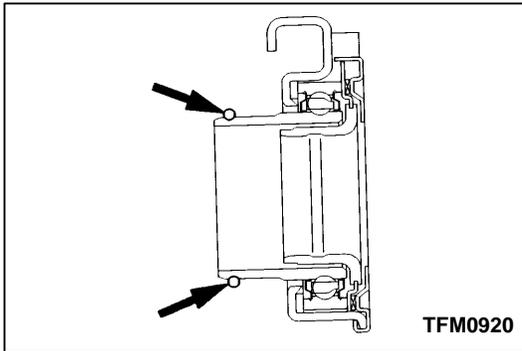
**CLUTCH RELEASE BEARING****Caution**

**Release bearing is packed with grease. Therefore, do not wash it in a cleaning fluid and the like.**

Check for seizure, damage, noise or improper rotation.

Check the pull ring for wear.

Check for wear on the surface which contacts with release fork. If abnormally worn, replace.



Check the pull ring for wear and replace the clutch release bearing if necessary.

### RELEASE FORK

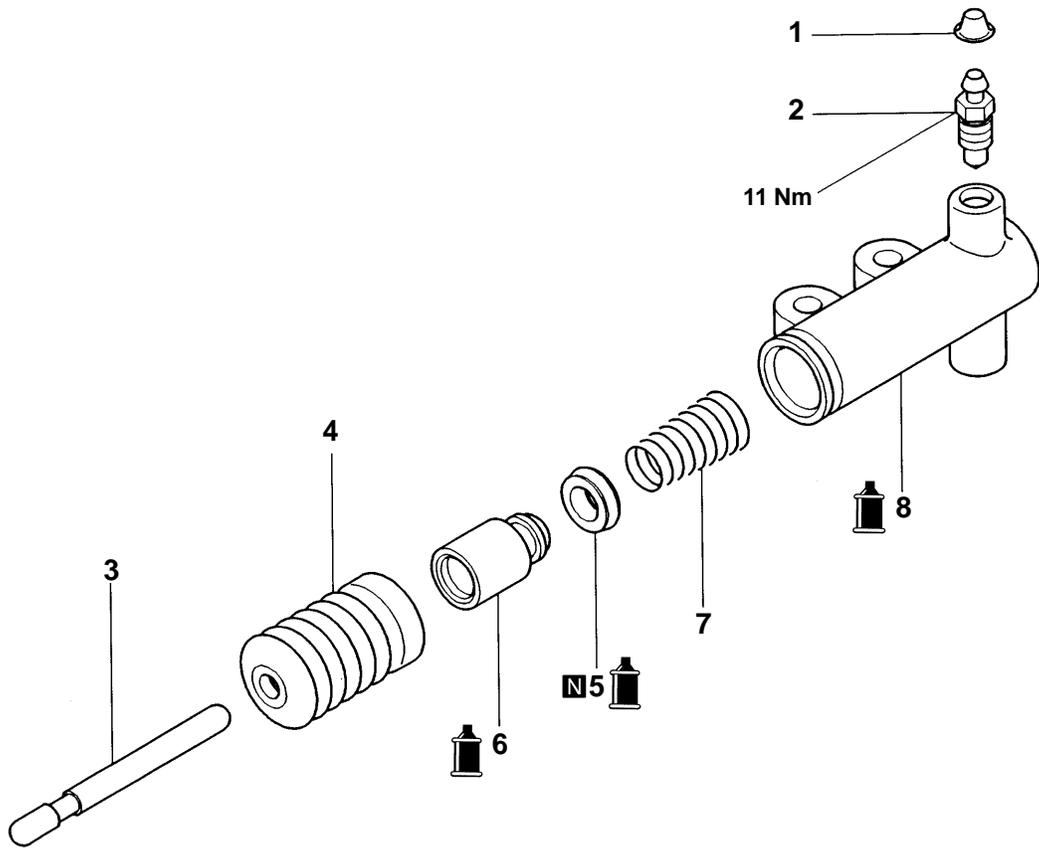
If the surface which contacts with the bearing is abnormally worn, replace.

### RELEASE FORK SHAFT

Check the release fork shaft for bend and wear, and replace if necessary.

# CLUTCH RELEASE CYLINDER

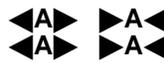
## DISASSEMBLY AND REASSEMBLY



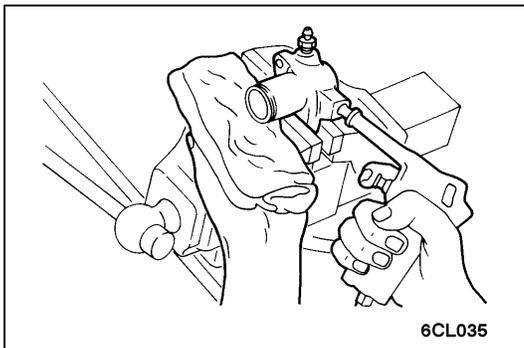
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### Disassembly steps

1. Cap
2. Air bleeder
3. Push rod
4. Boot



5. Piston cup
6. Piston
7. Conical spring
8. Release cylinder



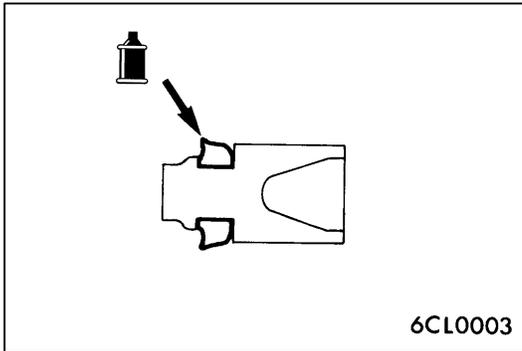
### DISASSEMBLY SERVICE POINT

#### ◀A▶ PISTON CUP / PISTON REMOVAL

Remove the piston from the release cylinder using compressed air.

#### Caution

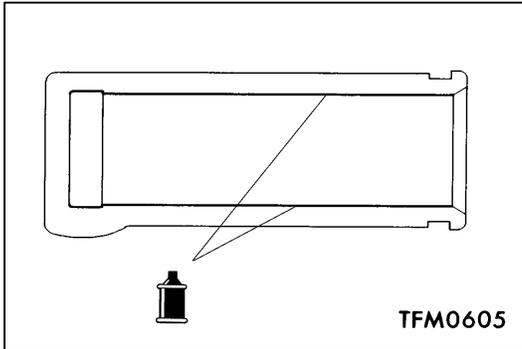
1. Cover with shop towel to prevent the piston from popping out.
2. Apply compressed air slowly to prevent brake fluid from splashing.

**REASSEMBLY SERVICE POINT****►A◄ PISTON / PISTON CUP INSTALLATION**

After applying brake fluid to the inside wall surface of the release cylinder and all the circumferential surfaces of the piston and piston cup, insert the piston and piston cup into the cylinder.

**Specified brake fluid:**

**Brake fluid SAE J1703 (DOT3)**

**INSPECTION****RELEASE CYLINDER**

Check the inside wall surface of the release cylinder for rust and damage.

Using a cylinder gauge, measure the inside diameter of the release cylinder at about three positions (the deepest, middle and brim positions). If the clearance from the outside diameter of the piston exceeds the limit, replace the release cylinder as an assembly.

**Limit: 0.15 mm**