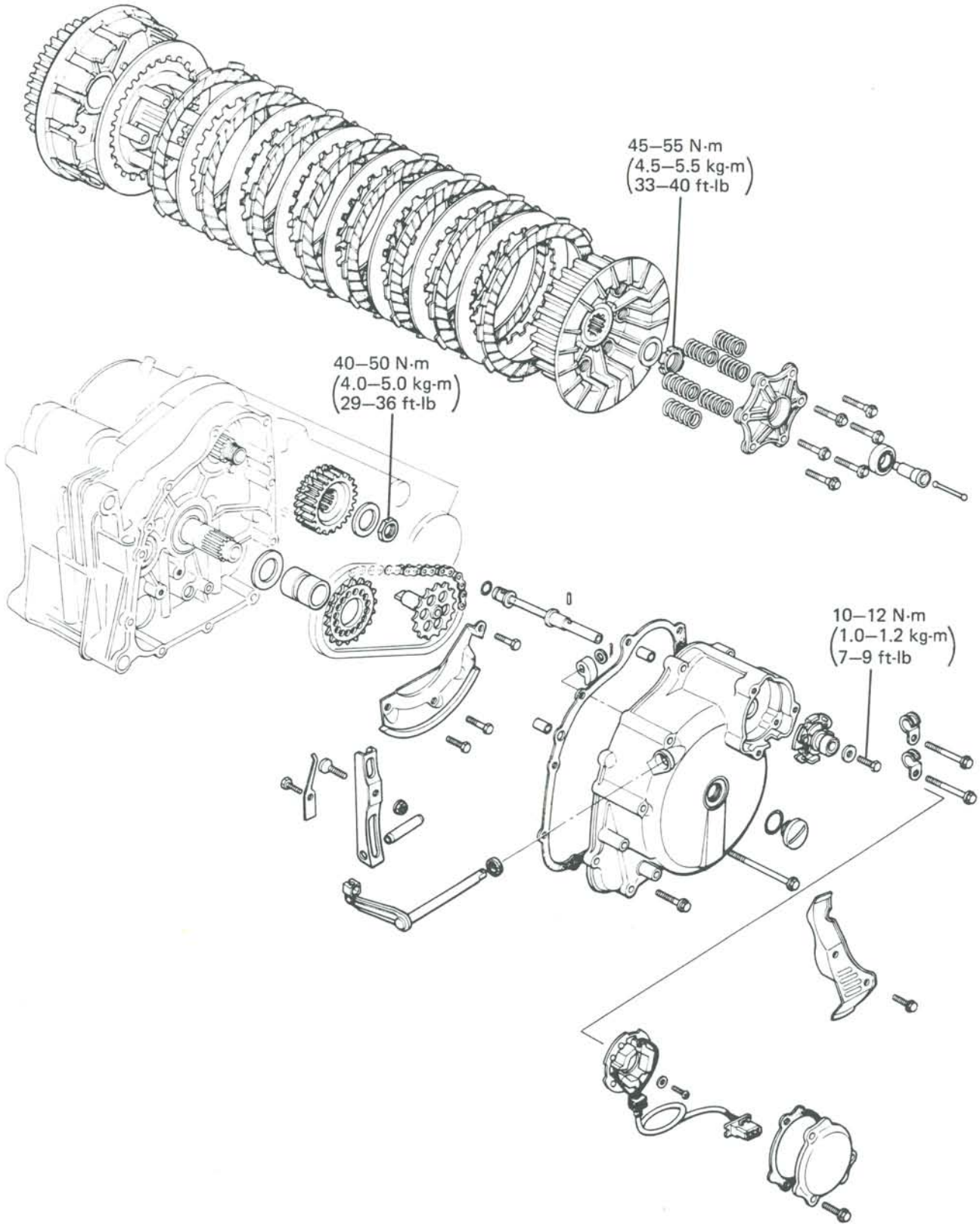
CLUTCH
(Include removal of pulser generator)

EMBRAYAGE
(y compris la dépose du générateur d'impulsions)

KUPPLUNG
(Schließt Ausbauen des Impulsgebers ein)

EMBRAGUE
(Incluye el desmontaje del generador del pulso)


45–55 N·m
(4.5–5.5 kg·m)
(33–40 ft-lb)
40–50 N·m
(4.0–5.0 kg·m)
(29–36 ft-lb)
10–12 N·m
(1.0–1.2 kg·m)
(7–9 ft-lb)

SERVICE INFORMATION	8–1	CLUTCH REMOVAL	8–3
TROUBLESHOOTING	8–1	CLUTCH INSTALLATION	8–8
CLUTCH COVER REMOVAL	8–2	CLUTCH COVER INSTALLATION	8–12

SERVICE INFORMATION

WORKING PRACTICE

This section covers removal and installation of the clutch, pulser generator and advancer, starting with the clutch cover. This operation can be accomplished with the engine in the frame.

SPECIAL TOOLS

Common Tools		Special Tools	
Universal Holder	07725–0010101	Lock Nut Wrench	07916–4220000
Handle	07716–0020500	Primary Gear Holder	07924–4220000

TORQUE VALUES

Clutch lock nut	45–55 N·m (4.5–5.5 kg-m, 33–40 ft-lb)
Primary drive gear lock nut	40–50 N·m (4.0–5.0 kg-m, 30–36 ft-lb)
Spark advancer bolt	10–12 N·m (1.0–1.2 kg-m, 7–9 ft-lb)

SPECIFICATIONS

			STANDARD	SERVICE LIMIT
Clutch	Lever free play (at lever end)		10–20 mm (3/8–3/4 in)	——
	Spring free length		35.1 mm (1.38 in)	33.6 mm (1.32 in)
	Spring preload/length		179–197 N/24.4–25.6 mm (18.3–20.1 kg/24.4–25.6 mm / 40.34–44.31 lbs/0.96–1.01 in)	167 N/24.4–25.6 mm (17.0 kg/24.4–25.6 mm / 37.48 lbs/0.96–1.01 in)
	Disc thickness	A	3.42–3.58 mm (0.135–0.141 in)	3.1 mm (0.12 in)
		B	3.42–3.58 mm (0.135–0.141 in)	3.1 mm (0.12 in)
	Plate warpage		——	0.2 mm (0.01 in)
	Clutch outer I.D.		37.000–37.025 mm (1.4567–1.4577 in)	37.06 mm (1.459 in)
	Clutch outer guide O. D.		36.950–36.975 mm (1.4547–1.4557 in)	36.93 mm (1.454 in)
Oil pump drive system	Drive sprocket I.D.		37.000–37.021 mm (1.4567–1.4575 in)	37.1 mm (1.46 in)
	Driven sprocket shaft O.D.		12.966–12.984 mm (0.5105–0.5112 in)	12.9 mm (0.51 in)
Ignition timing	Refer to Section 3.			

TROUBLESHOOTING

Clutch

Faulty clutch operation can usually be corrected by adjusting the free play.

Clutch Slips When Accelerating
1. No free play
2. Discs worn
3. Springs weak

Clutch Will Not Disengage
1. Too much free play
2. Plates warped

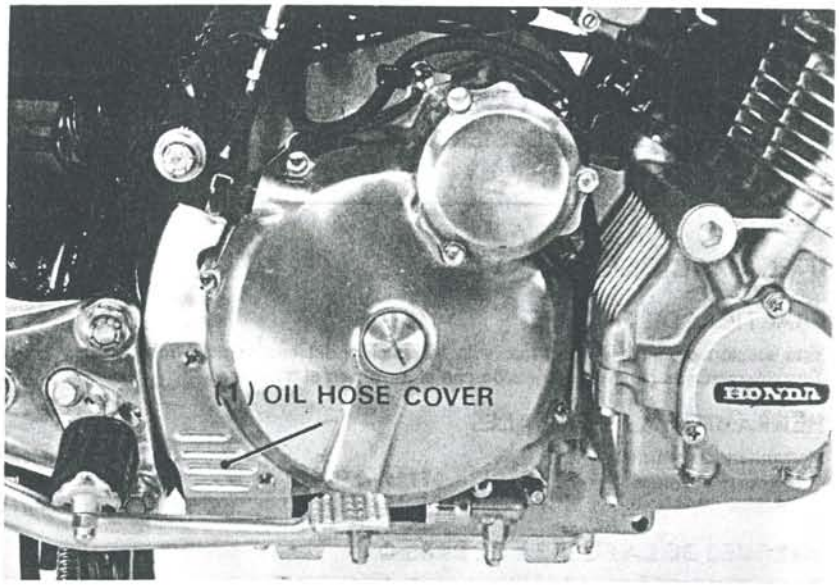
Motorcycle Creeps With Clutch Disengaged
1. Too much free play
2. Plates warped

