

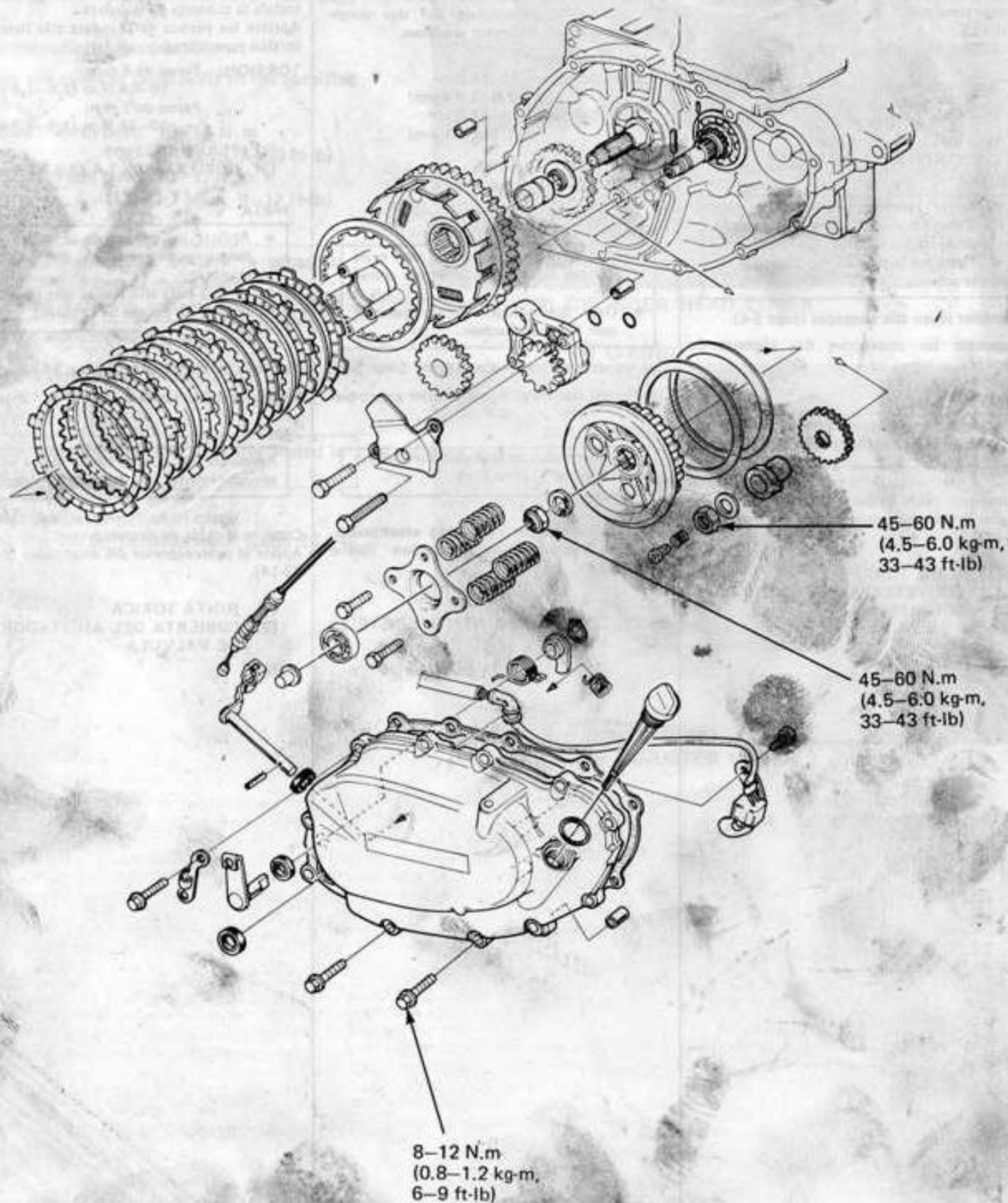


**HONDA**  
XL400R-500R

XL400R-XL500R ADDENDUM

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## CLUTCH/OIL PUMP



● CLUTCH SPRING SPECIFICATIONS

	STANDARD	SERVICE LIMIT
Clutch spring free length	44.1 mm (1.74 in)	42.5 mm (1.67 in)
Clutch spring preload/length	23.7–26.3 kg/27 mm (52.2–58.0 lb/1.06 in)	—————

● PULSE GENERATOR ROTOR

Removal:

Drain the engine oil from the crankcase.

Remove the clutch lifter plate and clutch spring (See page 8-6).

Attach the clutch center holder to the pressure plate with two clutch bolts.

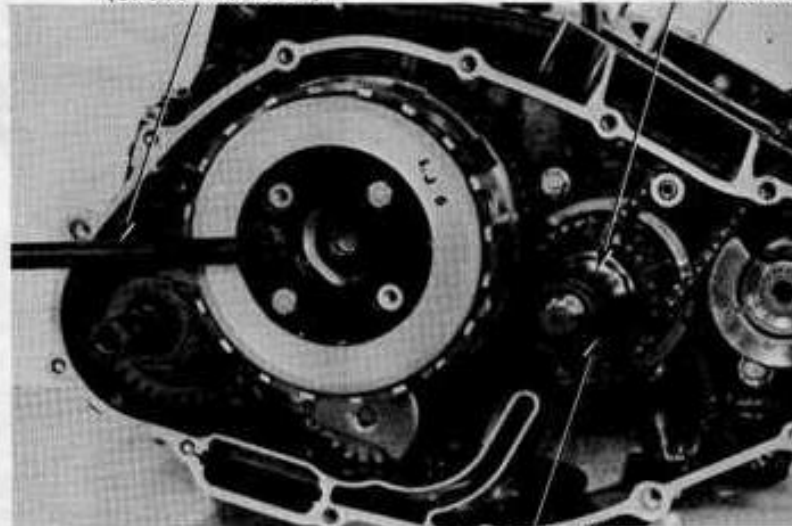
Remove the primary gear lock nut.

