

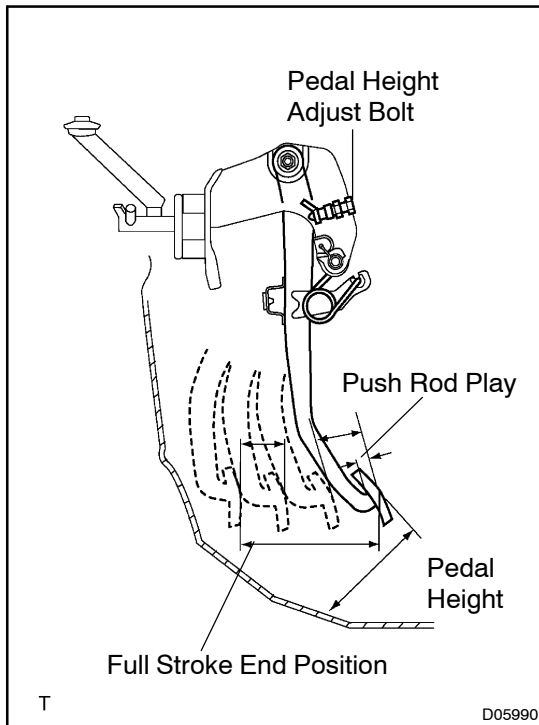
TROUBLESHOOTING

PROBLEM SYMPTOMS TABLE

CL07J-01

Use the table below to help you find the cause of the problem. The numbers indicate the priority of the likely cause of the problem. Check each part in order. If necessary, replace these parts.

Symptom	Suspect Area	See page
Clutch grabs/chatters	1. Engine mounting (Loosen) 2. Clutch disc (Runout is excessive) 3. Clutch disc (Oily) 4. Clutch disc (Worn out) 5. Clutch disc (Damaged torsion rubber) 6. Clutch disc (Glazed) 7. Diaphragm spring (Out of tip alignment)	– CL-1 CL-1 CL-1 CL-1 CL-1 CL-1
Clutch pedal spongy	1. Clutch line (Air in line) 2. Master cylinder cup (Damaged) 3. Release cylinder cup (Damaged)	– CL-4 CL-9
Clutch noisy	1. Release bearing (Worn, dirty or damaged) 2. Pilot bearing (Worn or damaged) 3. Input shaft bearing (Worn, dirty or damaged) 4. Clutch disc torsion rubber (Damaged)	CL-1 CL-1 – CL-1
Clutch slips	1. Clutch pedal (Freeplay out of adjustment) 2. Clutch disc (Oily) 3. Clutch disc (Worn out) 4. Diaphragm spring (Damaged) 5. Pressure plate (Distortion) 6. Flywheel (Distortion)	CL-2 CL-1 CL-1 CL-1 CL-1 –
Clutch does not disengage	1. Clutch pedal (Freeplay out of adjustment) 2. Clutch line (Air in line) 3. Master cylinder cup (Damaged) 4. Release cylinder cup (Damaged) 5. Input shaft bearing (Worn, dirty or damaged) 6. Pilot bearing (Worn or damaged) 7. Clutch disc (Out of true) 8. Clutch disc (Runout is excessive) 9. Clutch disc (Lining broken) 10. Clutch disc (Dirty or burred) 11. Clutch disc (Oily) 12. Clutch disc (Lack of spline grease) 13. Diaphragm spring (Damaged) 14. Diaphragm spring (Out of tip alignment) 15. Pressure plate (Distortion)	CL-2 – CL-4 CL-9 – CL-1 CL-1 CL-1 CL-1 CL-1 CL-1 CL-1 CL-1 CL-1



CLUTCH PEDAL INSPECTION

CL07K-01

1. CHECK PEDAL HEIGHT

Pedal height from asphalt sheet:

RHD models: 161 – 171 mm (6.34 – 6.73 in.)

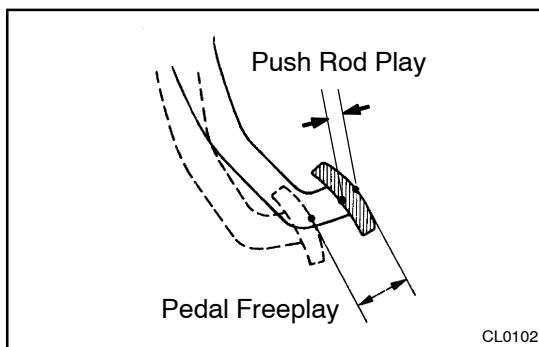
LHD models: 154 – 164 mm (6.06 – 6.46 in.)

2. IF NECESSARY, ADJUST PEDAL HEIGHT

Loosen the lock nut and clutch switch until the height is correct. Tighten the lock nut.

HINT:

Before rotating the clutch switch for pedal height adjustment, disconnect the clutch switch connector.



