

CLUTCH

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1. SPECIFICATIONS

SERVICE SPECIFICATIONS

mm (in.)

	Limit
Clutch disc	
Rivet sink	0.3 (0.012)
Clutch cover assembly	
Diaphragm spring end height difference	0.5 (0.020)

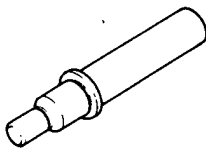
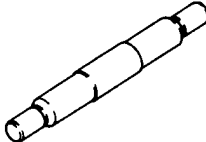
TORQUE SPECIFICATIONS

	Torque		
	Nm	kgm	ft.lbs.
Clutch cover bolt	15 – 22	1.5 – 2.2	11 – 15
Release cylinder attaching bolt (Except R5M31, V5M31, V5MT1)	30 – 41	3.0 – 4.1	22 – 30
Release cylinder attaching bolt (R5M31, V5M31)	36	3.6	26
Release cylinder attaching bolt (V5MT1)	31 – 42	3.1 – 4.2	23 – 30
Transmission attaching bolt	43 – 55	4.3 – 5.5	32 – 39
Release cylinder union bolt	2.0 – 5.0	0.2 – 0.5	1.5 – 3.6
Weight attaching bolt (Cable Type)	15 – 22	1.5 – 2.2	11 – 15
Release cylinder bleeder plug	9 – 13	0.9 – 1.3	6.6 – 9.4
Release fork fulcrum (Except R5M31, V5M31, V5MT1)	30 – 42	3.0 – 4.2	21.7 – 30.3
Release fork fulcrum (R5M31, V5M31)	36	3.6	26
Release fork fulcrum (V5MT1)	58	5.8	41
Release fork shaft mounting bolt (V5M31)	11	1.1	8.0

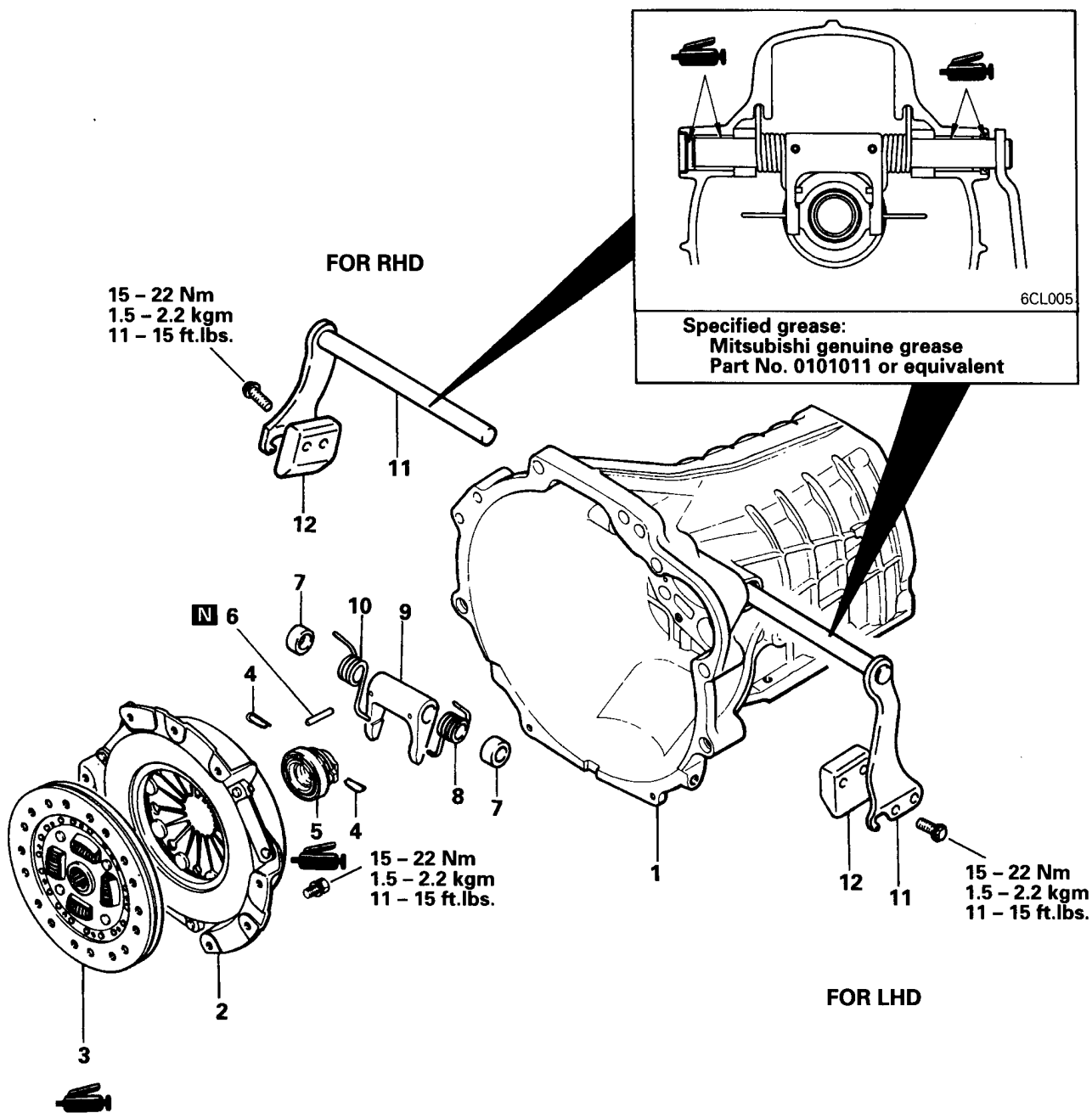
LUBRICANTS

	Specified lubricants	Quantity
Clutch release fork shaft bearing	MITSUBISHI genuine grease Part No. 0101011 or equivalent	As required
Clutch release bearing inside (except V5MT1)	MITSUBISHI genuine grease Part No. 0101011 or equivalent	As required
(V5MT1 only)	MOLYKOTE BR-2 PLUS	As required
Clutch disc spline (except V5MT1)	MITSUBISHI genuine grease Part No. 0101011 or equivalent	As required
(V5MT1 only)	MOLYKOTE BR-2 PLUS	As required
Release fork fulcrum (except V5MT1)	MITSUBISHI genuine grease Part No. 0101011 or equivalent	As required
(V5MT1 only)	MOLYKOTE BR-2 PLUS	As required
Clutch release bearing to release fork contact surface	MITSUBISHI genuine grease Part No. 0101011 or equivalent	As required
End of release cylinder push rod (R5M31, V5M31)	MITSUBISHI genuine grease Part No. 0101011 or equivalent	As required
Release fork to release fork shaft contact surface (V5M31)	MITSUBISHI genuine grease Part No. 0101011 or equivalent	As required
Release cylinder I.D.	Brake fluid SAEJ1703 (DOT3)	As required

