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**GROUP 21B****CLUTCH  
OVERHAUL****CONTENTS**

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**GENERAL SPECIFICATIONS**

M1212000201000

Item	Specification
Clutch disc type	Single dry disc type
Facing diameter O.D. × I.D. mm (in)	240 × 160 (9.45 × 6.20)
Clutch cover type	Diaphragm spring pull type
Setting load N (lb)	9,320 ± 750 (2,095 ± 168)
Clutch control	Hydraulic system

**SERVICE SPECIFICATIONS**

M1212000300587

Item	Limit
Clutch cover diaphragm spring end height difference mm (in)	0.5 (0.020)
Clutch disc facing rivet sink mm (in)	0.3 (0.012)
Release cylinder I.D. to piston O.D. clearance mm (in)	0.15 (0.006)

**TORQUE SPECIFICATIONS**

M1212001800916

Item	Specification
Clip bracket mounting bolt	24 ± 4 N· m (17 ± 2 ft-lb)
Clutch fluid line bracket mounting bolt	24 ± 4 N· m (17 ± 2 ft-lb)
Release fork shaft mounting bolt	10 ± 2 N· m (88 ± 17 in-lb)
Clutch cover mounting bolt	27 ± 1 N· m (20 ± 1 ft-lb)
Union bolt	22 ± 2 N· m (16 ± 1 ft-lb)
Air bleeder	11 ± 1 N· m (97 ± 8 in-lb)

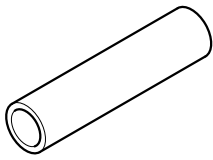
## LUBRICANTS

M1212000400636

Item	Specified lubricants
Release bearing to release fork contact surface	Mitsubishi Part No. 0101011 or equivalent
Clutch disc spline	
Piston and piston cup outer surface	Rubber grease
Release cylinder inner surface	Brake Fluid DOT 3 or DOT 4

## SPECIAL TOOLS

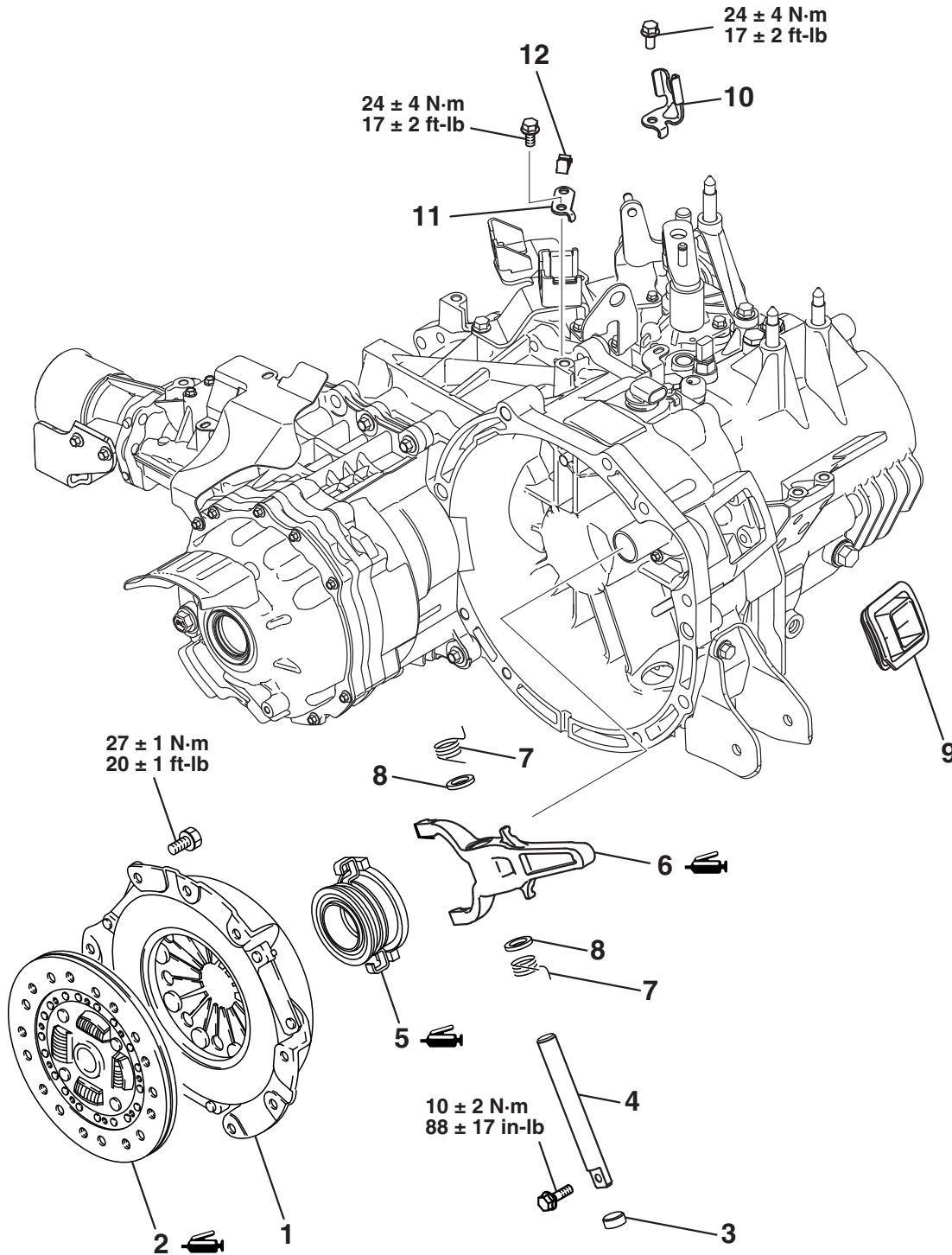
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Tool	Tool number and name	Supersession	Application
	MD999601 Valve stem seal installer	-	Installation of sealing cap