3. CHECK PEDAL FREEPLAY AND PUSH ROD PLAY

Push in on the pedal until the beginning of clutch resistance is felt.

Pedal freeplay: 5.0 – 15.0 mm (0.197 – 0.591 in.)

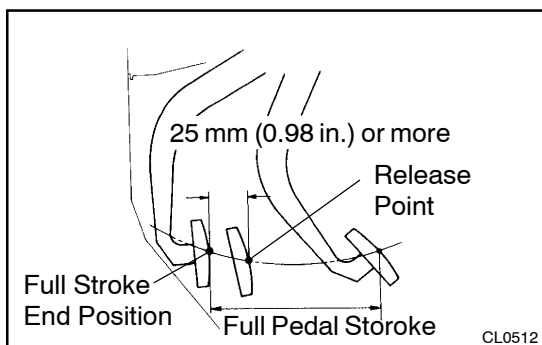
Gently push on the pedal until the resistance begins to increase a little.

Push rod play at pedal top:

1.0 – 5.0 mm (0.039 – 0.197 in.)

4. IF NECESSARY, ADJUST PEDAL FREEPLAY AND PUSH ROD PLAY

- (a) Loosen the lock nut and turn the push rod until the freeplay and push rod play are correct.
- (b) Tighten the lock nut.
- (c) After adjusting the pedal freeplay, check the pedal height.

**5. INSPECT FULL PEDAL STROKE**

Full pedal stroke: 127.0 – 133.0 mm (5.00 – 5.24 in.)

6. INSPECT CLUTCH RELEASE POINT

- Pull the parking brake lever and install wheel stopper.
- Start the engine and idle the engine.
- Without depressing the clutch pedal, slowly shift the shift lever into the reverse position until the gears contact.
- Gradually depress the clutch pedal and measure the stroke distance from the point the gear noise stops (release point) up to the full stroke end position.

Standard distance: 25 mm (0.98 in.) or more

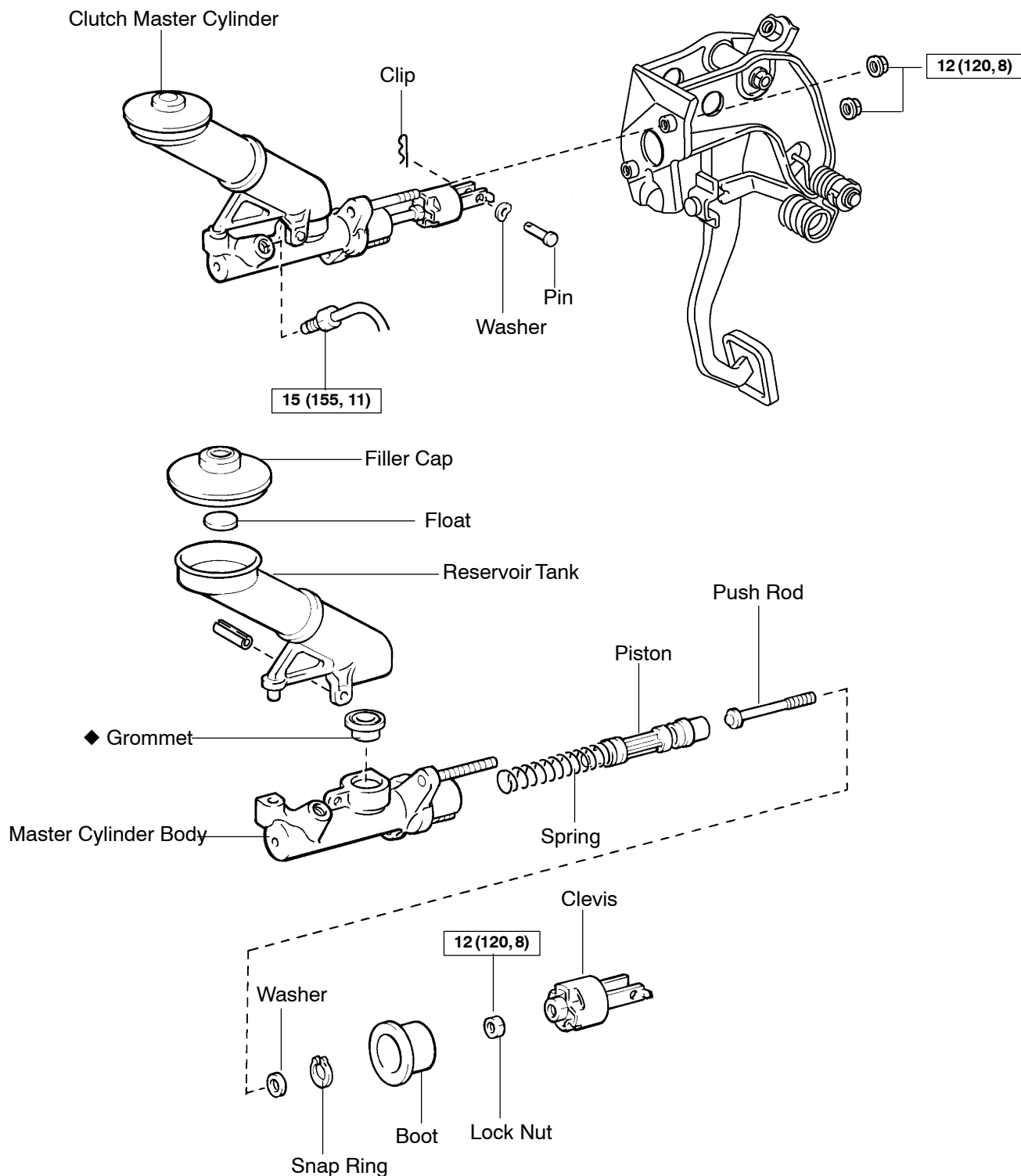
(From pedal stroke end position to release point)

