

SECTION A

SPECIAL, SKYLARK LE SABRE

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DIVISION I SPECIFICATIONS AND ADJUSTMENTS

71-1 GENERAL SPECIFICATIONS

a. Clutch Specifications

Type	_____
Pedal Pressure	_____
Pedal Lash	_____
Driven Plate Diameter	_____
Driven Plate Facings	_____
Number of Facings	_____
Facing Attachment	_____
Facing Area (Sq. In.)	_____
Vibration Damping	_____

V/6 (225 cu. in.)	V/8 (300 & 340 cu. in.)
_____ Single Plate-Dry Disc _____	_____
_____ 28 to 33 lbs. _____	_____
_____ See Par. 71-2 _____	_____
9 1/8"	10 13/32"
_____ Woven Asbestos _____	_____
_____ 2 _____	_____
_____ Riveted _____	_____
71.88	103.5
_____ 6 Torsional Springs _____	_____

b. Bolt Tightening Specifications

Location	Thread Size	Torque Lb. Ft.
Clutch Cover to Flywheel	3/8 -16 x 1	30-40
Clutch Release Fork Ball	13/16-16	35-45
Flywheel Housing to Cylinder Block	3/8 -16 x 1-1/4	30-40

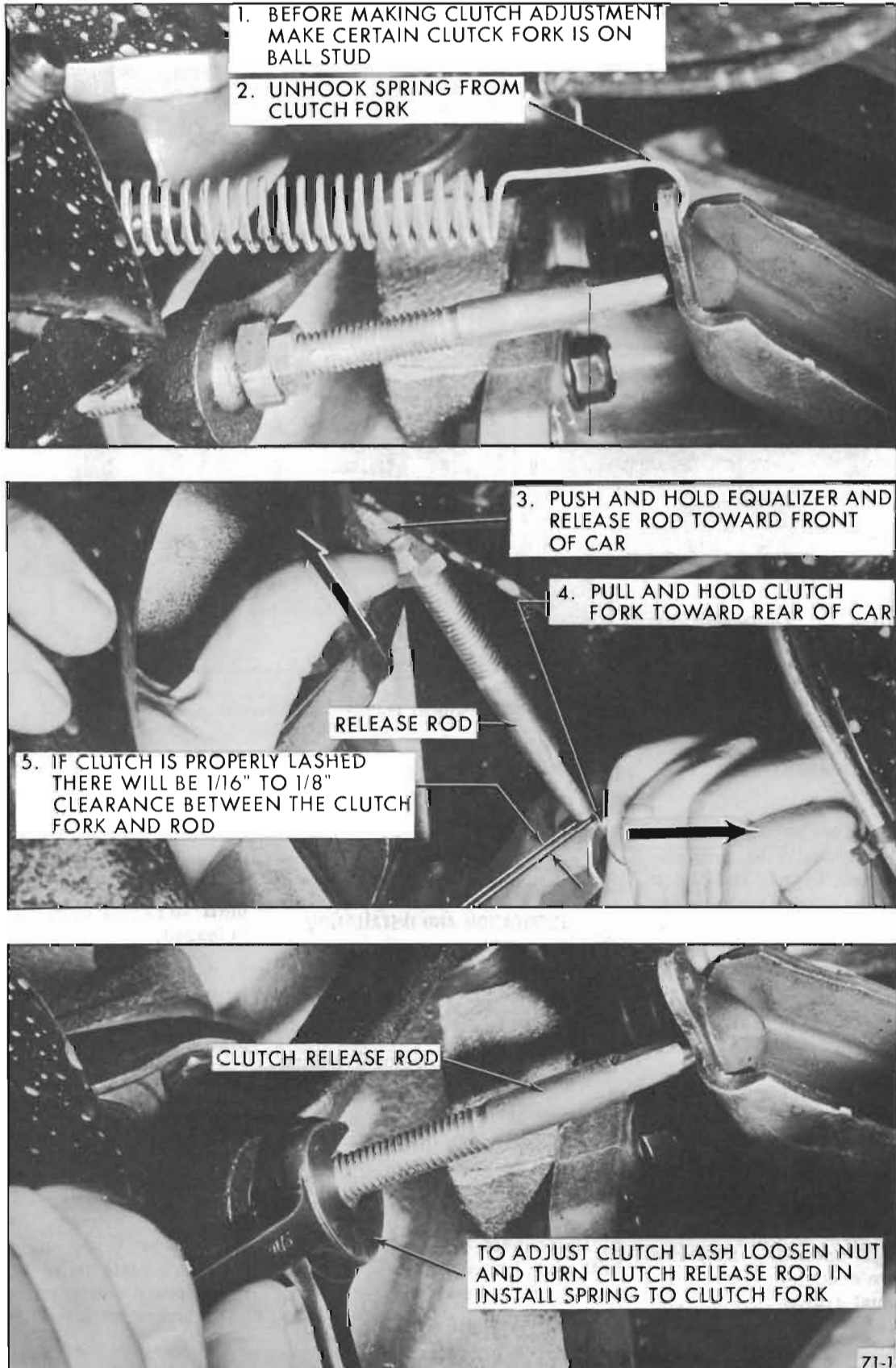


Figure 71-1—Clutch Lash Adjustment (43-44000 Series Only)