Excessive Lever Pressure
1. Clutch cable kinked, damaged or dirty
2. Lifter mechanism damaged

Clutch Operation Feels Rough
1. Outer drum slots rough

CLUTCH COVER REMOVAL

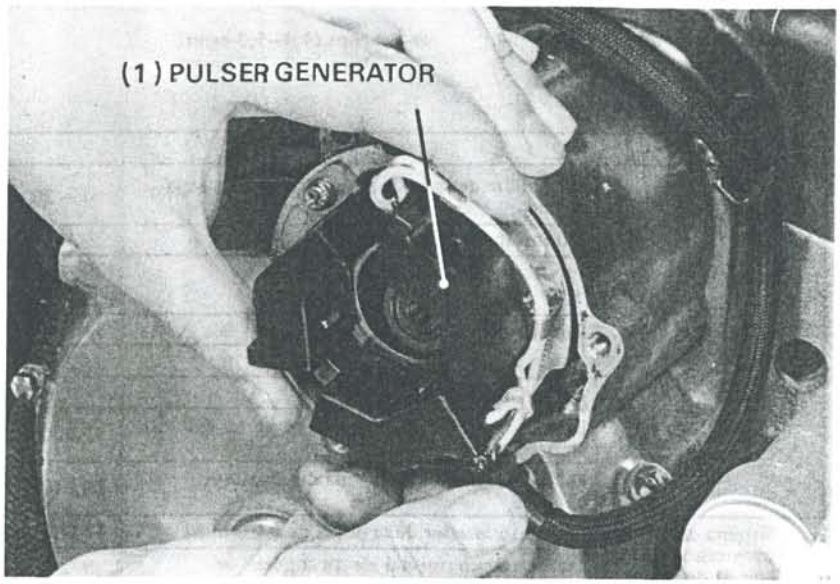
Remove the exhaust pipes.
Remove the oil hose cover.



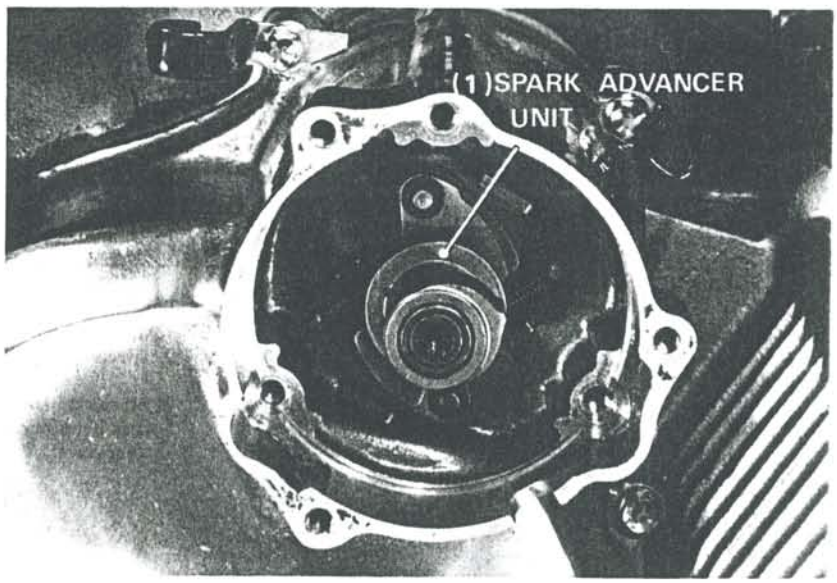
NOTE

The clutch cover can be removed without removing the pulser generator and advancer. The pulser generator and advancer removal is shown here. If removal is unnecessary, the clutch cover can be removed by removing the cover bolts.

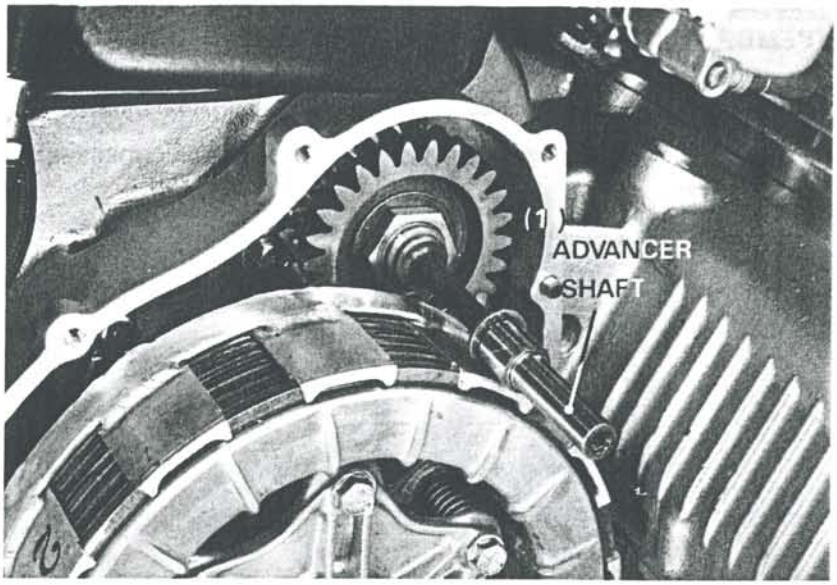
Remove the pulser cover.
Loosen the center bolt and three screws.
Then, remove the pulser generator.



Remove the spark advancer unit.



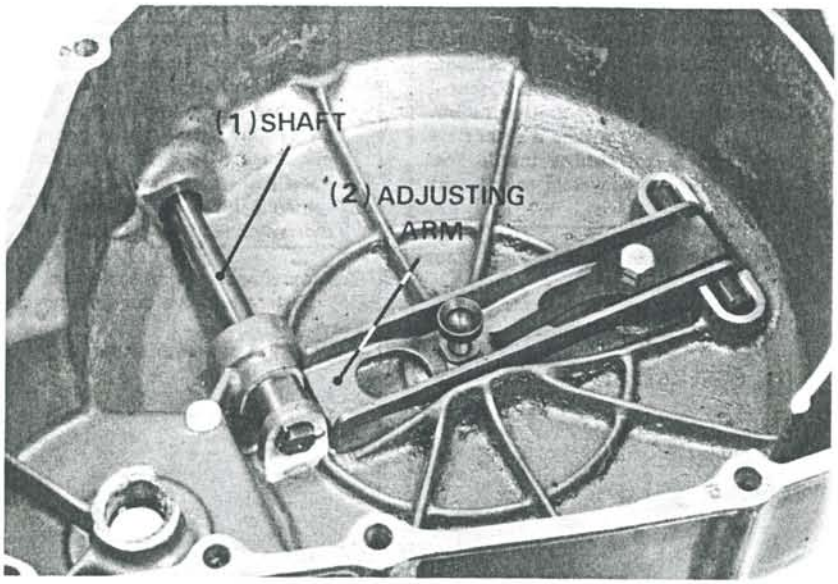
Remove the clutch cover.
Remove the advancer shaft.
Remove the gasket and dowel pins.



