

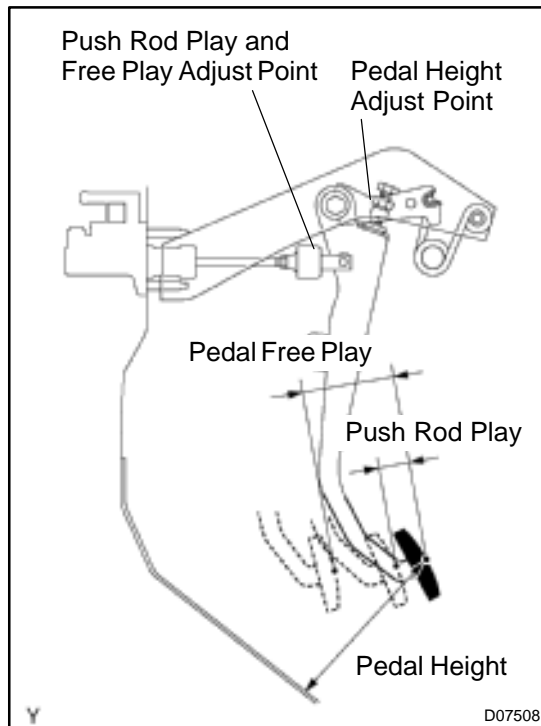
TROUBLESHOOTING

PROBLEM SYMPTOMS TABLE

CL02N-07

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



CLUTCH PEDAL INSPECTION

CLOA6-01

1. CHECK PEDAL HEIGHT

Pedal height from dash panel:

128.2 – 138.2 mm (5.047 – 5.441 in.)

2. IF NECESSARY, ADJUST PEDAL HEIGHT

- Loosen the lock nut and turn the stopper bolt until the height becomes correct.
- Tighten the lock nut.

3. CHECK PEDAL FREE PLAY AND PUSH ROD PLAY

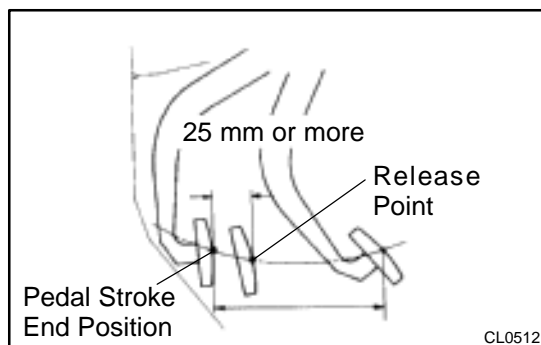
- Depress the pedal until clutch resistance begins to be felt.
Pedal free play: 5.0 – 15.0 mm (0.197 – 0.591 in.)
- Gently push on the pedal until the resistance begins to increase a little.

Push rod play at pedal top:

1.0 – 5.0 mm (0.039 – 0.197 in.)

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

- Loosen the lock nut and turn the push rod until the free play and push rod play becomes correct.
- Tighten the lock nut.
- After adjusting the pedal free play, check the pedal height.



5. CHECK CLUTCH RELEASE POINT

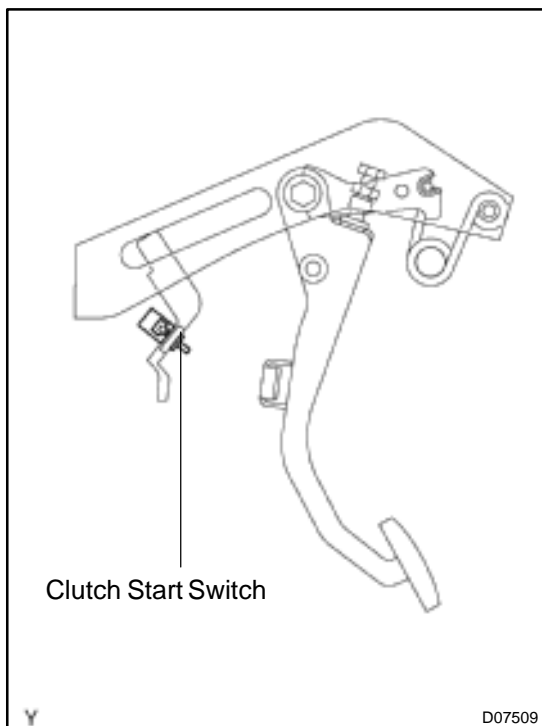
- Pull the parking brake lever and install the wheel stopper.
- Start and idle the engine.
- Without depressing the clutch pedal, slowly shift the shift lever into reverse position until the gears contact.
- Gradually depress the clutch pedal and measure the stroke distance from the point the gear noise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

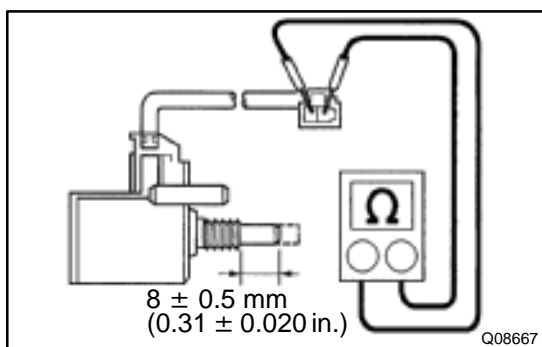
- Inspect pedal height.
- Inspect push rod play and pedal free play.
- Bleed the clutch line.
- Inspect the clutch cover and disc.



6. CHECK CLUTCH START SYSTEM

- (a) Check that the engine does not start when the clutch pedal is released.
- (b) Check that the engine starts when the clutch pedal is fully depressed.

If necessary, replace the clutch start switch.



