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## SERVICE INFORMATION

### GENERAL INSTRUCTIONS

- This section covers removal and installation of the clutch and starter clutch.
- Clutch maintenance can be done with the engine in the frame.

### TOOLS

#### Special

- Primary Gear Holder 07924-4250000
- Clutch Center Holder 07923-3710000
- 10 mm Socket Bit 07916-3710000 or Commercially available in U.S.A.

#### Common

- Lock Nut Wrench 20 x 24 mm Handle 07716-0020100 } or Commercially available in U.S.A.
- 07716-0020500 }

### TORQUE VALUES

- Clutch lock nut 3.8- 4.2 kg-m (27-30 ft-lb)
- Primary drive gear lock bolt 8.0-10.0 kg-m (60-72 ft-lb)
- Starter clutch locking bolt 2.6- 3.0 kg-m (19-22 ft-lb)
- Spark advancer bolt 3.3- 3.7 kg-m (24-27 ft-lb)

### SPECIFICATIONS

		STANDARD	SERVICE LIMIT	
Clutch	Lever free play (at lever end)	10-20 mm (3/8-3/4 in)	—————	
	Spring free length	35.3 mm (1.39 in)	33.9 mm (1.33 in)	
	Spring preload/length	18.3-20.1 kg/25 mm (40.34-43.31 lbs/0.98 in)	16.8 kg/25 mm (37.0 lbs/0.98 in)	
	Disc thickness	A	3.72-3.88 mm (0.146-0.153 in)	3.4 mm (0.13 in)
		B	3.72-3.88 mm (0.146-0.153 in)	3.4 mm (0.13 in)
Plate warpage	—————	0.30 mm (0.012 in)		
Starter clutch	Drive gear O.D.	42.275-42.300 mm (1.6644-1.6654 in)	42.255 mm (1.6636 in)	
Ignition timing	Refer to Section 3.			



## TROUBLESHOOTING

### Clutch

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

#### Clutch slips

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

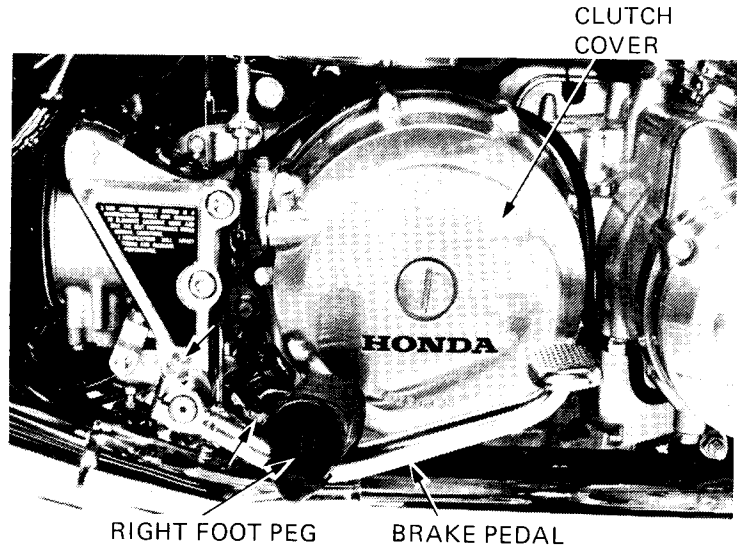
#### Clutch operation feels rough

1. Outer drum slots rough



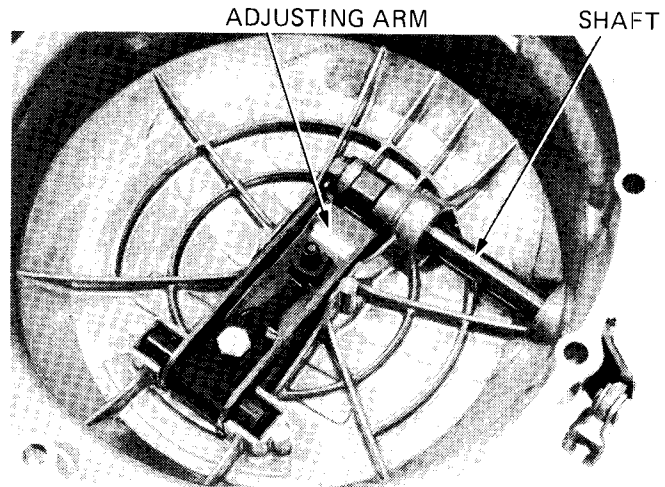
### CLUTCH COVER REMOVAL

- Drain the engine oil thoroughly.
- Disconnect the clutch cable at the lower adjuster.
- Remove the rear brake pedal and right foot peg.
- Remove the clutch cover.
- Remove the gasket and dowel pins.



### CLUTCH LIFTER REMOVAL

- Remove the clutch lifter shaft and adjusting arm.