CLUTCH REMOVAL

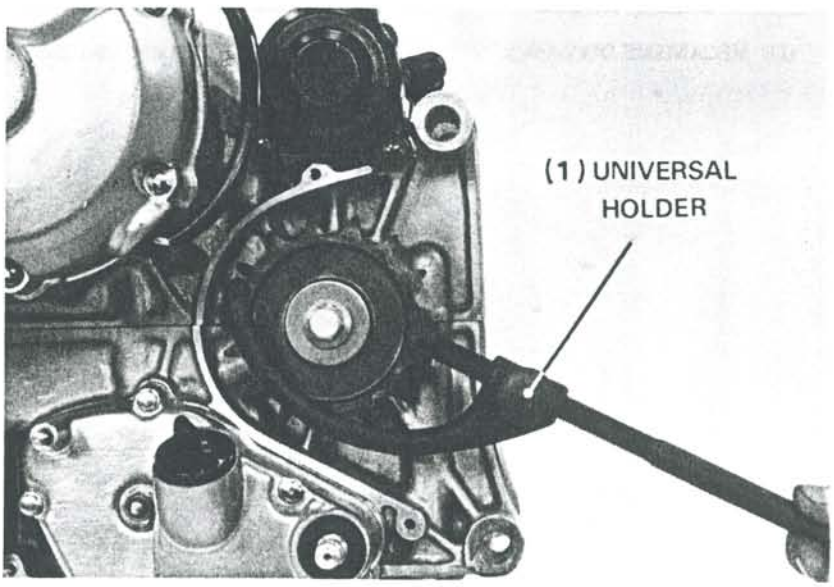
CLUTCH LIFTER REMOVAL

Remove the clutch lifter shaft and adjusting arm.



CLUTCH REMOVAL

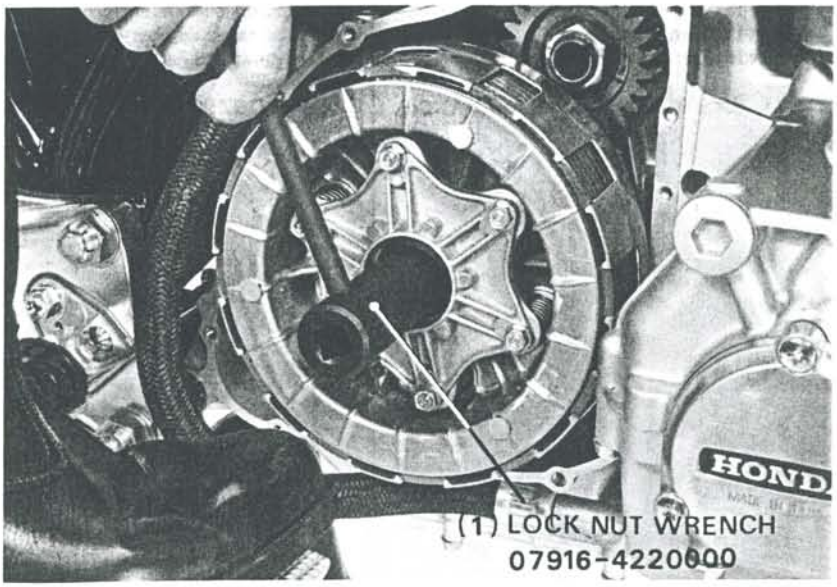
Use the universal holder if the drive chain is removed.
Shift the transmission into gear to lock the countershaft and mainshaft.
Block the drive sprocket to prevent it from turning.



When servicing the clutch with the engine in the frame, shift the transmission into gear and press the brake pedal to lock the transmission.

Remove the clutch lifter guide.
Remove the release bearing.

Attach the lock nut wrench.
Remove the lock nut and washer.
The clutch can now be removed out as a unit.

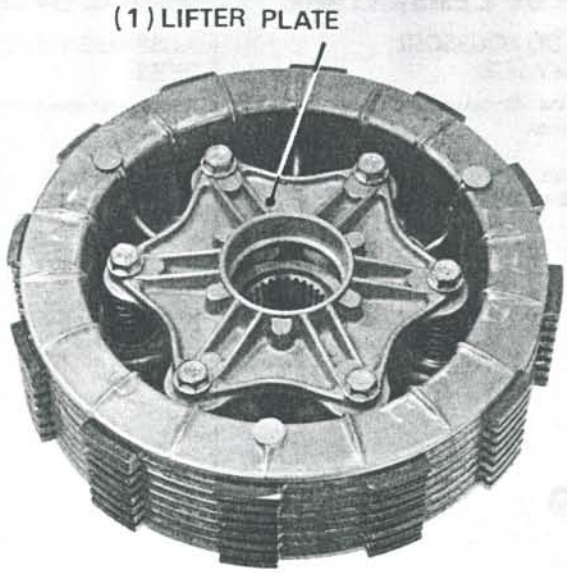


CLUTCH LIFTER PLATE REMOVAL

Remove the bolts, lifter plate and clutch springs.

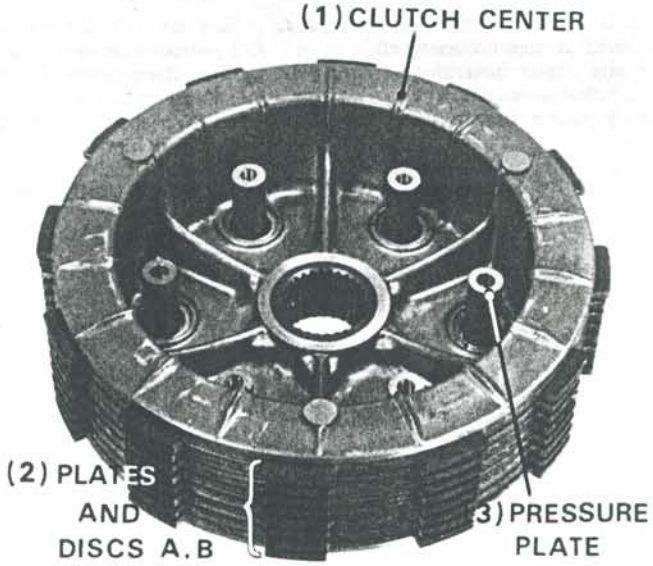
NOTE

Loosen the bolts in a crisscross pattern in 2-3 steps.



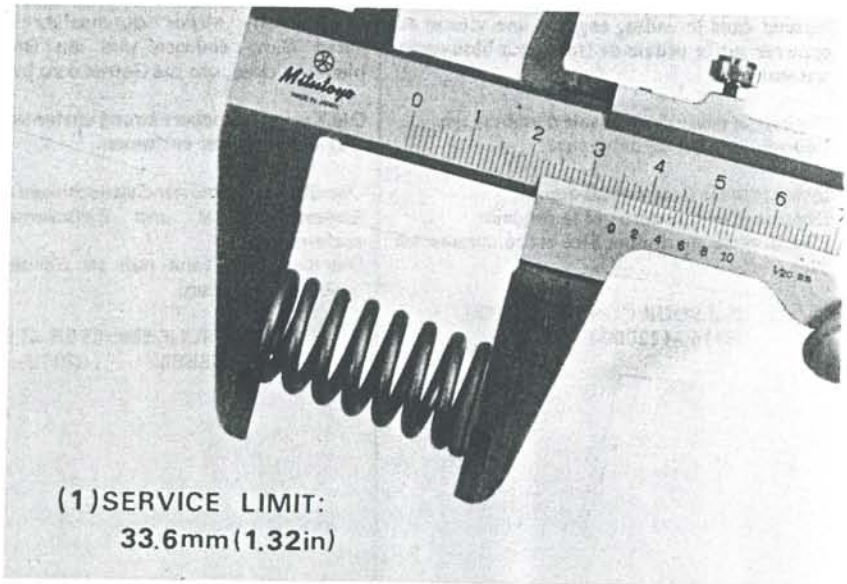
CLUTCH CENTER, PLATE AND DISC REMOVAL

Remove the clutch center.
Remove discs A and B and plate A.
Remove the pressure plate.



CLUTCH SPRING INSPECTION

Measure the clutch spring free length.



LUTCH DISC INSPECTION

Replace the clutch discs if they show signs of scoring or discoloration.
Measure disc thickness.

