

GROUP 21C

CLUTCH  
OVERHAUL  
<W5M51>

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## GENERAL SPECIFICATIONS

M1212000200687

Item	Specification
Combined engine	4G63-D4-TC
Clutch operating method	Hydraulic type
Clutch disc type	Single dry disc type
Clutch disc size O.D. x I.D. mm	240 x 160
Clutch cover type	Diaphragm spring type
Clutch cover setting load N	6,800 ± 550
Clutch release cylinder I.D. mm	20.64

## SERVICE SPECIFICATIONS

M1212000300208

Item	Limit
Diaphragm spring end height difference mm	0.5
Clutch disc facing rivet sink mm	Minimum 0.3
Release cylinder I.D. to piston O.D. mm	0.15

## TORQUE SPECIFICATIONS

M1212001800529

Item	Specification
Clutch fluid line bracket bolt	18 ± 3 N·m
Clutch tube flare nut	15 ± 1 N·m
Union bolt	22 ± 2 N·m
Clutch release cylinder mounting bolt	18 ± 3 N·m
Clutch cover mounting bolt	18 ± 3 N·m
Release fork shaft locking bolt	9.8 ± 2.0 N·m
Clutch release cylinder air bleeder	11 ± 1 N·m

## LUBRICANTS

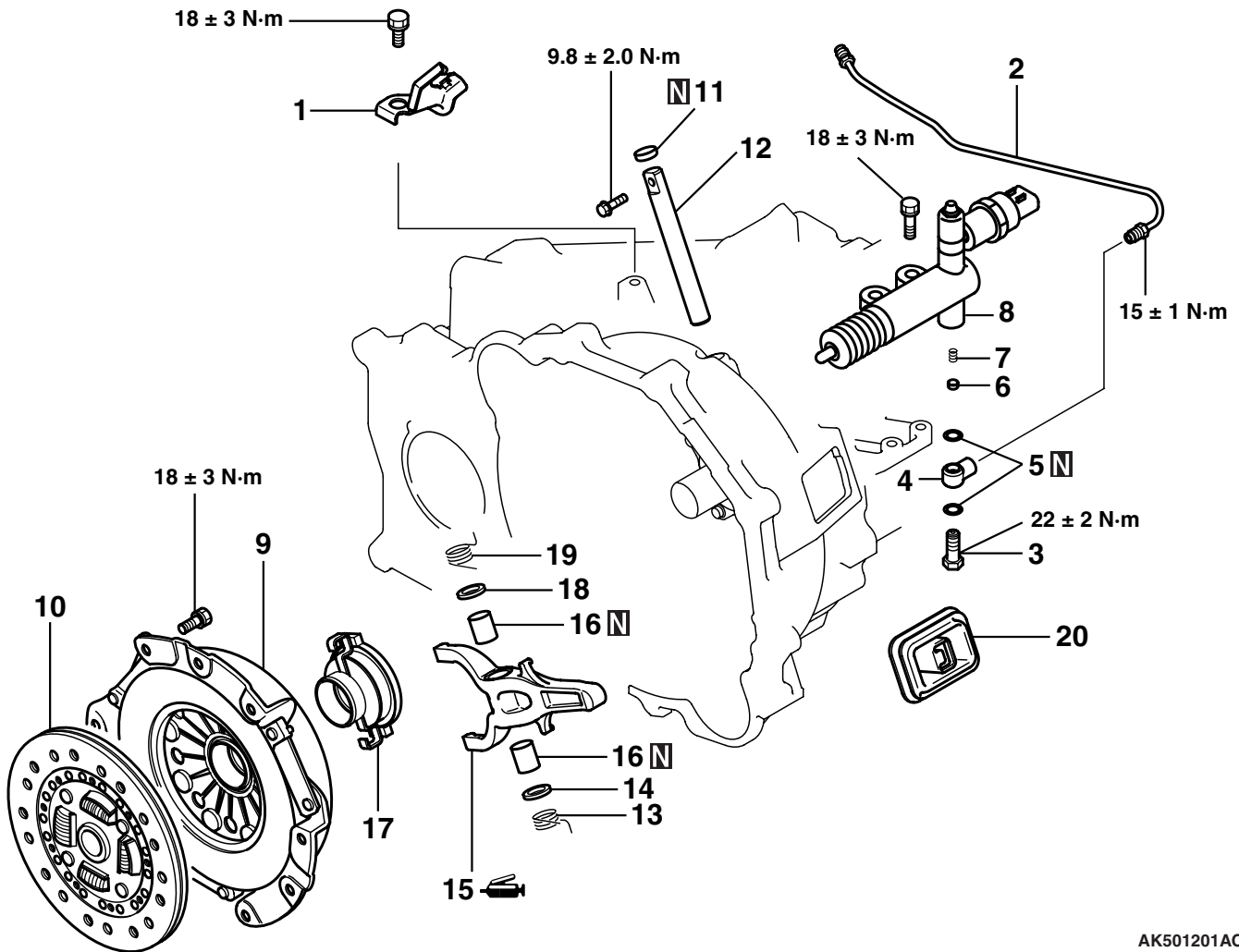
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Item	Specified lubricant
Release fork and release cylinder pushrod contact surface	Mitsubishi Part No. 0101011 or equivalent
Release fork and release bearing contact surface	
Release fork bushing inner surface	
Clutch disc splines	
Piston and piston cup	Brake Fluid DOT 3 or DOT 4
Release cylinder inner surface	