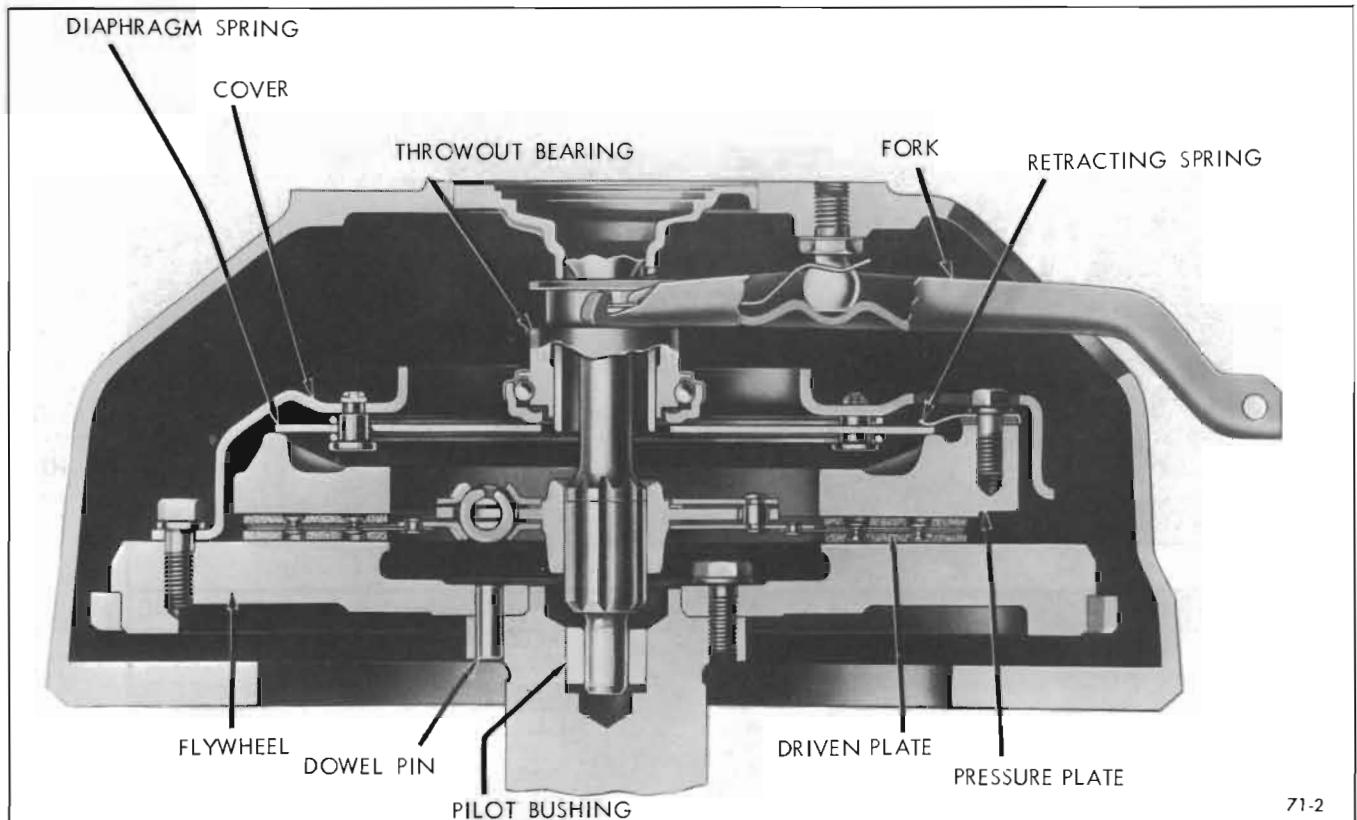


Figure 71-2—Standard Clutch (43-44-45000 Series)

71-2 CLUTCH LASH ADJUSTMENTS

Pedal lash, free pedal, must be adjusted occasionally to compensate for normal wear of the clutch facings. As the driven plate wears thinner, pedal lash decreases. Adjust pedal lash as shown in Figure 71-1.

DIVISION II DESCRIPTION AND OPERATION

71-3 DESCRIPTION AND OPERATION

A single plate, dry disc clutch is used on all Specials, Skylarks and LeSabre's equipped with a 3-speed manual transmission. The clutch is of conventional design with a diaphragm spring assembly. See Figure 71-2.

DIVISION III SERVICE PROCEDURES

71-4 REMOVAL, INSPECTION, LUBRICATION AND INSTALLATION OF CLUTCH

a. Removal from Vehicle

1. Remove transmission.
2. Remove pedal return spring from clutch fork. See Figures 71-3 and 71-3A.
3. Remove clutch throw-out bearing from the clutch fork.
4. Remove flywheel housing.
5. Disconnect clutch fork from ball stud by forcing it toward the center of the vehicle.
6. Mark clutch cover and flywheel with a center punch so that cover can be reinstalled in the

same position of the flywheel in order to preserve engine balance.

7. Loosen the clutch attaching bolts one turn at a time to avoid bending of clutch cover flange until diaphragm spring is released.

