

GROUP 21B

CLUTCH
OVERHAUL
<F5M42,W5M42>

CONTENTS

GENERAL SPECIFICATIONS.....	21B-2	CLUTCH	21B-3
SERVICE SPECIFICATIONS.....	21B-2	DISASSEMBLY AND REASSEMBLY	21B-3
TORQUE SPECIFICATIONS.....	21B-2	INSPECTION.....	21B-6
LUBRICANTS	21B-2	CLUTCH RELEASE CYLINDER	21B-7
		DISASSEMBLY AND REASSEMBLY	21B-7
		INSPECTION.....	21B-8

GENERAL SPECIFICATIONS

M1212000200676

Item	Specification
Clutch operating method	Hydraulic type
Clutch disc type	Single dry disc type
Clutch disc size O.D. × I.D. mm	230 × 155
Clutch cover type	Diaphragm spring type
Clutch cover setting load N	4,320 ± 350

SERVICE SPECIFICATIONS

M1212000300316

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

M1212001800358

Item	Specifications
Clutch fluid line bracket bolt	18 ± 3 N·m
Clutch tube flare nut	15 ± 1 N·m
Clutch orifice mounting bolt <W5M42>	18 ± 3 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
Fulcrum	35 ± 6 N·m
Air bleeder	17 ± 1 N·m

LUBRICANTS

M1212000400335

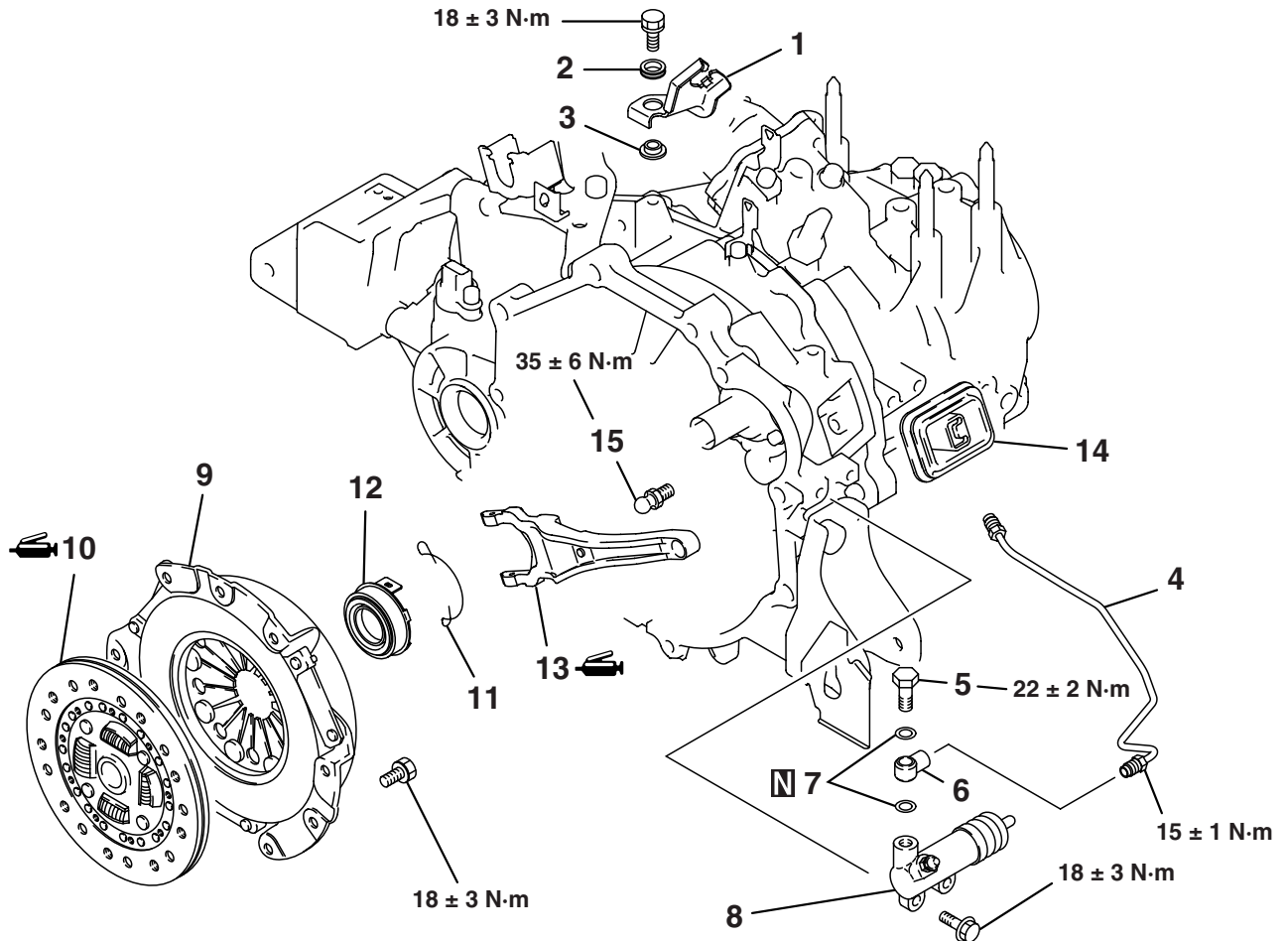
Item	Specified lubricant
Release fork and release bearing contact surface	Mitsubishi Part Number 0101011 or equivalent
Release fork and fulcrum contact surface	
Release fork and release cylinder pushrod contact surface	
Clutch disc splines	
Piston and piston cup	Brake fluid DOT3 or DOT4
Release cylinder inner surface	