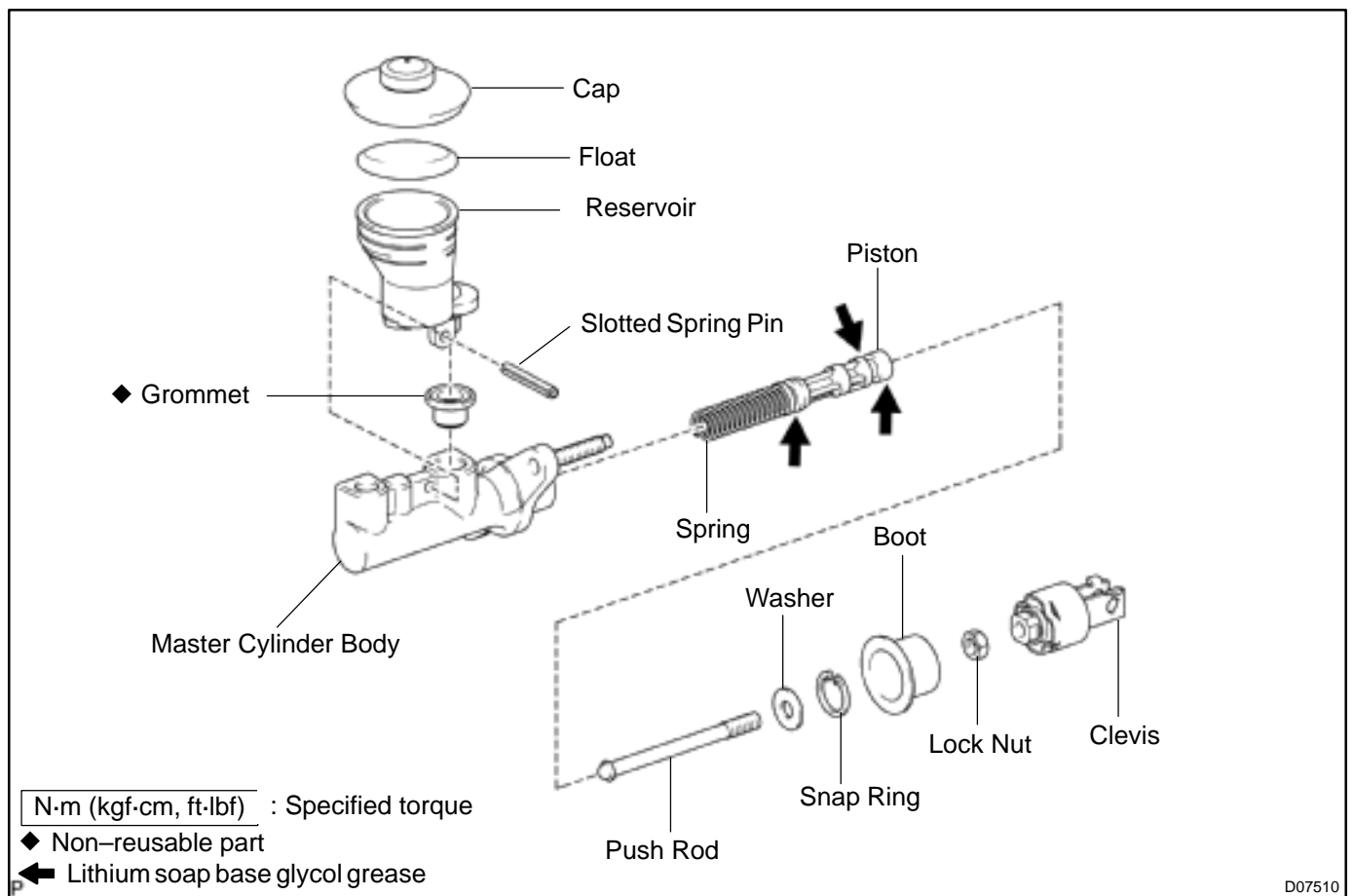
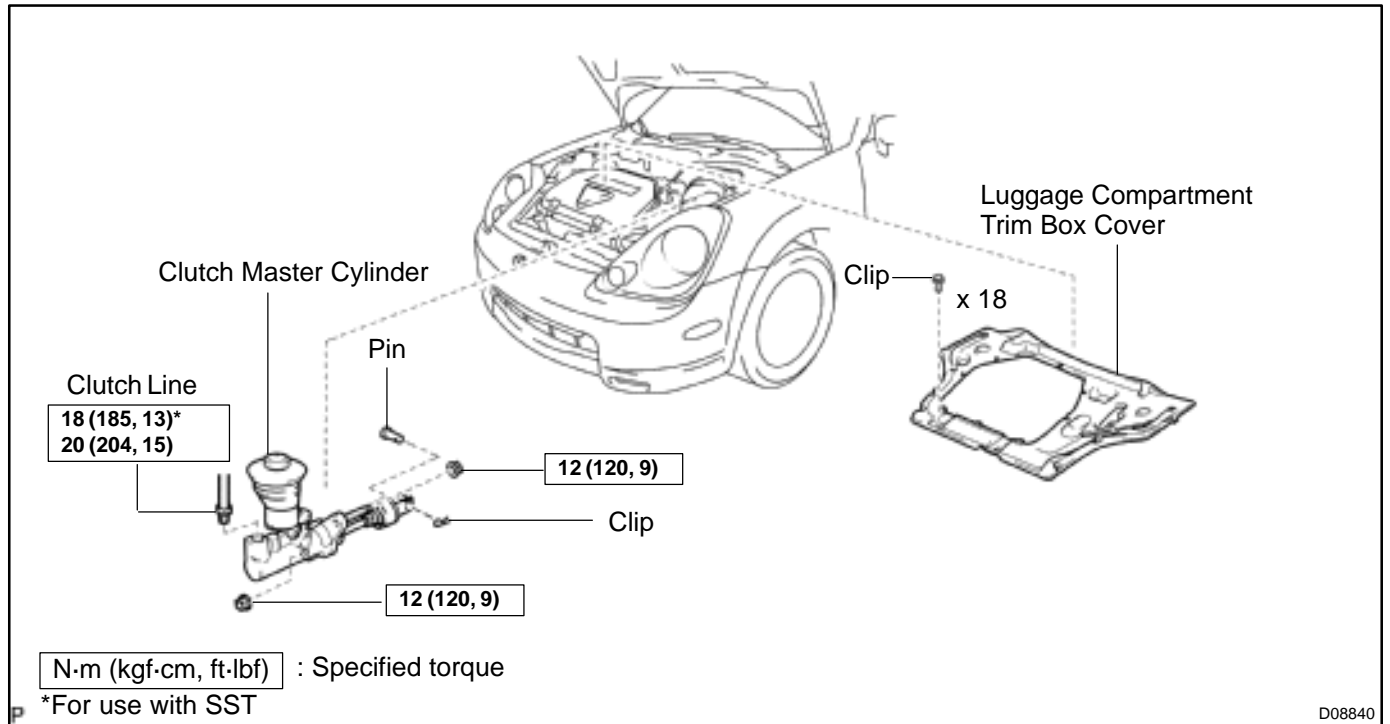
7. INSPECT CLUTCH START SWITCH CONTINUITY

Check the continuity between terminals when the switch is ON and OFF.