If the distance is not as specified, do the following operation.

- Inspect pedal height.
- Inspect push rod play and pedal freeplay.
- Bleed the clutch line.
- Inspect the clutch cover and disc.

CLUTCH MASTER CYLINDER COMPONENTS

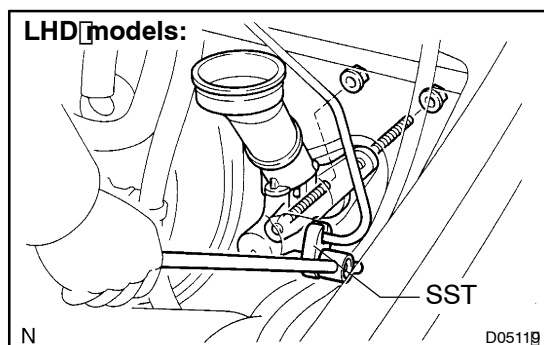
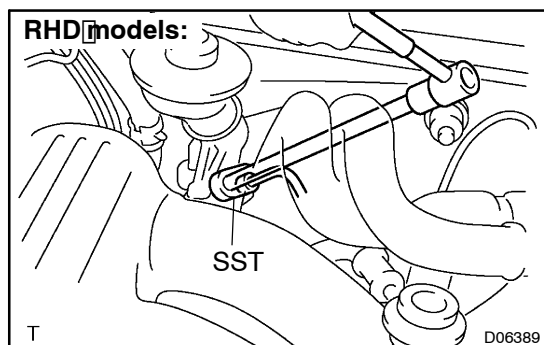
CL07L-01



N·m (kgf·cm, ft·lbf) : Specified torque

◆ Non-reusable part

D05991



REMOVAL

1. DRAIN OUT FLUID WITH SYRINGE
2. REMOVE LOWER FINISH PANEL (See page BO-96)
3. DISCONNECT CLUTCH LINE UNION

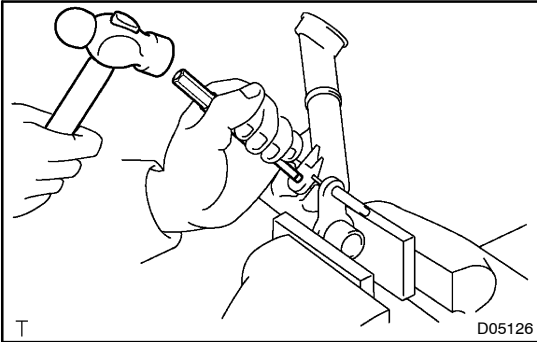
Using SST, disconnect the union nut.

SST 09023-00100

Torque: 15 N·m (155 kgf·cm, 11 ft·lbf)

4. REMOVE CLIP AND PIN
5. REMOVE 2 MOUNTING NUTS AND PULL OUT MASTER CYLINDER

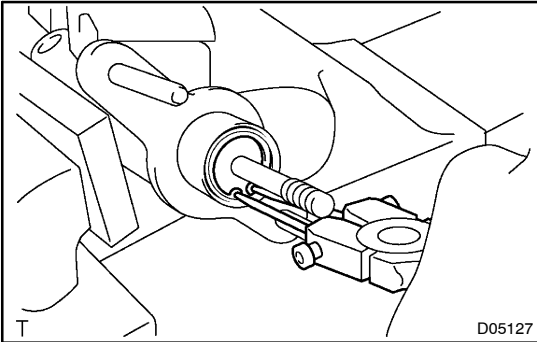
Torque: 12 N·m (12 kgf·cm, 8 ft·lbf)



DISASSEMBLY

1. REMOVE RESERVOIR TANK

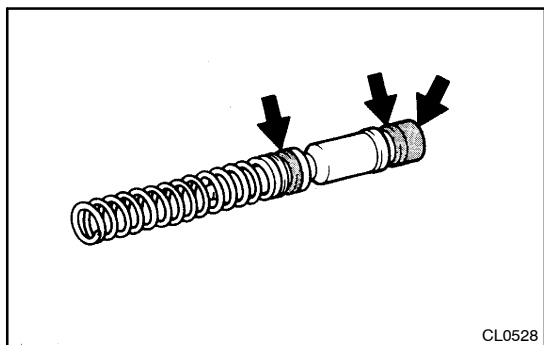
- (a) Using a pin punch and hammer, drive out the slotted spring pin.
- (b) Remove the reservoir tank and grommet.