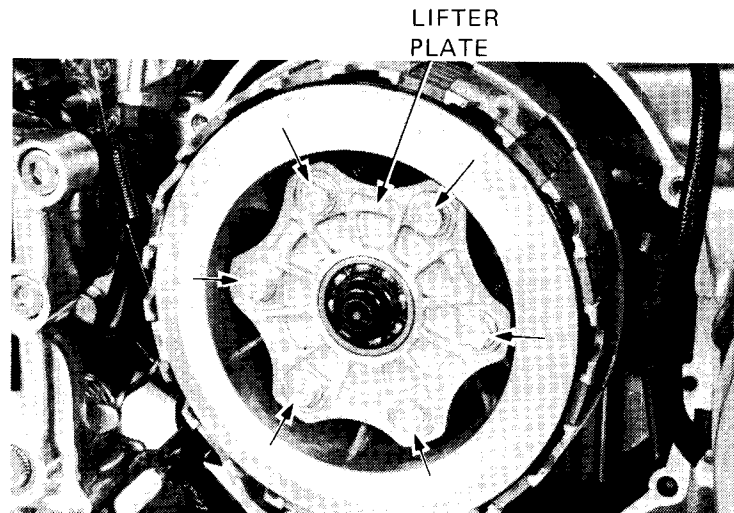
### CLUTCH REMOVAL

- Remove the bolts and lifter plate with the clutch lifter guide and release bearing.

**NOTE**

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

- Remove the clutch springs.



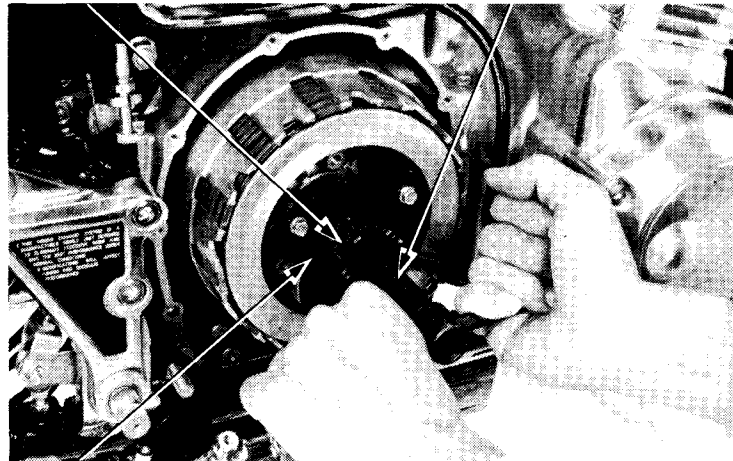


**118 CLUTCH**

Straighten the lock washer tab.

Install the clutch holder on the clutch center with three, 6 mm bolts.  
Remove the lock nut, lock washer and washer.  
The clutch can now be removed as a unit.

LOCK NUT WRENCH 20 x 24 mm  
07716-0020100



EXTENSION

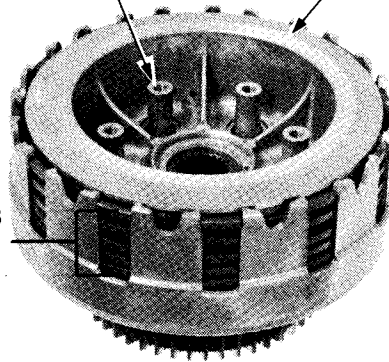
CLUTCH CENTER HOLDER  
07923-3710000

Remove the clutch assembly.

PRESSURE  
PLATE

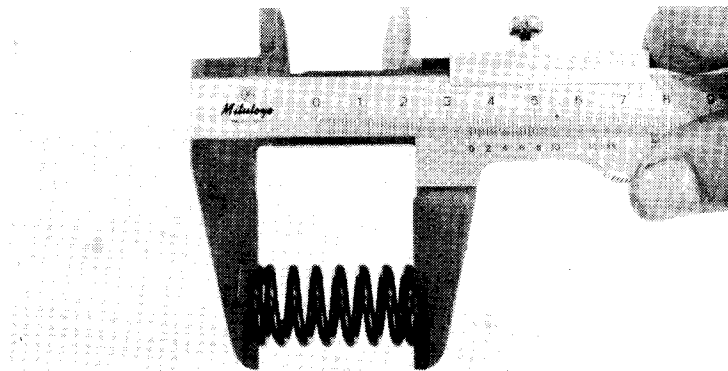
CLUTCH CENTER

PLATE A · B  
AND  
DISC A · B



**CLUTCH SPRING INSPECTION**

Check spring free length.

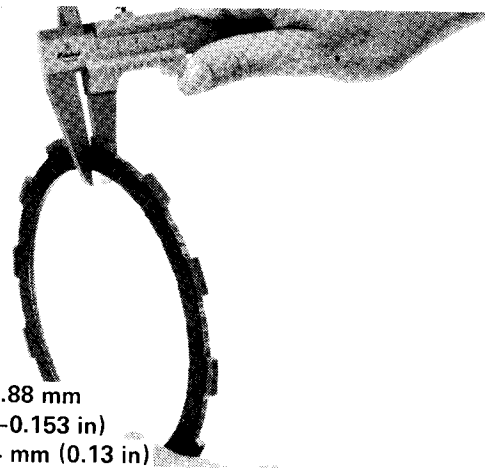


STANDARD: 35.3 mm (1.39 in)  
SERVICE LIMIT: 33.9 mm (1.33 in)