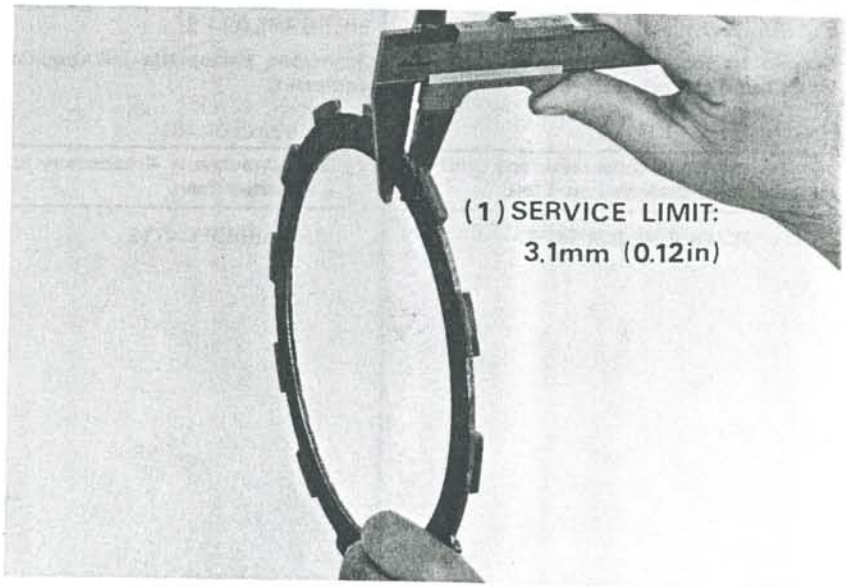
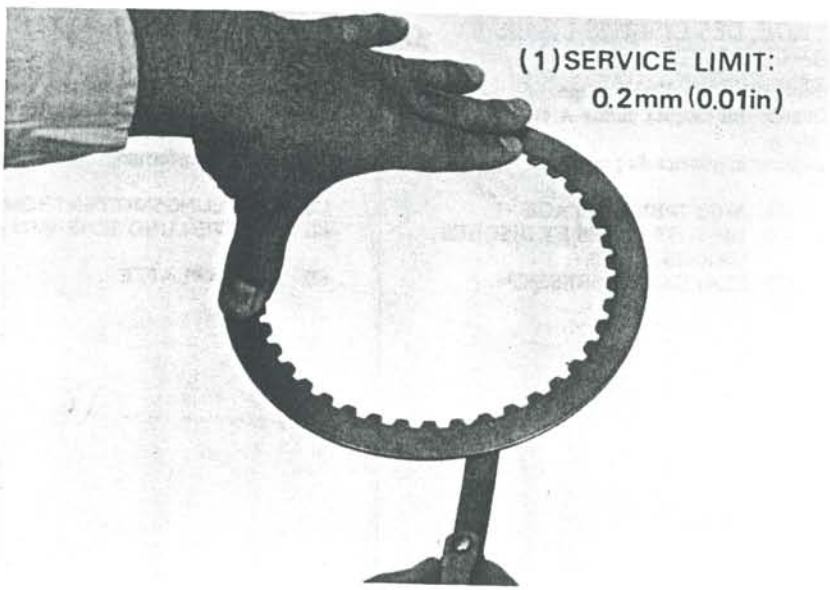


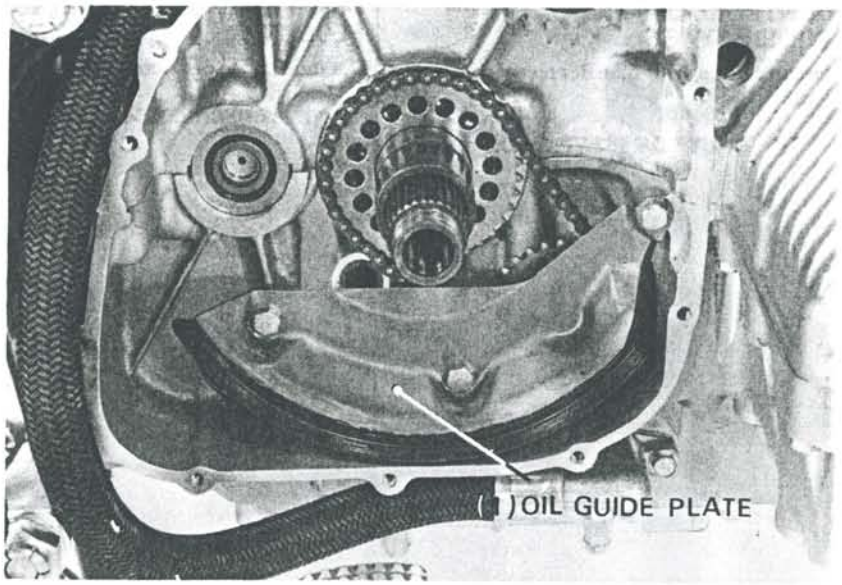
PLATE INSPECTION

Check for plate warpage on a surface plate.



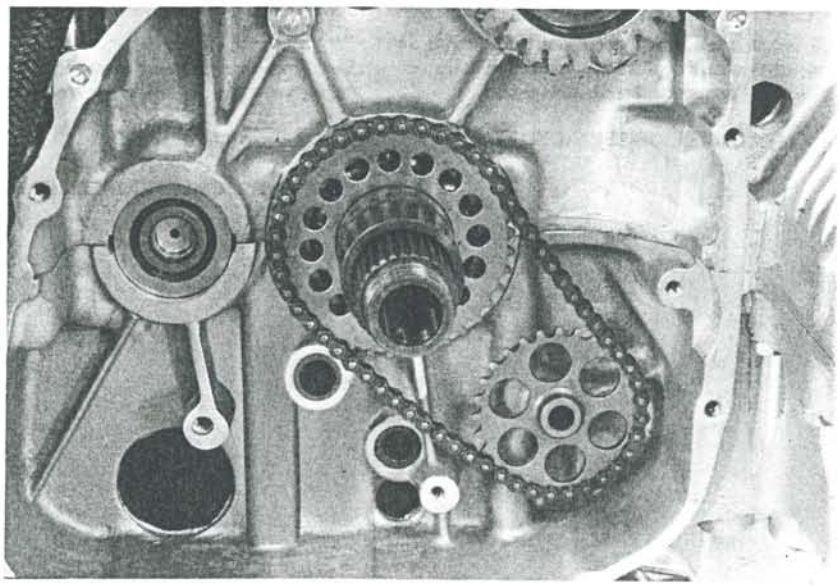
OIL GUIDE PLATE REMOVAL

Remove the oil guide plate.



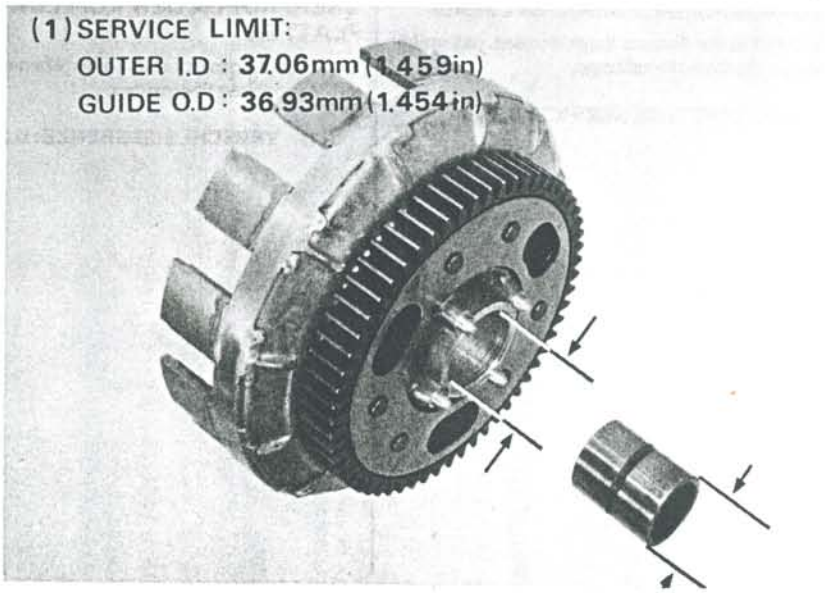
OIL PUMP SPROCKETS AND CLUTCH OUTER GUIDE REMOVAL

Remove the oil pump drive and driven sprockets and clutch outer guide.