2. REMOVE PUSH ROD

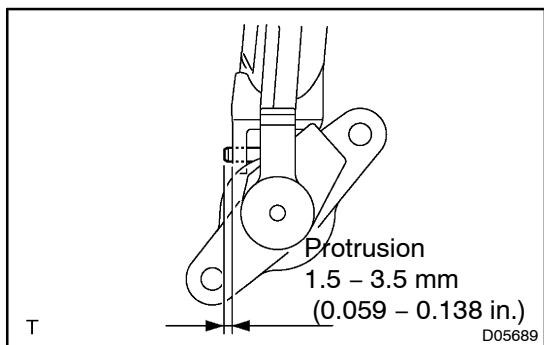
- (a) Pull back the boot, and using snap ring pliers, remove the snap ring.
- (b) Pull out the push rod.

3. REMOVE PISTON



REASSEMBLY

1. COAT PARTS WITH LITHIUM SOAP BASE GLYCOL GREASE, AS SHOWN
2. INSERT PISTON INTO CYLINDER
3. INSTALL PUSH ROD ASSEMBLY WITH NEW SNAP RING



4. INSTALL RESERVOIR TANK
 - (a) Install the reservoir tank and a new grommet.
 - (b) Using a pin punch and hammer, drive in the slotted spring pin.

INSTALLATION

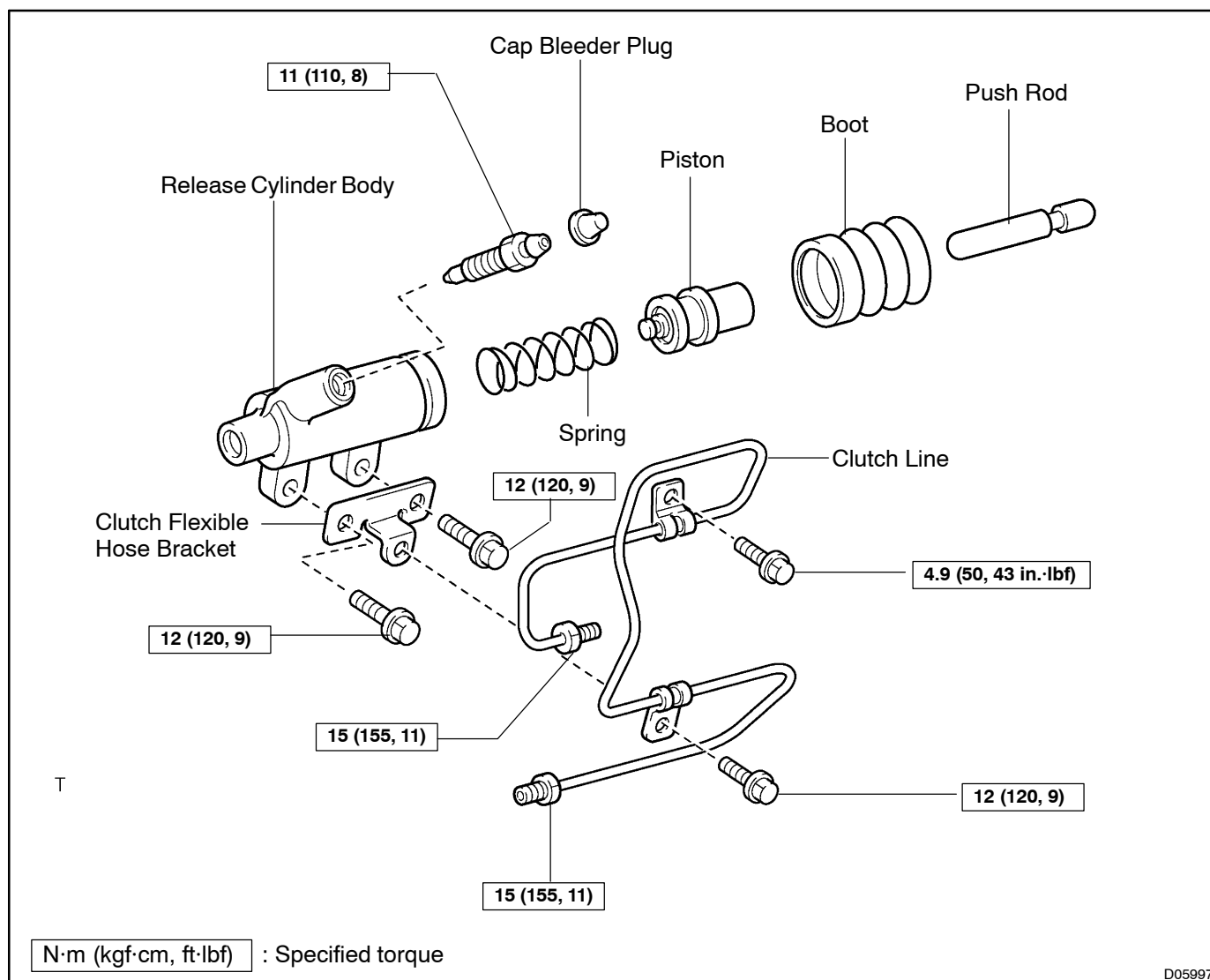
Installation is in the reverse order of removal (See page CL-5)