# CLUTCH

## REMOVAL AND INSTALLATION

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AK501201AC

### Removal steps

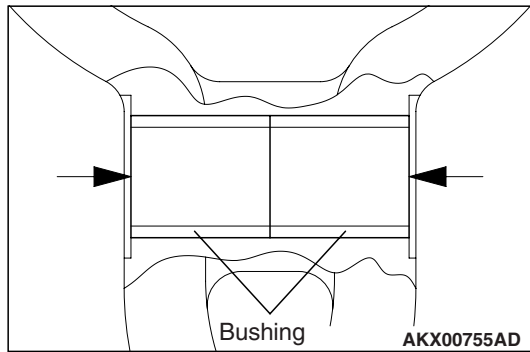
1. Clutch fluid line bracket
2. Clutch tube
3. Union bolt
4. Union
5. Gasket
- >>E<< 6. Valve
- >>E<< 7. Valve spring
8. Clutch release cylinder
- >>D<< 9. Clutch cover
- >>D<< 10. Clutch disc
- >>C<< 11. Sealing cap

### Removal steps (Continued)

12. Release fork shaft
13. Support spring (L)
- >>B<< 14. Packing
- >>A<< 15. Release fork
16. Bushing
17. Clutch release bearing
18. Packing
19. Support spring (R)
20. Release fork boot

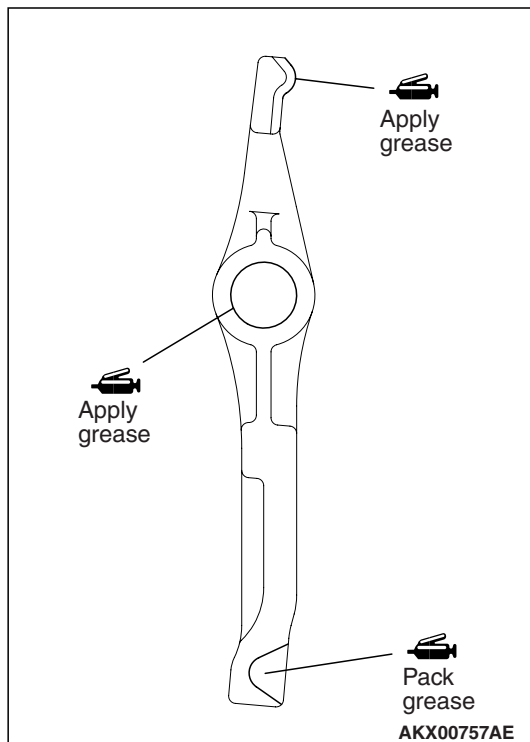
## INSTALLATION SERVICE POINTS

## &gt;&gt;A&lt;&lt; OUTER RACE INSTALLATION



Press in the bushing into the release fork to the position shown in the illustration.

