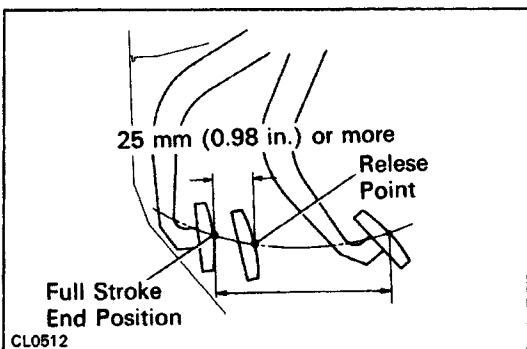
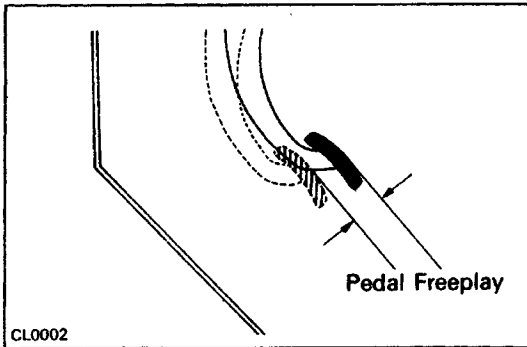
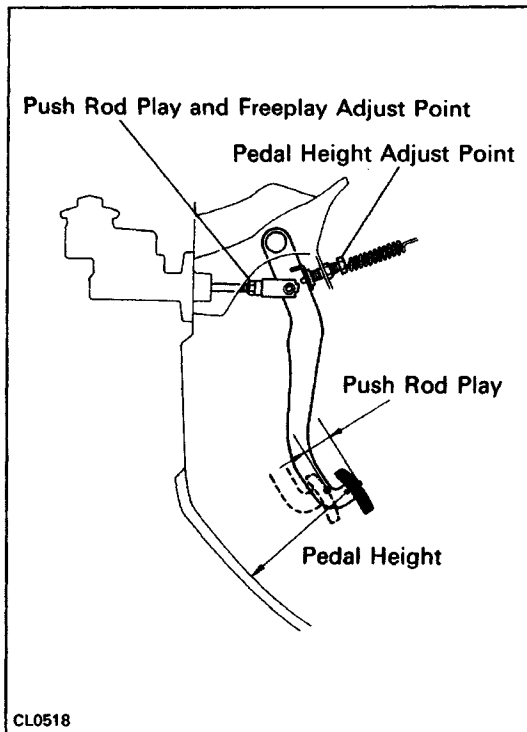


CLUTCH

TROUBLESHOOTING

Problem	Possible cause	Remedy	Page
Hard to shift or will not shift	Clutch pedal freeplay excessive Air in clutch lines Clutch release cylinder faulty Clutch master cylinder faulty Clutch disc out of true, runout is excessive or lining broken Splines on input shaft or clutch disc dirty or burred Clutch pressure plate faulty	Adjust pedal freeplay Bleed clutch system Repair release cylinder Repair master cylinder Inspect clutch disc Repair as necessary Replace clutch cover	CL-3 CL-8 CL-6 CL-9 CL-9 CL-9
Clutch slips	Clutch pedal freeplay insufficient Clutch disc lining oily or worn out Pressure plate faulty Release fork binding	Adjust pedal freeplay Inspect clutch disc Replace clutch cover Inspect release fork	CL-3 CL-9 CL-9
Clutch grabs/chatters	Clutch disc lining oily or worn out Pressure plate faulty Clutch diaphragm spring bent Engine mounts loose	Inspect clutch disc Replace clutch cover Align clutch diaphragm spring Repair as necessary	CL-9 CL-9 CL-9
Clutch pedal spongy	Air in clutch lines Clutch release cylinder faulty Clutch master cylinder faulty	Bleed clutch system Repair release cylinder Repair master cylinder	CL-8 CL-6
Clutch noisy	Loose part inside housing Release bearing worn or dirty	Repair as necessary Replace release bearing	CL-9



CHECK AND ADJUSTMENT OF CLUTCH PEDAL

1. CHECK THAT PEDAL HEIGHT IS CORRECT

Pedal height from dash panel:

162.8 – 172.8 mm (6.41 – 6.80 in.)