### CLUTCH DISC INSPECTION

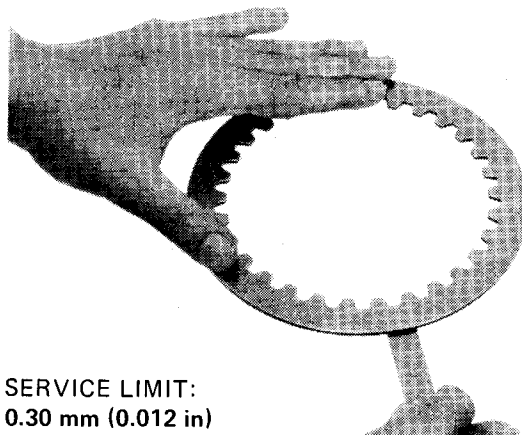
Replace the clutch discs if they show signs of scoring or discoloration.  
Measure disc thickness.



STANDARD: 3.72–3.88 mm  
(0.146–0.153 in)  
SERVICE LIMIT: 3.4 mm (0.13 in)

### PLATE INSPECTION

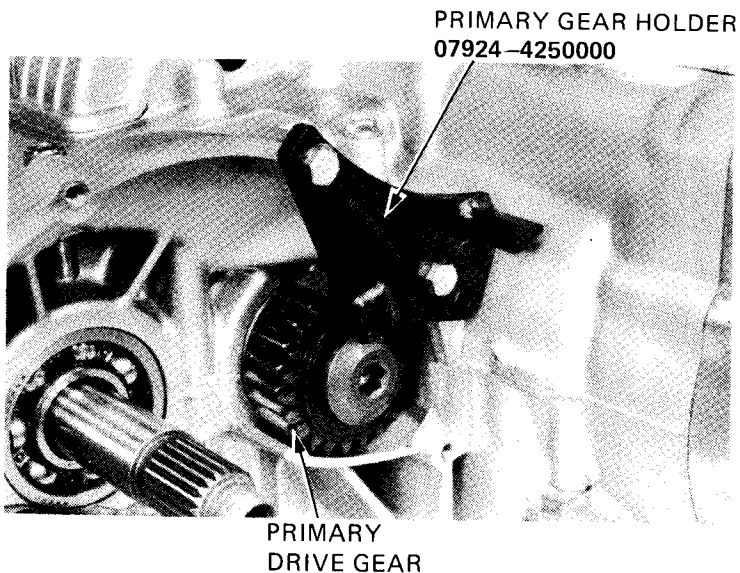
Check for plate warpage on a surface plate, using a feeler gauge.



SERVICE LIMIT:  
0.30 mm (0.012 in)

### PRIMARY DRIVE GEAR REMOVAL

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



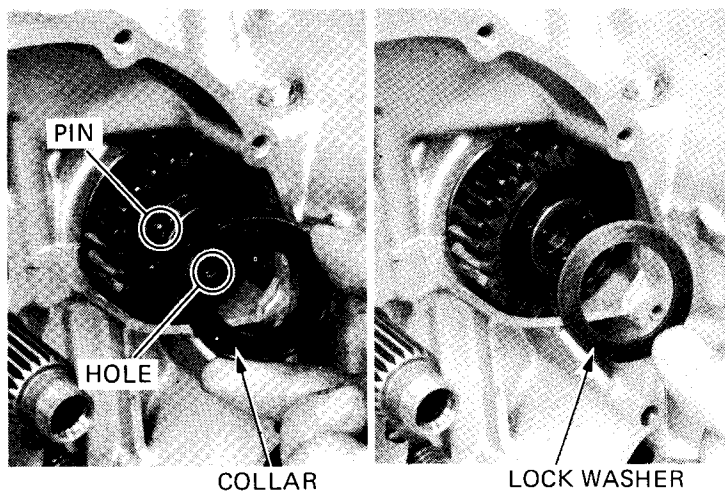


## CLUTCH INSTALLATION

Install the primary drive gear.

### NOTE

- Position the drive gear with the large gear facing out.
- Position the collar and lock washer as shown.

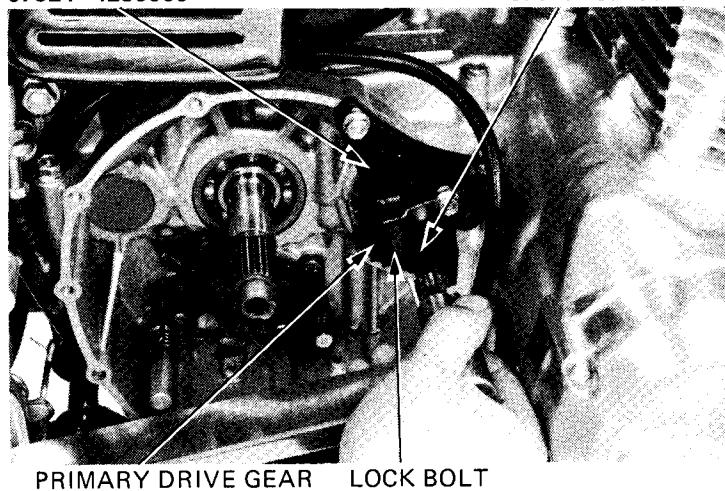


Tighten the lock bolt.