Switch position	Condition
ON (pushed)	Continuity
OFF (free)	No continuity

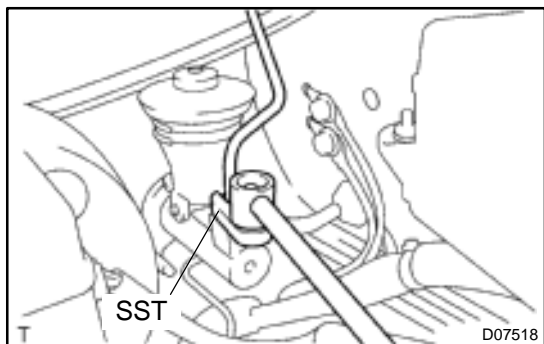
CLUTCH MASTER CYLINDER COMPONENTS

CL0A7-01



REMOVAL

1. REMOVE LUGGAGE COMPARTMENT TRIM BOX COVER



2. DISCONNECT CLUTCH LINE FROM CLUTCH MASTER CYLINDER

Using SST, disconnect the clutch line.

SST 09023-38200

HINT:

Use a container to catch the fluid.

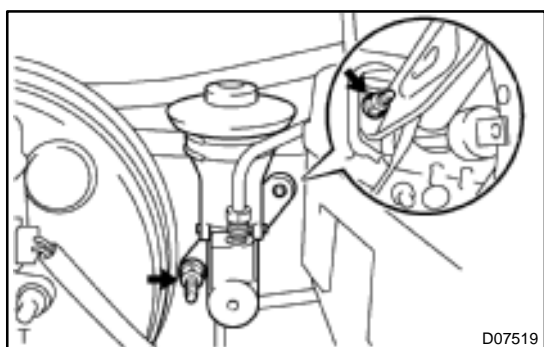
3. REMOVE CLIP AND PIN

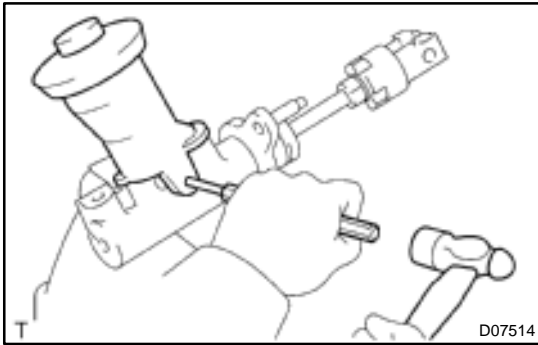
4. REMOVE CLUTCH MASTER CYLINDER

(a) Using needle-nose pliers, remove the clip and pin.

(b) Remove the 2 nuts.

(c) Pull out the master cylinder.





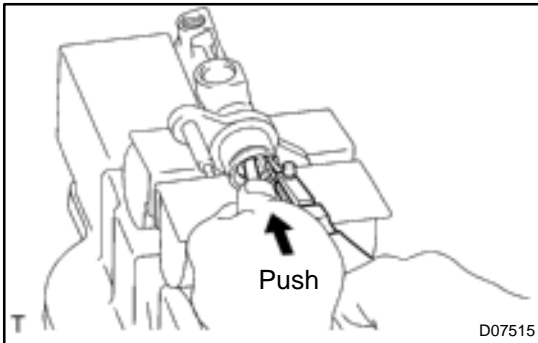
DISASSEMBLY

1. REMOVE RESERVOIR

- (a) Using a pin punch and a hammer, tap out the slotted spring pin.
- (b) Remove the reservoir.
- (c) Remove the grommet from the reservoir.
- (d) Remove the cap and float from the reservoir.

2. REMOVE CLEVIS

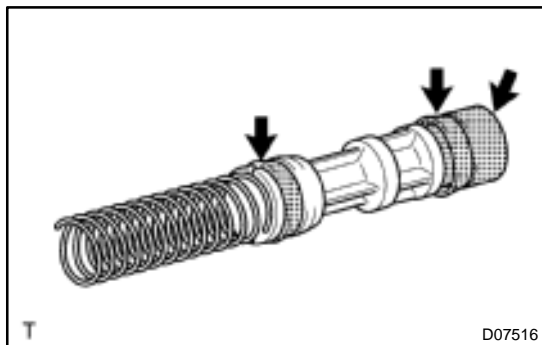
Loosen the lock nut, and remove the clevis and lock nut.



3. REMOVE PUSH ROD

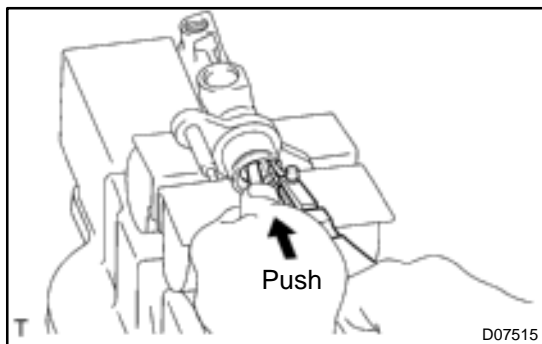
- (a) Remove the boot.
- (b) Using snap ring pliers, remove the snap ring while pushing the push rod.
- (c) Pull out the push rod and washer.