2. IF NECESSARY, ADJUST PEDAL HEIGHT

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

3. CHECK THAT PEDAL FREEPLAY AND PUSH ROD PLAY ARE CORRECT

(Pedal Freeplay)

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.)

(Push rod play)

Push in on the pedal with a finger softly 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.

(d) Connect the air duct and install the lower finish panel.

5. INSPECT CLUTCH RELEASE POINT

(a) Pull the parking brake lever and install wheel stopper.

(b) Start the engine and idle the engine.

(c) Without depressing the clutch pedal, slowly shift the shift lever into reverse position until the fears contact.

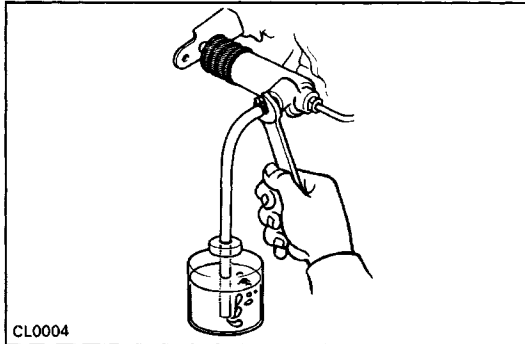
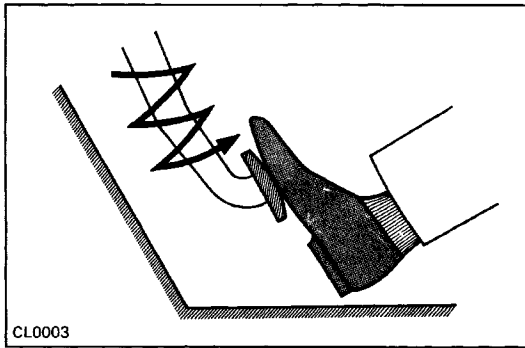
(d) Gradually depress the clutch pedal and measure the stroke distance from the point the gear noise stops (release point) up to the full stroke end position.

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

(From pedal stroke end position to release point)

If the distance not as specified, perform the following operation.

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



BLEEDING OF CLUTCH SYSTEM

HINT: If any work is done on the clutch system or if air is suspected in the clutch lines, bleed the system of air.

NOTICE: Do not let brake fluid remain on a painted surface. Wash it off immediately.

1. FILL CLUTCH RESERVOIR WITH BRAKE FLUID

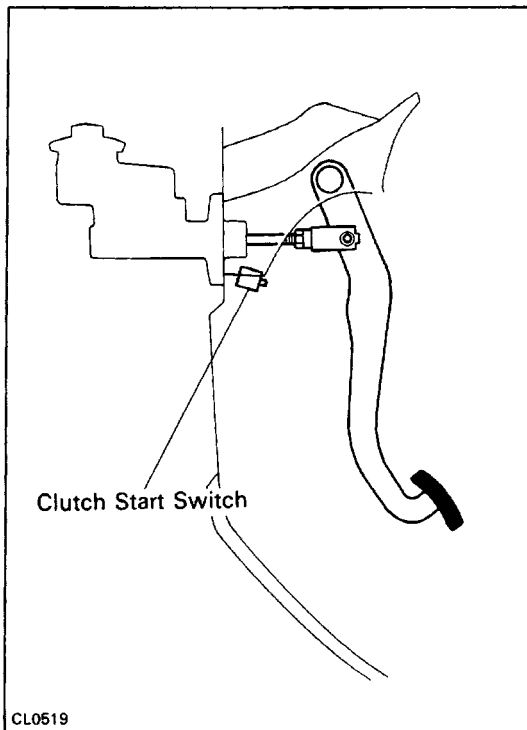
Check the reservoir frequently. Add fluid if necessary.

2. CONNECT VINYL TUBE TO BLEEDER PLUG

Insert the other end of the tube in a half-full container of brake fluid.