2. SPECIAL TOOLS

Tool	Number	Name	Use
	MD998127	Clutch disc center guide	Aligning clutch disc center hole (except V5MT1)
	MD998828	Clutch disc center guide	Aligning clutch disc center hole (V5MT1 only)

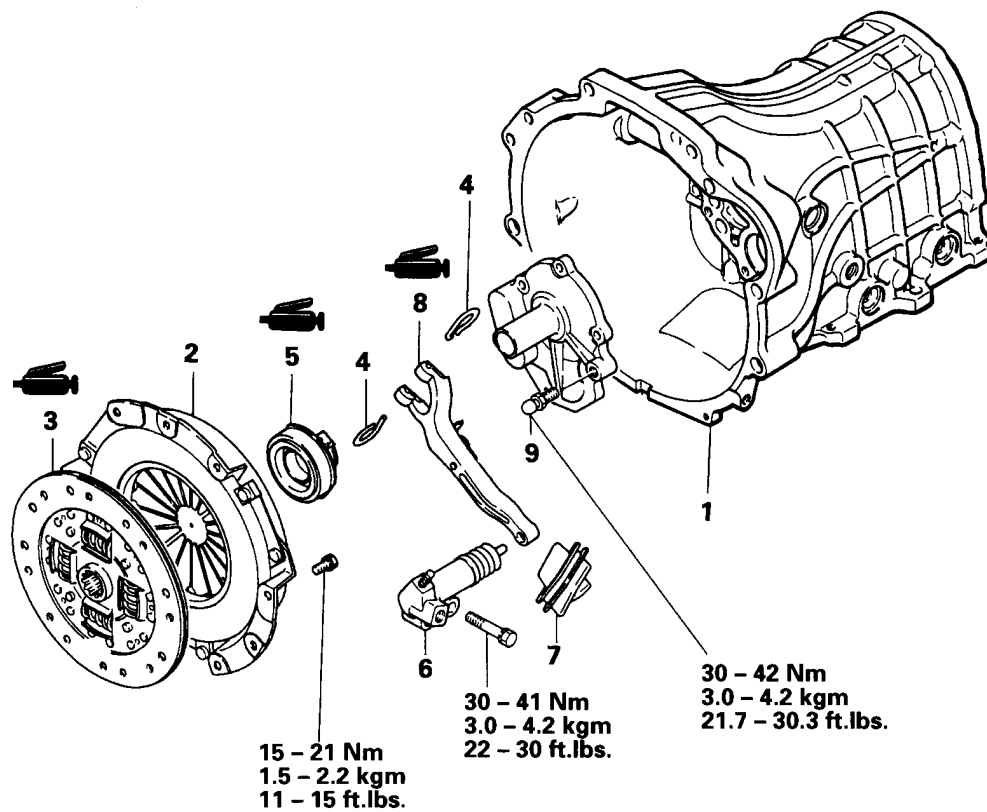
3. CLUTCH (CABLE TYPE)



Removal steps

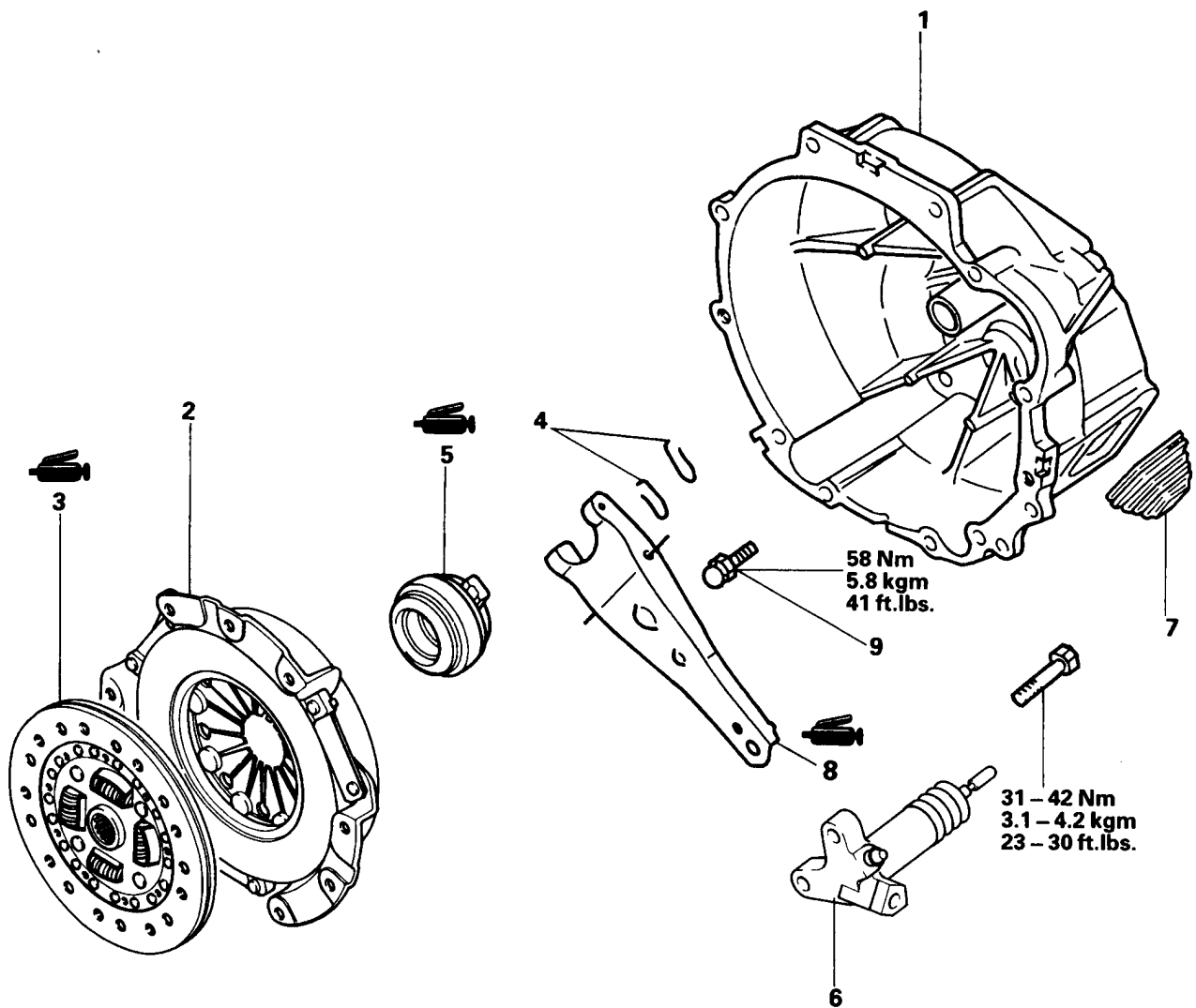
- [E] 1. Transmission assembly
- [D] 2. Clutch cover assembly
- [C] 3. Clutch disc
- [B] 4. Return clip
- [A] 5. Clutch release bearing
- [A] 6. Spring pin
- [A] 7. Packing
- [A] 8. Return spring left
- [A] 9. Release fork
- [A] 10. Return spring right
- [A] 11. Release fork shaft
- [A] 12. Weight