4. REMOVE PISTON WITH SPRING



REASSEMBLY

1. COAT PARTS WITH LITHIUM SOAP BASE GLYCOL GREASE, AS SHOWN
2. INSERT PISTON WITH SPRING INTO CYLINDER



3. INSTALL PUSH ROD

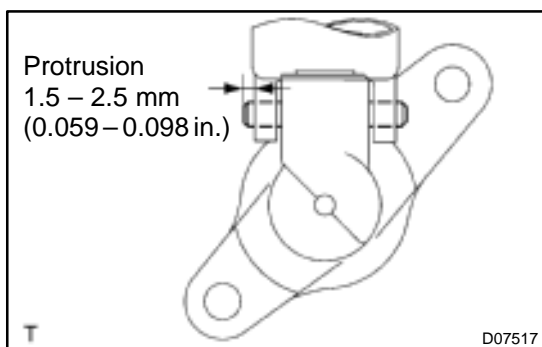
- (a) Install the washer to the push rod.
- (b) Push the push rod into the piston.
- (c) Using snap ring pliers, install the snap ring.

4. INSTALL BOOT TO CYLINDER

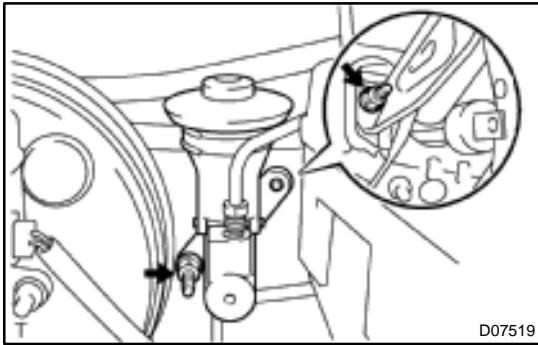
5. TEMPORARILY INSTALL LOCK NUT AND CLEVIS

6. INSTALL RESERVOIR

- (a) Install the float and cap to the reservoir.
- (b) Install a new grommet and reservoir to the cylinder body.



- (c) Using a pin punch and a hammer, tap in the slotted spring pin.

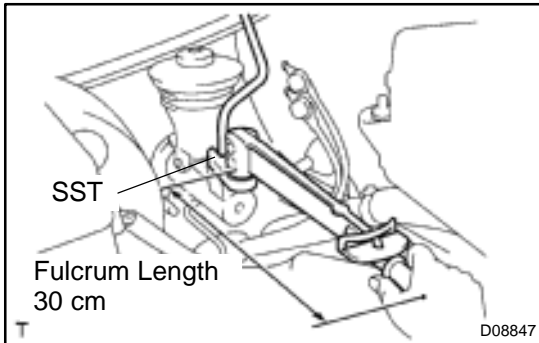


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INSTALLATION

1. INSTALL CLUTCH MASTER CYLINDER

- (a) Install the master cylinder with the 2 nuts.
Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)
- (b) Connect the push rod to the clutch pedal with the pin and pin clip.



D08847

2. CONNECT CLUTCH LINE

Using SST, connect the clutch line.

SST 09023-38200

Torque:

20 N·m (204 kgf·cm, 15 ft·lbf)

18 N·m (185 kgf·cm, 13 ft·lbf) for use with SST

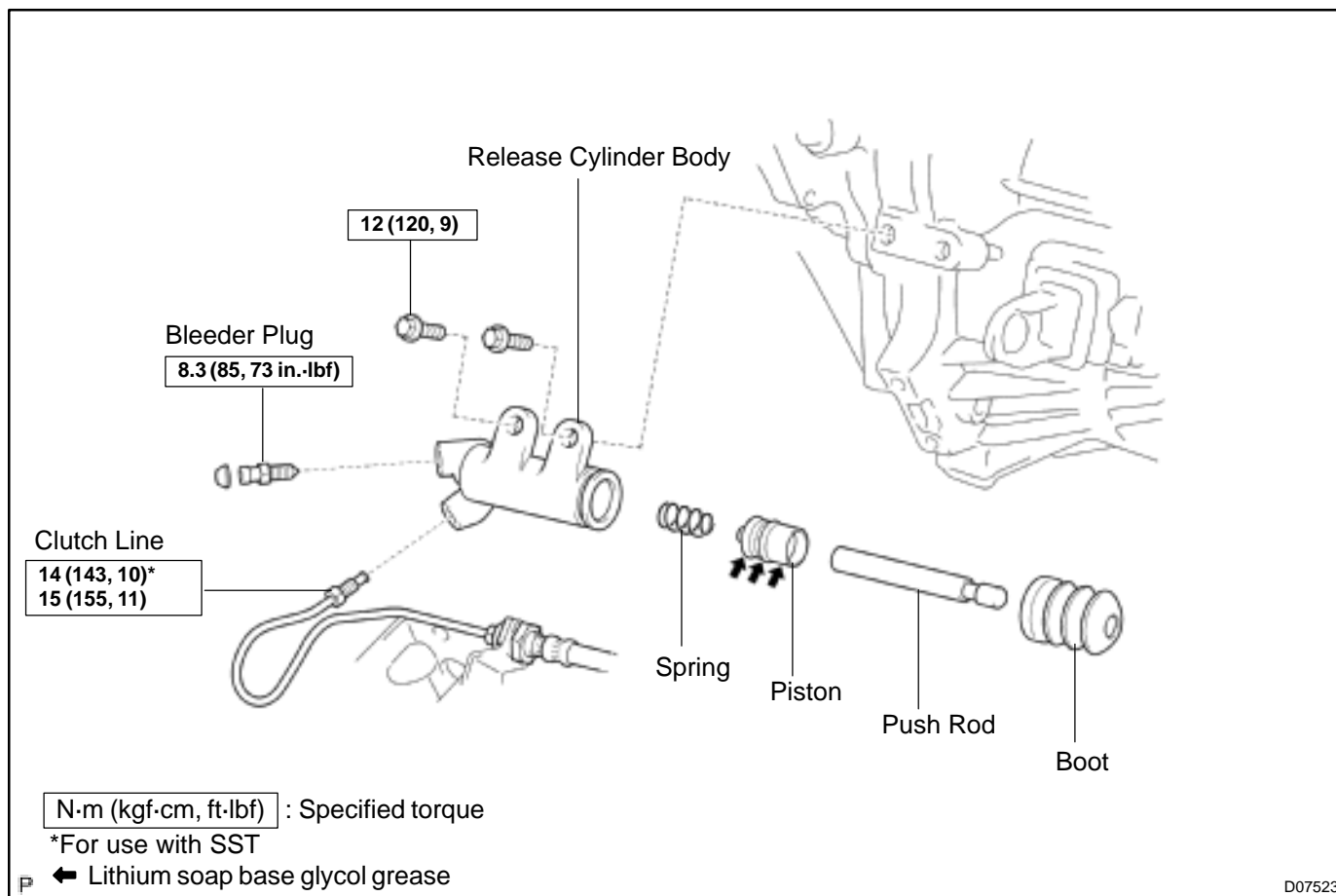
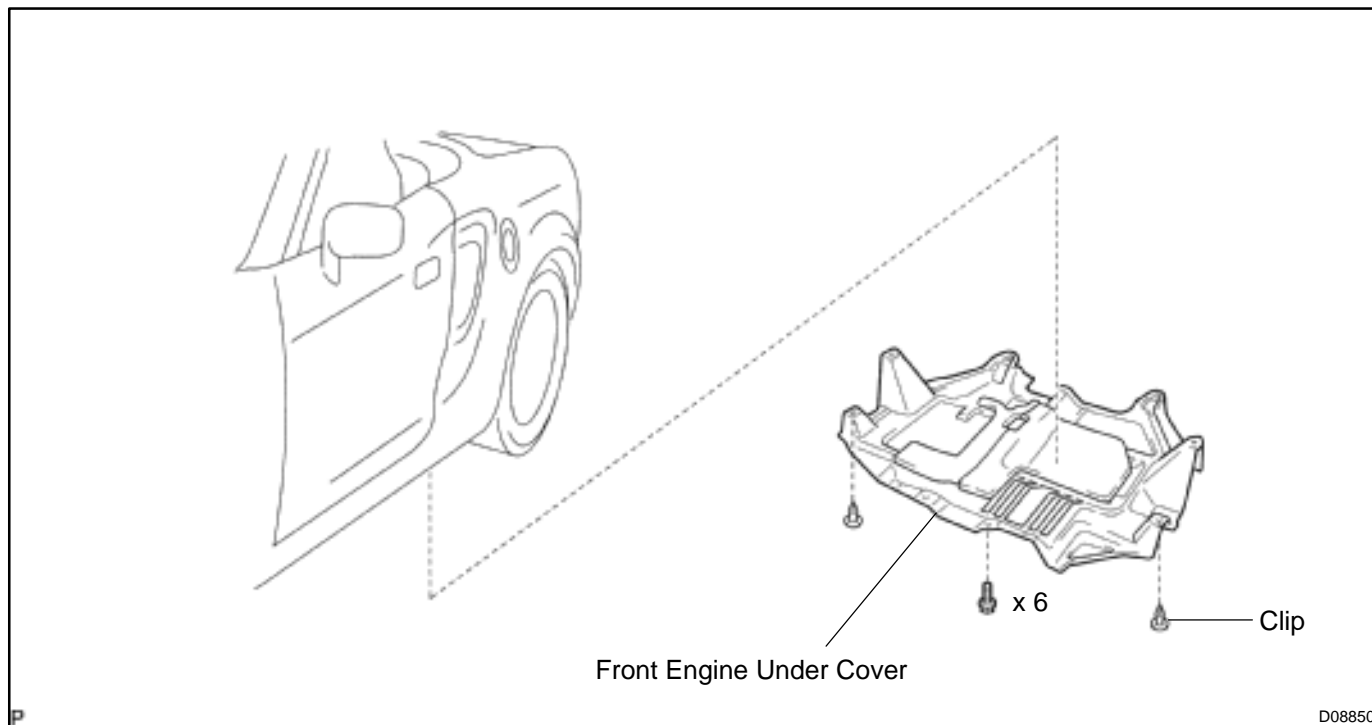
HINT:

Use a torque wrench with a fulcrum length of 30 cm (11.81in.).

3. **FILL RESERVOIR AND BLEED CLUTCH SYSTEM AND ADJUST CLUTCH PEDAL (See page CL-2)**
4. **CHECK FOR LEAKS**
5. **INSTALL LUGGAGE COMPARTMENT TRIM BOX COVER**

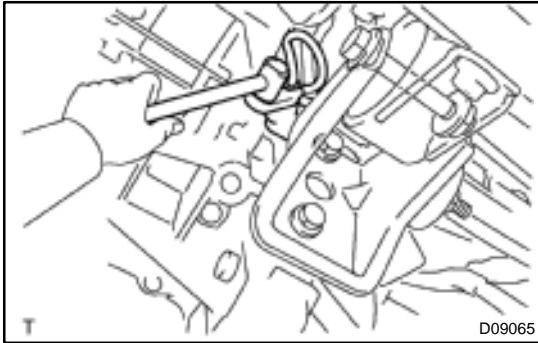
CLUTCH RELEASE CYLINDER COMPONENTS

CL0A8-01



REMOVAL

1. REMOVE FRONT ENGINE UNDER COVER

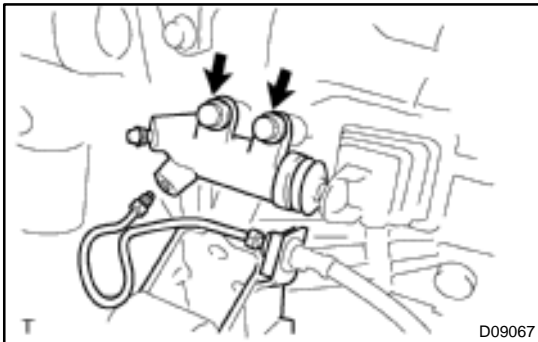


2. DISCONNECT CLUTCH LINE FROM RELEASE CYLINDER

Using SST, disconnect the clutch line from the release cylinder.
SST 09023-00100

HINT:

Use a container to catch the fluid.