**TORQUE: 8.0–10.0 kg-m (60–72 ft-lb)**

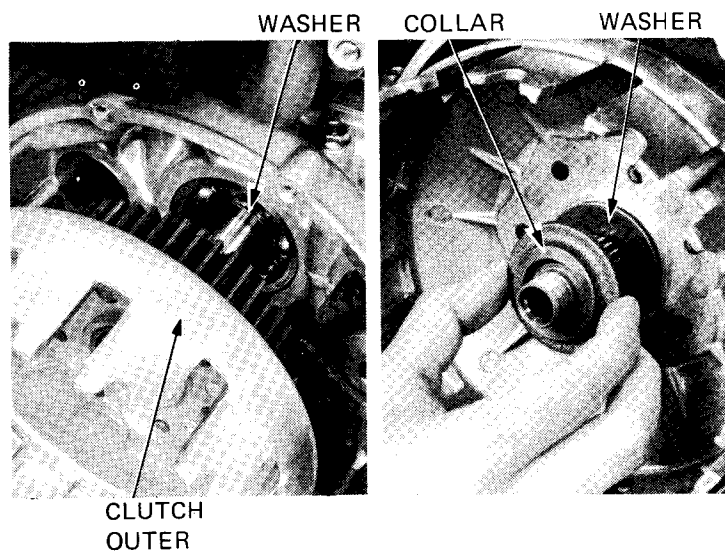
PRIMARY GEAR HOLDER  
07924-4250000

10 mm SOCKET BIT  
07917-3710000



Install the washer and clutch outer.

Install the washer and collar.

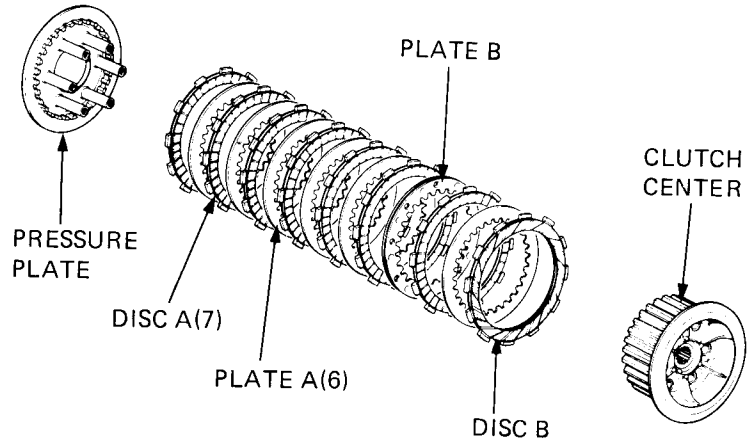
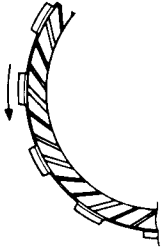




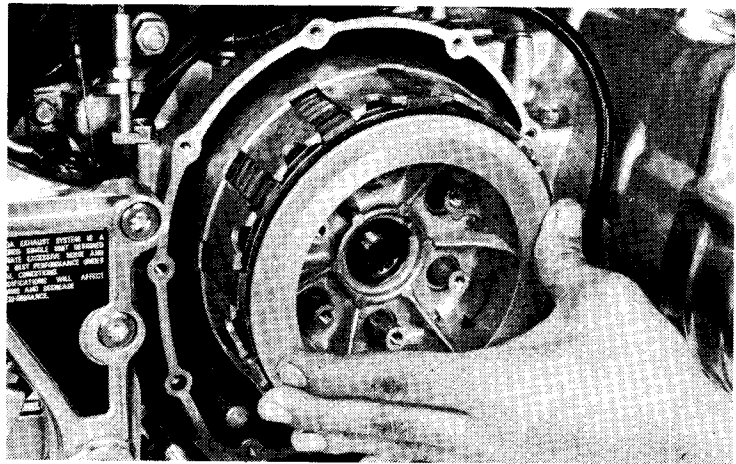
Assemble the clutch discs A and B, plate A and B, clutch pressure plate, and clutch center.

**NOTE**

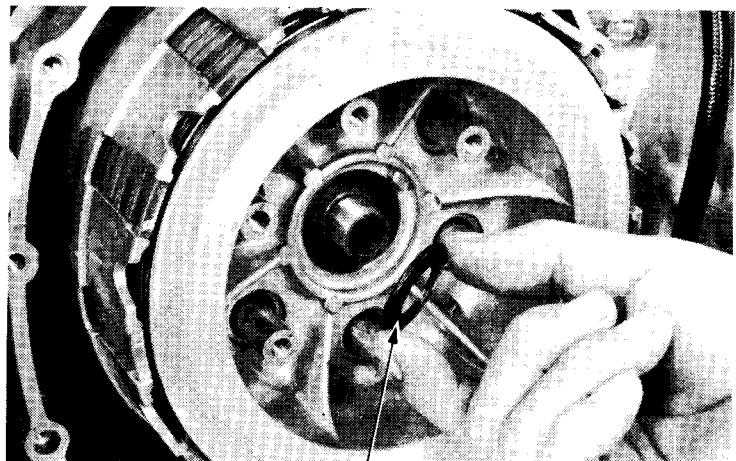
- Before installing the clutch, coat the discs and plates with engine oil.
- Install disc B with the grooves facing in the direction shown.