Remove the oil pressure pad and spring by removing the stopper pin.

Remove the pulse generator rotor from the crankshaft.

(1) CLUTCH CENTER HOLDER  
(07923-4280000)

(2) PULSE GENERATOR ROTOR



(3) LOCK NUT

(1) STOPPER PIN



(2) OIL PRESSURE PAD

**Installation:**

Install the pulse generator rotor, aligning the dowel pin on the crankshaft with rotor cut-out.

Install the oil pressure pad, spring and stopper pin.

Tighten the primary gear lock nut to the specified torque.

**TORQUE: 45–60 N·m**  
(4.5–6.0 kg·m, 33–43 ft·lb)

Check the oil pressure pad for smooth movement.

Rotate the clutch lever to align the hole in the lever with the hole in the clutch cover and insert the lifter piece.

Install the right crankcase cover with new gasket (See page 8-16).

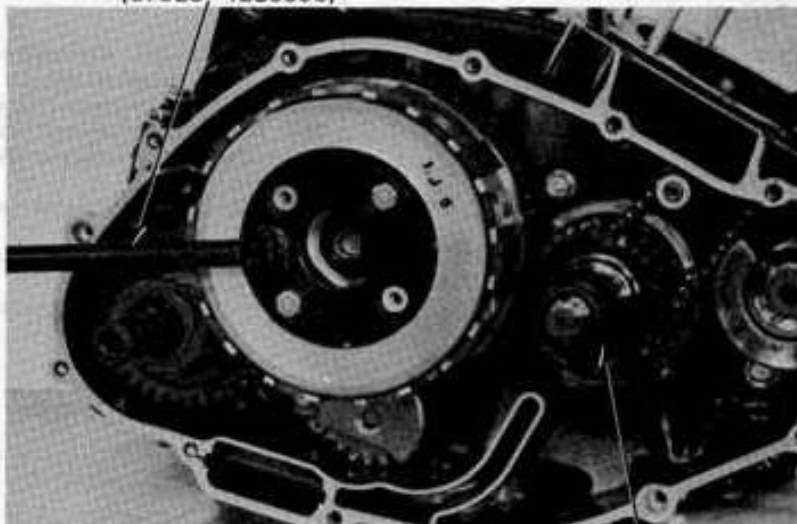
Fill crankcase with recommended oil (See Page 22-11, 2-3).

(1) DOWEL PIN (2) CUT-OUT



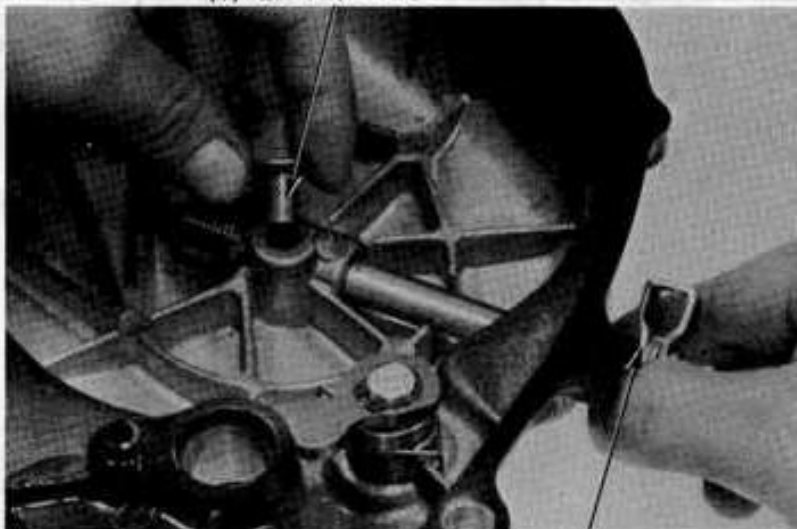
(3) PULSE GENERATOR ROTOR

(1) CLUTCH CENTER HOLDER  
(07923-4280000)