CLUTCH

DISASSEMBLY AND REASSEMBLY

M1212001000664

<F5M42>



AK302748AC

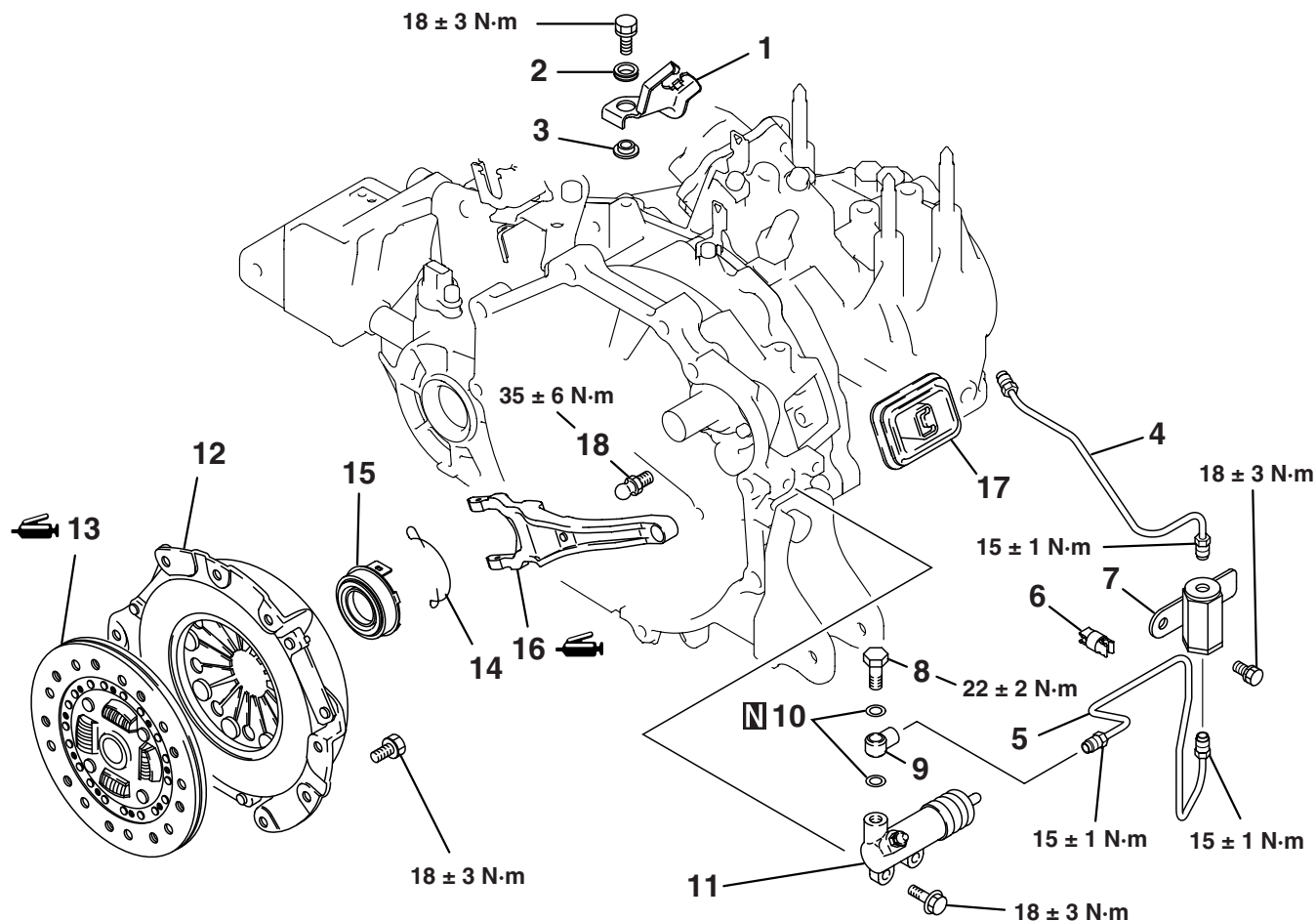
Removal steps

1. Clutch fluid line bracket
2. Insulator
3. Washer
4. Clutch tube
5. Union bolt
6. Union
7. Gasket
8. Clutch release cylinder
- >>B<< 9. Clutch cover

Removal steps (Continued)

- >>B<< 10. Clutch disc
11. Return clip
12. Clutch release bearing
- <<A>> >>A<< 13. Release fork
14. Release fork boot
15. Fulcrum

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AK302278AF

Removal steps

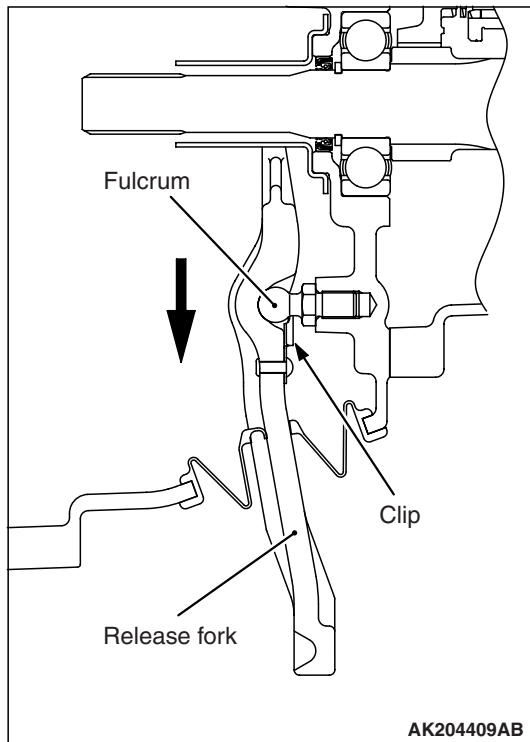
