GROUP 21B

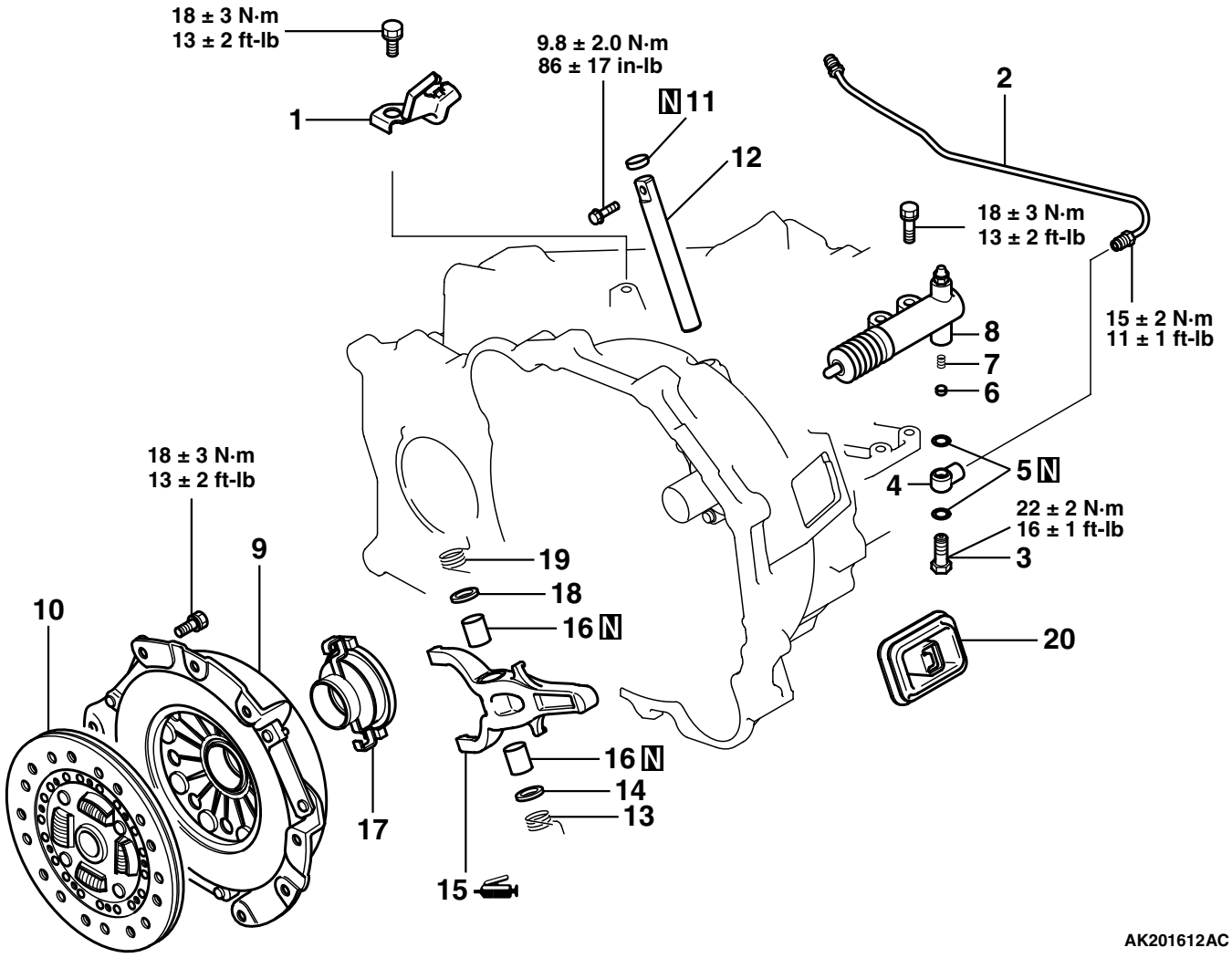
CLUTCH OVERHAUL <W5M51>

CONTENTS

CLUTCH

REMOVAL AND INSTALLATION

M1212001000255



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

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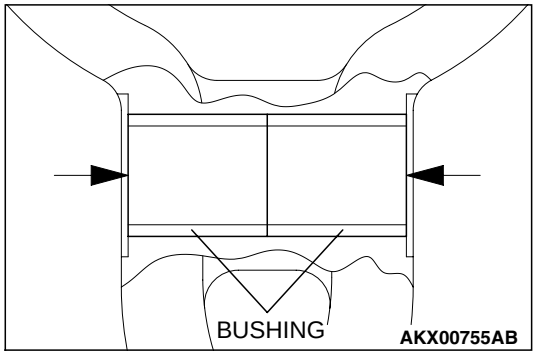
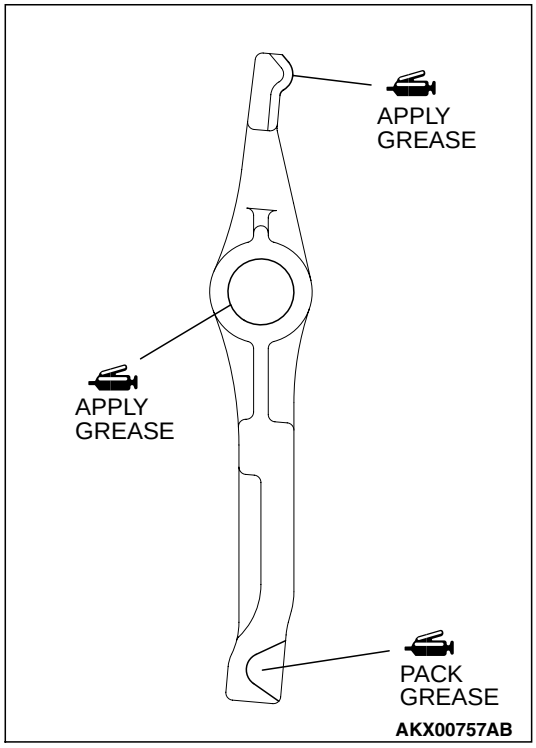
INSTALLATION SERVICE POINTS