3. BLEED CLUTCH LINE

- (a) Slowly pump the clutch pedal several times.
- (b) While pressing on the pedal, loosen the bleeder plug until the fluid starts to run out. Then close the bleeder plug.
- (c) Repeat this procedure until there are no more air bubbles in the fluid.



INSPECTION OF CLUTCH START SYSTEM

CHECK CLUTCH PEDAL

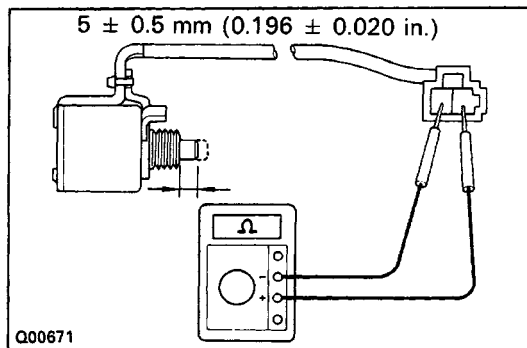
1. CHECK THAT PEDAL HEIGHT IS CORRECT
(See page [CL-3](#))
2. CHECK THAT PEDAL FREEPLAY AND PUSH ROD PLAY ARE CORRECT
(See page [CL-3](#))

CHECK CLUTCH START SYSTEM

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, adjust or replace the clutch start switch.



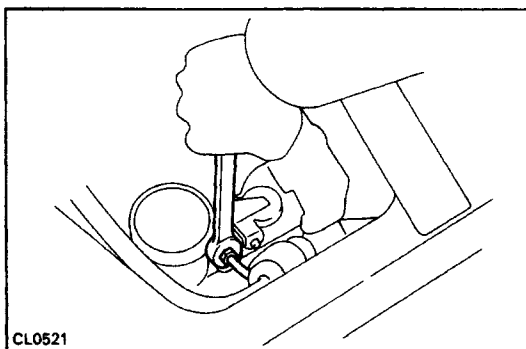
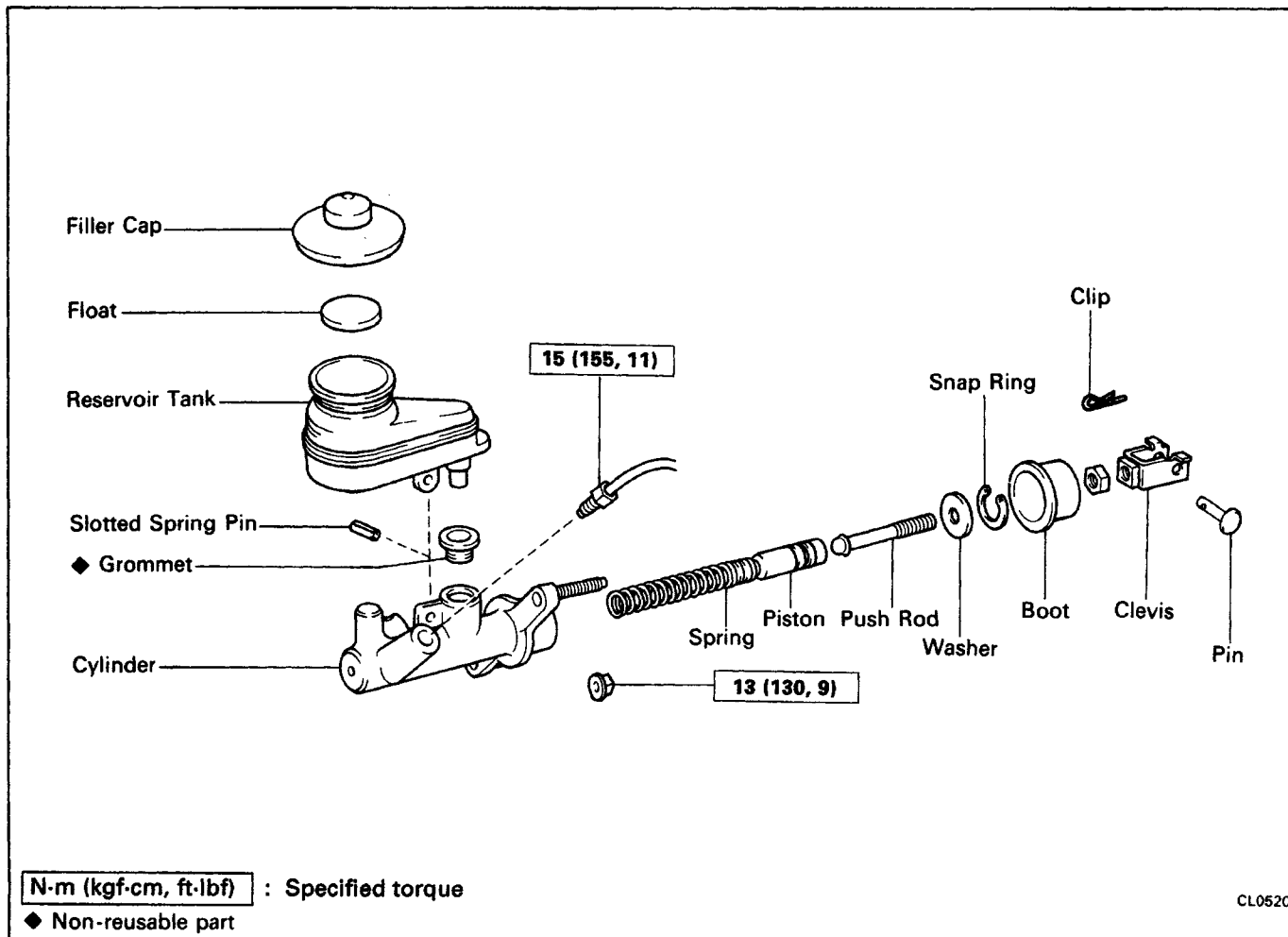
INSPECTION OF CLUTCH START SWITCH