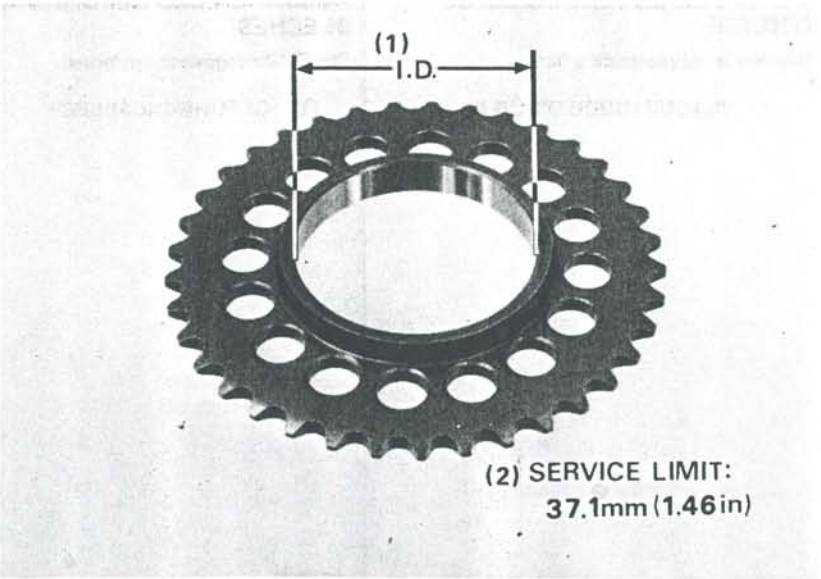
CLUTCH OUTER AND OUTER GUIDE INSPECTION

Check the slots in the outer drum for nicks, cuts or indentations made by the friction discs.
Measure the I.D. of the clutch outer and the O.D. of the outer guide.

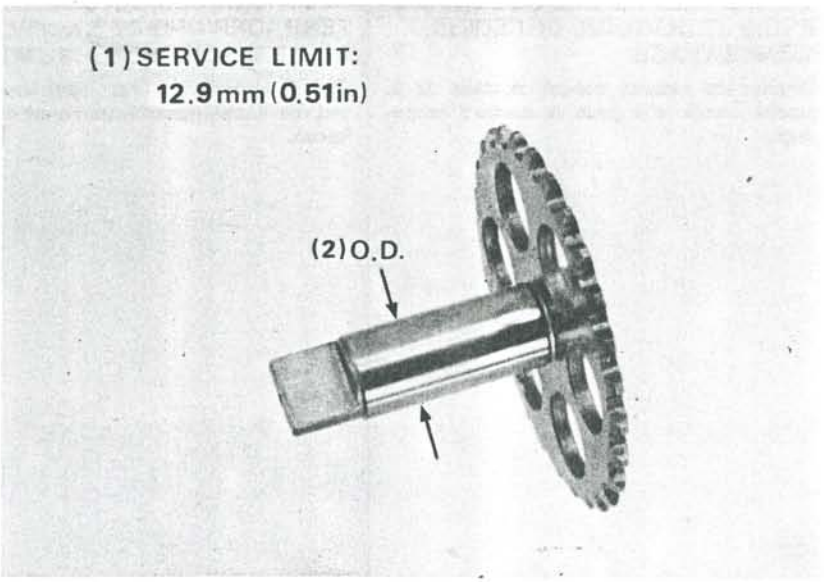


OIL PUMP DRIVE SPROCKET AND DRIVEN SPROCKET MEASUREMENT

Measure the oil pump drive sprocket I.D..

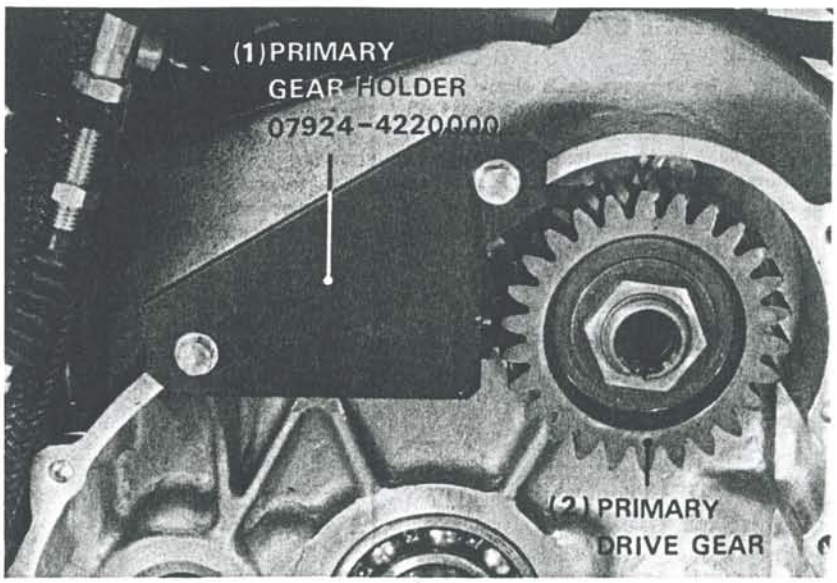


Measure the oil pump driven sprocket shaft O.D..



PRIMARY DRIVE GEAR REMOVAL

Hold the primary drive gear with the primary gear holder as shown.
Loosen the lock nut.

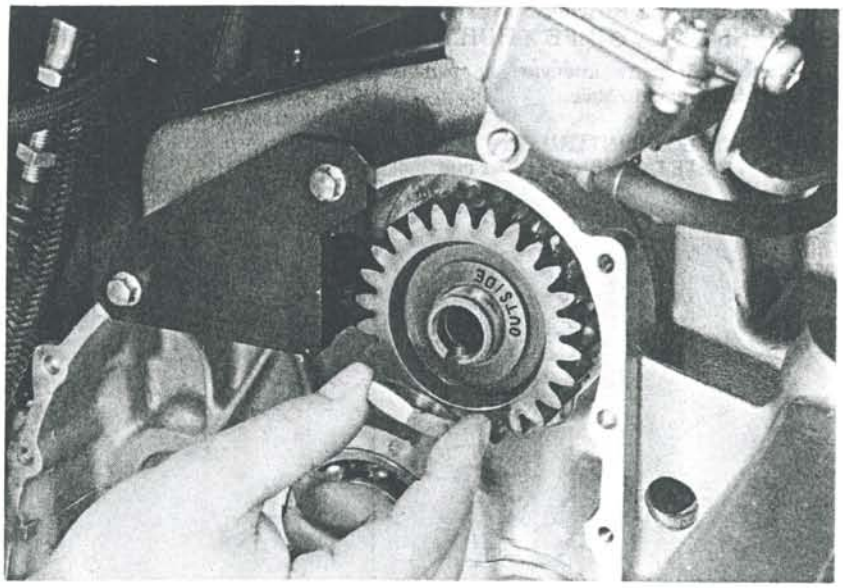


CLUTCH INSTALLATION

Install the primary drive gear.

NOTE

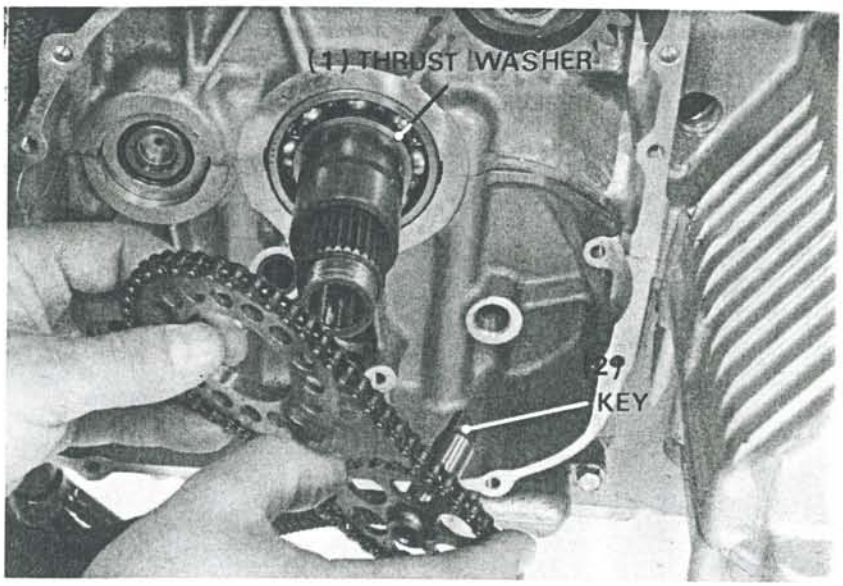
- Position the drive gear with the large gear facing out.
- Position the mark "OUTSIDE" on the lock washer on the outside.