(2) LOCK NUT

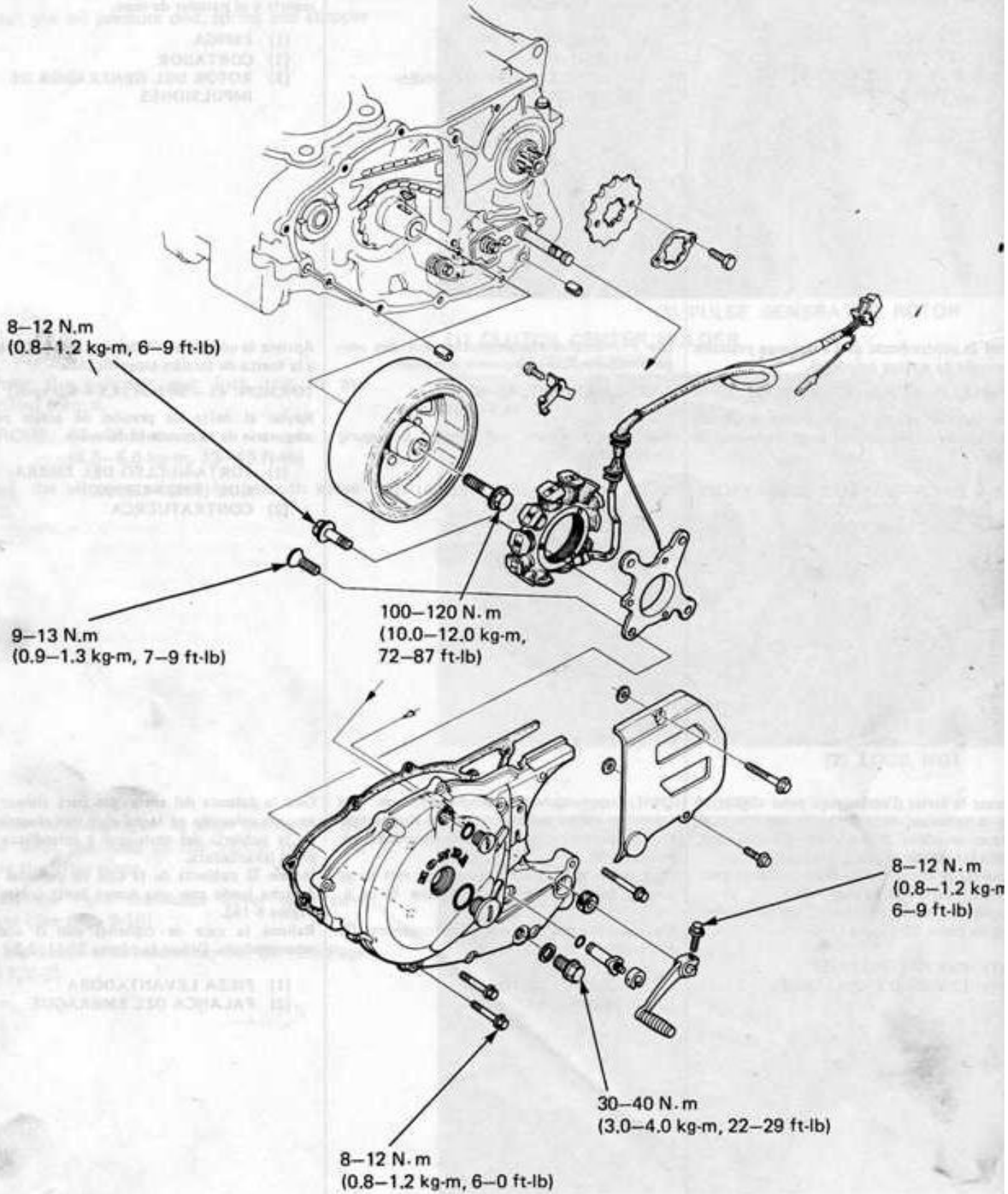
(1) LIFTER PIECE



(2) CLUTCH LEVER



## AC GENERATOR





● AC GENERATOR STATOR COIL

**Removal:**

Remove the left crankcase cover.

Remove the AC generator wire holder bolt and stator coil bolts.

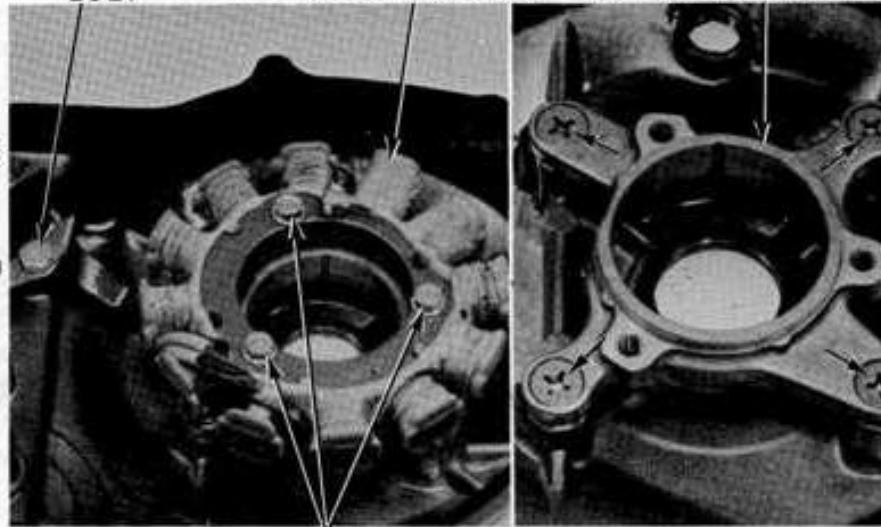
Remove the stator coil from the stator base.

Remove the stator coil base by removing screws.

(1) WIRE HOLDER BOLT

(2) STATOR COIL

(3) STATOR COIL BASE



(4) STATOR COIL BOLTS

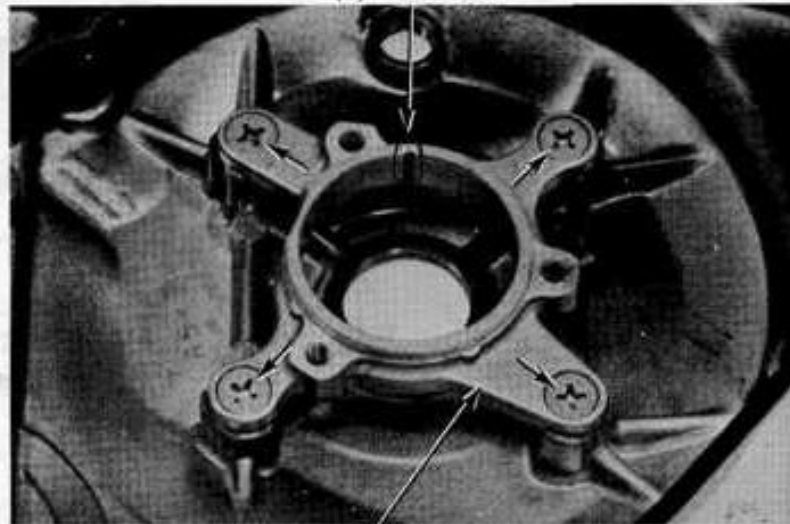
**Installation:**

Install the stator coil base with the groove facing upward.

