### **GROUP 21B**

# **CLUTCH OVERHAUL**

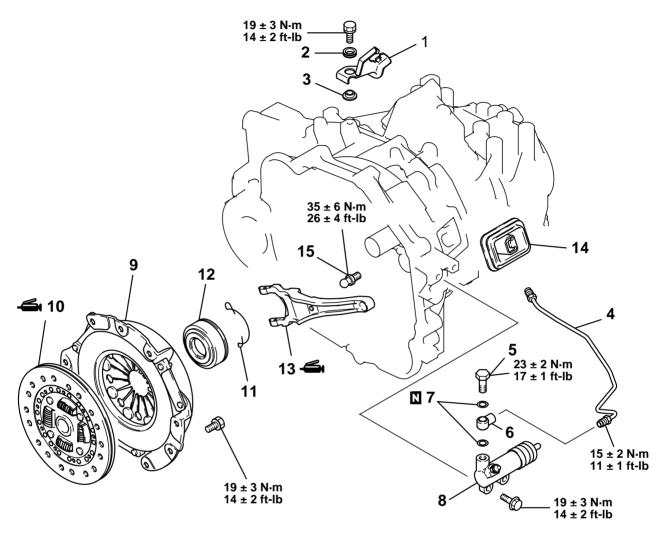
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#### **CLUTCH**

## REMOVAL AND INSTALLATION <2.4LENGINE>

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#### **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

#### **REMOVAL STEPS (Continued)**

>>B<< 9. CLUTCH COVER >>B<< 10.CLUTCH DISC

11. RETURN CLIP

12.CLUTCH RELEASE BEARING

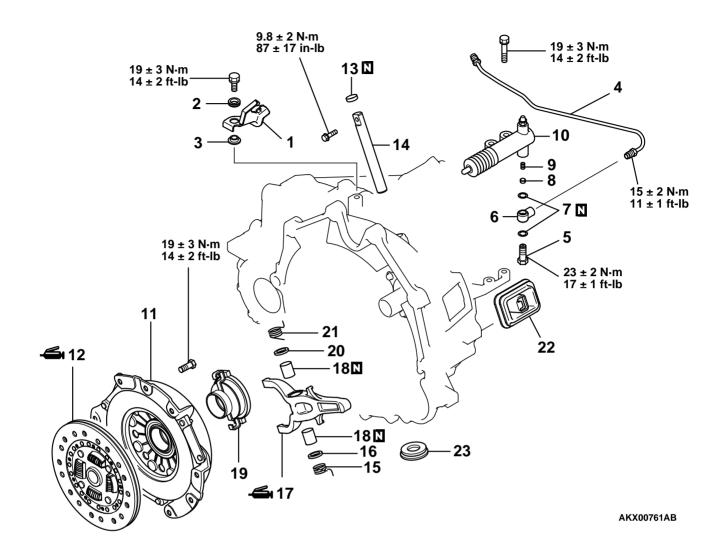
<<A>>> >>A<< 13.RELEASE FORK

14.RELEASE FORK BOOT

15.FULCRUM

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#### <3.0L ENGINE>



#### **REMOVAL STEPS**

- 1. CLUTCH FLUID LINE BRACKET
- 2. INSULATOR
- 3 WASHER
- 4. CLUTCH TUBE
- 5. UNION BOLT
- 6. UNION
- 7. GASKET
- 8. VALVE
- 9. VALVE SPRING
- 10.CLUTCH RELEASE CYLINDER
- >>B<< 11.CLUTCH COVER >>B<< 12.CLUTCH DISC

#### **REMOVAL STEPS (Continued)**

>>E<< 13.SEALING CAP

14.RELEASE FORK SHAFT 15.SUPPORT SPRING (L)

16.PACKING

>>D<< 17.RELEASE FORK

>>C<< 18.BUSHING

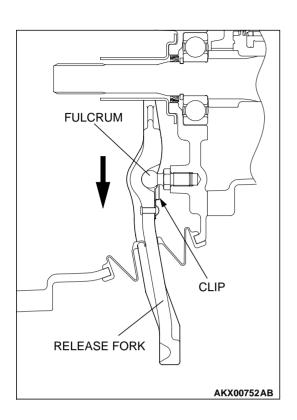
19.CLUTCH RELEASE BEARING

20.PACKING

21.SUPPORT SPRING (R)