INSPECT CONTINUITY OF CLUTCH START SWITCH

- (a) Check that there is continuity between terminals when the switch is ON (pushed).
- (b) Check that there is no continuity between terminals when the switch is OFF (free).

If continuity is not as specified, replace the switch.

CLUTCH MASTER CYLINDER COMPONENTS



REMOVAL AND INSTALLATION OF CLUTCH MASTER CYLINDER (MAIN POINT OF REMOVAL AND INSTALLATION)

1. (For 3S-GE engine)

REMOVE FRONT SUSPENSION BRACE

2. REMOVE MASTER CYLINDER

- (a) Remove the filler cap.
- (b) Using a wrench, disconnect the clutch tube from the cylinder.
- (c) Remove the clip, clevis pin and return spring.
- (d) Remove the two nuts.
- (e) Pull out the master cylinder.

3. INSPECT MASTER CYLINDER BORE FOR SCORING OR CORROSION

If a problem is found, clean or replace the cylinder.

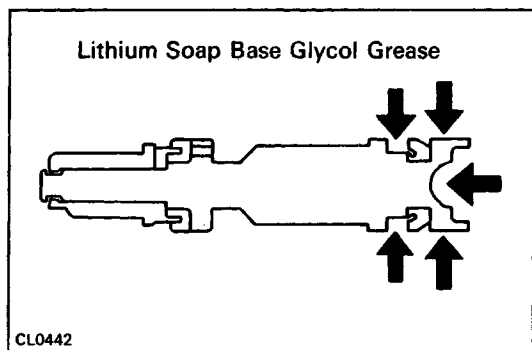
4. INSPECT PISTON AND CUPS FOR WEAR, SCORING, CRACKS OR SWELLING

If either one requires replacement, use the parts from the cylinder kit.