>>A<< OUTER RACE INSTALLATION



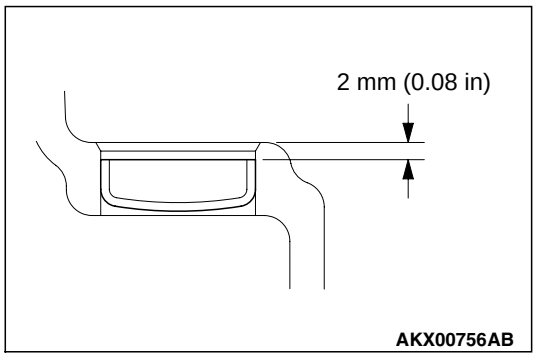
Press in the bushing into the release fork to the position shown in the illustration.

>>B<< RELEASE FORK INSTALLATION

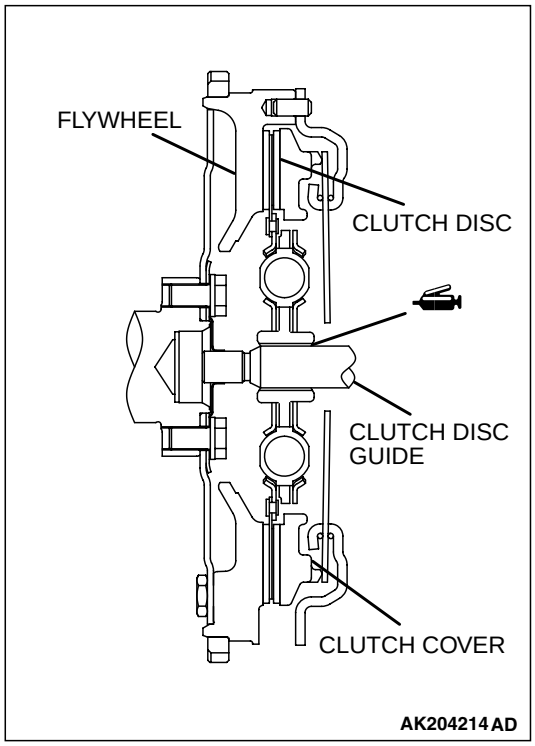


Apply Mitsubishi genuine grease part No.0101011 or equivalent to the illustrated positions of the release fork.