CLUTCH (HYDRAULIC TYPE) – EXCEPT R5M31, V5M31, V5MT1

**Removal steps**

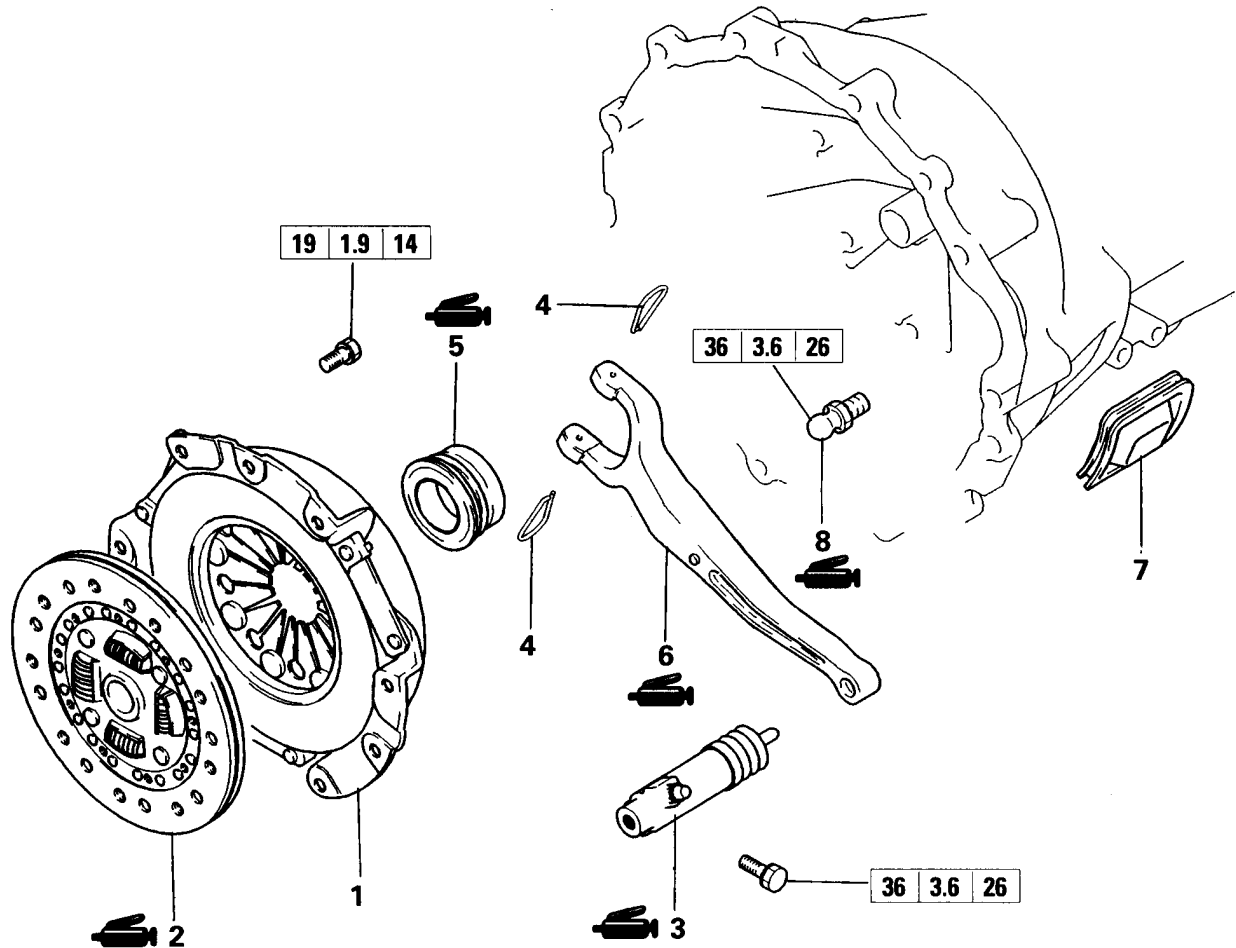
- Ⓔ 1. Transmission assembly
- 2. Clutch cover assembly
- Ⓓ 3. Clutch disc
- 4. Return clip
- Ⓒ 5. Clutch release bearing
- 6. Release cylinder
- 7. Boot
- Ⓑ Ⓕ 8. Release fork
- 9. Fulcrum

CLUTCH (HYDRAULIC TYPE) – V5MT1 ONLY

**Removal steps**

- Ⓔ 1. Transmission assembly
- Ⓓ 2. Clutch cover assembly
- Ⓗ 3. Clutch disc
- Ⓙ 4. Return clip
- Ⓒ 5. Clutch release bearing
- 6. Release cylinder
- 7. Boot
- Ⓑ Ⓕ 8. Release fork
- 9. Fulcrum