Install the above assembly, by rotating the clutch center.



Install the plain washer with the "OUTSIDE" mark facing out.

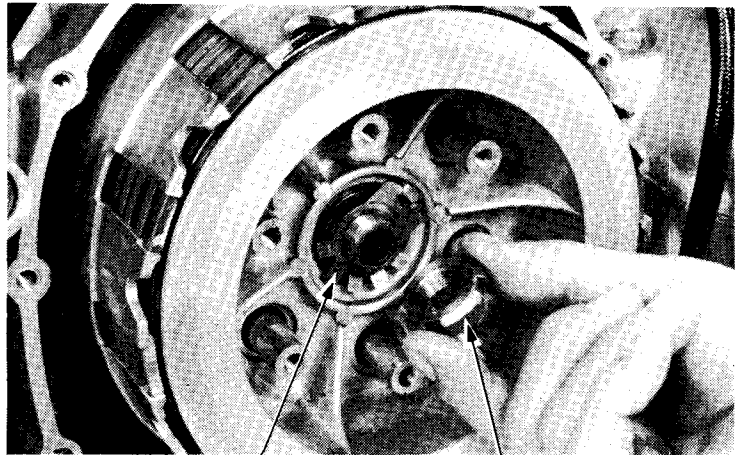


WASHER





Position the lock washer as shown.  
Install the lock nut with the chamfer facing out.



LOCK WASHER      LOCK NUT

Install the clutch holder on the clutch center with three, 6 mm bolts.

Tighten the lock nut.

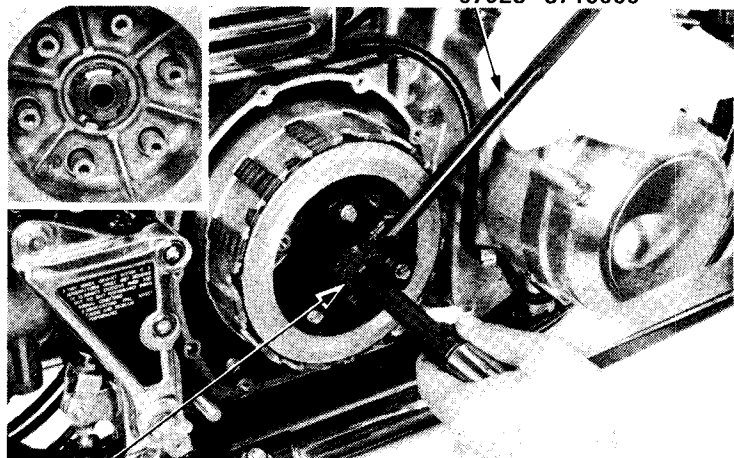
**TORQUE: 3.8–4.2 kg-m (27–30 ft-lb)**

Bend the lock washer tab as shown.

Install the clutch springs, lifter plate, bearing and lifter guide.

Tighten the bolts.

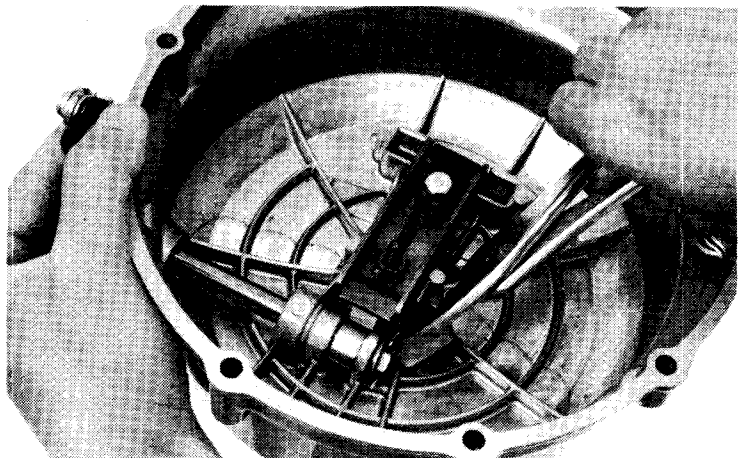
CLUTCH  
CENTER HOLDER  
07923-3710000



LOCK NUT WRENCH  
20 x 24 mm  
07716-0020100

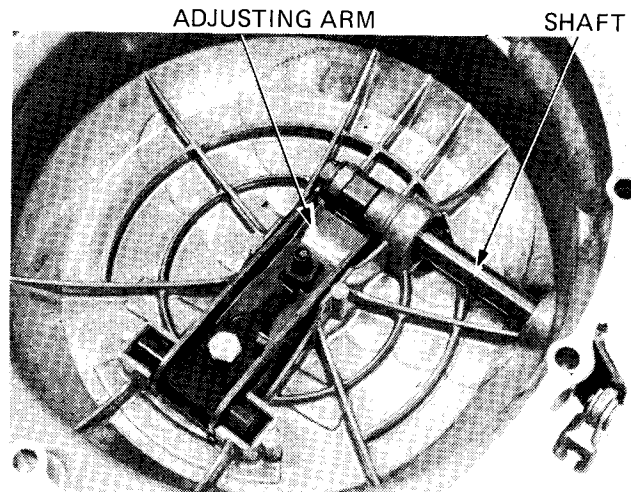
## CLUTCH COVER INSTALLATION

Install the clutch lifter cam and shaft washer.  
Insert the cotter pin and spread the ends.  
Apply molybdenum disulfide grease to the  
advancer shaft hole.