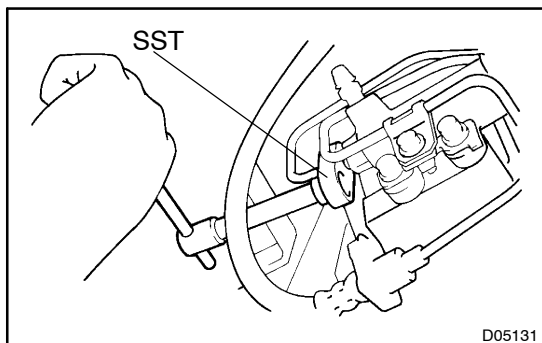
HINT:

After installation, adjust the clutch pedal and bleed the clutch system.

CLUTCH RELEASE CYLINDER COMPONENTS

CL07Q-01





REMOVAL

1. DISCONNECT CLUTCH LINE

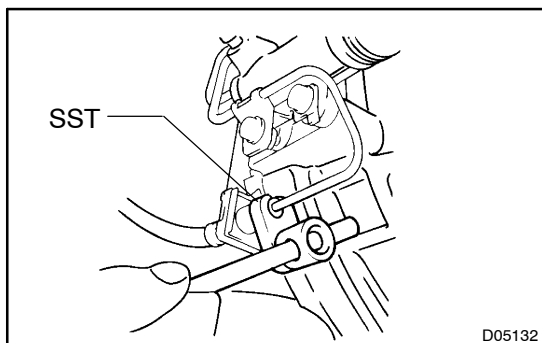
Using SST, disconnect the clutch line union. Use a container to catch the fluid.

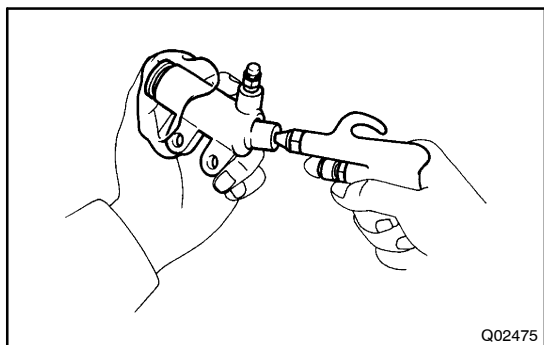
SST 09023-00100

Torque: 15 N·m (155 kgf·cm, 11 ft·lbf)

2. REMOVE 2 BOLTS AND PULL OUT RELEASE CYLINDER

Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)

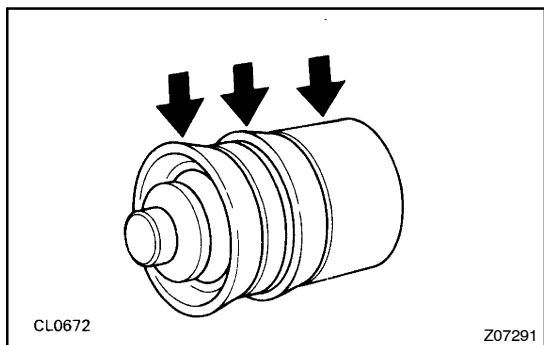




DISASSEMBLY

1. **PULL OUT PUSH ROD WITH BOOT**
2. **REMOVE PISTON WITH SPRING**

Using compressed air, remove the piston and spring from the cylinder.



