

## GROUP 21B

# CLUTCH OVERHAUL

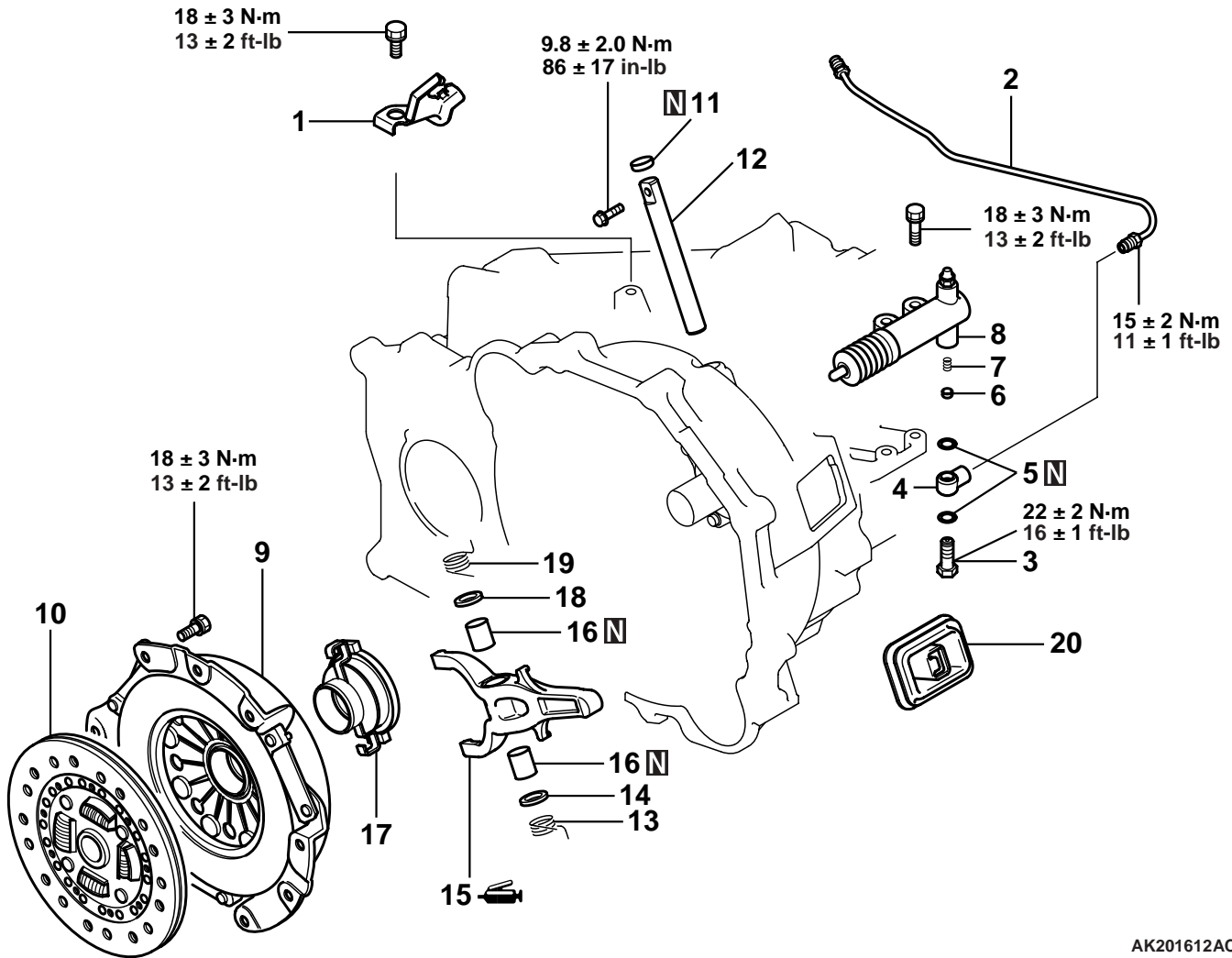
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CLUTCH

REMOVAL AND INSTALLATION

M1212001000084



AK201612AC

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

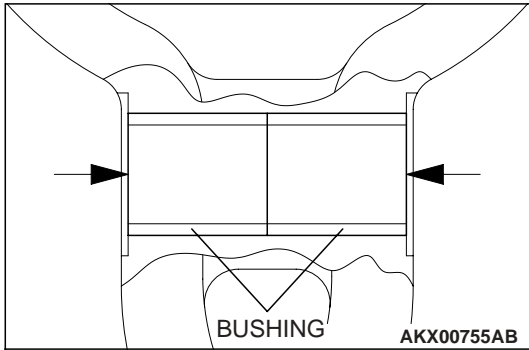
REMOVAL STEPS (Continued)