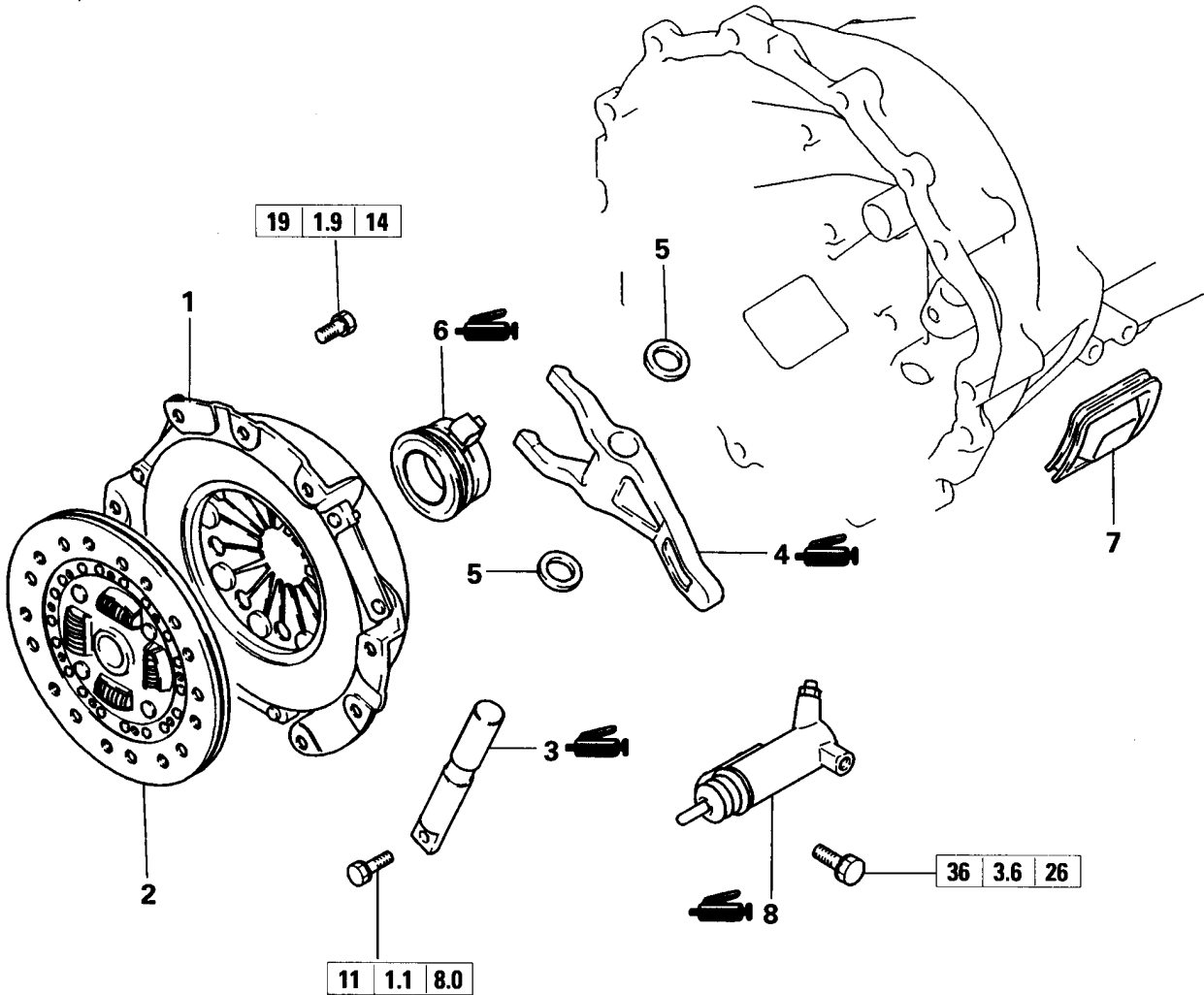
CLUTCH (HYDRAULIC TYPE) – R5M31 AND V5M31 PUSH TYPE



Removal steps

- 1. Clutch cover
- D** 2. Clutch disc
- G** 3. Release cylinder
- 4. Return clip
- C** 5. Release bearing
- F** 6. Release fork
- 7. Boot
- 8. Fulcrum

CLUTCH (HYDRAULIC TYPE) – V5M31 PULL TYPE



Removal steps

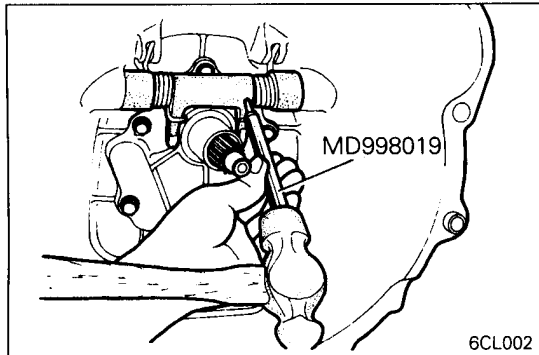
- 1. Clutch cover
- D** 2. Clutch disc
- H** 3. Release fork shaft
- F** 4. Release fork
- 5. Packing
- C** 6. Release bearing
- 7. Boot
- G** 8. Release cylinder

Caution

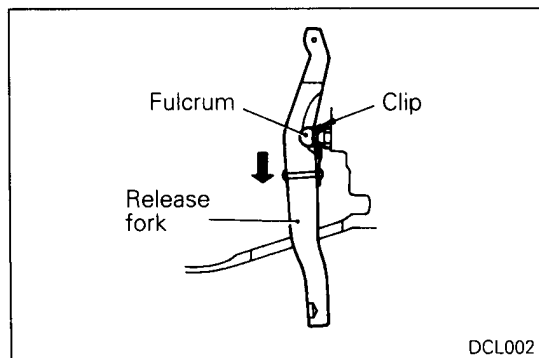
- When servicing clutch assemblies or components, do NOT create dust by sanding or by cleaning clutch parts with a dry brush or with compressed air. (A water dampened cloth should be used). The clutch disc contains "Asbestos Fibers" which can become airborne if dust is created during service operations. Breathing dust containing "Asbestos Fibers" may cause serious bodily harm.