1. Clutch fluid line bracket
2. Insulator
3. Washer
4. Clutch tube
5. Clutch tube
6. Tube clip
7. Clutch orifice
8. Union bolt
9. Union
10. Gasket

Removal steps (Continued)

11. Clutch release cylinder
- >>B<< 12. Clutch cover
- >>B<< 13. Clutch disc
14. Return clip
15. Clutch release bearing
- <<A>> >>A<< 16. Release fork
17. Release fork boot
18. Fulcrum

REMOVAL SERVICE POINT

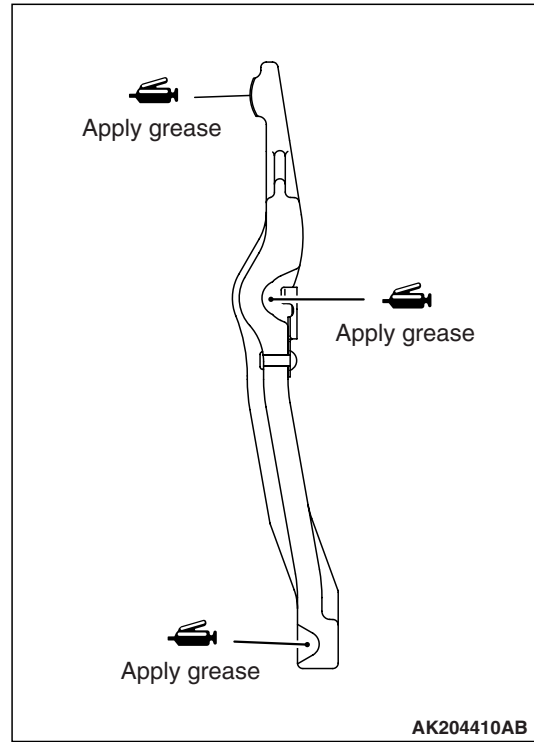
<<A>> RELEASE FORK REMOVAL



Move the release fork in the direction shown to remove the clip from the fulcrum.