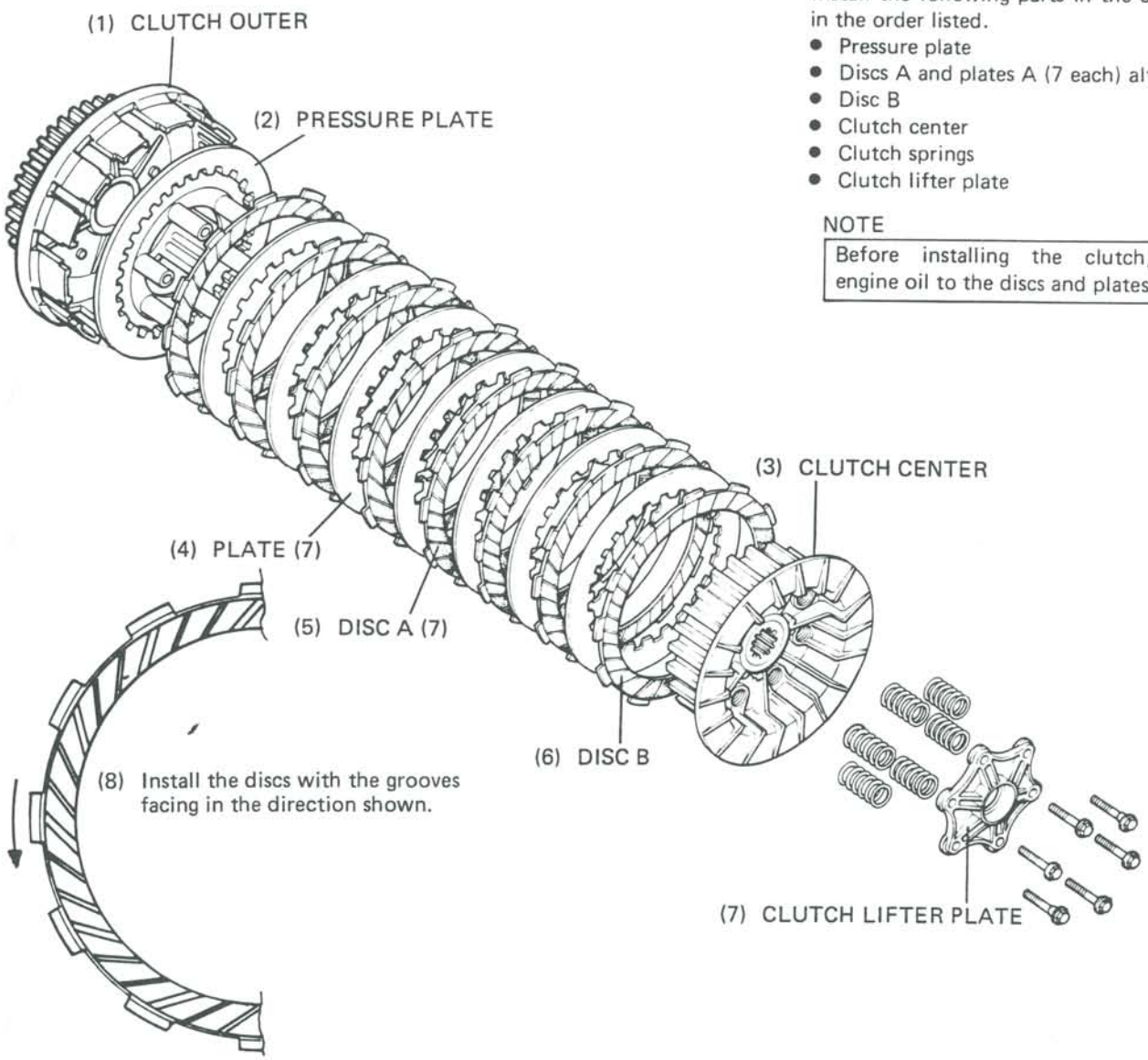


Tighten the lock nut to the specified torque.

TORQUE: 40–50 N·m
(4.0–5.0 kg-m, 29–36 ft-lb)

Install the thrust washer and clutch outer guide on the transmission mainshaft.
Install the oil pump drive sprocket, driven sprocket and drive chain.
Align the driven sprocket key with the oil pump shaft slot.
Install the oil guide plate.





Install the following parts in the clutch outer in the order listed.

- Pressure plate
- Discs A and plates A (7 each) alternately
- Disc B
- Clutch center
- Clutch springs
- Clutch lifter plate

NOTE

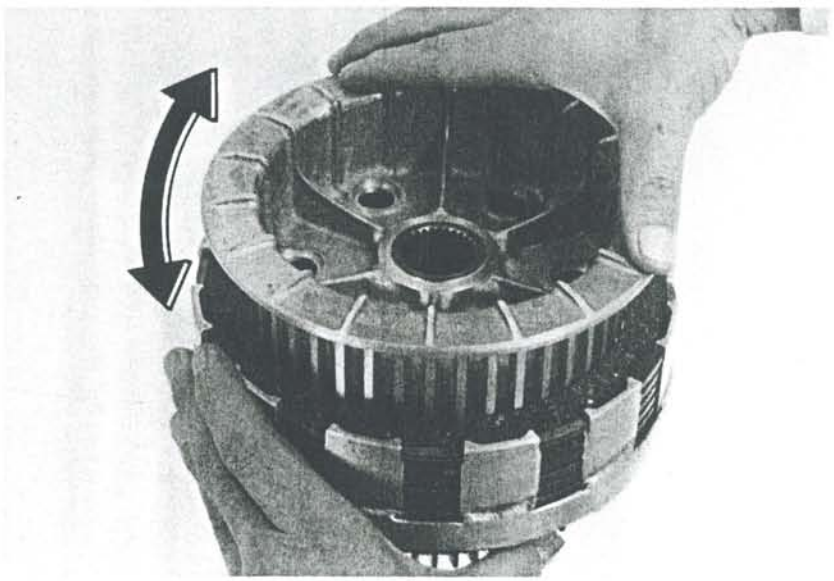
Before installing the clutch, apply engine oil to the discs and plates.

Align the splines by rotating the clutch center.

Install the clutch springs, lifter plate and lifter plate bolts.

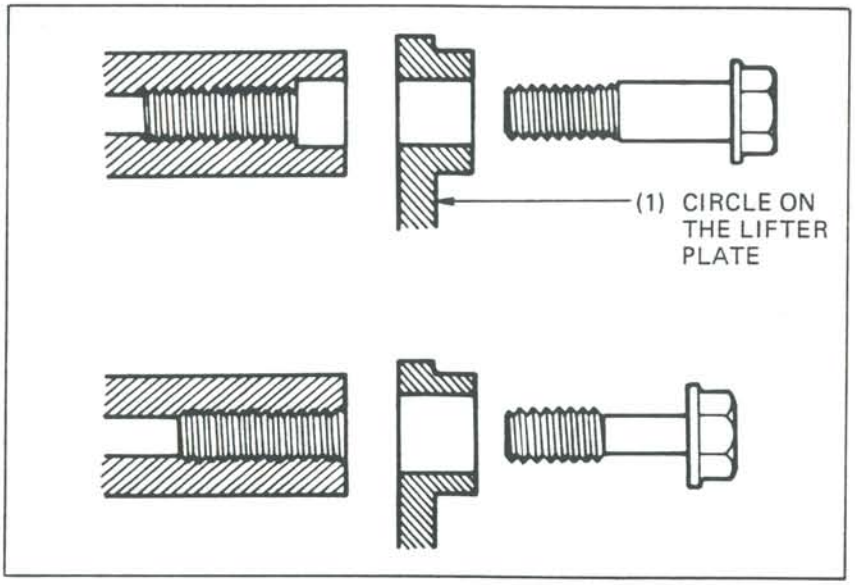
NOTE

Tighten the bolts in two or more steps and in a criss cross pattern.