Torque the screws.

**TORQUE: 9–13 N.m**  
(0.9–1.3 kg-m, 7–9 ft-lb)

(1) GROOVE



(2) STATOR COIL BASE

Install the stator coil on the stator base and torque the bolts.

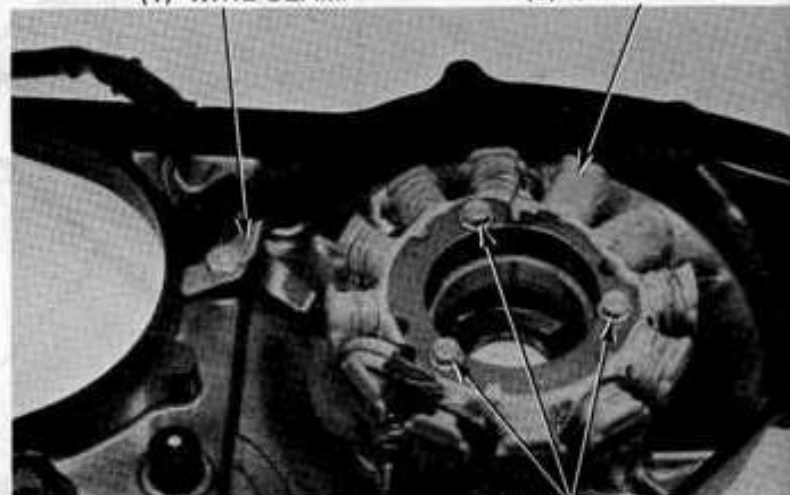
**TORQUE: 8–12 N.m**  
(0.8–1.2 kg-m, 6–9 ft-lb)

Install the wire clamp as shown.

Install the left crankcase cover (See page 9-4).

(1) WIRE CLAMP

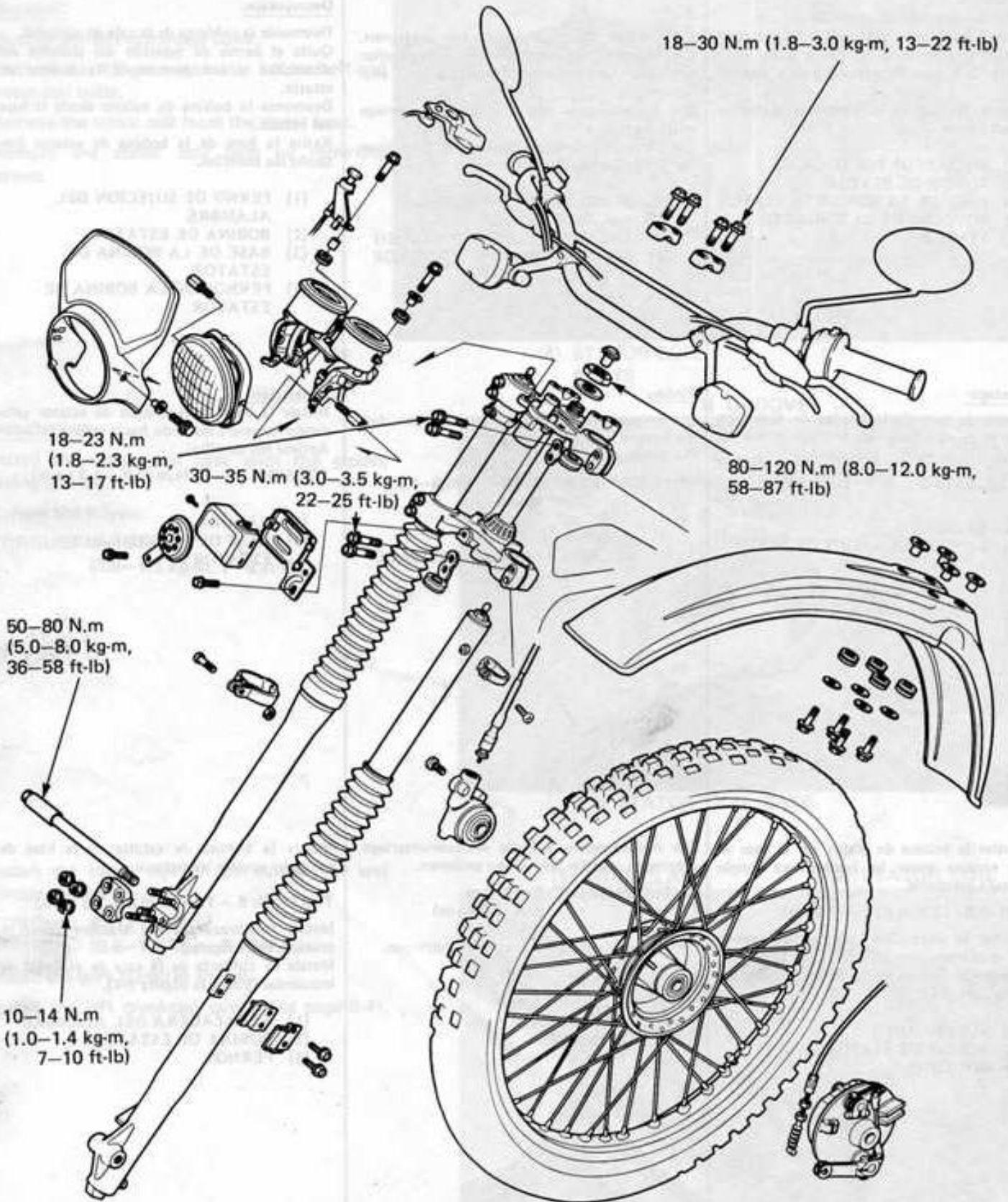
(2) STATOR COIL



(3) BOLTS



## FRONT WHEEL/BRAKE/SUSPENSION/STEERING







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**SERVICE INFORMATION**

● **GENERAL INSTRUCTIONS**

**WARNING**

*Brake dust may contain asbestos which can be harmful to your health. Do not use compressed air to clean the brake drum or brake panel. Use a vacuum with a sealed dust collector. Wear a protective face mask and thoroughly wash your hands when finished.*