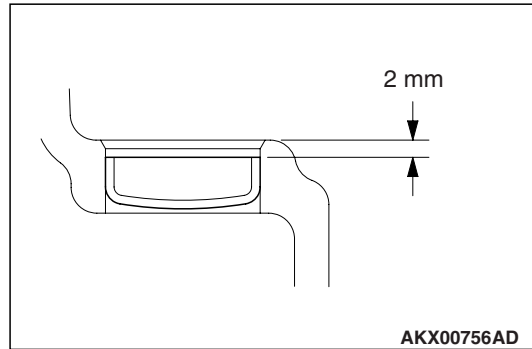
## &gt;&gt;B&lt;&lt; RELEASE FORK INSTALLATION



Apply grease to the illustrated positions of the release fork.

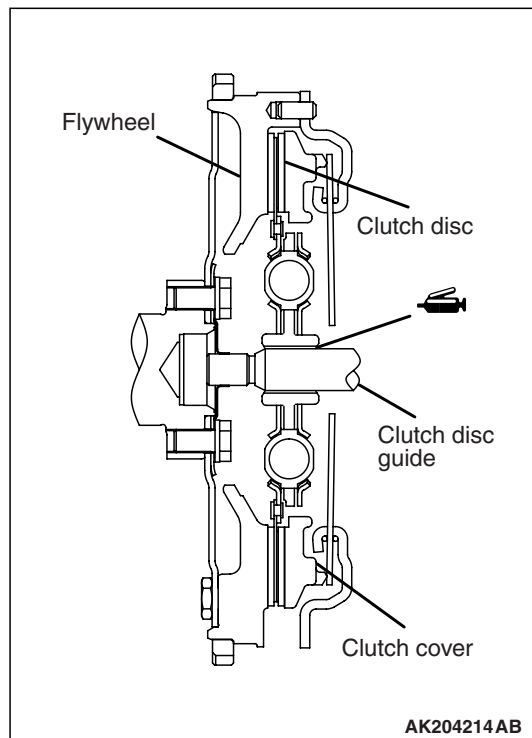
**Specified grease:**  
**Mitsubishi Part No. 0101011 or equivalent**

## &gt;&gt;C&lt;&lt; SEALING CAP INSTALLATION



Press in the sealing cap to the position shown in the illustration. Be sure that it is not installed in a slanted position.

## &gt;&gt;D&lt;&lt; CLUTCH DISC AND CLUTCH COVER INSTALLATION

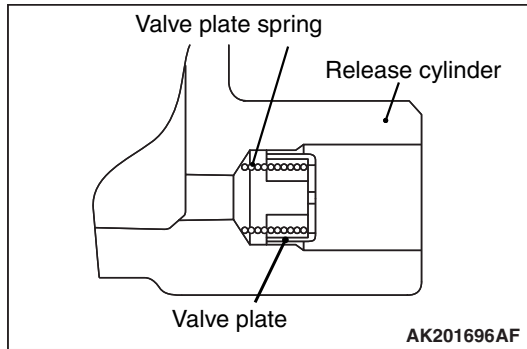


1. Apply Mitsubishi grease to the clutch disc splines and rub it in the splines with a brush.

**Specified grease:**  
**Mitsubishi Part No. 0101011 or equivalent**

2. Use the clutch disc guide to position the clutch disc on the flywheel.
3. Install the clutch cover onto the flywheel.

## >>E<< VALVE PLATE SPRING AND VALVE PLATE INSTALLATION

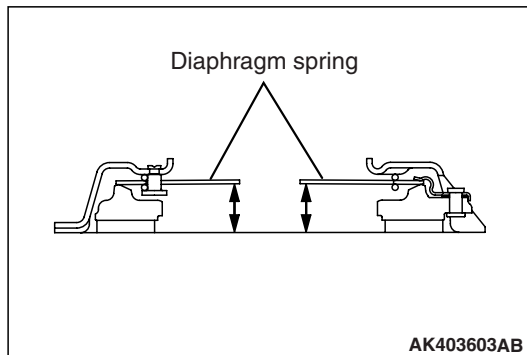


Set the spring's large diameter side to the valve plate side, and install the valve plate spring and valve plate.