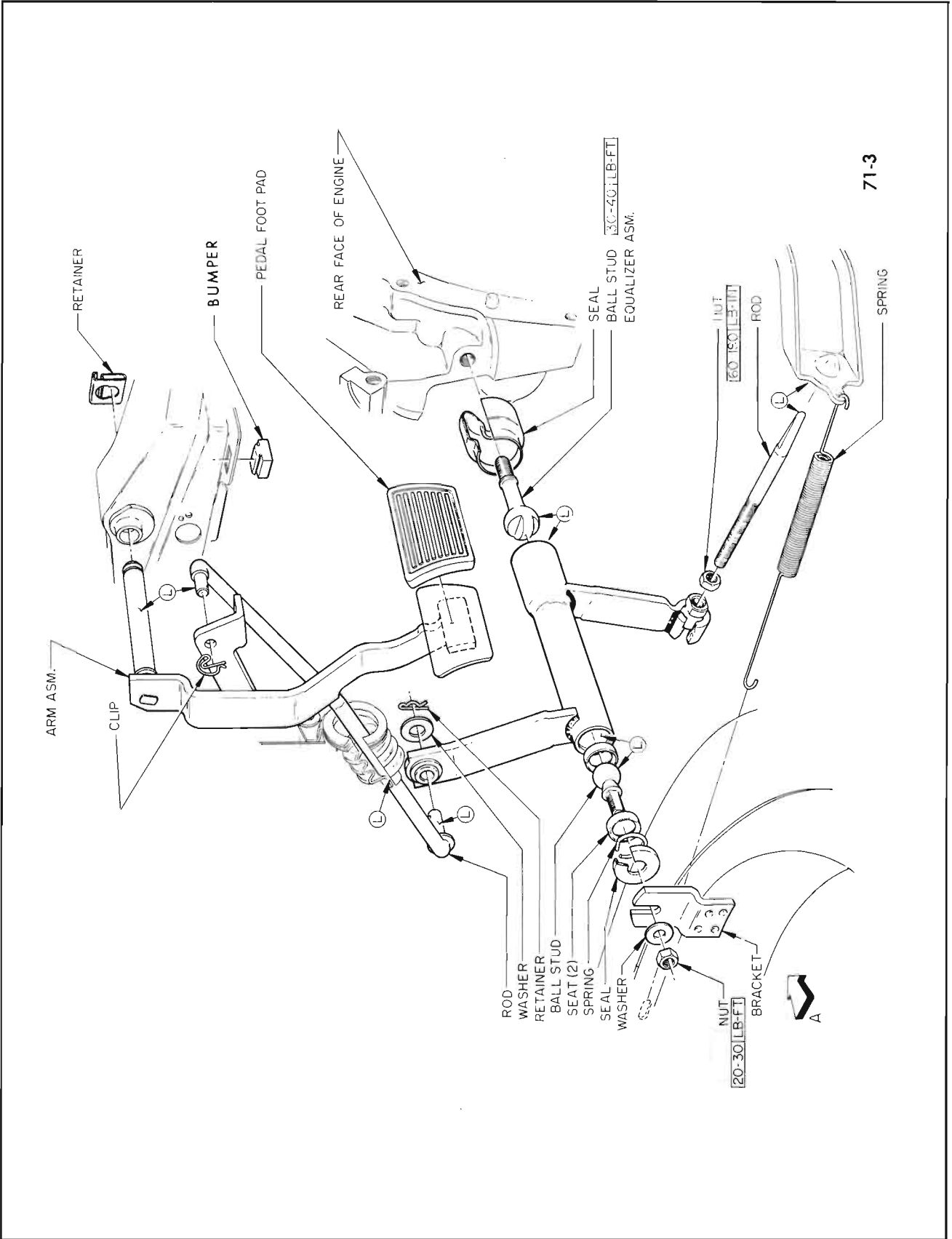
8. Support the pressure plate and cover assembly while removing last bolts, then remove pressure plate, and driven plate.

NOTE: Use extreme care to keep clutch driven plate **CLEAN**.

9. If it becomes necessary to disassemble pressure plate, proceed as follows:

a. Remove three drive-strap to pressure plate bolts and retracting springs and remove pressure plate from clutch cover.