CLUTCH

REMOVAL AND INSTALLATION

M1212001001173



Removal steps

- >>C<< 1. Clutch cover
- >>C<< 2. Clutch disc
- >>B<< 3. Sealing cap

Removal steps (Continued)

- 4. Release fork shaft
- 5. Release bearing
- >>A<< 6. Release fork

**Removal steps (Continued)**

7. Spring support
8. Packing
9. Release fork boot
10. Clutch fluid line bracket
11. Clip bracket
12. Clip

**Required Special Tools:**

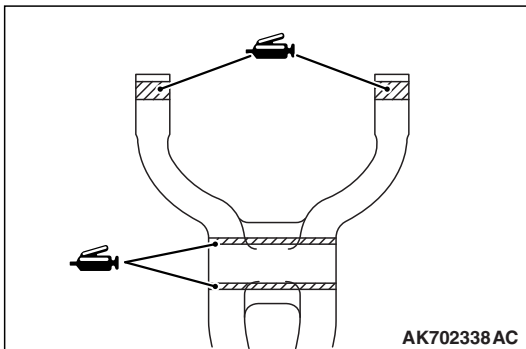
- MD999601: Valve stem seal installer

**INSTALLATION SERVICE POINTS**

**>>A<< RELEASE FORK INSTALLATION**

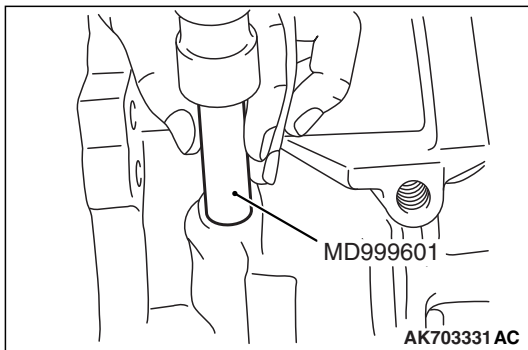
Apply specified grease to the illustrated positions of the release fork.

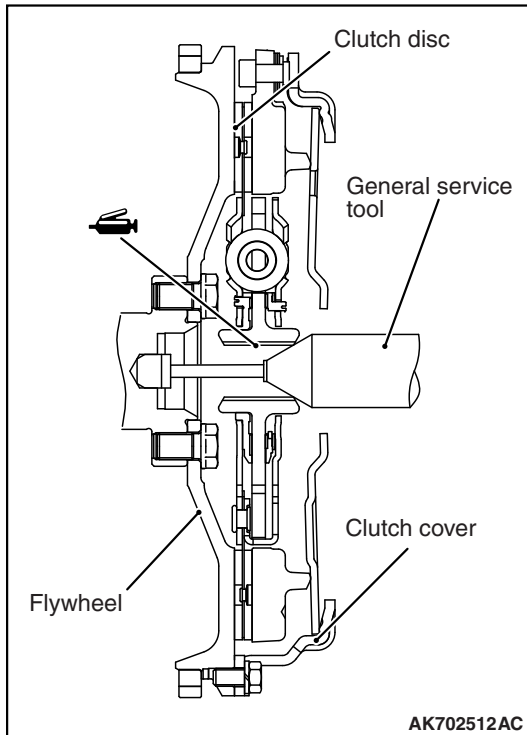
**Specified grease: Mitsubishi Part No. 0101011 or equivalent**



**>>B<< SEALING CAP INSTALLATION**

Using the special tool, MD999601, press-fit the sealing cap into the end face of the clutch housing.