NOTE

On vehicles for EC, non-asbestos clutch disc has been used from the 1989 model.

**SERVICE POINT OF REMOVAL****(A) REMOVAL OF SPRING PIN**

- (1) Using the special tool, strike out the spring pin from clutch shift arm.

**(B) REMOVAL OF RELEASE FORK**

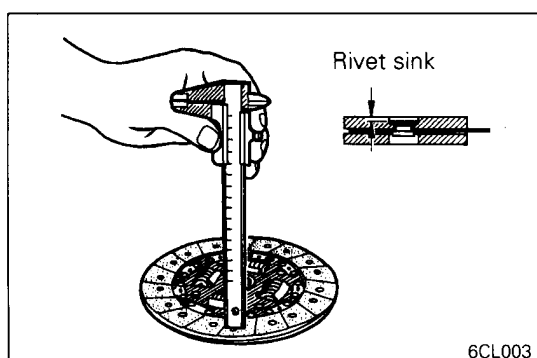
- (1) Slide release fork in direction of arrow and disengage fulcrum from clip to remove release fork. Be careful not to cause damage to clip by pushing release fork in the direction other than that of arrow and removing it with force.

INSPECTION**CLUTCH COVER ASSEMBLY**

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

Limit: Max. 0.5 mm (0.020 in.)

- (2) Check the pressure plate surface for wear, cracks and seizure.
- (3) Check the strap plate rivets for looseness and replace the clutch cover assembly if loose.

**CLUTCH DISC**

- (1) Check the facing for loose rivets, uneven contact, deterioration due to seizure, adhesion of oil or grease, and replace the clutch disc if defective.
- (2) Measure the rivet sink and replace the clutch disc if it is out of specification.

Limit: Min. 0.3 mm (0.012 in.)

- (3) Check for torsion spring play and damage and if defective, replace the clutch disc.
- (4) Combine the clutch disc with the input shaft and check sliding condition and play in the rotating direction. If it does not slide smoothly or the play is excessive, check after cleaning and reassembling. If the play is excessive, replace the clutch disc and/or the input shaft.

CLUTCH RELEASE BEARING**Caution**

- **Release bearing is packed with grease. Therefore, do not wash it in cleaning solvent or the like.**

- (1) Check bearing for seizure, damage, noise, or improper rotation. Check also diaphragm spring contact surface for wear.
- (2) Replace bearing if its release fork contact surface is abnormally worn.

RELEASE FORK

- (1) Replace release fork if its bearing contact surface is abnormally worn.

SERVICE POINTS OF INSTALLATION**Caution**

- When clutch is installed, apply grease to each greasing part but do not grease it more than necessary. Application of excessive grease will cause clutch to slip or judder.

A APPLICATION OF GREASE TO RELEASE FORK**Specified grease:**

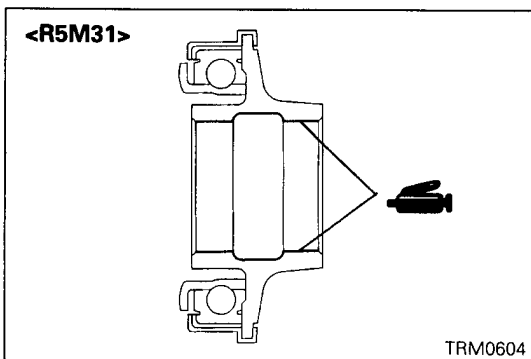
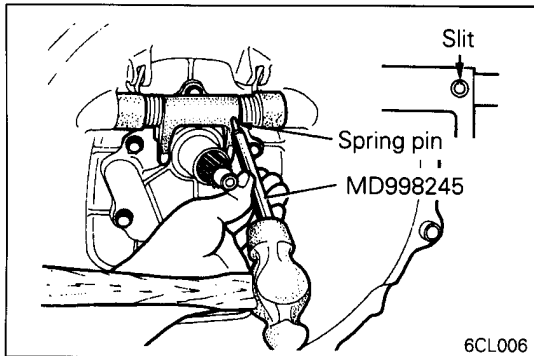
Mitsubishi genuine grease Part No. 0101011 or equivalent

B INSTALLATION OF SPRING PIN

- (1) Using the special tool (Lock Pin Installer) or pin punch, strike in spring pins facing their slit upward.

Caution

- Do not reuse the spring pins.

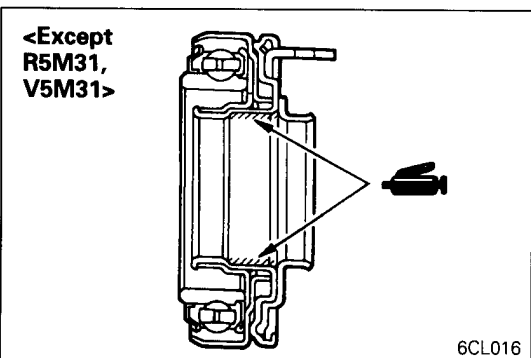
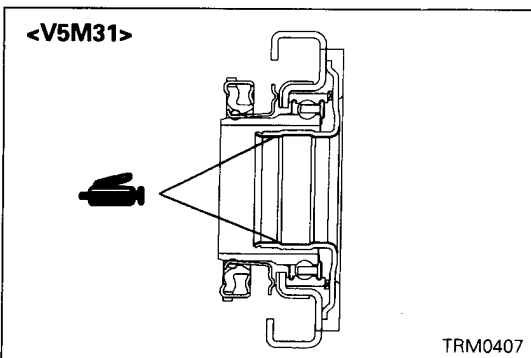
**C APPLICATION OF GREASE TO CLUTCH RELEASE BEARING**

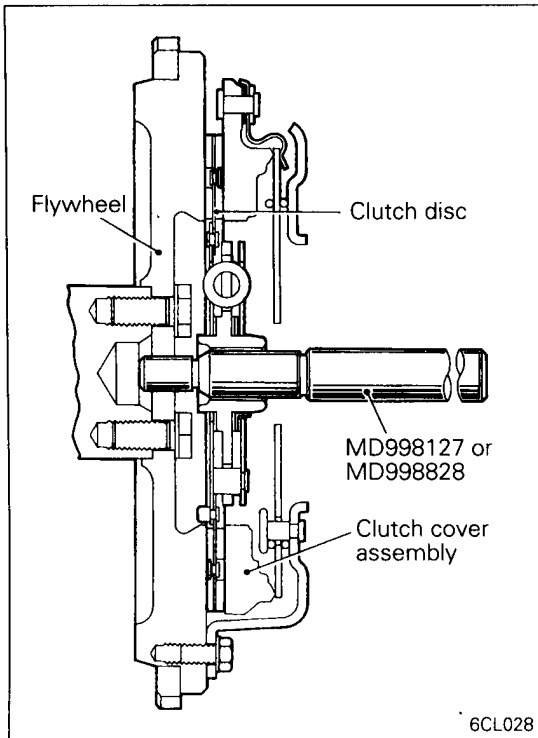
- (1) Apply grease to the inner surface of the release bearing and install the bearing.