REASSEMBLY

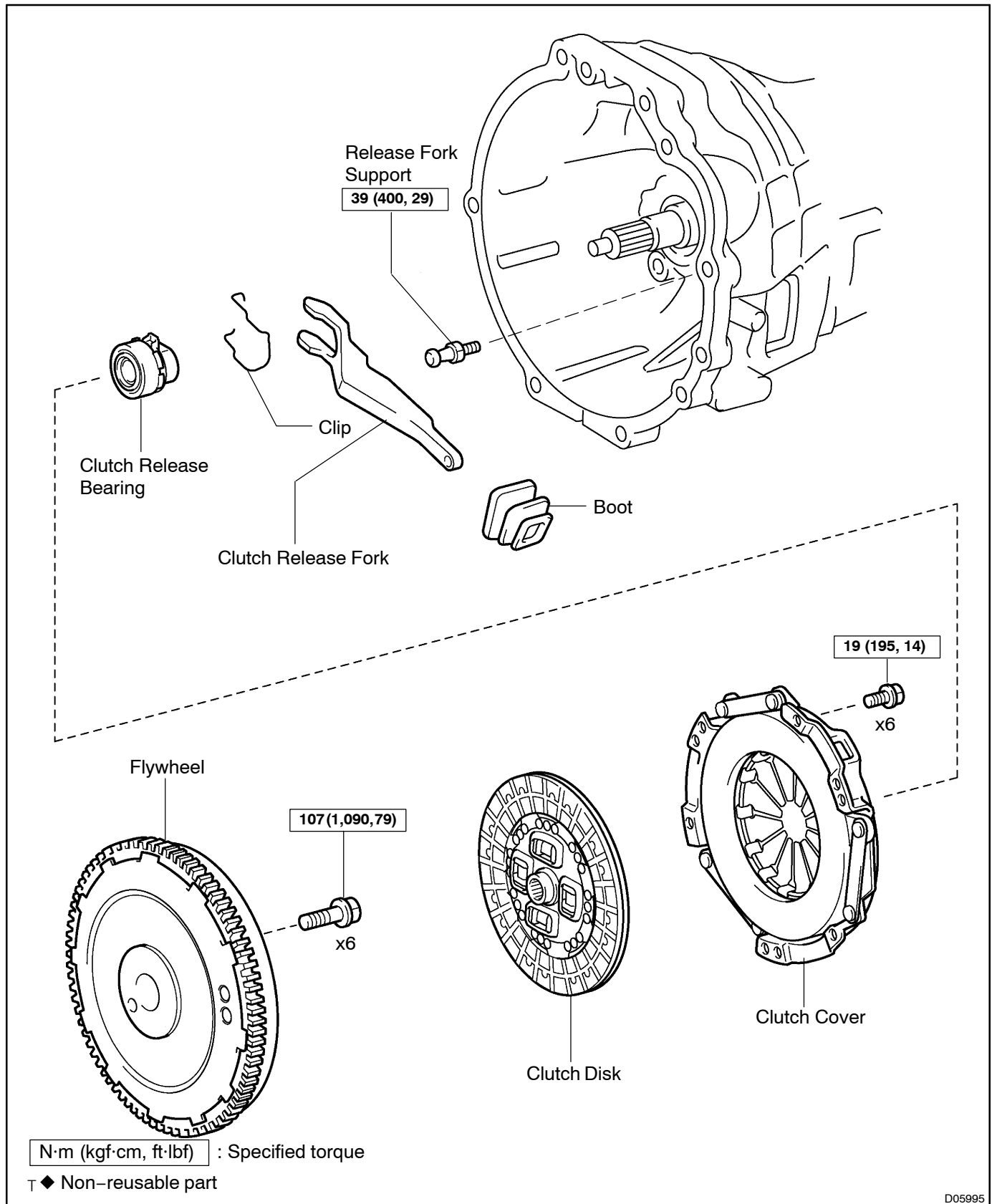
1. COAT PISTON WITH LITHIUM SOAP BASE GLYCOL GREASE, AS SHOWN
2. INSTALL PISTON WITH SPRING INTO CYLINDER
3. INSTALL BOOT WITH PUSH ROD TO CYLINDER

INSTALLATION

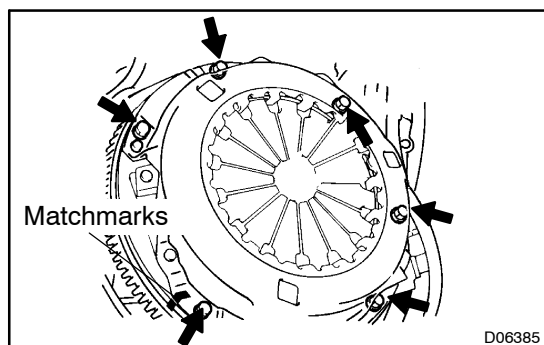
Installation is in the reverse order of removal (See page CL-10).

CLUTCH UNIT COMPONENTS

CL07V-01



D05995



REMOVAL

1. REMOVE TRANSMISSION FROM ENGINE

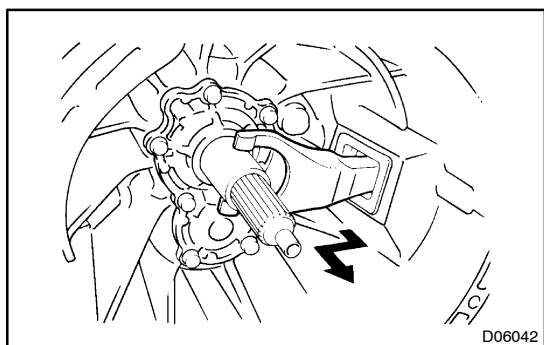
(See page MT-5)

2. REMOVE CLUTCH COVER AND DISC

- Place matchmarks on the flywheel and clutch cover.
- Loosen each set bolt one turn at a time until spring tension is released.
- Remove the set bolts, and pull off the clutch cover with the clutch disc.