**>>C<< CLUTCH DISC / CLUTCH COVER  
INSTALLATION**

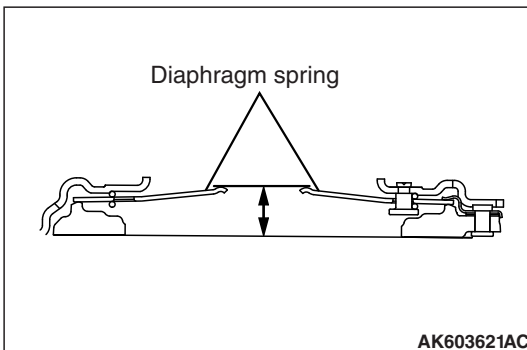
1. Apply specified grease to the clutch disc splines.  
**Specified grease: Mitsubishi Part No. 0101011 or equivalent**
2. Using a general service tool, position the clutch disc on the flywheel
3. Install the clutch cover onto the flywheel, and tighten bolts in the diagonal order.
4. Remove the general service tool

**INSPECTION**

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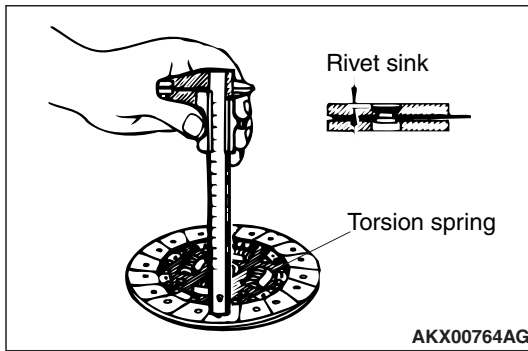
**CLUTCH COVER**

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 (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.

*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 (0.012 inch)**

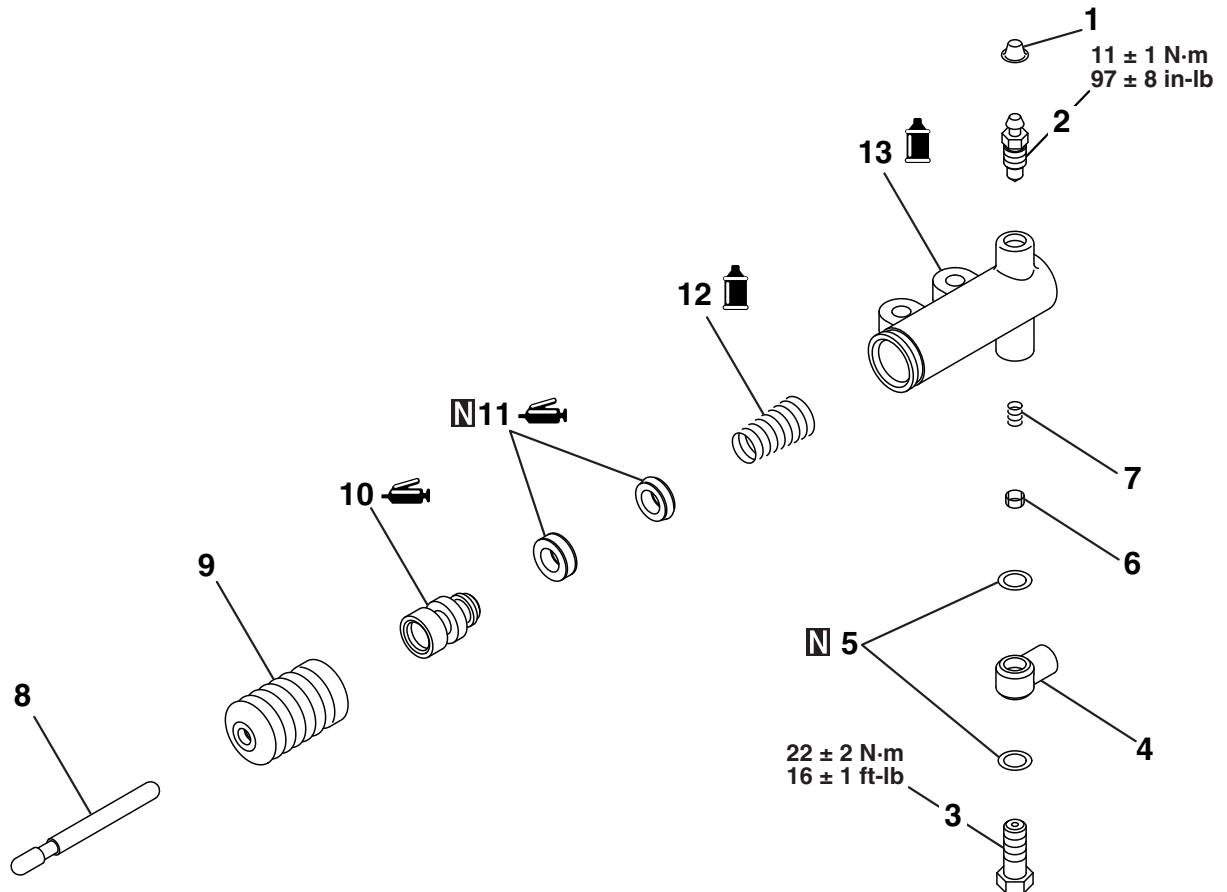
3. Check the torsion spring for play and damage. If defective, replace the clutch disc.