NOTE: When disassembling, note position of grooves on edge

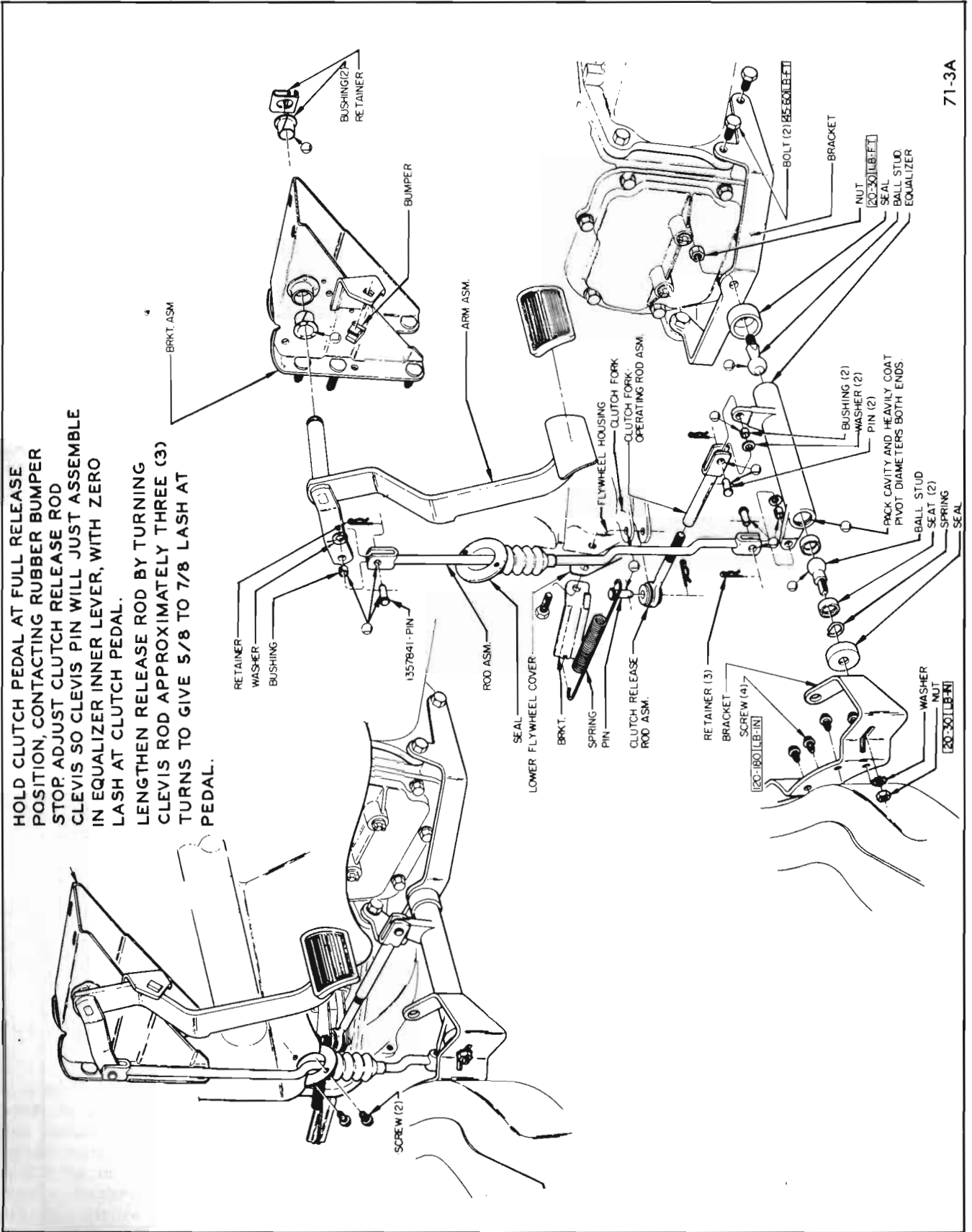


71-3

Figure 71-3—Clutch Outer Controls (43-44000 Series)

HOLD CLUTCH PEDAL AT FULL RELEASE POSITION, CONTACTING RUBBER BUMPER STOP. ADJUST CLUTCH RELEASE ROD CLEVIS SO CLEVIS PIN WILL JUST ASSEMBLE IN EQUALIZER INNER LEVER, WITH ZERO LASH AT CLUTCH PEDAL.

LENGTHEN RELEASE ROD BY TURNING CLEVIS ROD APPROXIMATELY THREE (3) TURNS TO GIVE 5/8 TO 7/8 LASH AT PEDAL.



71-3A

Figure 71-3A—Clutch Outer Controls (45000 Only)