>>C<< SEALING CAP INSTALLATION

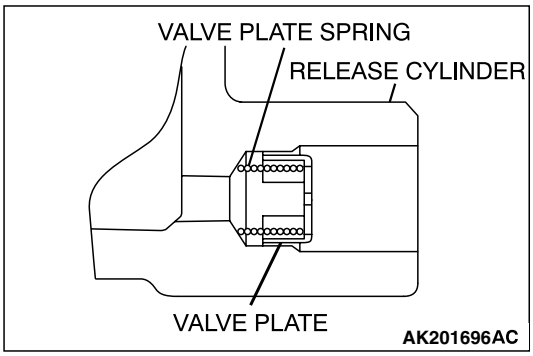


Press in the sealing cap to the position shown in the illustration. Be sure that it is not installed in a slanted position.



>>D<< CLUTCH DISC AND CLUTCH COVER INSTALLATION

1. Apply Mitsubishi genuine grease part No.0101011 or equivalent to the clutch disc splines and rub it in the splines with a brush.
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.

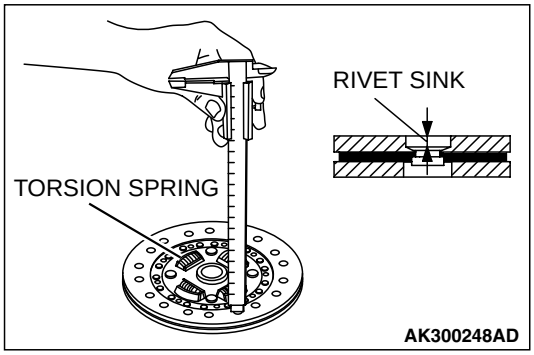
INSPECTION

M1212001100229

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. 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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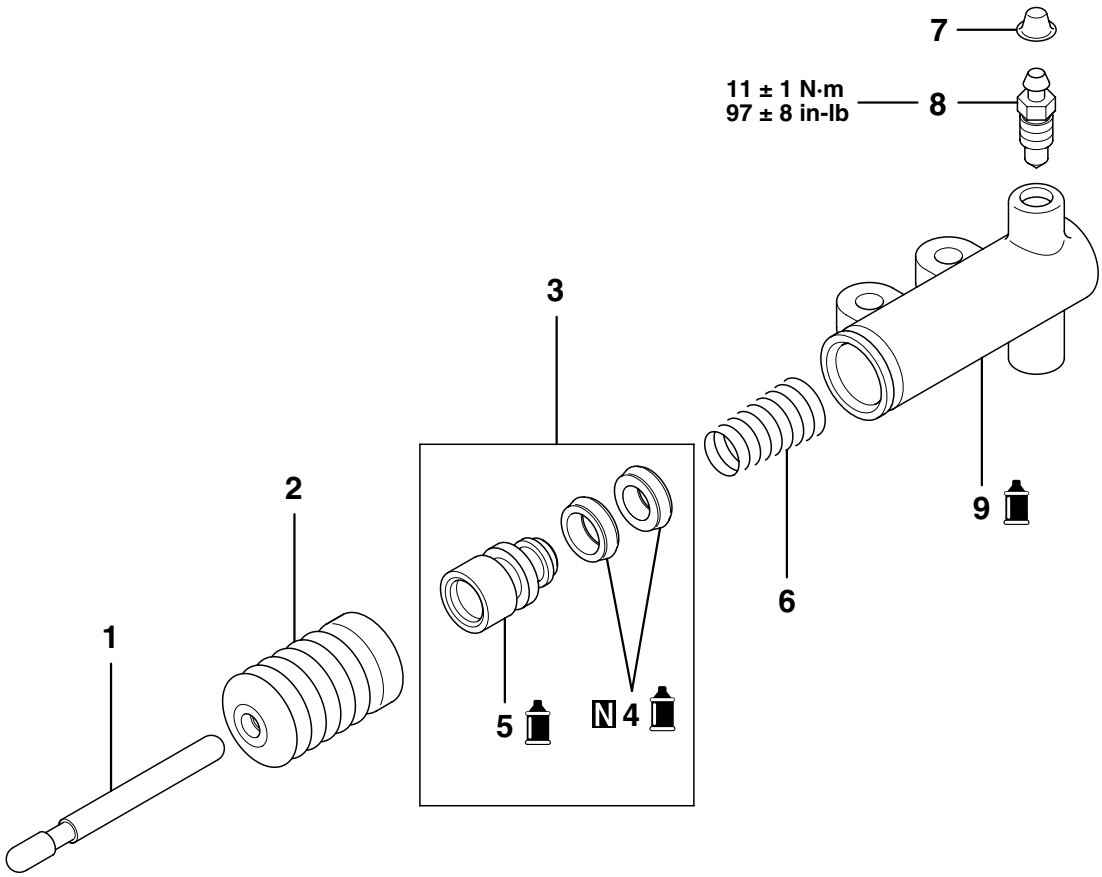