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 CYLINDER

### DISASSEMBLY AND ASSEMBLY

M1212001500595



#### DISASSEMBLY STEPS

1. Cap
2. Air breather
3. Union bolt
4. Union
5. Gasket
- >>B<< 6. Valve plate
- >>B<< 7. Valve plate spring

#### DISASSEMBLY STEPS

8. Push rod
9. Boot
10. Piston
- <<A>> >>A<< 11. Piston cup
- <<A>> >>A<< 12. Conical spring
13. Release cylinder

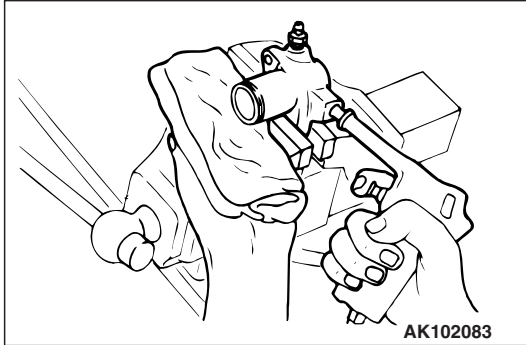
## DISASSEMBLY SERVICE POINT

## &lt;&lt;A&gt;&gt; PISTON / PISTON CUP REMOVAL

**⚠ CAUTION**

Covering with a shop towel or the like, apply compressed air slowly to prevent the piston from popping up and brake fluid from splashing.

Using compressed air, remove the piston assembly from the release cylinder.

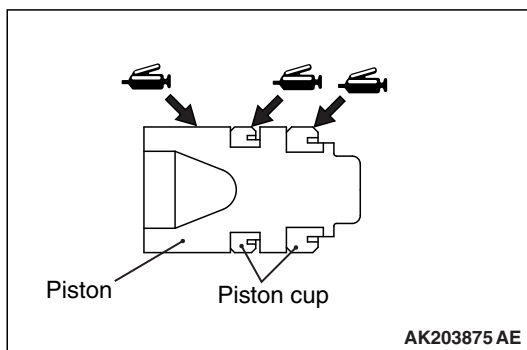
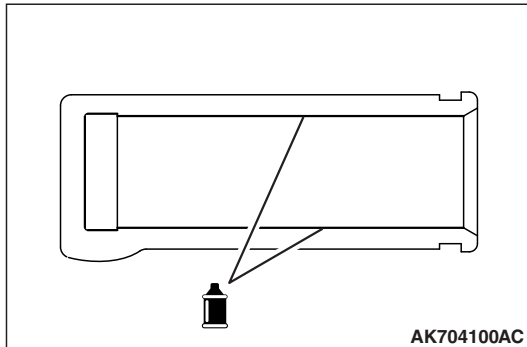


## ASSEMBLY SERVICE POINT

## &gt;&gt;A&lt;&lt; PISTON CUP / PISTON INSTALLATION

1. Apply brake fluid to the entire inner surface of the release cylinder.

**Specified brake fluid: Brake fluid DOT 3 or DOT 4**



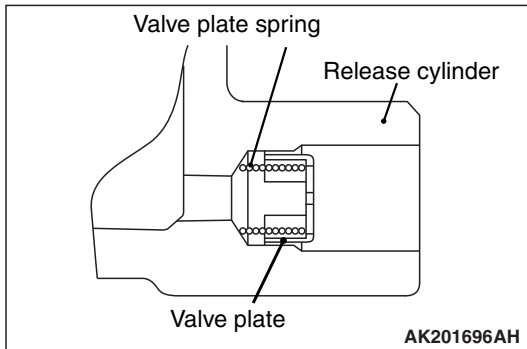
2. Apply grease to the piston and piston cups and insert the piston assembly into the release cylinder.

**Specified grease: Rubber grease**



## >>B<< VALVE PLATE SPRING / VALVE PLATE INSTALLATION

Install the valve plate spring and valve plate into place with the large end of the spring to the valve plate side.



## INSPECTION

M1212001600387

### 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 (0.006 inch)**

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## NOTES