INSTALLATION SERVICE POINTS

>>A<< RELEASE FORK INSTALLATION



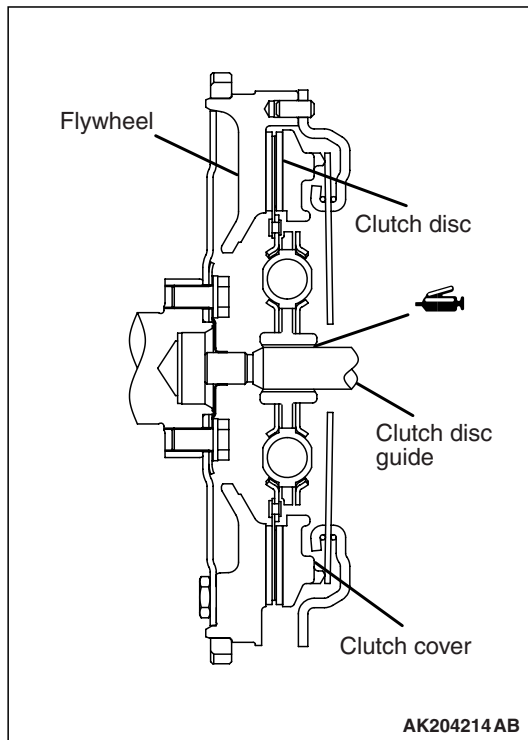
1. Apply grease to the illustrated positions of the release fork.

Specified grease:

Mitsubishi Part No. 0101011 or equivalent

2. Install the release fork to the fulcrum.

>>B<< CLUTCH DISC AND CLUTCH COVER INSTALLATION



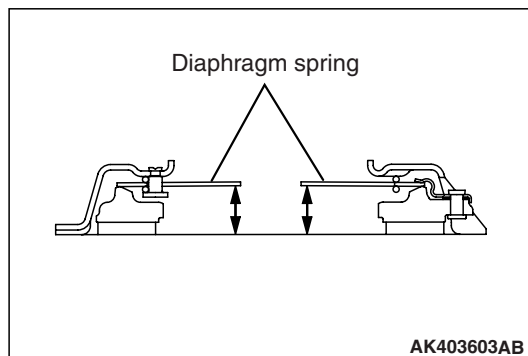
1. Apply Mitsubishi grease to the clutch disc splines and rub it in the splines with a brush.

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

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

INSPECTION

M1212001100304

CLUTCH COVER

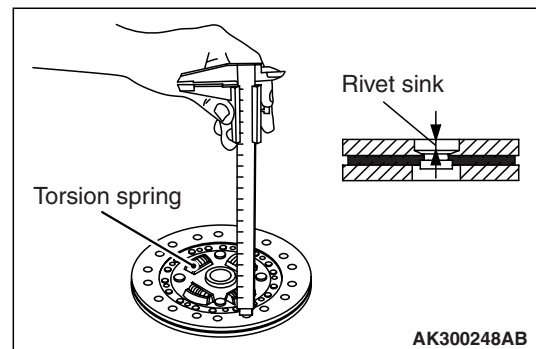
1. Check the diaphragm spring end for wear and uneven height. Replace if wear is evident or height difference exceeds the limit.

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.

NOTE: If contaminated with grease or oil, determine the source of the contaminant and repair it.

2. Measure the rivet sink. 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. Place the clutch disc on 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 binding/rough 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.