**Special**

- 6 mm hex wrench 07917-3230000
- Circlip priers 07914-3230001
- Steering stem socket 07916-3710100
- Bearing race remover 07953-MA00000
- Steering stem driver 07946-4300101
- Fork seal driver 07947-3710101

**Common**

- Socket wrench, 30 x 32 mm 07716-0020400
- Extension 07716-0020500
- Attachment, 32 x 35 mm 07746-0010100
- Pilot, 15 mm 07746-0040300
- Attachment, 42 x 47 mm 07746-0010300 or Attachment 07946-4300200
- Driver 07749-0010000

● **SPECIFICATIONS**

ITEM		STANDARD	SERVICE LIMIT
Axle runout		_____	0.2 mm (0.01 in)
Wheel rim runout	Radial	_____	2.0 mm (0.08 in)
	Axial	_____	2.0 mm (0.08 in)
Brake drum I.D.		130.0 mm (5.12 in)	131.0 mm (5.16 in)
Brake shoe thickness		4.0 mm (0.16 in)	2.0 mm (0.08 in)
Front fork spring free length		580.4 mm (22.85 in)	568.8 mm (22.39 in)
Fork tube runout		_____	0.20 mm (0.008 in)
Front fork air pressure		0-20 kPa (0-0.2 kg/cm <sup>2</sup> , 0-2.8 psi)	_____
Front fork oil	Capacity	376.0-381.0 cc (12.71-12.8 oz)	_____
	Level	163.0 mm (6.42 in)	_____

● **TORQUE VALUES**

- Steering stem nut : 80-120 N.m (8.0-12.0 kg-m, 58-87 ft-lb)
- Steering adjusting nut : 1-2 N.m (0.1-0.2 kg-m, 0.7-1.5 ft-lb)
- Fork pinch bolt (upper) : 18-23 N.m (1.8-2.3 kg-m, 13-17 ft-lb)
- (lower) : 30-35 N.m (3.0-3.5 kg-m, 22-25 ft-lb)
- Handlebar holder bolt : 18-30 N.m (1.8-3.0 kg-m, 13-22 ft-lb)
- Axle : 50-80 N.m (5.0-8.0 kg-m, 36-58 ft-lb)
- Axle holder nut : 10-14 N.m (1.0-1.4 kg-m, 7-10 ft-lb)
- Steering stem pipe pinch bolt : 40-50 N.m (4.0-5.0 kg-m, 29-36 ft-lb)
- Brake arm bolt (upper arm) : 8-12 N.m (0.8-1.2 kg-m, 6-9 ft-lb)
- (lower arm) : 10-14 N.m (1.0-1.4 kg-m, 7-10 ft-lb)





**TROUBLE SHOOTING**

**Hard steering**

1. Steering stem nut too tight
2. Faulty steering stem bearings
3. Damaged steering stem bearings
4. Insufficient tire pressure

**Steers to one side or does not track straight**

1. Bent front forks
2. Bent front axle, wheel installed incorrectly

**Front wheel wobbling**

1. Distorted rim
2. Worn front wheel bearing
3. Faulty tire
4. Axle not tightened properly
5. Loose, bent or broken spokes

**Soft suspension**

1. Weak fork spring
2. Insufficient fluid weight in front forks
3. Incorrect fork air pressure

**Hard suspension**

1. Incorrect fluid weight in front forks
2. Incorrect fork air pressure
3. Fork tube bent

**Front suspension noise**

1. Slider binding
2. Insufficient fluid in forks
3. Loose front fork fasteners

**Improper brake performance**

1. Incorrect adjustment of lever
2. Brake shoes worn
3. Brake shoes contaminated
4. Brake cam worn
5. Brake drum worn
6. Brake arm serrations improperly engaged
7. Cam contacting area of shoes worn

ITEM	DESCRIPTION	REMARKS
1	Front wheel bearing	Adjust to 0.05 mm (0.002 in.) clearance
2	Front wheel axle nut	Tighten to 100 N·m (7.3 ft-lb)
3	Front fork oil level	Check and adjust to 100 mm (4 in.)
4	Front fork air pressure	Adjust to 0.15 MPa (2.2 psi)
5	Front fork spring	Check for wear and replace if necessary
6	Front fork slider	Check for binding and adjust if necessary
7	Front fork tube	Check for bending and replace if necessary
8	Front fork fasteners	Check for looseness and tighten if necessary
9	Front fork seal	Check for leakage and replace if necessary
10	Front fork dust cap	Check for damage and replace if necessary

**TORQUE VALUES**

ITEM	DESCRIPTION	TORQUE (N·m)	TORQUE (ft-lb)
1	Front wheel axle nut	100	7.3
2	Front fork oil cap	10	0.7
3	Front fork air cap	10	0.7
4	Front fork spring cap	10	0.7
5	Front fork slider cap	10	0.7
6	Front fork tube cap	10	0.7
7	Front fork fastener	10	0.7
8	Front fork seal	10	0.7
9	Front fork dust cap	10	0.7
10	Front wheel bearing	0.05 mm (0.002 in.) clearance	



**● HEADLIGHT/INSTRUMENT**

**Removal:**

Remove the headlight case mounting bolts.