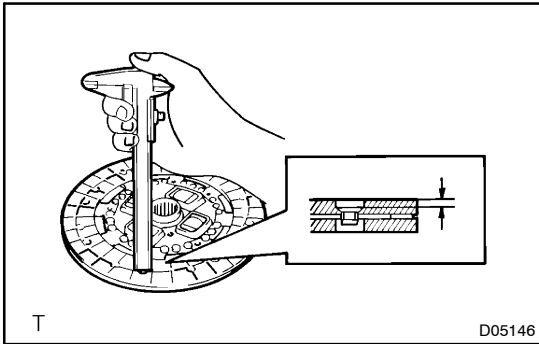
NOTICE:

Do not drop the clutch disc.



3. REMOVE BOOT, RELEASE BEARING AND FORK FROM TRANSMISSION

Remove the boot and release bearing together with the fork and then separate them.



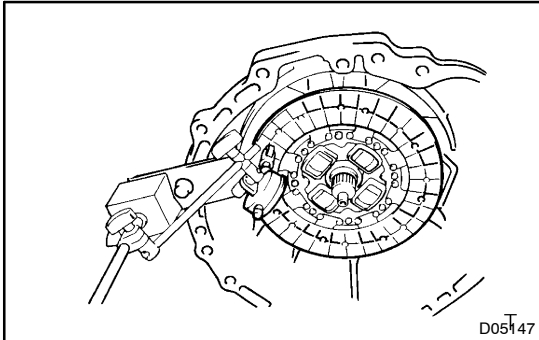
INSPECTION

1. INSPECT CLUTCH DISC FOR WEAR OR DAMAGE

Using calipers, measure the rivet head depth.

Minimum rivet depth: 0.3 mm (0.012 in.)

If it is not as specified, replace the clutch disc.

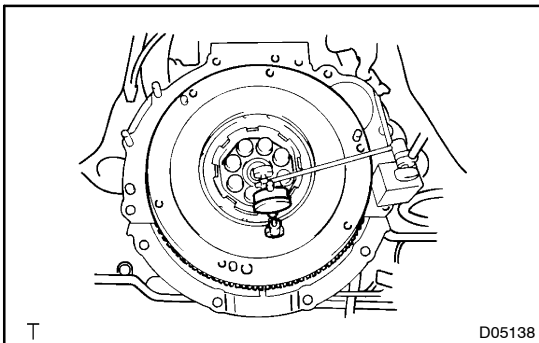


2. INSPECT CLUTCH DISC RUNOUT

Using a dial indicator, check the disc runout.

Maximum runout: 0.8 mm (0.031 in.)

If it is not as specified, replace the clutch disc.

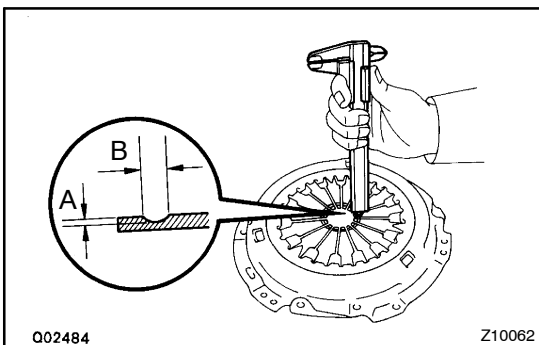


3. INSPECT FLYWHEEL RUNOUT

Using a dial indicator, check the flywheel runout.

Maximum runout: 0.3 mm (0.012 in.)

If it is not as specified, replace the clutch disc.



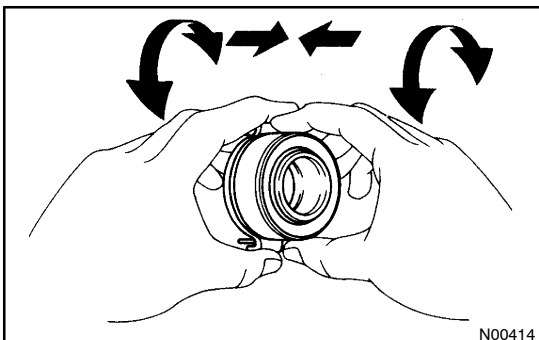
4. INSPECT DIAPHRAGM SPRING FOR WEAR

Using calipers, measure the diaphragm spring for depth and width of wear.

Maximum depth: A: 0.6 mm (0.024 in.)

Maximum width: B: 5.0 mm (0.197 in.)

If it is not as specified, replace the clutch cover.