Specified grease:

Mitsubishi genuine grease Part No. 0101011 or equivalent (except V5MT1)

MOLYKOTE BR-2 PLUS (V5MT1 only)





D INSTALLATION OF CLUTCH DISC

- (1) Apply specified grease to clutch disc splines and squeeze it in place with a brush.

Specified grease:

Mitsubishi genuine grease Part No. 0101011 or equivalent (except V5MT1)

MOLYKOTE BR-2 PLUS (V5MT1 only)

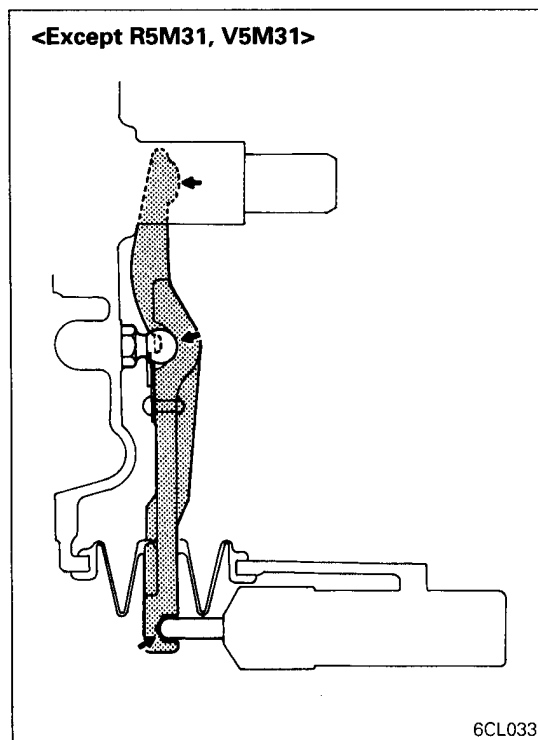
- (2) Use special tool to install clutch disc on flywheel.

E APPLICATION OF GREASE TO TRANSMISSION INPUT SHAFT SPLINES

Specified grease:

Mitsubishi genuine grease Part No. 0101011 or equivalent (except V5MT1)

MOLYKOTE BR-2 PLUS (V5MT1 only)

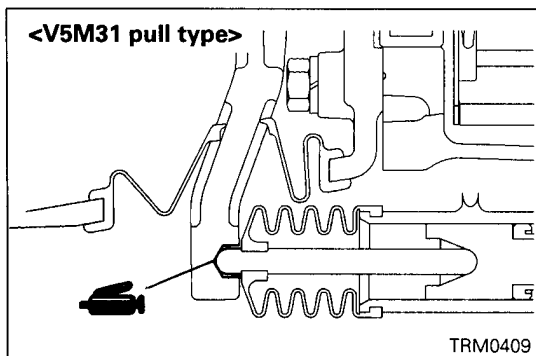
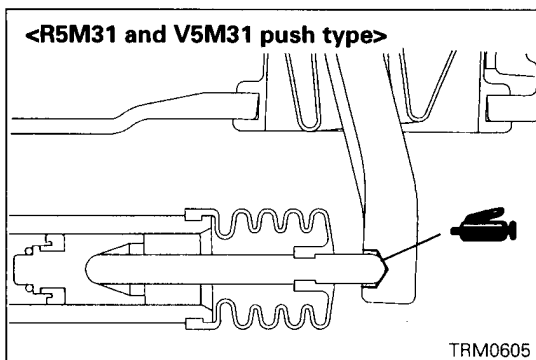
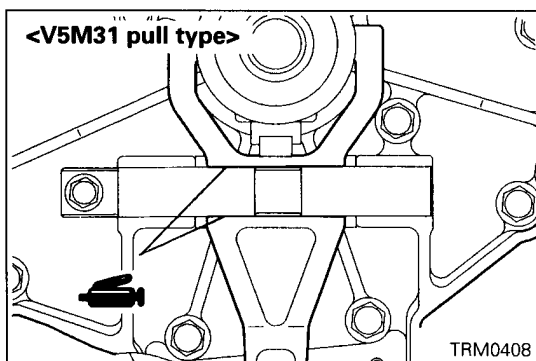
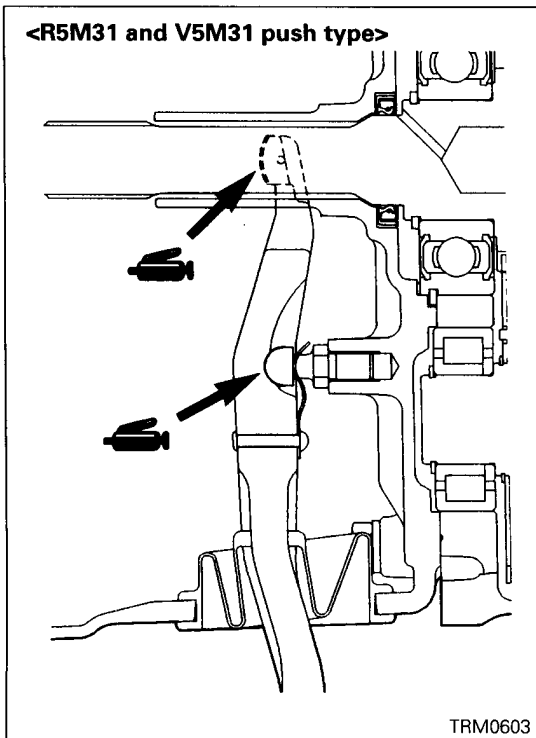