- >>C<< 11. SEALING CAP
12. RELEASE FORK SHAFT
13. SUPPORT SPRING (L)
14. PACKING
- >>B<< 15. RELEASE FORK
- >>A<< 16. BUSHING
17. CLUTCH RELEASE BEARING
18. PACKING
19. SUPPORT SPRING (R)
20. RELEASE FORK BOOT

**INSTALLATION SERVICE POINTS**

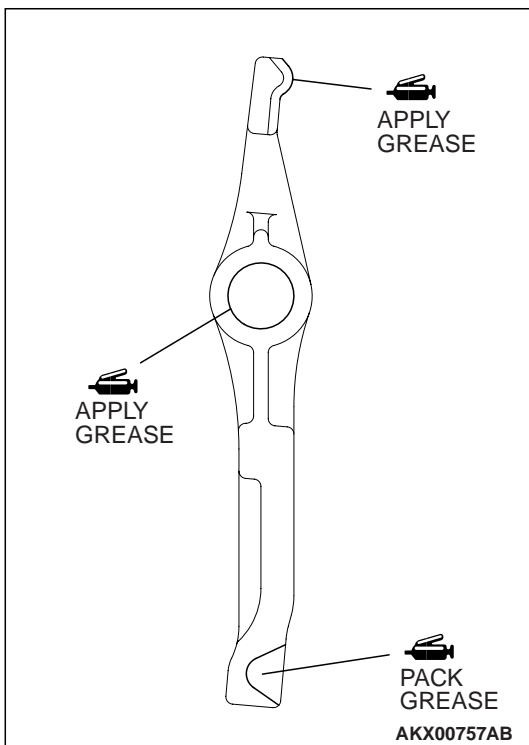
**>>A<< OUTER RACE INSTALLATION**

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



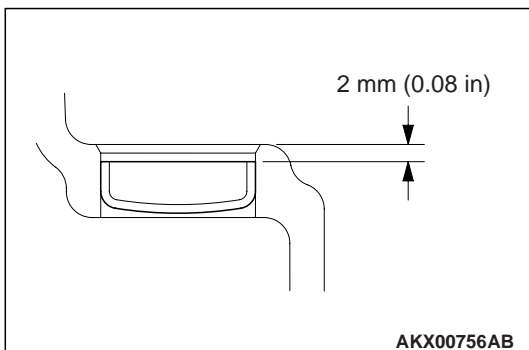
**>>B<< RELEASE FORK INSTALLATION**

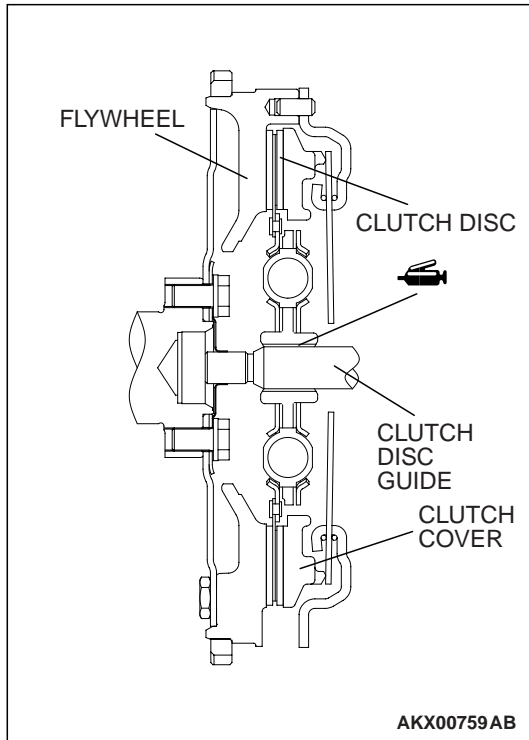
Apply Mitsubishi genuine grease part number 0101011 or equivalent to the illustrated positions of the release fork.



**>>C<< SEALING CAP INSTALLATION**

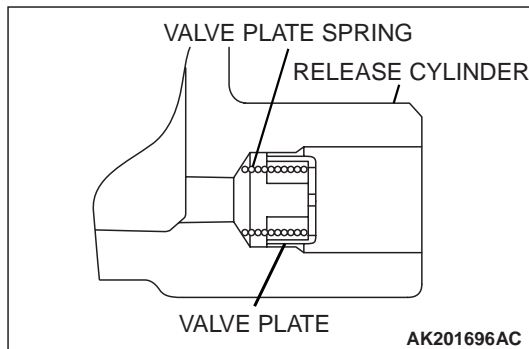
Press in the sealing cap to the position shown in the illustration. Be sure that it is not installed in a slanted position.