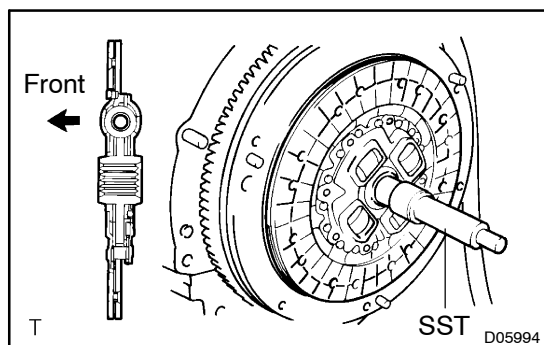
5. INSPECT RELEASE BEARING

Turn the bearing by hand while applying force in the axial direction.

HINT:

The bearing is permanently lubricated and requires no cleaning or lubrication.

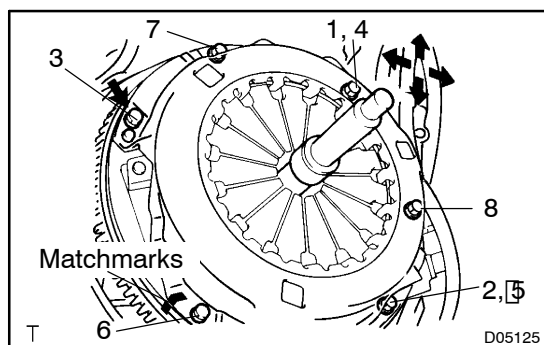
If necessary, replace the release bearing.



INSTALLATION

1. INSTALL CLUTCH DISC AND CLUTCH COVER ON FLYWHEEL

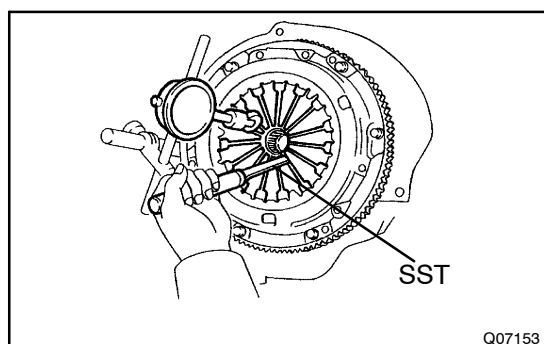
- (a) Insert SST in the clutch disc, and then set them.
SST 09301-0011



- (b) Align the matchmarks on the clutch cover and flywheel.
(c) Torque the 6 bolts on the clutch cover in the order shown.
Torque: 19 N·m (195 kgf·cm, 14 ft·lbf)

HINT:

Temporarily tighten the No. 1 and No. 2 bolts.



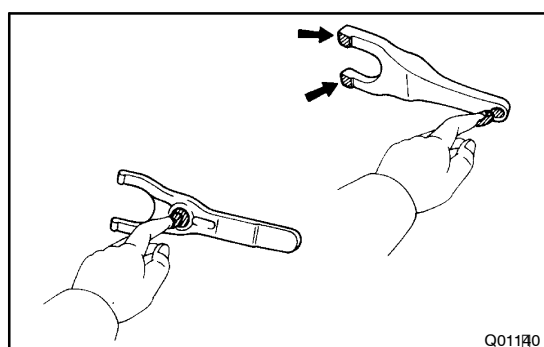
2. CHECK DIAPHRAGM SPRING TIP ALIGNMENT

Using a dial indicator with roller instrument, check the diaphragm spring tip alignment.

Maximum non-alignment: 0.5 mm (0.020 in.)

If the alignment is not as specified, with SST, adjust the diaphragm spring tip alignment.

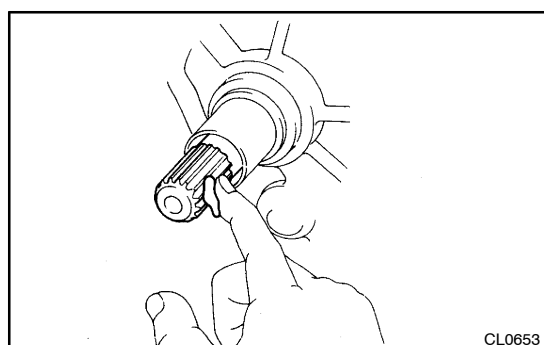
SST 09333-00013



3. APPLY MOLYBDENUM DISULPHIDE LITHIUM BASE GREASE (NLGI NO.2)

- (a) Apply release hub grease to the these parts.

- Release fork and hub contact point
- Release fork and push rod contact point
- Release fork pivot point



- (b) Apply clutch spline grease.

- Clutch disc spline

HINT:

Recommended grease part number 08887-01706 (100 g).

4. INSTALL BOOT, RELEASE BEARING AND FORK TO TRANSMISSION

Install the boot and bearing to the release fork, and then install them to the transmission.

5. INSTALL TRANSMISSION TO ENGINE

(See page MT-8)