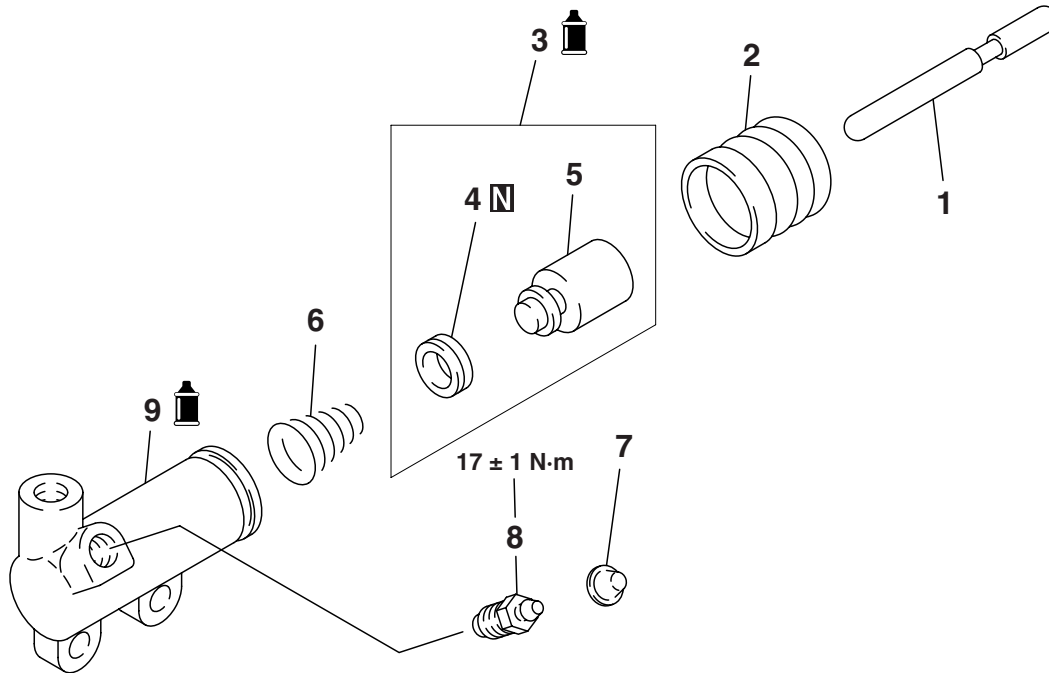
RELEASE FORK

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

CLUTCH RELEASE CYLINDER

DISASSEMBLY AND REASSEMBLY

M1212001500272



AK204216AB

Disassembly steps

<<A>> >>A<<

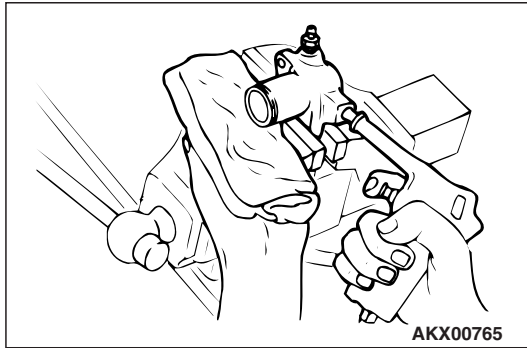
1. Push rod
2. Boot
3. Piston assembly
4. Piston cup
5. Piston

Disassembly steps (Continued)

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

DISASSEMBLY SERVICE POINT

<<A>> PISTON ASSEMBLY REMOVAL



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

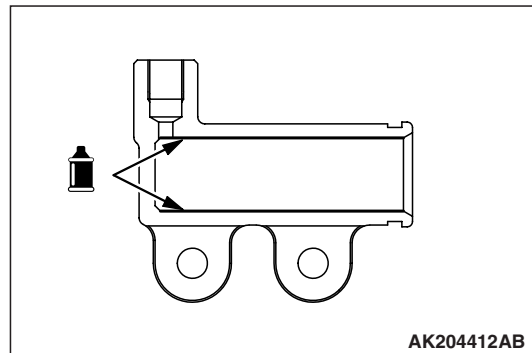
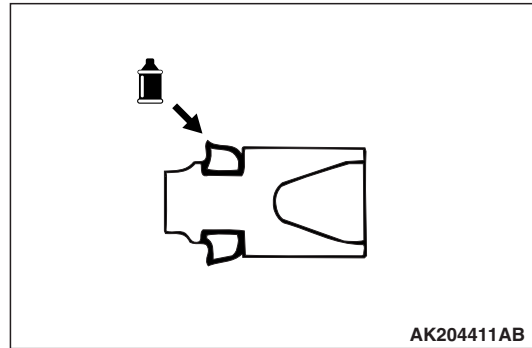
CAUTION

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

M1212001600279

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 there positions (the deepest, middle and brim positions).
Limit: 0.15 mm
3. If the clearance from the outside diameter of the piston exceeds the limit, replace the release cylinder as an assembly.