5. INSPECT PUSH ROD FOR WEAR OR DAMAGE

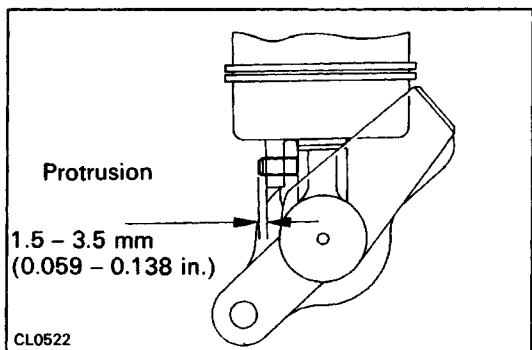
If necessary, replace the push rod.

6. COAT PARTS WITH LITHIUM SOAP BASE GLYCOL GREASE AS SHOWN



7. INSTALL MASTER CYLINDER FOLLOWING REMOVAL SEQUENCE IN REVERSE

HINT: When installing the reservoir tank, drive in the slotted spring pin with a pin punch and hammer as shown.



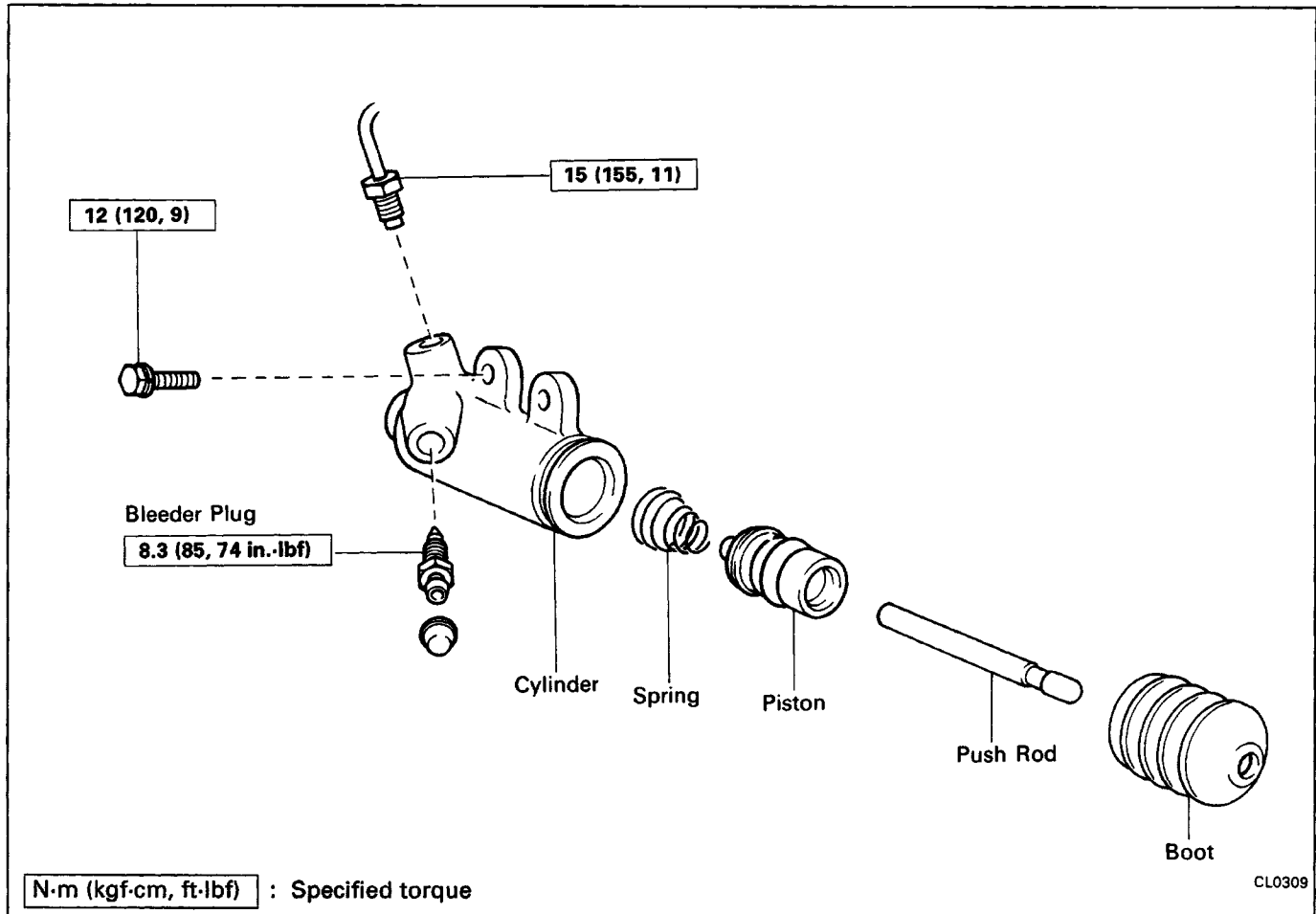
8. (For 3S-GE engine)