F APPLICATION OF GREASE TO RELEASE FORK

Specified grease:

Mitsubishi genuine grease Part No. 0101011 or equivalent (except V5MT1)

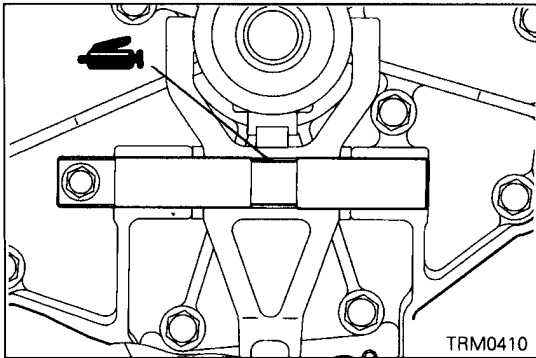
MOLYKOTE BR-2 PLUS (V5MT1 only)



G INSTALLATION OF RELEASE CYLINDER

Specified grease:

Mitsubishi genuine grease Part No. 0101011 or equivalent



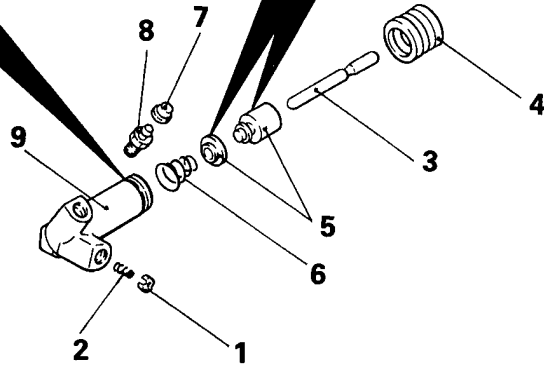
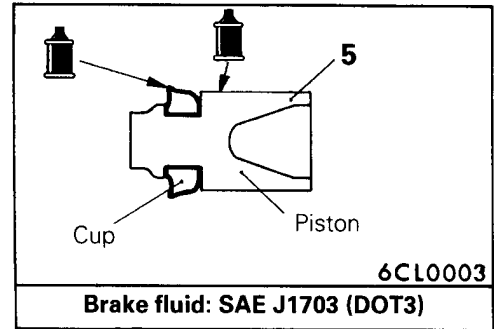
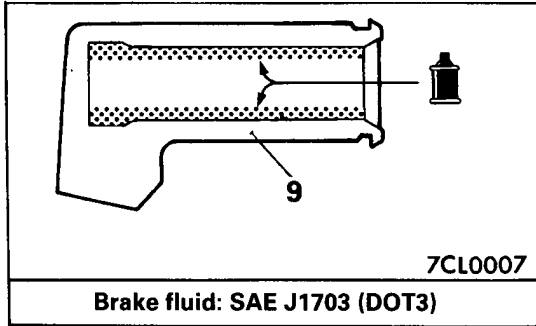
H INSTALLATION OF RELEASE FORK SHAFT

Specified grease:

Mitsubishi genuine grease Part No. 0101011 or equivalent

4. CLUTCH RELEASE CYLINDER

DISASSEMBLY AND REASSEMBLY <Except R5M31, V5M31>

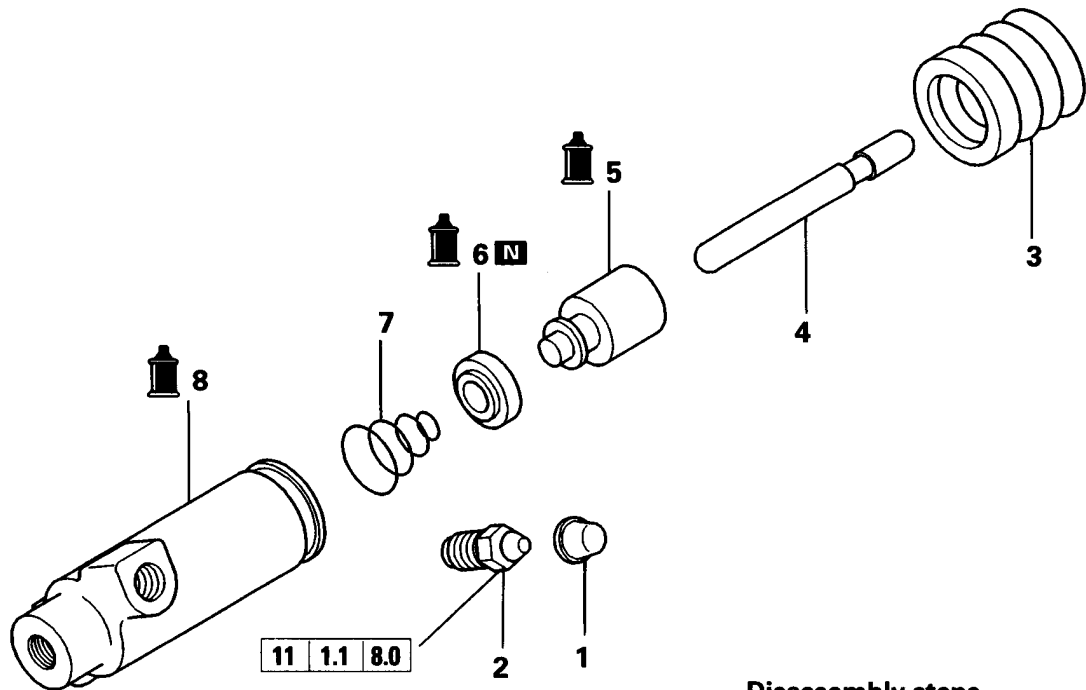


Disassembly steps

- 1. Valve plate
- 2. Spring
- 3. Push rod
- 4. Boot
- ⑤ 5. Piston and cup
- 6. Conical spring
- 7. Cap
- 8. Bleeder plug
- 9. Release cylinder