22.RELEASE FORK BOOT

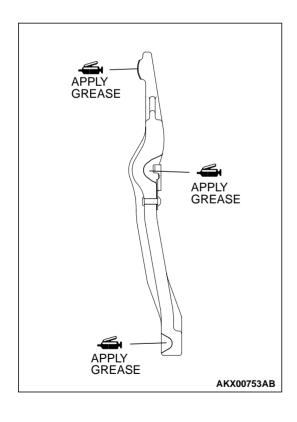
23.MAINTENANCE HOLE COVER



#### **REMOVAL SERVICE POINT**

#### <<A>> RELEASE FORK REMOVAL

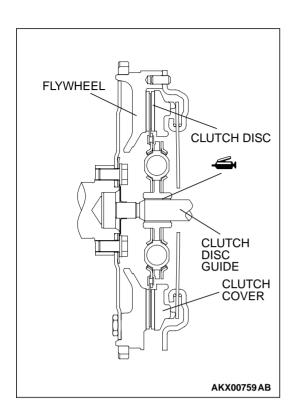
Move the release fork in the direction shown to remove the clip from the fulcrum.



#### **INSTALLATION SERVICE POINTS**

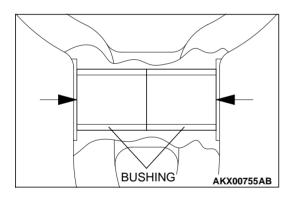
#### >>A<< RELEASE FORK INSTALLATION

- 1. Apply Mitsubishi genuine grease part number 0101011 or equivalent to the illustrated positions of the release fork.
- 2. Install the release fork to the fulcrum.



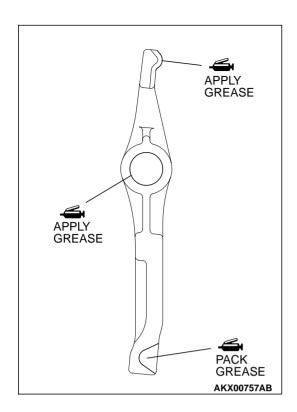
## >>B<< CLUTCH DISC AND CLUTCH COVER INSTALLATION

- 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.



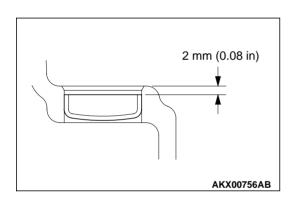
#### >>C<< OUTER RACE INSTALLATION

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



#### >>D<< RELEASE FORK INSTALLATION

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



#### >>E<< 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.

#### **CLUTCH INSPECTION**

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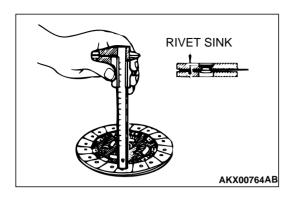
#### **CLUTCH COVER**

 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.

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#### **CLUTCH DISC**

#### **↑** CAUTION

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

- 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 <3.0L ENGINE>**

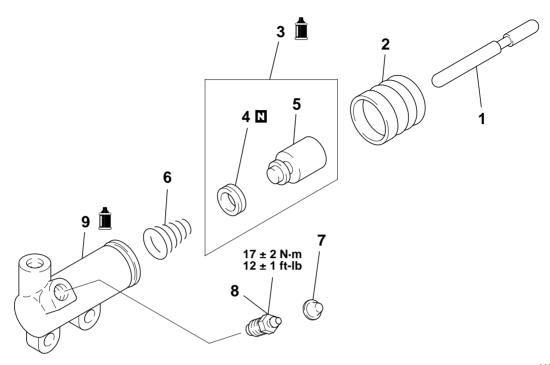
Check the release fork shaft for bend and wear, and replace if necessary.

#### **CLUTCH RELEASE CYLINDER**

#### **DISASSEMBLY AND REASSEMBLY**

#### <2.4L ENGINE>

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#### **DISASSEMBLY STEPS**

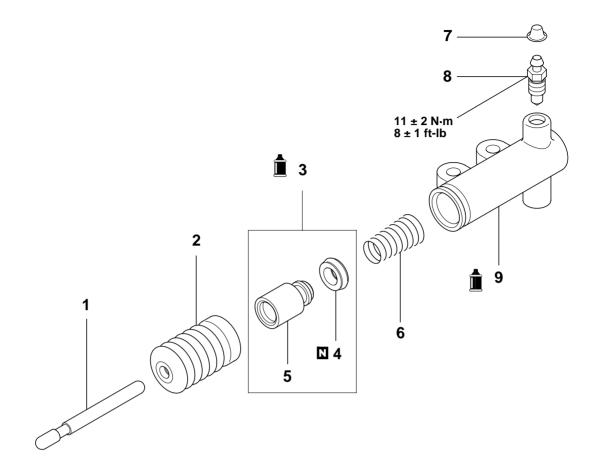
- 1. PUSH ROD
- 2. BOOT
- <<a>>> >> A<< 3 PISTON ASSEMBLY</a>
  - 4. PISTON CUP
  - 5. PISTON