INSTALL FRONT SUSPENSION BRACE

9. BLEED SYSTEM AND ADJUST CLUTCH PEDAL

(See page [CL-3](#) and [4](#))

CLUTCH RELEASE CYLINDER COMPONENTS



REMOVAL AND INSTALLATION OF CLUTCH RELEASE CYLINDER (MAIN POINT OF REMOVAL AND INSTALLATION)

1. DISCONNECT AND CONNECT CLUTCH LINE TUBE

Using SST, disconnect and connect the tube.

SST 09751-36011

2. INSPECT RELEASE CYLINDER BORE FOR SCORING OR CORROSION

If a problem is found, clean or replace the cylinder.

3. INSPECT PISTON AND CUPS FOR WEAR, SCORING, CRACKS OR SWELLING

If either one requires replacement, use the parts from the cylinder kit.

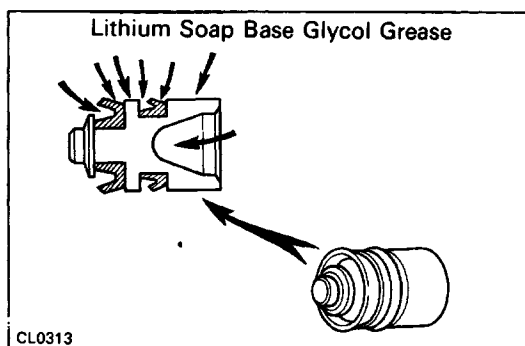
4. INSPECT PUSH ROD FOR WEAR OR DAMAGE

If necessary, replace the push rod.