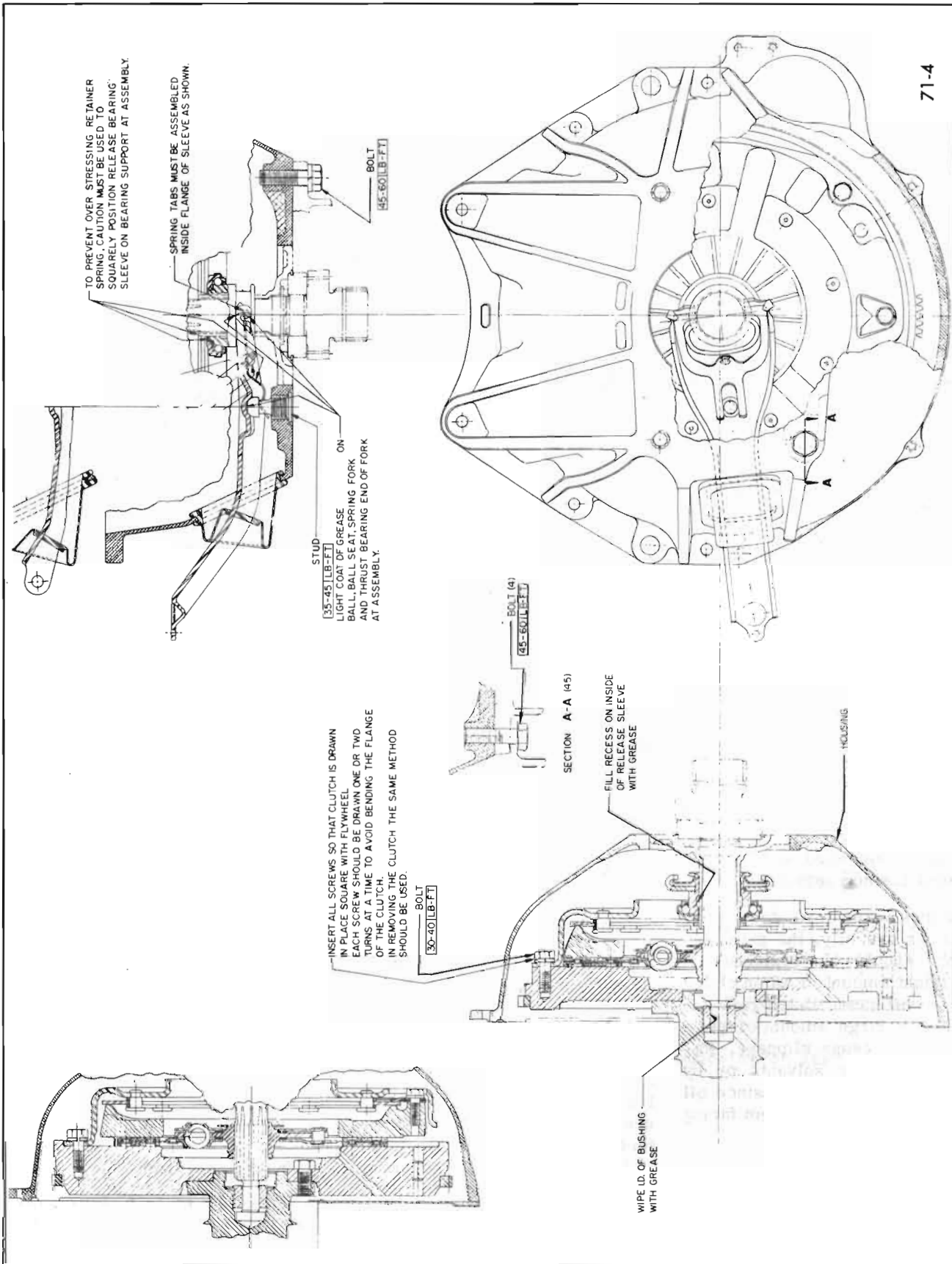


Figure 71-4—Clutch Inner Controls (43-44-45000 Series)

of pressure plate and cover. These marks must be aligned in assembly to maintain balance.

b. The clutch diaphragm spring and two pivot rings are riveted to the clutch cover. Spring, rings and cover should be inspected for excessive wear or damage, and if there is a defect, it is necessary to replace the complete cover assembly.

b. Inspection of Clutch

Wash all metal parts of clutch, except release bearing and driven plate, in suitable cleaning solution to remove dirt and grease. Soaking release bearing in cleaning solution would permit solution to seep into bearing and destroy the lubricant. Soaking driven plate in cleaning solution would damage the facings.

1. Flywheel and Pressure Plate.

Examine friction surfaces of flywheel and pressure plate for scoring or roughness. Slight roughness may be smoothed with fine emery cloth, but if surface is deeply scored or grooved the part should be replaced.

2. Clutch Driven Plate. Inspect driven plate for condition of facings, loose rivets, broken or very loose torsional springs, and flattened cushion springs.