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DISASSEMBLY STEPS

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

DISASSEMBLY STEPS

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

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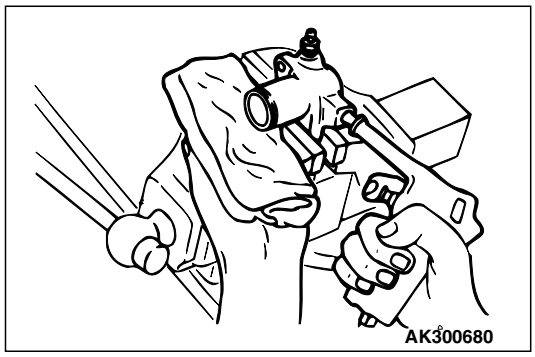
DISASSEMBLY SERVICE POINT

<<A>> PISTON ASSEMBLY REMOVAL



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

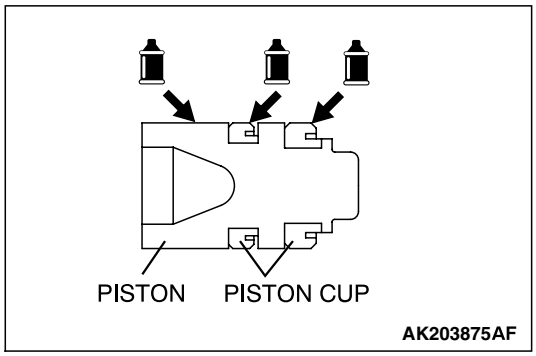
⚠ CAUTION

Apply compressed air slowly to prevent brake fluid from splashing.

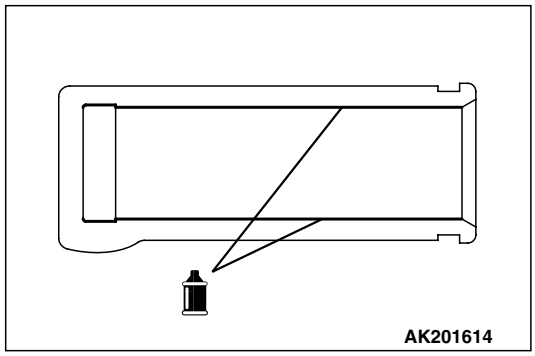
2. Apply the compressed air into the tube mounting hole to remove the piston assembly.

ASSEMBLY SERVICE POINT

>>A<< PISTON ASSEMBLY INSTALLATION



1. Apply brake fluid DOT3 or DOT4 to the piston cup and inner surface of the release cylinder.
2. Insert the piston assembly into the release cylinder.



INSPECTION

M1212001600224

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: 0.15mm (0.006in)

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

M1212001800240

ITEM	SPECIFICATION
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 (86 ± 17 in-lb)

GENERAL SPECIFICATIONS

M1212000200290

ITEM	SPECIFICATION
Clutch operating method	Hydraulic type
Clutch disc type	Single dry disc type
Clutch disc size OD x ID mm (in)	240 x 160 (9.45 x 6.30)
Clutch cover type	Diaphragm spring type
Clutch cover setting load N (lb)	9,320 (2095)
Clutch release cylinder ID mm (in)	20.64 (0.813)

SERVICE SPECIFICATIONS

M1212000300253

ITEM	LIMIT
Clutch disc facing rivet sink mm (in)	Minimum 0.3 (0.012)
Diaphragm spring end height difference mm (in)	0.5 (0.020)
Release cylinder I.D. to piston O.D. mm (in)	0.15 (0.006)

LUBRICANTS

M1212000400250

ITEM	SPECIFIED LUBRICANT
Release fork and release cylinder pushrod contact surface	Mitsubishi genuine grease part No. 0101011 or equivalent
Release fork and release bearing contact surface	
Release fork bushing inner surface	
Piston and piston cup	Brake Fluid DOT 3 or DOT 4
Release cylinder inner surface	