## INSPECTION

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### CLUTCH COVER



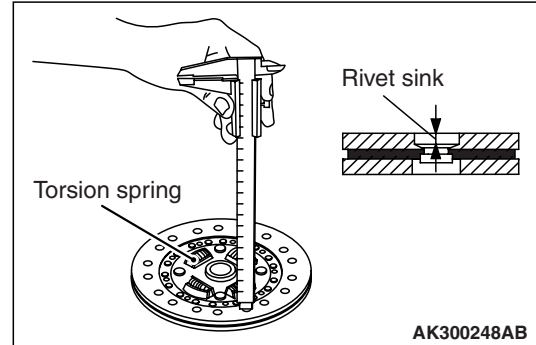
1. Check the diaphragm spring end for wear and uneven height. Replace if wear is evident or height difference exceeds the limit.  
**Limit: 0.5 mm**
2. Check the pressure plate surface for wear, cracks and discoloration.
3. Check the rivets of the strap plate for looseness. If loose, replace the clutch cover.

## CLUTCH DISC

### ⚠ CAUTION

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

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



2. Measure the rivet sink and replace the clutch disc if it is below the limit.

**Minimum limit: 0.3 mm**

3. Check the torsion spring for play and damage. If defective, replace the clutch disc.
4. 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 play is evident, replace the clutch disc and/or input shaft.

## CLUTCH RELEASE BEARING

### ⚠ CAUTION

**Release bearing is packed with grease. Do not wash it in a cleaning solvent.**

1. Check for seizure, damage, noise or improper rotation.
2. Check for wear on the surface which contacts the diaphragm spring.
3. Check for wear on the surface which contacts the release fork. If abnormally worn, replace.