Remove the headlight case.

(1) MOUNTING BOLTS



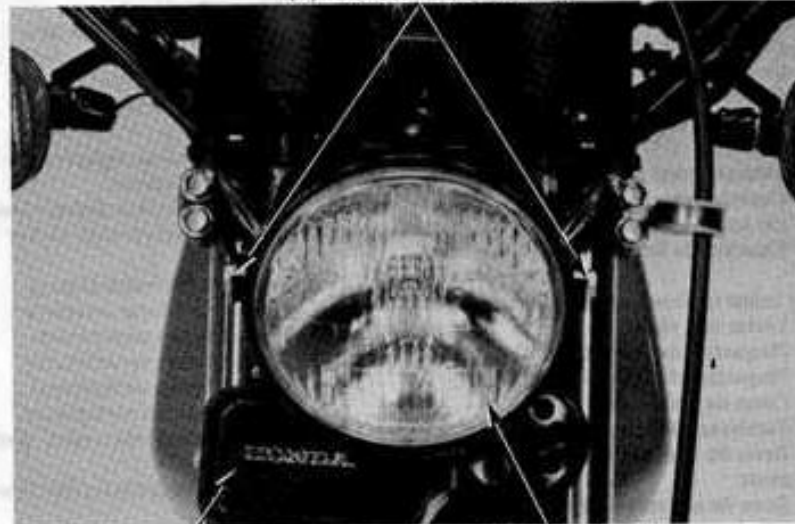
(2) HEADLIGHT CASE

Remove the headlight by removing two mounting bolts.

Remove the coupler box cover.

Disconnect the instrument wires.

(1) MOUNTING BOLTS



(2) COUPLER  
BOX COVER

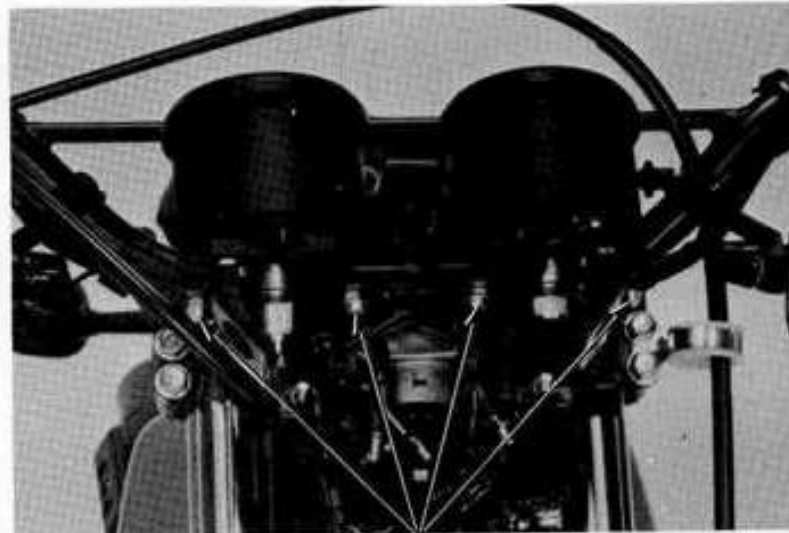
(3) HEADLIGHT

Disconnect the speedometer and tachometer cables from the instrument.

Remove the speedometer and tachometer by removing mounting nuts.

**Installation:**

Install the instrument in the reverse order of removal.



(1) MOUNTING NUTS

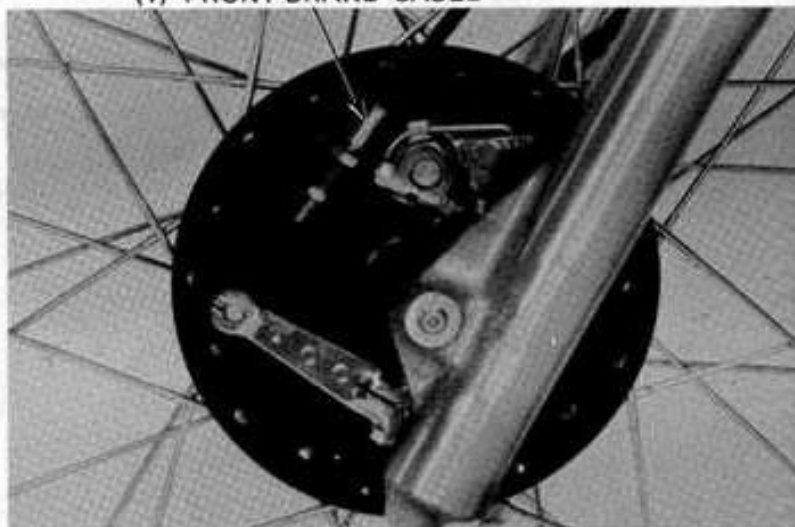
● FRONT WHEEL

**Removal:**

Raise the front wheel off the ground by placing a block or safety stand under the engine.

Disconnect the front brake cable from the brake panel.

(1) FRONT BRAKE CABLE



(1) UPPER AXLE HOLDER NUTS

Disconnect the speedometer cable.

Loosen the lower axle holder nuts then loosen the upper axle holder nuts.

Unscrew the axle, and remove the front wheel.



**CAUTION**

- Do not let the brake panel fall.
- If the brakes are not going to be serviced, do not turn the brake arm or arm connecting rod. The rod synchronization will be off and stopping power will be reduced.