5. COAT PISTON WITH LITHIUM SOAP BASE GLYCOL GREASE AS SHOWN

6. BLEED SYSTEM

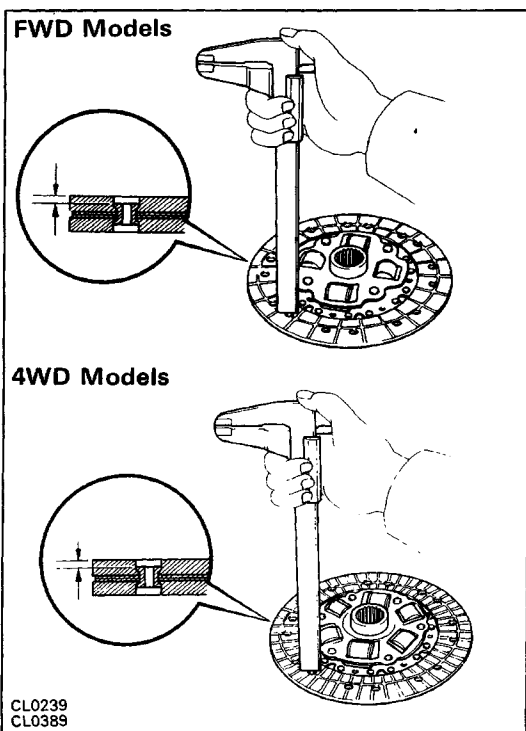
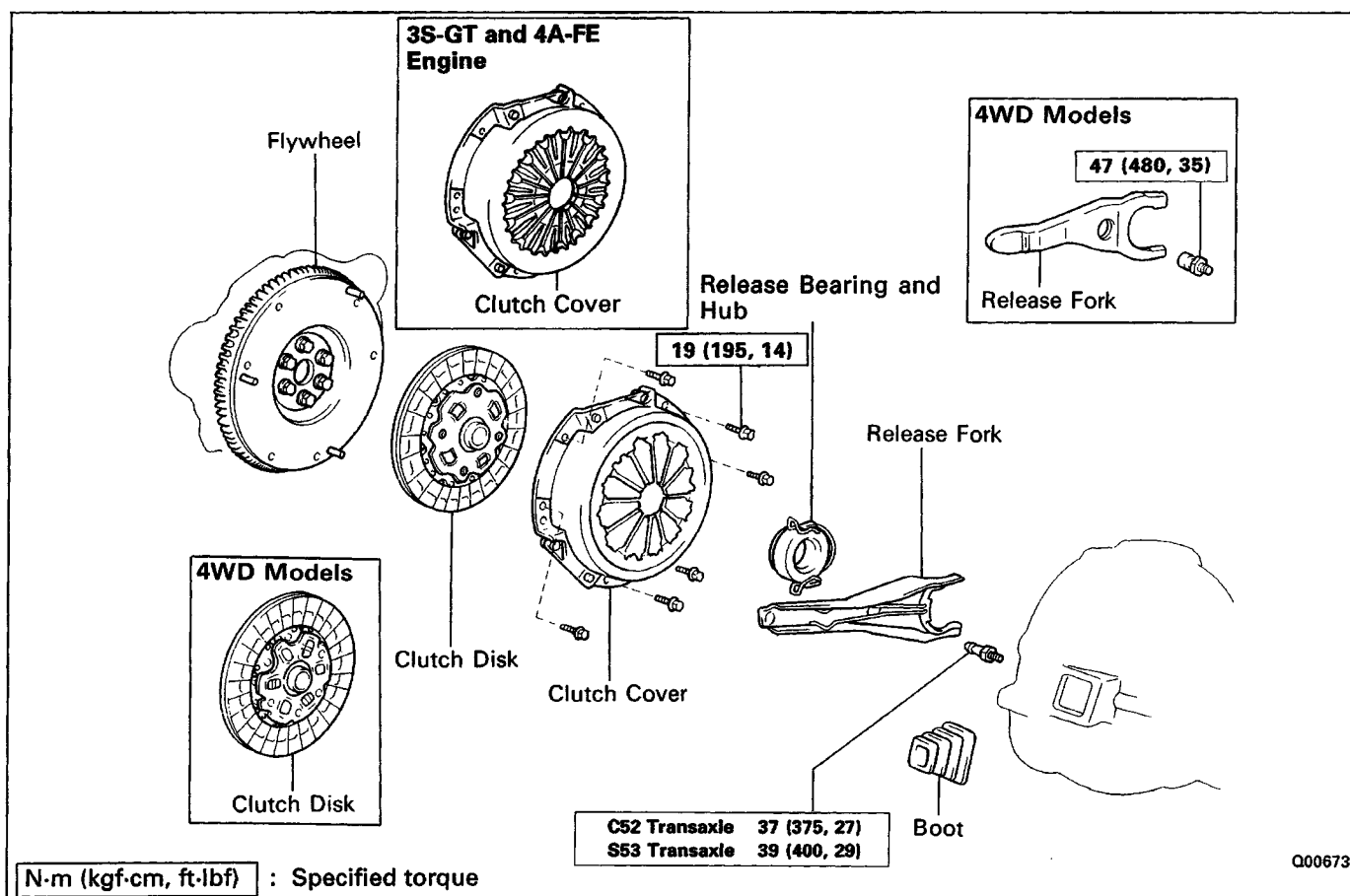
(See page [CL-4](#))



CLUTCH UNIT

REMOVAL OF CLUTCH UNIT

Remove the parts as shown.



INSPECTION OF CLUTCH PARTS

1. INSPECT CLUTCH DISC FOR WEAR OR DAMAGE

Using calipers, measure the rivet head depth.

Maximum rivet depth: 0.3 mm (0.012 in.)

If a problem is found, replace the clutch disc.