## RELEASE FORK

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

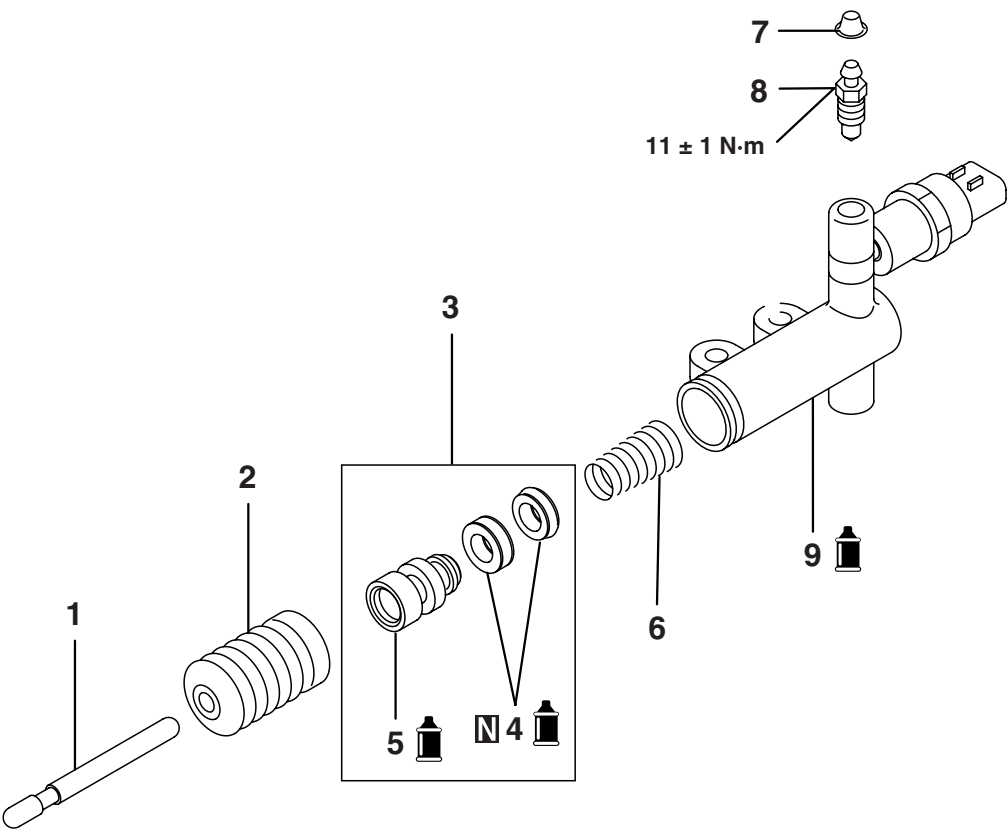
## RELEASE FORK SHAFT

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. Push rod
2. Boot
3. Piston assembly
4. Piston cup
5. Piston

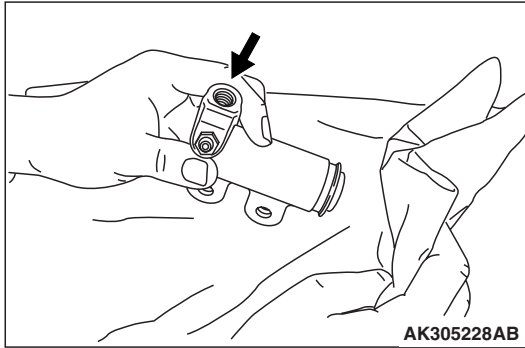
Disassembly steps (Continued)

6. Conical spring
7. Cap
8. Air bleeder
9. Release cylinder

<<A>> >>A<<

## DISASSEMBLY SERVICE POINT

### <<A>> PISTON ASSEMBLY REMOVAL



1. Cover with a shop towel to prevent the piston from popping out.

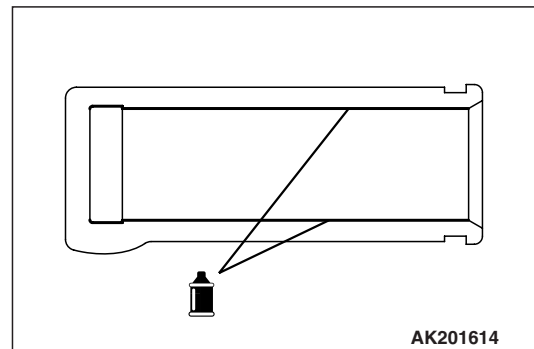
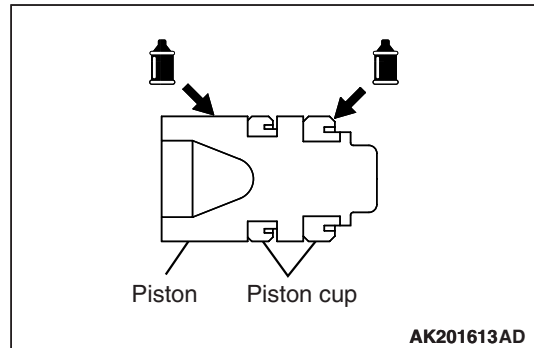
#### **CAUTION**

**Apply compressed air slowly to prevent brake fluid from splashing.**

2. Apply the compressed air into the tube mounting hole to remove the piston assembly.

## REASSEMBLY SERVICE POINT

### >>A<< PISTON ASSEMBLY INSTALLATION



1. Apply brake fluid to the piston cup and inner surface of the release cylinder.

**Specified brake fluid:**  
**Brake fluid DOT3 or DOT4**

2. Insert the piston assembly into the release cylinder.

## INSPECTION

M1212001600161

### RELEASE CYLINDER

1. Check the bore of the release cylinder for rust, scratches or damage.
2. 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**

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## NOTES