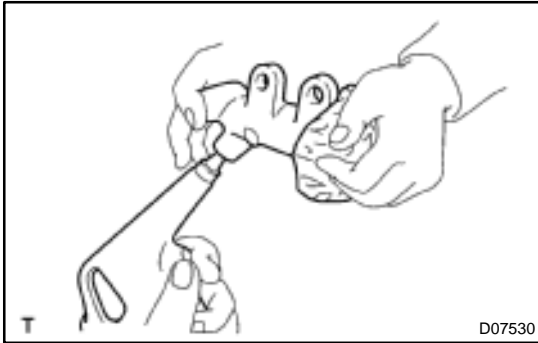
3. REMOVE RELEASE CYLINDER

Remove the 2 bolts and release cylinder.

DISASSEMBLY

1. REMOVE BOOT AND PUSH ROD

- (a) Pull out the boot with the push rod.
- (b) Remove the boot from the push rod.

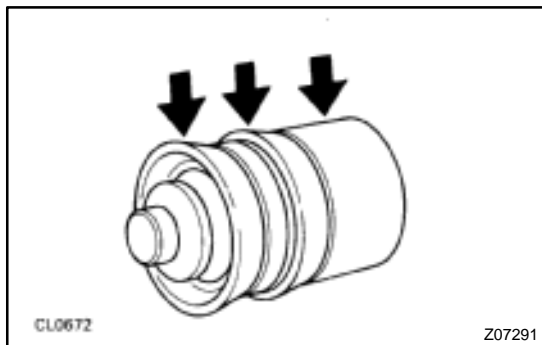


2. REMOVE PISTON AND SPRING

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

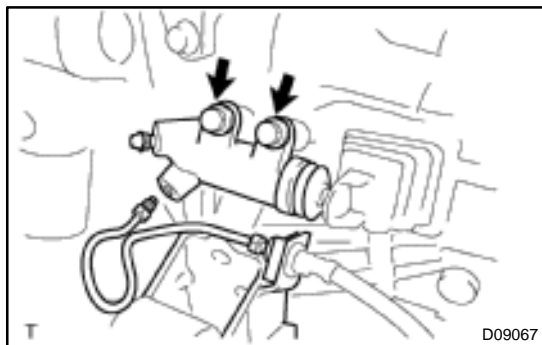
NOTICE:

- **Blowing off the air may cause the piston's jump-out. When removing the piston, hold it with your hand using a waste cloth.**
- **Take care not to splash brake fluid when air-blowing.**



REASSEMBLY

1. COAT PISTON WITH LITHIUM SOAP BASE GLYCOL GREASE, AS SHOWN
2. INSTALL PISTON AND SPRING INTO CYLINDER
3. INSTALL BOOT AND PUSH ROD
 - (a) Install the push rod to the boot.
 - (b) Install the boot with the push rod to the cylinder.

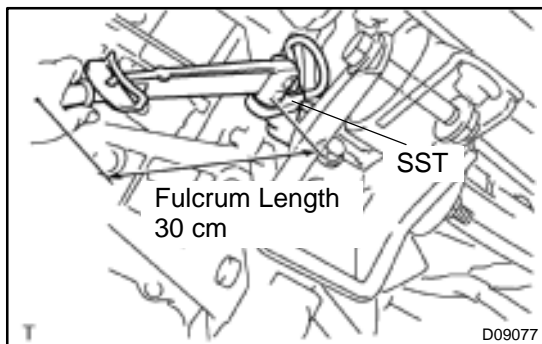


INSTALLATION

1. INSTALL RELEASE CYLINDER

Install the release cylinder with the 2 bolts.

Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)



2. CONNECT CLUTCH LINE TO RELEASE CYLINDER

Using SST, connect the clutch line to the release cylinder.

SST 09023-00100

Torque:

14 N·m (143 kgf·cm, 10 ft·lbf) for use with SST

15 N·m (155 kgf·cm, 11 ft·lbf)

HINT:

Use a torque wrench with a fulcrum length of 30 cm (11.81in.).

3. FILL RESERVOIR AND BLEED CLUTCH SYSTEM

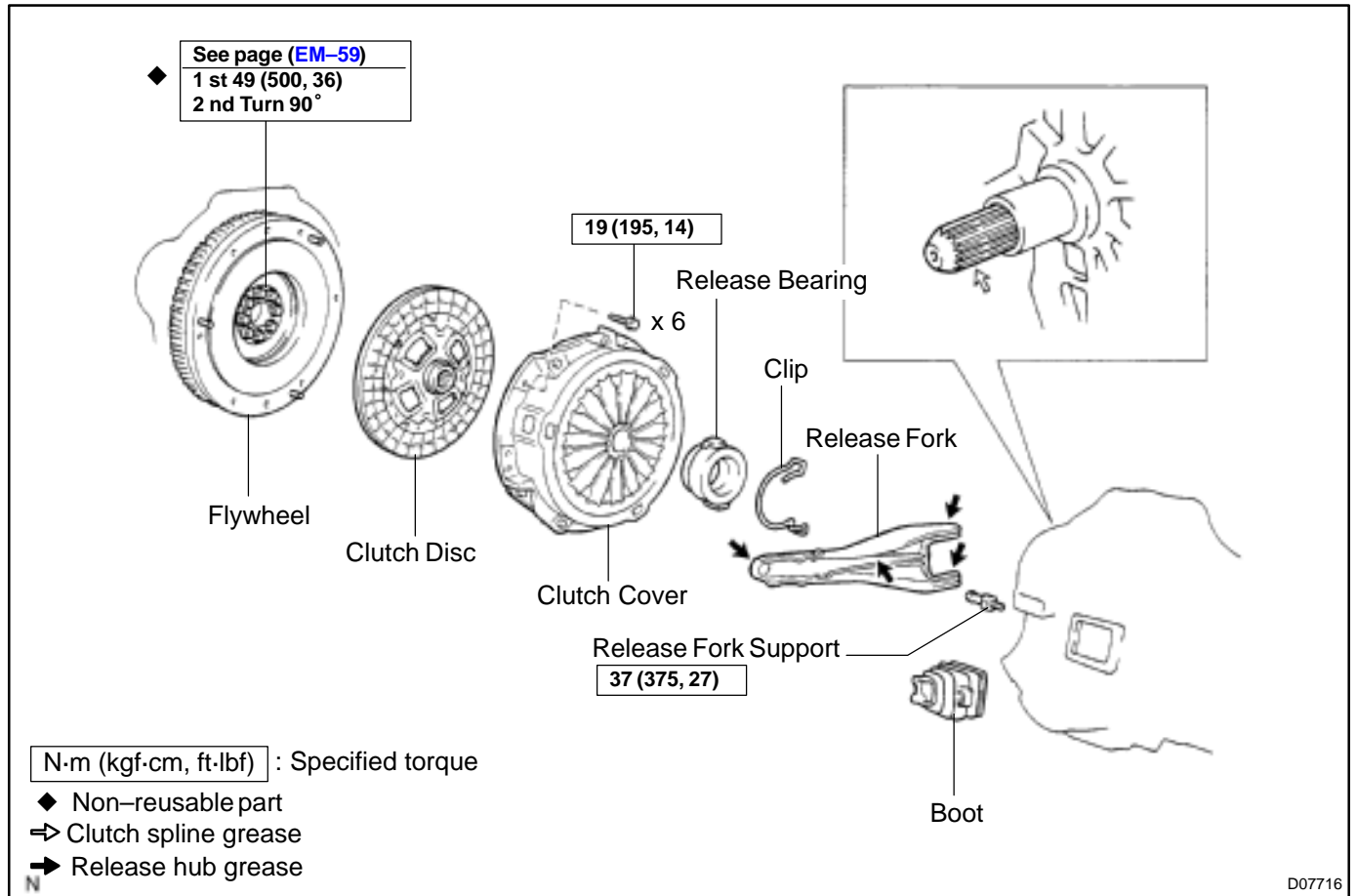
CAUTION:

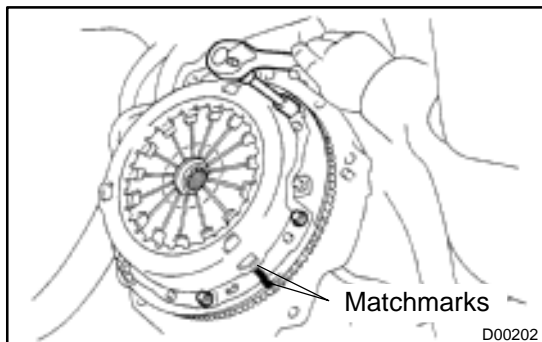
Make sure that the vehicle is securely supported.

4. CHECK FOR LEAKS

5. INSTALL FRONT ENGINE UNDER COVER

CLUTCH UNIT COMPONENTS



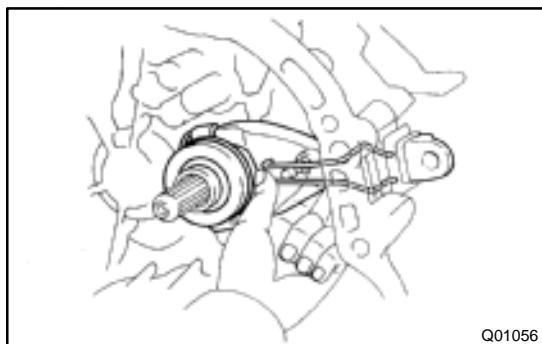


REMOVAL

1. **REMOVE TRANSAXLE FROM ENGINE**
(See page [MX-4](#))
2. **REMOVE CLUTCH COVER AND DISC**
 - (a) Align the matchmarks on the clutch cover with the one on the flywheel.
 - (b) Loosen each set bolt one turn at a time until spring tension is released.
 - (c) Remove the set bolts, and pull off the clutch cover with the clutch disc.

NOTICE:

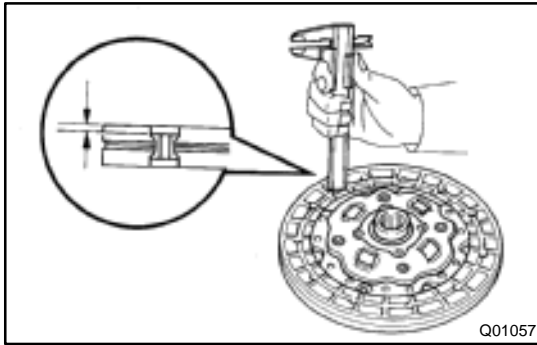
Do not drop the clutch disc.



3. **REMOVE RELEASE BEARING AND FORK FROM TRANSAXLE**

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

4. **REMOVE RELEASE FORK SUPPORT AND BOOT**



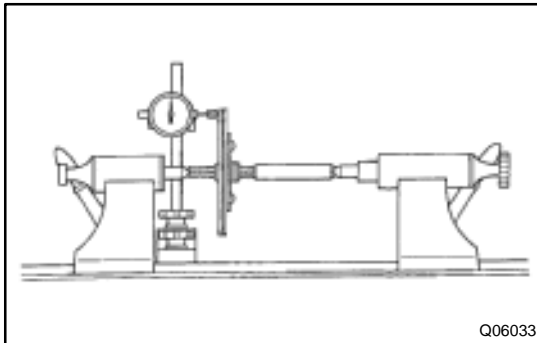
INSPECTION

1. INSPECT CLUTCH DISC FOR WEAR OR DAMAGE

Using vernier calipers, measure the rivet head depth.

Minimum rivet depth: 0.3 mm (0.012 in.)

If necessary, replace the clutch disc.

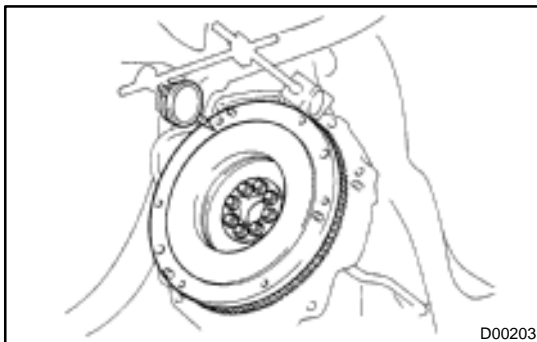


2. INSPECT CLUTCH DISC RUNOUT

Using a dial indicator, check the disc runout.

Maximum runout: 0.8 mm (0.031 in.)

If necessary, replace the clutch disc runout.