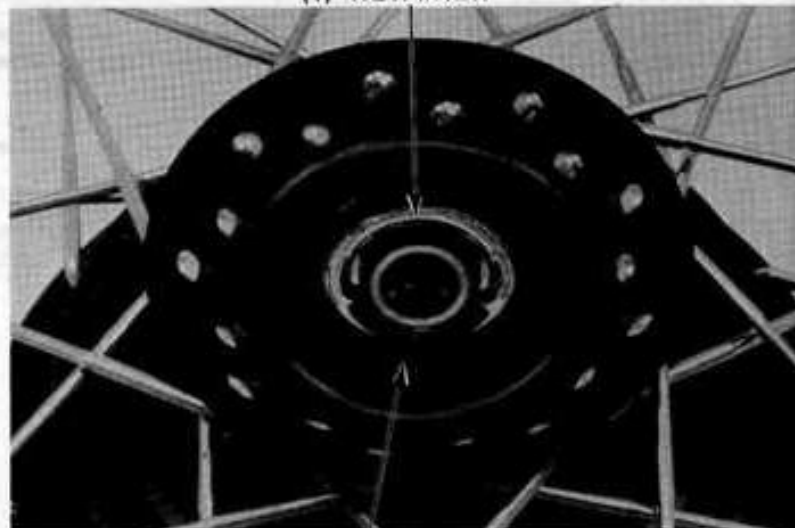
(2) AXLE (3) LOWER AXLE HOLDER NUTS

**Disassembly:**

Remove the dust seal and speedometer gear retainer from the wheel hub.

Remove the bearings and collar from wheel hub.

(1) RETAINER



(2) DUST SEAL

**NOTE**

If bearings are removed, replace them with new bearings during assembly.



**Assembly:**

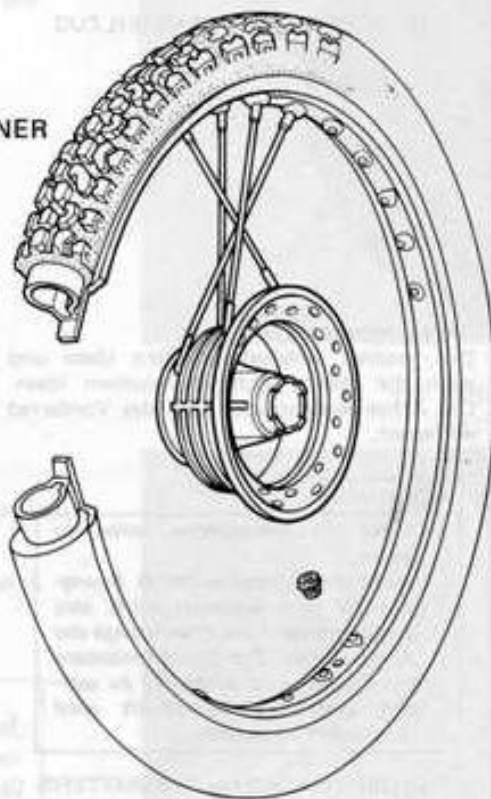
(1) DUST SEAL

(2) RETAINER

(4) DISTANCE COLLAR

(3) BEARING

(5) BEARING



Pack all front wheel bearing cavities with grease.

Drive in the right bearing first.

Install the distance collar and drive in the left bearing.

**NOTE**

- Do not allow the bearing to tilt while driving it in.
- Install the bearings with the sealed end facing out.

**WARNING**

*Avoid getting grease on the inside face of the brake drum.*

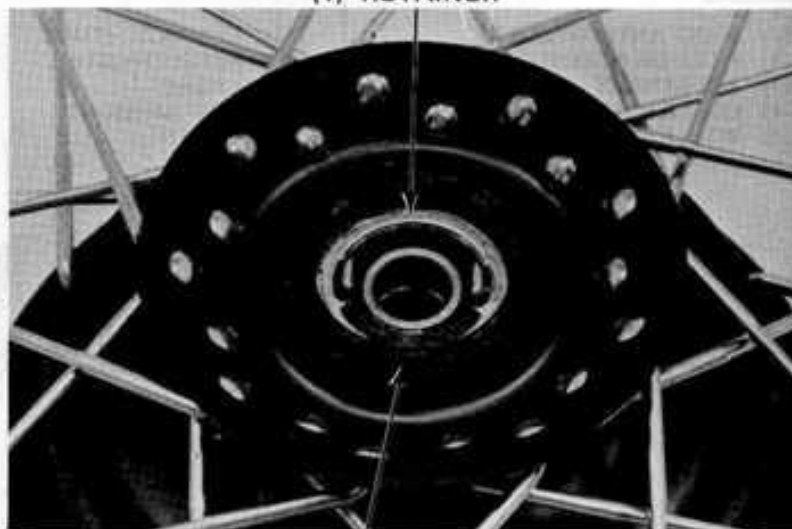
(1) DRIVER (07749-0010000)



(2) ATTACHMENT, 32 x 35 mm (07746-0010100) AND PILOT, 15 mm (00746-0040300)

Apply grease to the inside of the dust seal.  
Install the dust seal and the speedometer gear  
retainer.