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#### **DISASSEMBLY STEPS (Continued)** 6. CONICAL SPRING

- 7. CAP
- 8. AIR BLEEDER
- 9. RELEASE CYLINDER

#### <3.0L ENGINE>



#### **DISASSEMBLY STEPS**

1. PUSH ROD

2. BOOT

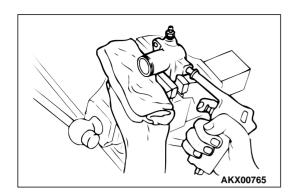
- <<a>>> >> >> >> A<</a> 3 PISTON ASSEMBLY
  - 4. PISTON CUP
  - 5. PISTON

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#### **DISASSEMBLY STEPS (Continued)**

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

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#### **DISASSEMBLY SERVICE POINT**

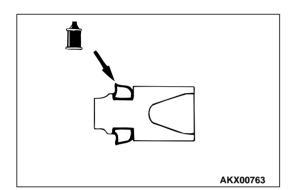
#### <<A>> PISTON ASSEMBLY REMOVAL

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

#### **⚠** CAUTION

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

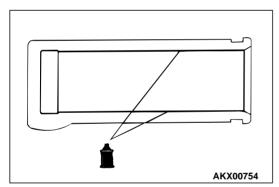
2. Apply the compressed air into the tube mounting hole to remove the piston assembly.



#### **ASSEMBLY SERVICE POINT**

#### >>A<< PISTON ASSEMBLY INSTALLATION

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



#### **INSPECTION**

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#### **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**

M1212001800046

ITEMS	SPECIFICATIONS	
Clutch cover mounting bolt	19 ± 3 N·m (14 ± 2 ft-lb)	
Clutch fluid line bracket bolt	19 ± 3 N·m (14 ± 2 ft-lb)	
Clutch release cylinder air bleeder <2.4L engine>	17 ± 2 N·m (12 ± 1 ft-lb)	
Clutch release cylinder air bleeder <3.0L engine>	11 ± 2 N·m (8 ± 1 ft-lb)	
Clutch release cylinder mounting bolt	19 ± 3 N·m (14 ± 2 ft-lb)	
Clutch release cylinder union bolt	23 ± 2 N·m (17 ± 1 ft-lb)	
Clutch tube flare nut	15 ± 2 N·m (11 ± 1 ft-lb)	
Fulcrum <2.4L engine>	35 ± 6 N·m (26 ± 4 ft-lb)	
Release fork shaft locking bolt <3.0L engine>	9.8 ± 2 N·m (87 ± 17 in-lb)	

#### **GENERAL SPECIFICATIONS**

M1212000200041

ITEMS	SPECIFICATIONS	
Clutch operating method	Hydraulic type	
Clutch disc type Single dry disc type		
Clutch disc size OD x ID mm (in) <2.4L engine> 215 x 140 (8.46 x 5.5		
Clutch disc size OD x ID mm (in) <3.0L engine> 225 x 150 (8.87 x 5		
Clutch cover type	Diaphragm spring type	
Clutch cover setting load N (lb) <2.4L engine>	4,539 (1,014)	
Clutch cover setting load N (lb) <3.0L engine>	5,864 (1,318)	
Clutch release cylinder ID mm (in) <2.4L engine>	19.05 (3/4)	
Clutch release cylinder ID mm (in) <3.0L engine>	20.64 (13/16)	

#### **SERVICE SPECIFICATIONS**

M1212000300048

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**

M1212000400056

ITEMS	SPECIFIED LUBRICANTS	
Release fork and fulcrum contact surface <2.4L engine>	MITSUBISHI genuine grease Part Number 0101011 or equivalent	
Release fork and release cylinder pushrod contact surface		
Release fork and release bearing contact surface		
Release fork bushing inner surface <3.0L engine>		
Piston and piston cup	Brake fluid SAE J1703 (DOT3)	
Release cylinder inner surface		

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**NOTES**