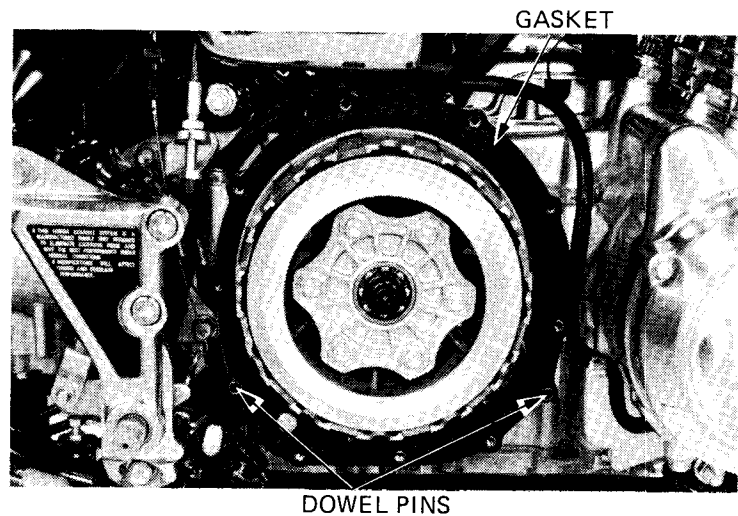




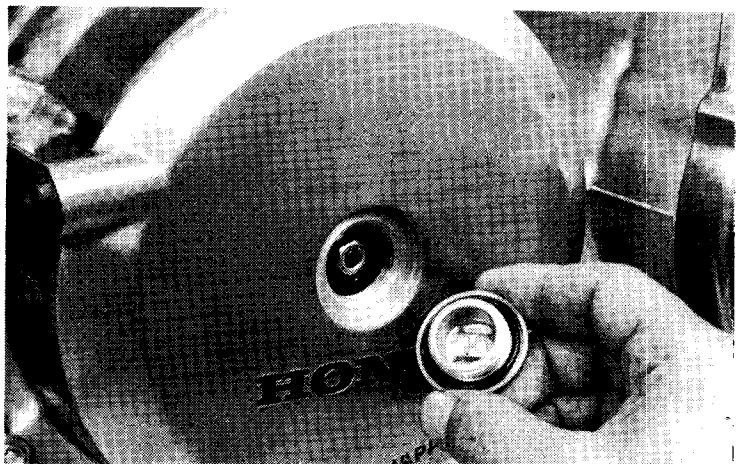
Install the adjusting arm and spring.



Install the dowel pins and gasket, and then install the cover.



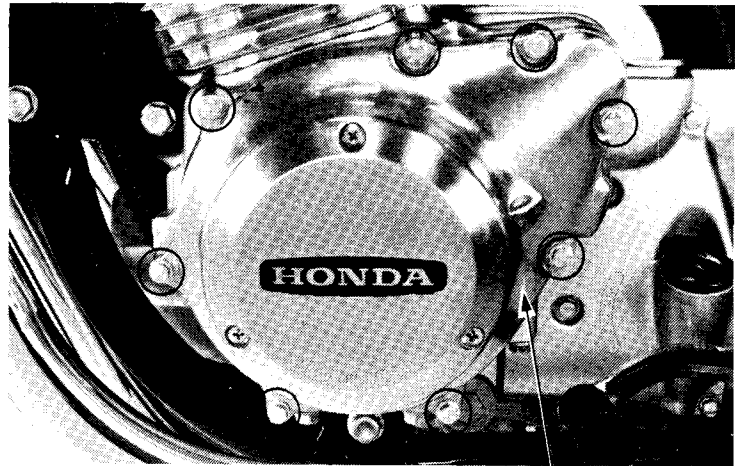
Adjust the clutch (page 3-17).  
Apply grease to the adjusting hole cap O-ring  
and install.