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DISASSEMBLY AND REASSEMBLY <R5M31 AND V5M31 PUSH TYPE>

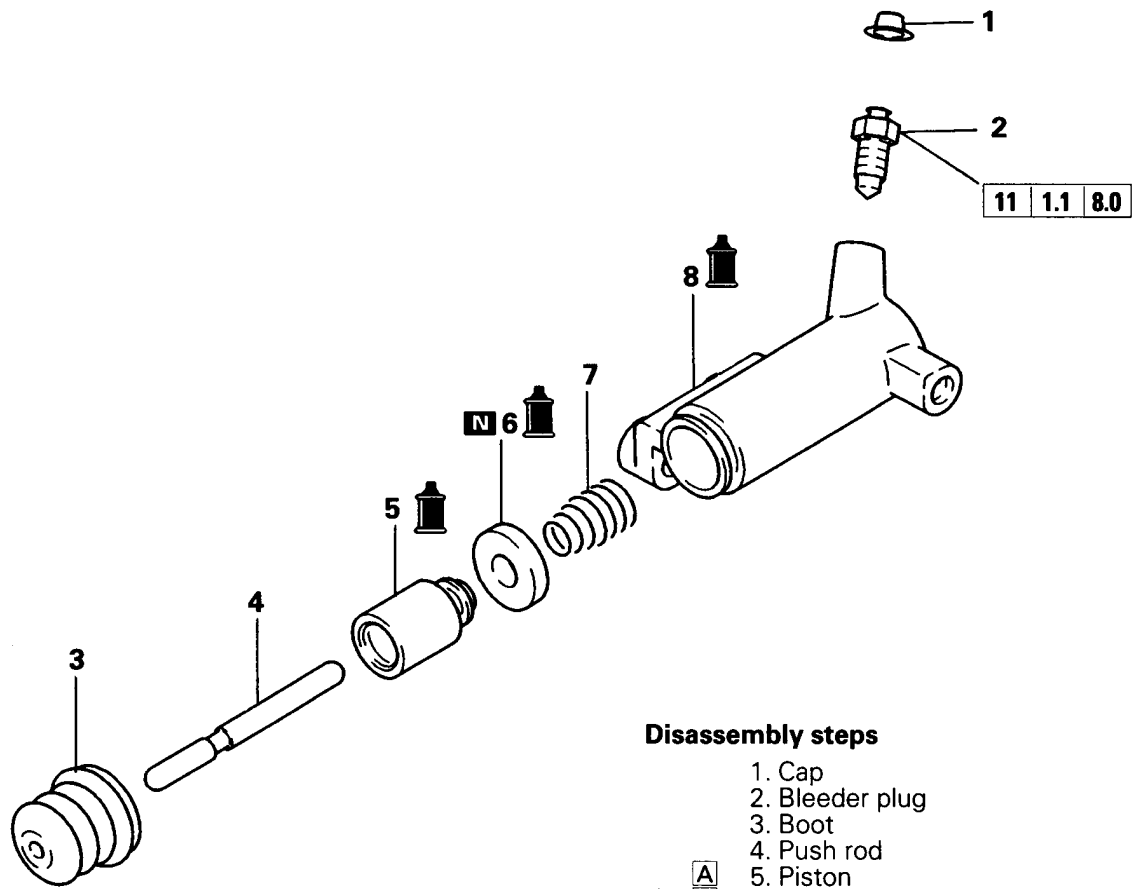


Disassembly steps

1. Cap
2. Bleeder plug
3. Boot
4. Push rod
5. Piston
6. Piston cup
7. Conical spring
8. Release cylinder

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DISASSEMBLY AND REASSEMBLY <V5M31 PULL TYPE>

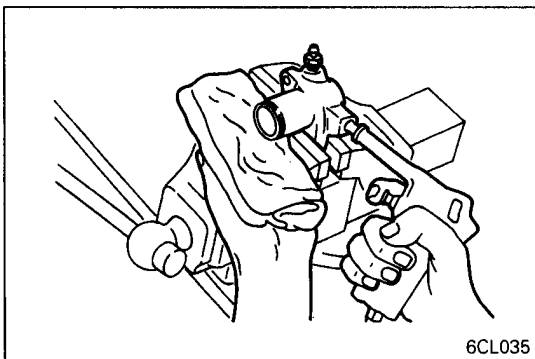


Disassembly steps

1. Cap
2. Bleeder plug
3. Boot
4. Push rod
5. Piston
6. Piston cup
7. Conical spring
8. Release cylinder

Ⓐ Ⓐ

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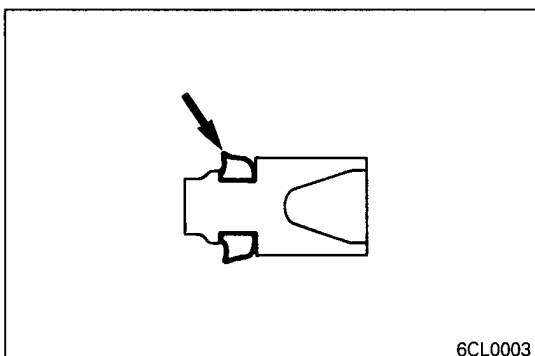
SERVICE POINT OF DISASSEMBLY

Ⓐ **REMOVAL OF PISTON AND CUP**

- (1) Remove the piston from the release cylinder using compressed air.

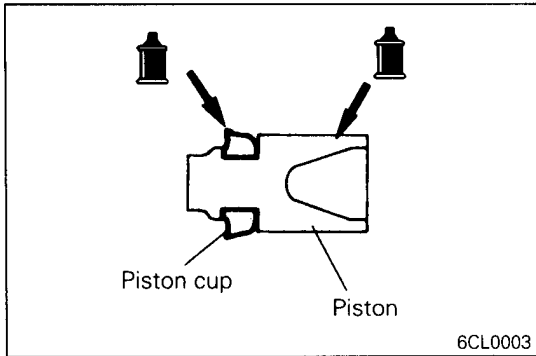
Caution

- **Cover with rags to prevent the piston from popping out.**
- **Apply compressed air slowly to prevent brake fluid from splashing.**



INSPECTION

- (1) Check the inner surface of the release cylinder for scratches or irregular wear.
- (2) Replace if the piston cup outer circumference is scratched or shows signs of fatigue, or if there is excessive wear of the lip where indicated in the figure.

**SERVICE POINT OF REASSEMBLY****A INSTALLATION OF PISTON CUP / PISTON**

- (1) Apply the specified brake fluid to the entire circumference of the piston and piston cup and inner surface of the release cylinder, and then insert the piston with piston cup into the release cylinder.

Specified brake fluid: Brake fluid SAE J1703 (DOT3)