### >>D<< CLUTCH DISC AND CLUTCH COVER INSTALLATION

1. Apply Mitsubishi genuine grease part number 0101011 or equivalent to the clutch disc splines and rub it in the splines with a brush.
2. Using 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

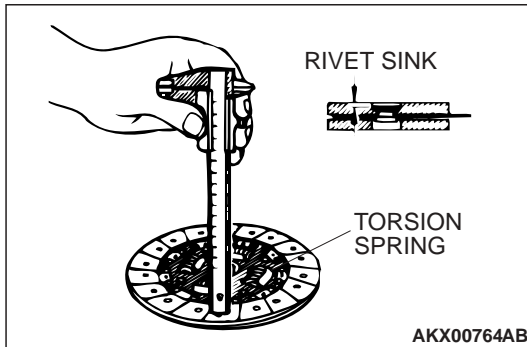
Set the springs large diameter side to the valve plate side, and install the valve plate spring and valve plate.

## CLUTCH INSPECTION

M1212001100070

### 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 (0.020 inch)**
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 (0.012 inch)**

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

### RELEASE FORK

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

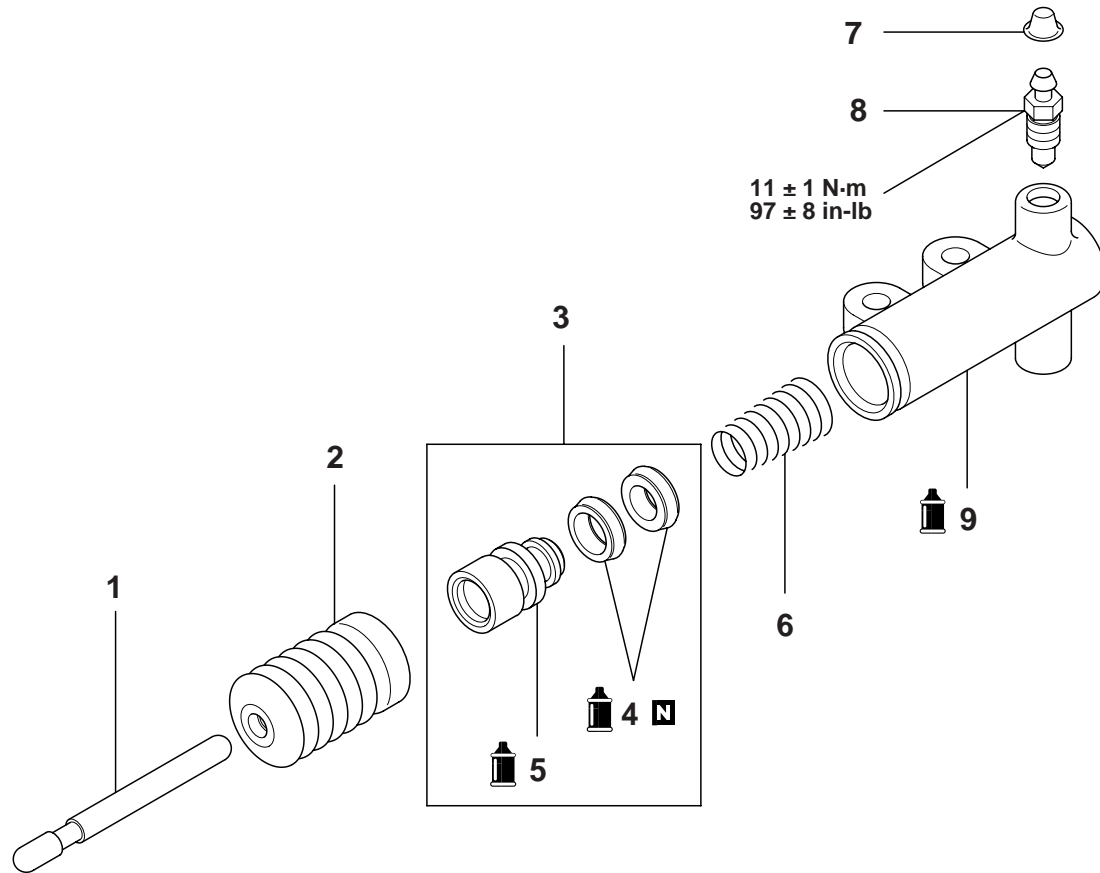
### RELEASE FORK SHAFT

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

# CLUTCH RELEASE CYLINDER

## DISASSEMBLY AND REASSEMBLY

M1212001500089



AKX00762AC

### DISASSEMBLY STEPS

<<A>> >>A<<

1. PUSH ROD
2. BOOT
3. PISTON ASSEMBLY
4. PISTON CUP
5. PISTON

### DISASSEMBLY STEPS

6. CONICAL SPRING
7. CAP
8. AIR BLEEDER
9. RELEASE CYLINDER

## DISASSEMBLY SERVICE POINT

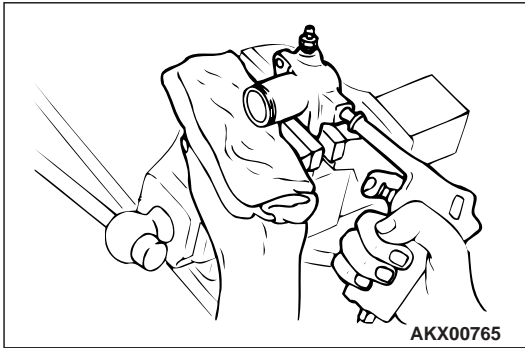
### <<A>> PISTON ASSEMBLY REMOVAL

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

#### CAUTION

Apply compressed air slowly to prevent brake fluid from splashing.

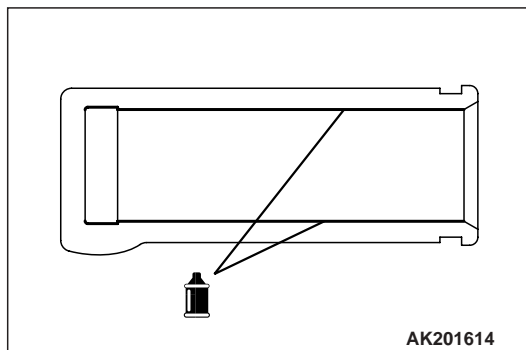
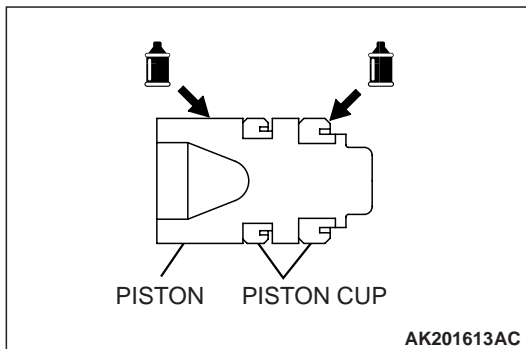
2. Apply the compressed air into the tube mounting hole to remove the piston assembly.



## ASSEMBLY SERVICE POINT

### >>A<< PISTON ASSEMBLY INSTALLATION

1. Apply brake fluid SAE J1703 (DOT3) to the piston cup and inner surface of the release cylinder.