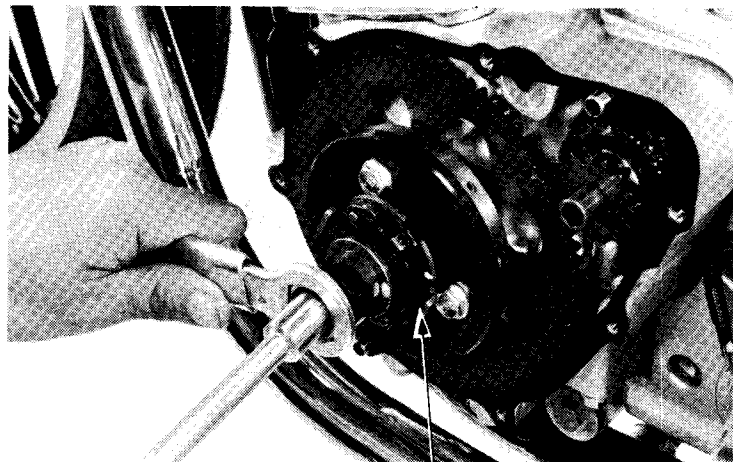
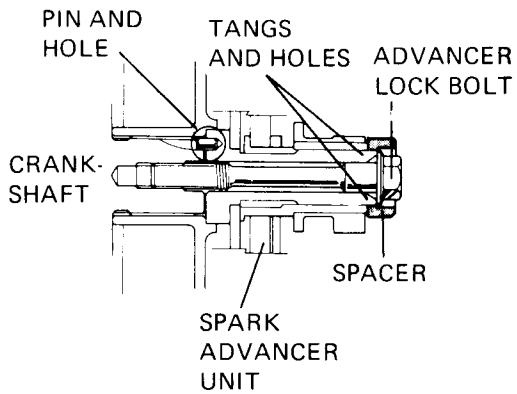
## STARTER CLUTCH DISASSEMBLY

Remove the left crankcase cover with the pulser generator assembly.



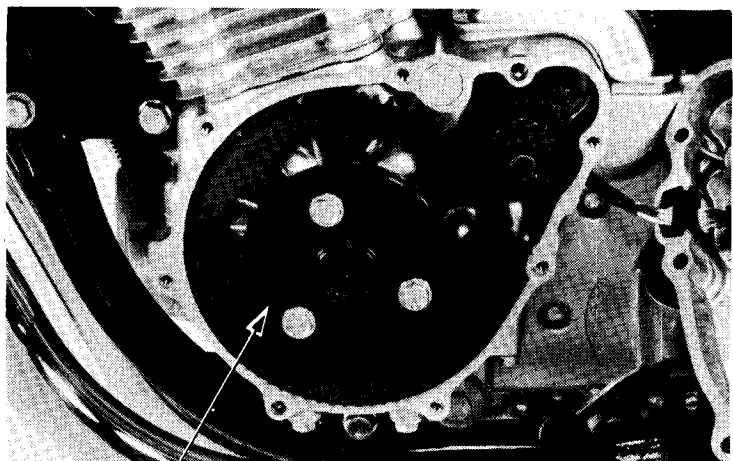
LEFT CRANKCASE COVER

Remove the spark advancer unit.



SPARK ADVANCER

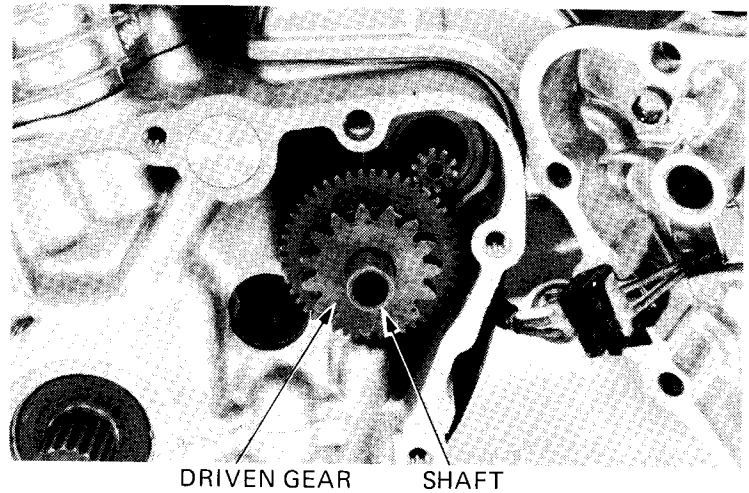
Remove the starter clutch assembly.



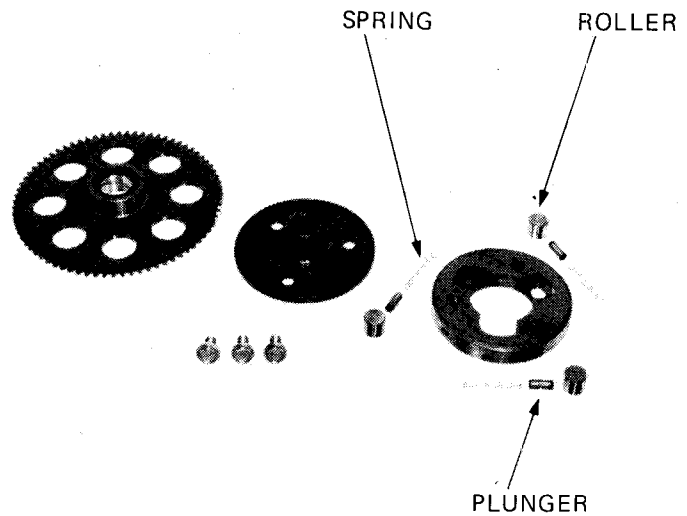
STARTER CLUTCH



Remove the starter driven gear and shaft.