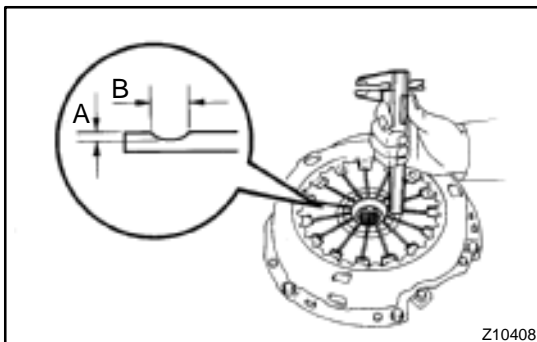
3. INSPECT FLYWHEEL RUNOUT

Using a dial indicator, check the flywheel runout.

Maximum runout: 0.1 mm (0.004 in.)

If necessary, replace the flywheel.

Torque: 49 N·m (500 kgf·cm, 36 ft·lbf)



4. INSPECT DIAPHRAGM SPRING FOR WEAR

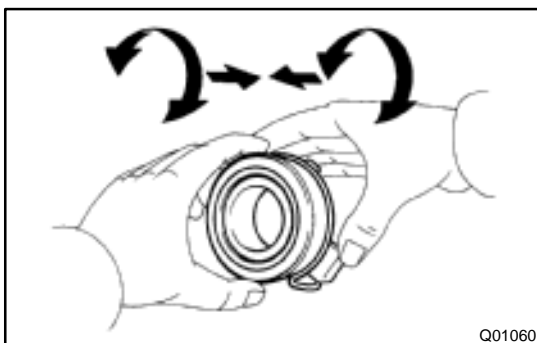
Using vernier calipers, measure the diaphragm spring for depth and width of wear.

Maximum:

Depth (A): 0.5 mm (0.020 in.)

Width (B): 6.0 mm (0.236 in.)

If necessary, replace the clutch cover.



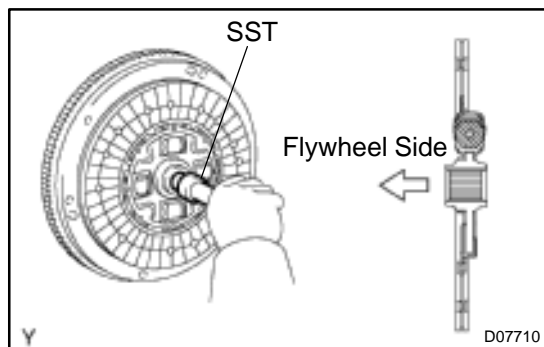
5. INSPECT RELEASE BEARING

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

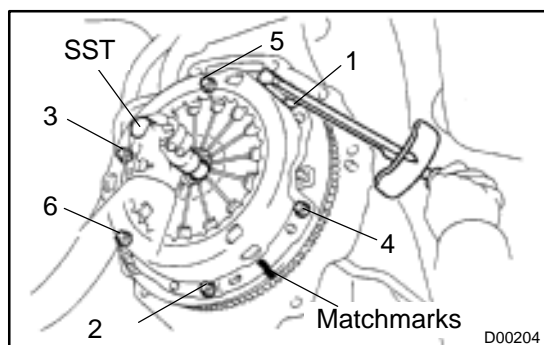
1. INSTALL CLUTCH DISC AND CLUTCH COVER ON FLYWHEEL

- (a) Insert SST in the clutch disc, then insert them in the flywheel.

SST 09301-00210

HINT:

Take care not to insert clutch disc in the wrong direction.



- (b) Align the matchmarks on the clutch cover and flywheel.
 (c) Following the procedures shown in the illustration, tighten the 6 bolts in the order starting the bolt locating near the knock pin on the top.

Torque: 19 N·m (195 kgf·cm, 14 ft·lbf)

HINT:

- Following the order in the illustration, tighten the bolts at a time evenly.
- Move SST up and down, right and left lightly, after checking that the disc is in the center, tighten the bolts.

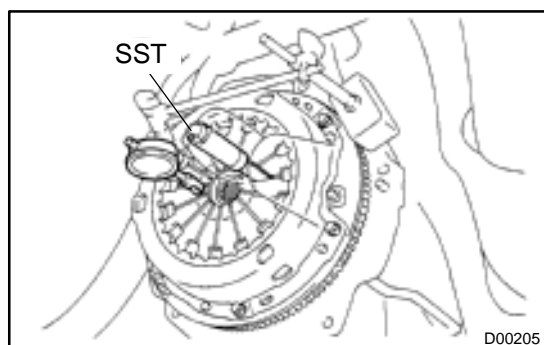
2. CHECK DIAPHRAGM SPRING TIP ALIGNMENT

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

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

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

SST 09333-00013



3. INSTALL BOOT AND RELEASE FORK SUPPORT TO TRANSAXLE

Torque: 37 N·m (375 kgf·cm, 27 ft·lbf)

4. APPLY RELEASE HUB GREASE

Apply release hub grease to the release fork and hub contact, release fork and push rod contact and release fork pivot points.

Sealant:

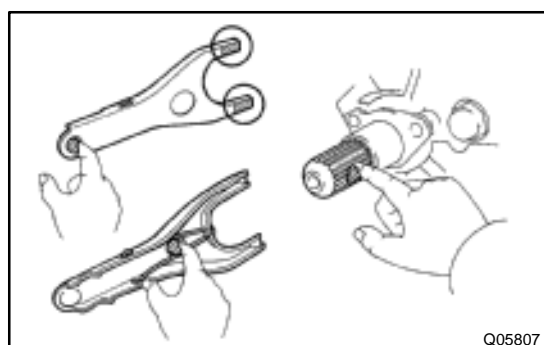
Part No. 08887-01806, RELEASE HUB GREASE or equivalent

5. APPLY CLUTCH SPRING GREASE

Apply clutch spline grease to the input shaft spline.

Sealant:

Part No. 08887-01706, CLUTCH SPLINE GREASE or equivalent



6. INSTALL RELEASE BEARING AND FORK TO TRANSAXLE

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

7. INSTALL TRANSAXLE TO ENGINE

(See page [MX-9](#))