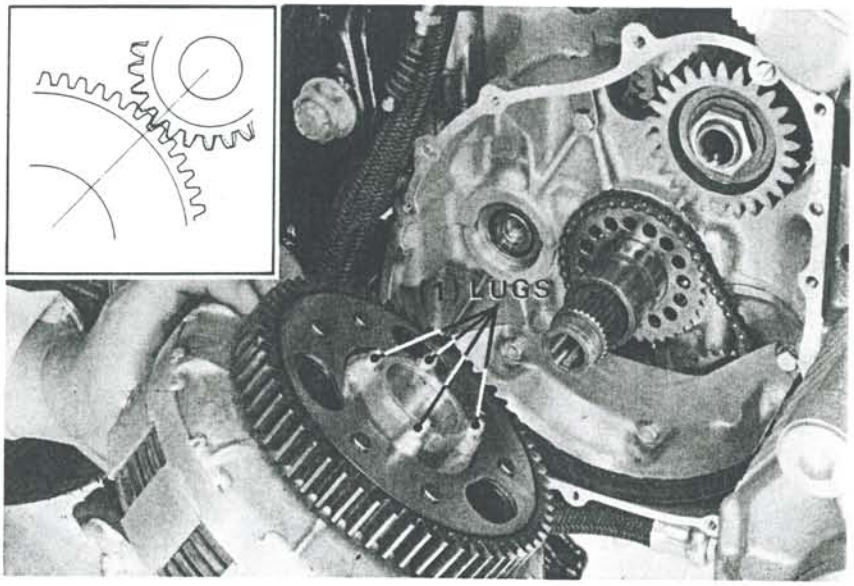
NOTE

The lifter plate bolts are two diameters.



Turning the primary drive gear, find a pair of the outer and inner gear teeth which are aligned.

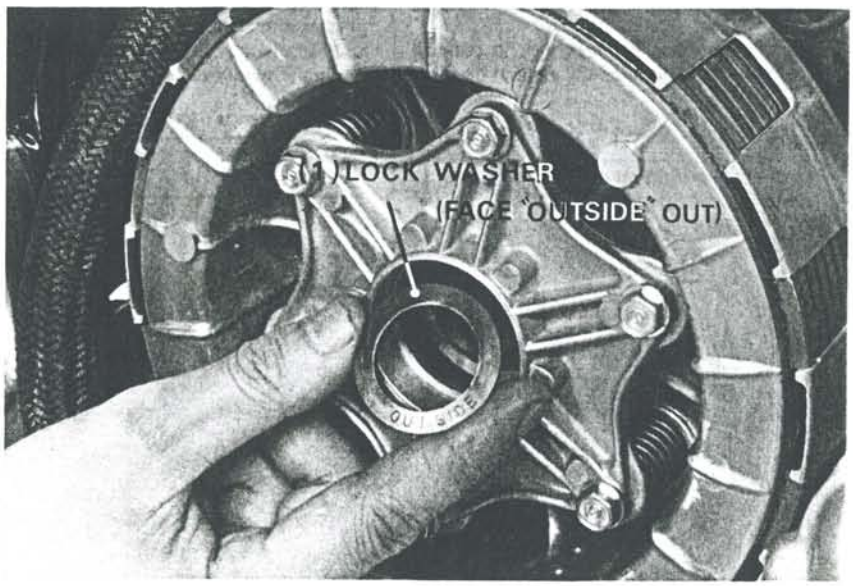
Assemble the clutch outer gear so it meshs with the aligned teeth and also connect the clutch outer to the oil pump drive sprocket by coupling the lugs and holes.



Install the lock washer and lock nut.

NOTE

Position the mark "OUTSIDE" on the lock washer facing out.

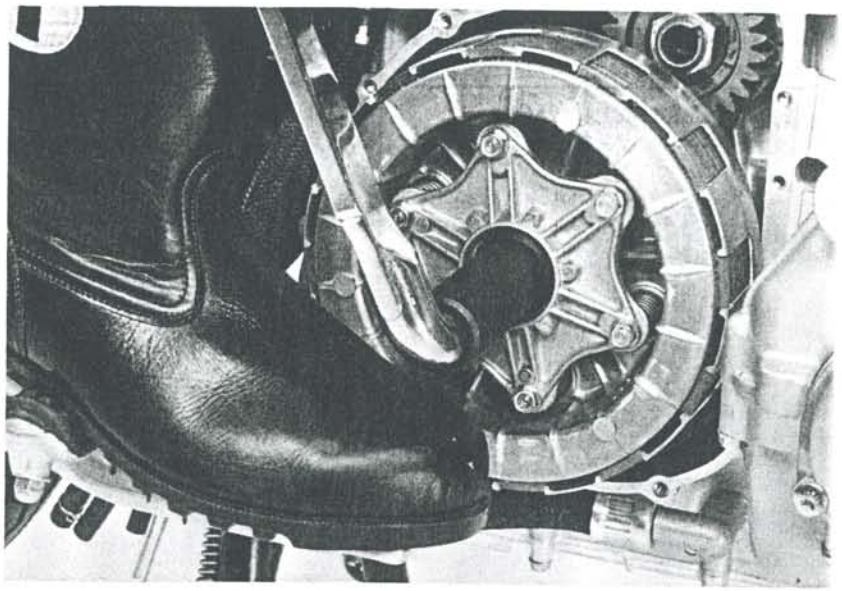


Tighten the lock nut to the specified torque.

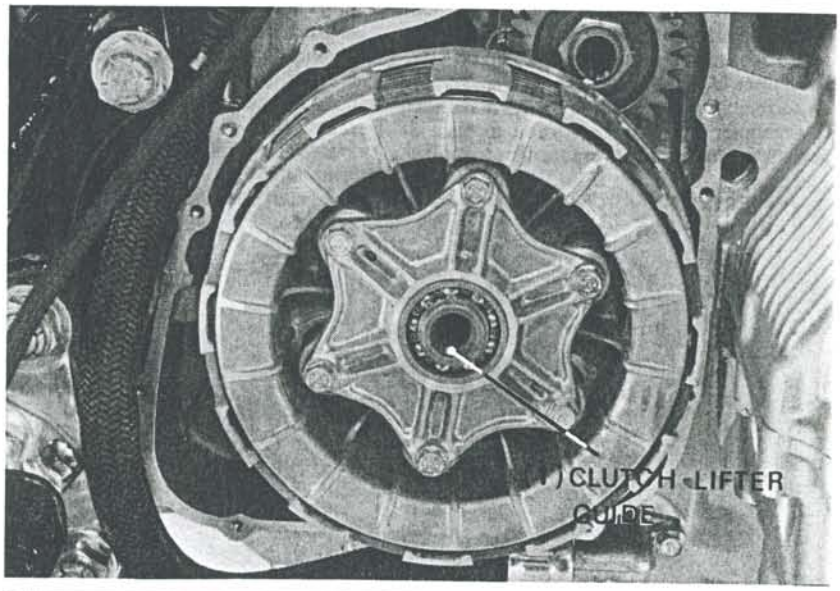
TORQUE: 45–55 N·m
(4.5–5.5 kg-m, 33–40 ft-lb)

NOTE

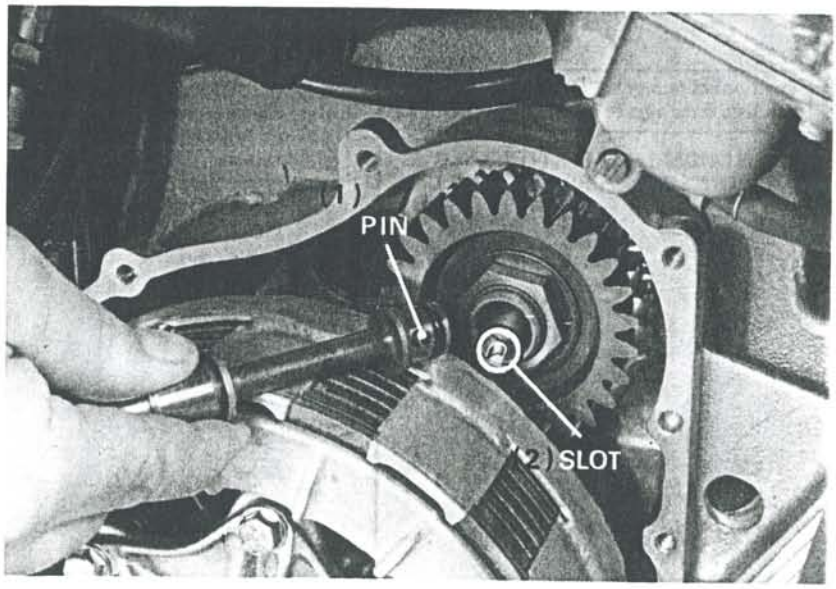
With transmission engaged, depress the rear brake pedal to lock transmission.