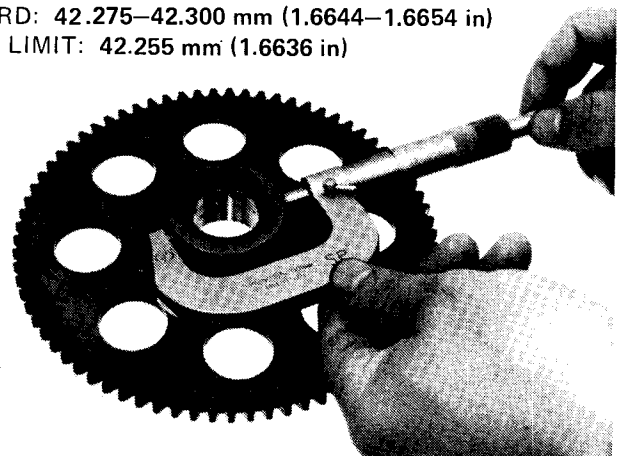
Inspect the rollers for smooth operation.  
Remove the rollers and check for excessive wear.  
Clean all parts with non-flammable or high flash point solvent.



**STARTER DRIVE GEAR INSPECTION**

Inspect the drive gear for damage or excessive wear.  
Measure the O. D..

STANDARD: 42.275–42.300 mm (1.6644–1.6654 in)  
SERVICE LIMIT: 42.255 mm (1.6636 in)





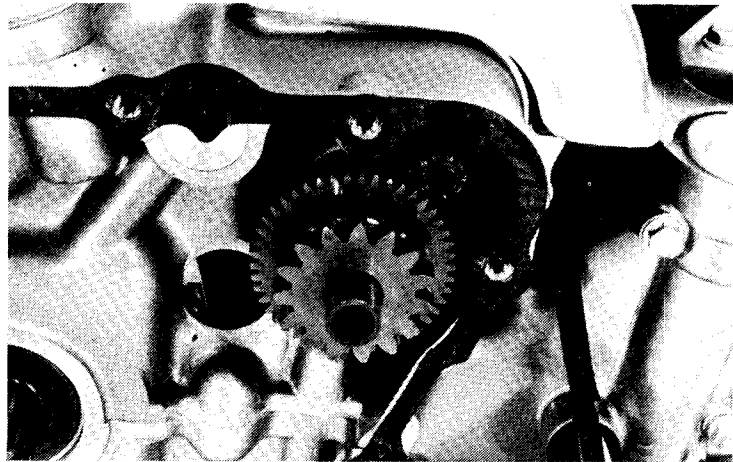
## STARTER CLUTCH ASSEMBLY

Install the springs, plungers and rollers.  
Tighten the locking bolts to the specified torque.

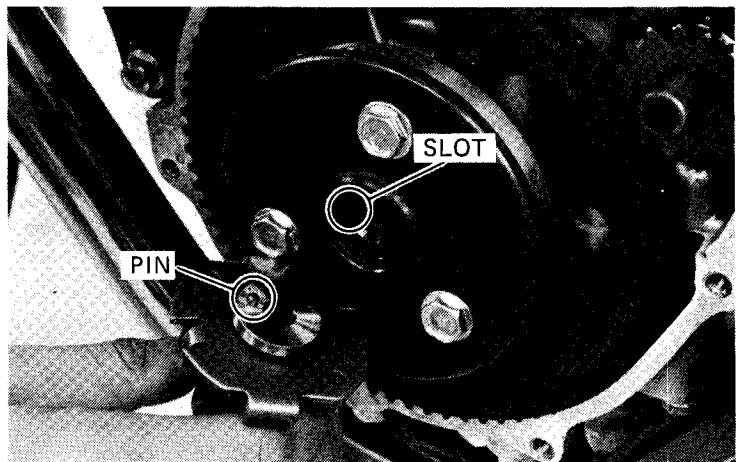
**TORQUE: 2.6–3.0 kg-m (19–22 ft-lb)**

### NOTE

Apply a locking agent to the locking bolt's threads.



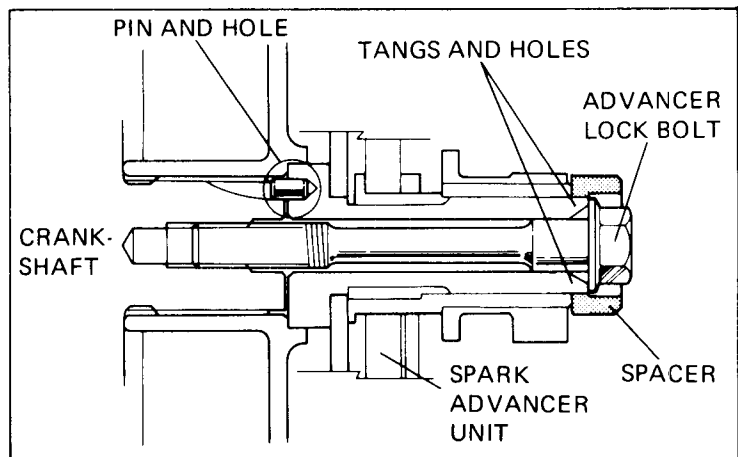
Install the advancer assembly.  
Align the pin on the spark advancer unit with the slot on the crankshaft.



Install the spacer aligning the tangs with the holes, and tighten the advancer lock bolt to the specified torque.

**TORQUE: 3.3–3.7 kg-m (24–27 ft-lb)**

Install the left crankcase cover.





MEMO