If facings are worn down near rivets or are oily, the plate assembly should be replaced. A very slight amount of oil on clutch facings will cause clutch grab and chatter. A large amount of oil on facings will cause slippage. Removal of oil by solvents or by buffing is not practical since oil will continue to bleed from facing material when hot.

When oil is found on driven plate facings, examine transmission drainback hole, pilot bushing, engine rear main bearing and other points of oil leakage.

Test the fit of driven plate hub on transmission main drive gear for an easy sliding fit.

Regardless of whether the old plate or a new one is to be installed, the plate should be checked for run-out. This check can be made by following steps outlined in Figures 71-5 and 71-6.

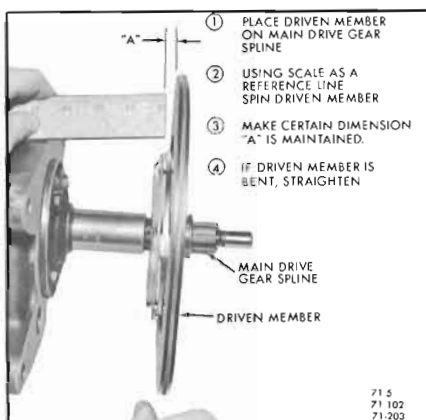


Figure 71-5—Checking Driven Plate Run-out



Figure 71-6—Checking Driven Plate Run-out

3. Bearings. Inspect clutch release bearing for scoring or excessive wear on front contact face. Test for roughness of balls and races by pressing and turning front race slowly. Inspect main drive gear pilot bushing in crankshaft. If bushing is rough or worn it should be replaced.

c. Lubrication of Clutch

1. Very sparingly apply wheel bearing lubricant in pilot bushing in crankshaft.

NOTE: If too much lubricant is used, it will run out on face of flywheel when hot and ruin the driven plate facings.

2. Make sure that splines in the driven plate hub are clean and apply a light coat of wheel bearing lubricant. Apply a light coat of wheel bearing lubricant on transmission drive gear splines. Slide driven plate over transmission drive gear several times. Remove driven plate and wipe off all excess lubricant pushed-up by hub of plate.

NOTE: Driven plate facings must be kept clean and dry.

3. Fill groove in throw-out bearing with wheel bearing lubricant. See Figure 71-7. Make sure transmission front bearing retainer is clean and apply a light coat of wheel bearing lubricant. Slide throw-out bearing over transmission retainer several times. Remove throw-out bearing and wipe off all excess lubricant pushed up by hub of bearing.

4. Clean and apply wheel bearing lubricant to ball stud in flywheel housing and to the seat in clutch fork.

5. Check clutch pilot bearing for excessive wear or damage. If replacement is necessary, remove bearing with Puller J-1448. For installation use Driver J-1522.

NOTE: Very sparingly apply wheel bearing lubricant in pilot bushing. If too much lubricant is used, it will run out on face of flywheel when hot and ruin the driven plate facings.

d. Installation of Clutch

1. If the pressure plate was disassembled, follow Steps a and b.
a. Install the pressure plate in

the cover assembly, lining up the groove on the edge of the pressure plate with the groove on the edge of the cover.

b. Install pressure plate retracting springs and drive-strap to pressure plate bolts and lock washers and tighten to 16 lbs. ft. torque. The clutch is now ready to be installed.

2. Install the pressure plate and driven plate. Support both assemblies with a spare main drive gear.

NOTE: Be sure to align marks on clutch cover with the mark made of the flywheel on disassembly.

3. Install all bolts so that clutch is drawn in place square with flywheel. Each bolt must be drawn

one turn at a time to avoid bending the clutch cover flange. Torque bolts to 16 lbs. ft.

4. Lubricate the ball stud and clutch fork with wheel bearing lubricant and install clutch fork.

NOTE: Check and insure that fork retaining spring is tight on pivot ball stud.

5. Install flywheel housing.

CAUTION: Insure that dowel pins are in place in crankcase.

6. Lubricate the recess on the inside of the throw-out bearing collar. See Figure 71-7.

CAUTION: Be careful not to use too much lubricant.