Install the release bearing in the lifter plate.
Insert the clutch lifter guide.
Install the clutch lifter pin.

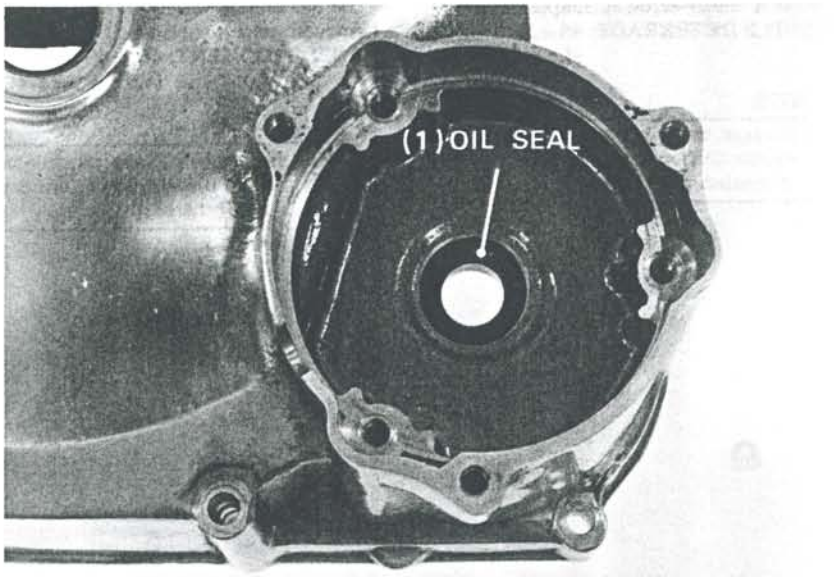


Install the advancer shaft.
Make sure that the pin on the shaft is aligned with the slot in the primary shaft.



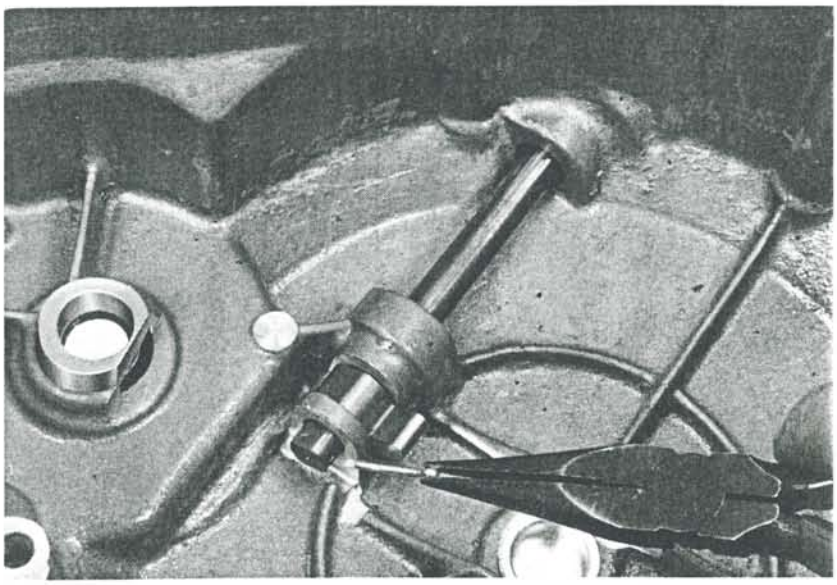
CLUTCH COVER INSTALLATION

Coat the advancer shaft oil seal with oil.
Drive the oil seal with the proper rod until the top of the oil seal is flush with the advancer side surface of the clutch cover.



Install the clutch lifter cam and shaft.
Insert the cotter pin and spread the ends.

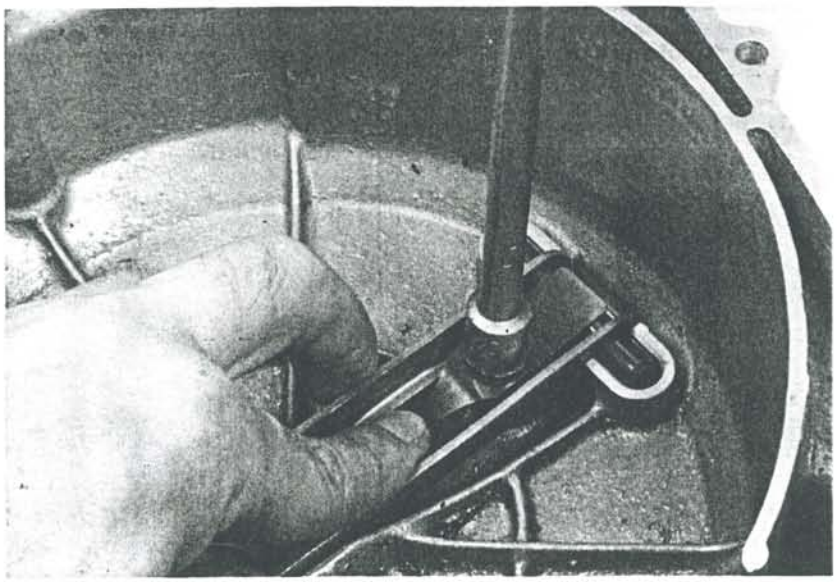
Apply molybdenum disulfide grease to the advancer shaft hole of the clutch cover.



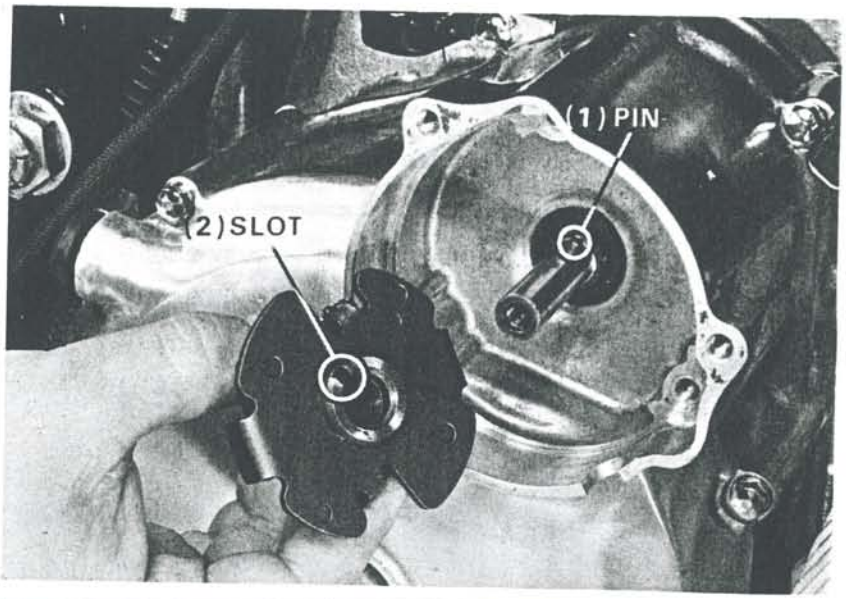
Install the clutch adjusting arm and spring.
Install the dowel pins and gasket.
Install the clutch cover.

Adjust the clutch free play (Section 3).

Apply molybdenum disulfide grease to the clutch adjusting hole cap.



Install the advancer.
Align the slot on the spark advancer unit with the pin on the advancer shaft.
Tighten the advancer bolt.



Install the pulser generator.
Adjust the ignition timing, if necessary (Section 3).