2. Insert the piston assembly into the release cylinder.



## CLUTCH RELEASE CYLINDER INSPECTION

M1212001600086

### PISTON CUP

Check the lip of piston cup for scratch. If it is scratched, check the inner surface of the release cylinder for scratches.

### RELEASE CYLINDER

Check the inner surface of the release cylinder for scratches or abnormal wear, replace if necessary.

**SPECIFICATIONS****FASTENER TIGHTENING SPECIFICATIONS**

M1212001800080

ITEMS	SPECIFICATIONS
Clutch cover mounting bolt	18 ± 3 N·m (13 ± 2 ft-lb)
Clutch fluid line bracket bolt	18 ± 3 N·m (13 ± 2 ft-lb)
Clutch release cylinder air bleeder	11 ± 1 N·m (97 ± 8 in-lb)
Clutch release cylinder mounting bolt	18 ± 3 N·m (13 ± 2 ft-lb)
Clutch release cylinder union bolt	22 ± 2 N·m (16 ± 1 ft-lb)
Clutch tube flare nut	15 ± 2 N·m (11 ± 1 ft-lb)
Release fork shaft locking bolt	9.8 ± 2.0 N·m (87 ± 17 in-lb)

**GENERAL SPECIFICATIONS**

M1212000200115

ITEMS	SPECIFICATIONS
Clutch operating method	Hydraulic type
Clutch disc type	Single dry disc type
Clutch disc size OD x ID mm (in)	240 x 160 (9.36 x 6.24)
Clutch cover type	Diaphragm spring type
Clutch cover setting load N (lb)	9,320 (2094)
Clutch release cylinder ID mm (in)	20.64 (13/16)

**SERVICE SPECIFICATIONS**

M1212000300082

ITEMS	LIMIT
Clutch disc facing rivet sink mm (in)	Minimum 0.3 (0.012)
Diaphragm spring end height difference mm (in)	0.5 (0.020)

**LUBRICANTS**

M1212000400090

ITEMS	SPECIFIED LUBRICANTS
Release fork and release cylinder pushrod contact surface	MITSUBISHI genuine grease Part Number 0101011 or equivalent
Release fork and release bearing contact surface	
Release fork bushing inner surface	
Piston and piston cup	Brake fluid SAE J1703 (DOT3)
Release cylinder inner surface	