7. Install throw-out bearing assembly and hook up all clutch linkage.

NOTE: Make certain clutch fork is seated in throw-out bearing. (See Figure 71-2).

8. Install transmission.

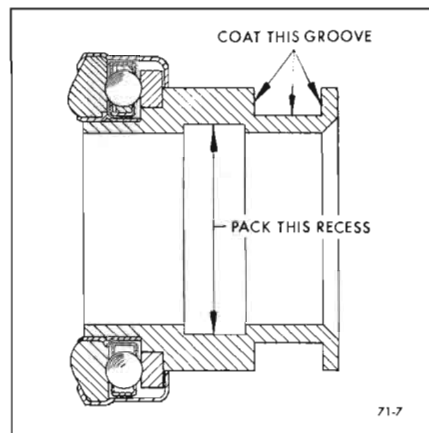


Figure 71-7—Throw-out Bearing Lubrication

DIVISION IV TROUBLE DIAGNOSIS

71-5 CLUTCH TROUBLE DIAGNOSIS

SYMPTOM AND PROBABLE CAUSE	PROBABLE REMEDY
FAILS TO RELEASE (PEDAL PRESSED TO FLOOR-SHIFT LEVER DOES NOT MOVE FREELY IN AND OUT OF REVERSE GEAR)	
a. Improper linkage adjustment	a. Adjust linkage
b. Improper pedal travel	b. Trim bumper stop and adjust linkage
c. Loose linkage	c. Replace bushings
d. Faulty pilot bearing	d. Replace bearing
e. Faulty driven disc	e. Replace disc
f. Fork off ball stud	f. Install properly and lubricate fingers at throw-out bearing
g. Clutch disc hub binding on clutch gear spline	g. Repair or replace clutch gear
SLIPPING	
a. Improper adjustment (no lash)	a. Adjust linkage
b. Oil soaked driven disc	b. Install new disc and correct oil leak at its source

SYMPTOM AND PROBABLE CAUSE	PROBABLE REMEDY
SLIPPING (Con't.)	
c. Worn facing or facing torn from disc	c. Replace disc
d. Warped pressure plate or flywheel	d. Replace same
e. Weak diaphragm spring	e. Replace cover assembly
f. Driven plate not seated in	f. Make 20-50 normal starts
g. Driven plate overheated	g. Allow to cool—Check lash
GRABBING	
a. Oil on facing or burned or glazed facings	a. Install new disc
b. Worn splines on clutch gear	b. Replace transmission clutch gear
c. Loose engine mountings	c. Tighten or replace mountings
d. Warped pressure plate or flywheel	d. Replace pressure plate or flywheel
e. Burned or smeared resin on flywheel or pressure plate	e. Sand off if superficial, replace burned or heat checked parts
RATTLING—TRANSMISSION CLICK	
a. Throw-out fork loose on ball stud or in bearing groove	a. Check ball stud and retaining spring and replace if necessary
b. Oil in driven plate damper	b. Replace driven disc
c. Driven plate damper spring failure	c. Replace driven disc
THROW-OUT BEARING NOISE WITH CLUTCH FULLY ENGAGED	
a. Improper adjustment	a. Adjust linkage
b. Throw-out bearing binding on transmission bearing retainer	b. Clean, relubricate, check for burrs, nicks, etc.
c. Insufficient tension between clutch fork spring and ball stud	c. Replace fork
d. Fork improperly installed	d. Install properly
e. Weak linkage return spring	e. Replace spring
NOISY	
a. Worn throw-out bearing	a. Replace bearing
b. Fork off ball stud (Heavy clicking)	b. Install properly and lubricate fork fingers at bearing

SYMPTOM AND PROBABLE CAUSE	PROBABLE REMEDY
PEDAL STAYS ON FLOOR WHEN DISENGAGED	
a. Bind in linkage	a. Lubricate and free up linkage
b. Spring weak in pressure plate	b. Replace
HIGH PEDAL EFFORT	
a. Bind in linkage	a. Lubricate and free up linkage
b. Driven plate worn	b. Replace driven plate