(1) RETAINER



(2) DUST SEAL

(1) BOSS



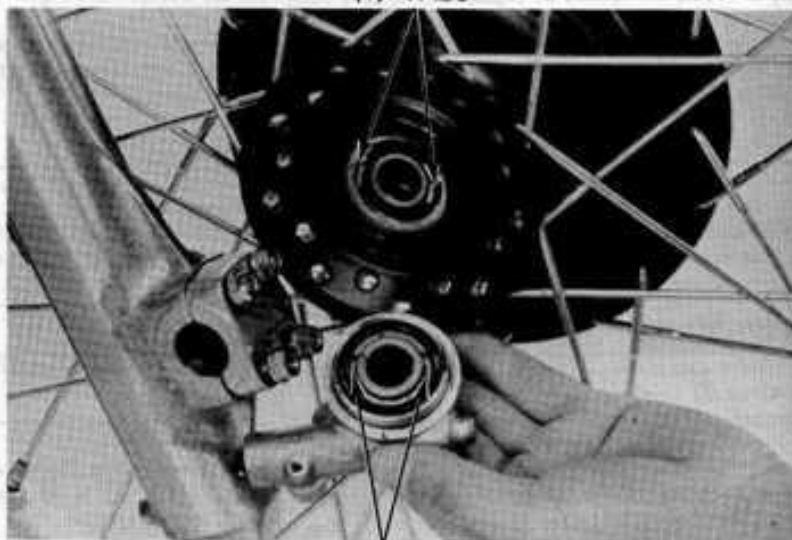
(2) GROOVE

**Installation:**

Install the brake panel into the front wheel.

Align the brake panel groove with the front  
fork slider boss.

(1) TABS



(2) LUGS

Aligning the lugs on the speedometer gear box  
with the tabs on the wheel hub.

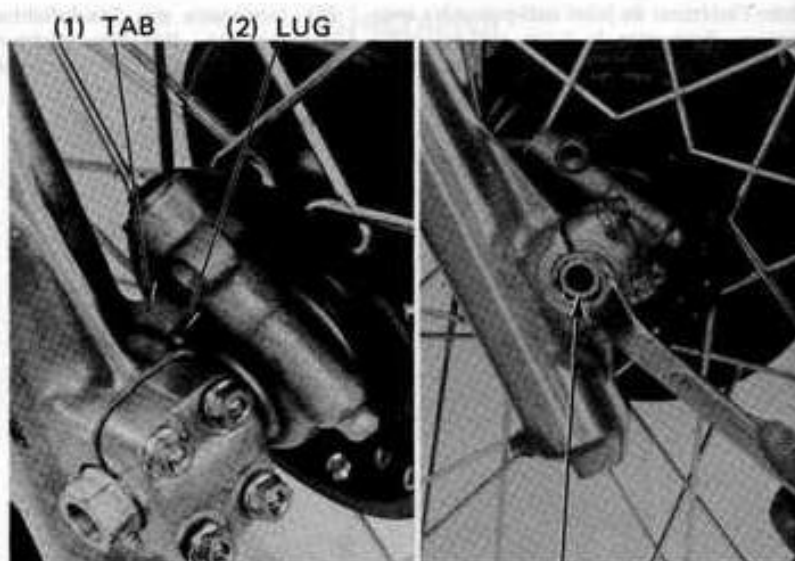
Install the speedometer gearbox into the wheel  
hub.

Insert the axle through the wheel hub and thread it into the left fork leg. Then tighten the axle.

**TORQUE:** 50–80 N·m  
(5.0–8.0 kg-m, 36–58 ft-lb)

**NOTE**

Make sure that the lug on the speedometer gearbox are aligned with tab on the left fork leg.



Install the axle holder with the "UP" mark facing upward.

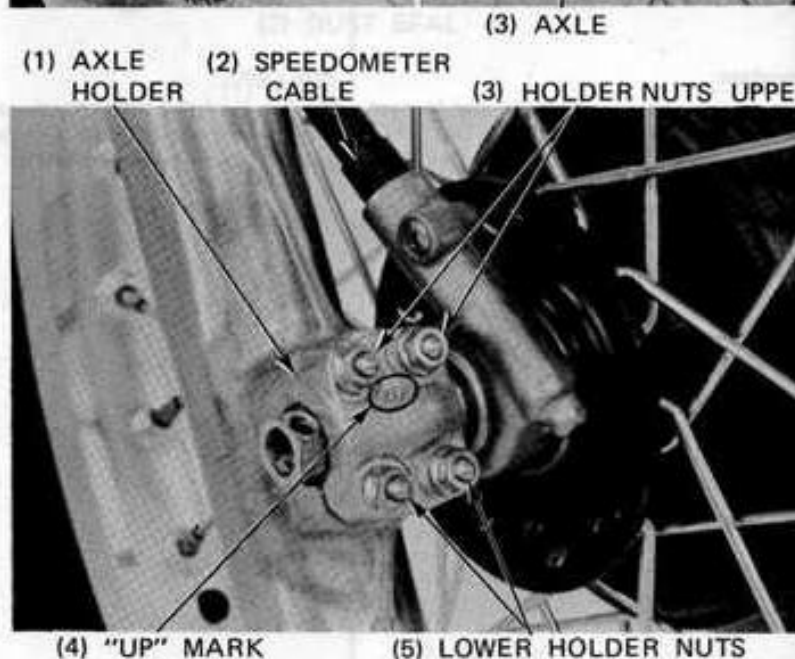
With the front brake applied, pump the front fork up and down several times.

Tighten the upper holder nuts first, then tighten the lower holder nuts.

**TORQUE:** 10–14 N·m  
(1.0–1.4 kg-m, 7–10 ft-lb)

Connect the front brake and speedometer cables.

Adjust the front brake lever free play (Page 22-16).



● **FRONT BRAKE**

**Disassembly:**

Remove the front wheel.

Remove the front brake panel assembly from the wheel hub.

**CAUTION**

- Mark the shoes to indicate the normal positions before disassembly.
- Always replace the brake shoes in pairs.

Remove the brake shoes and springs.

**WARNING**

Do not remove the brake arm rod when the brake shoes are replaced.







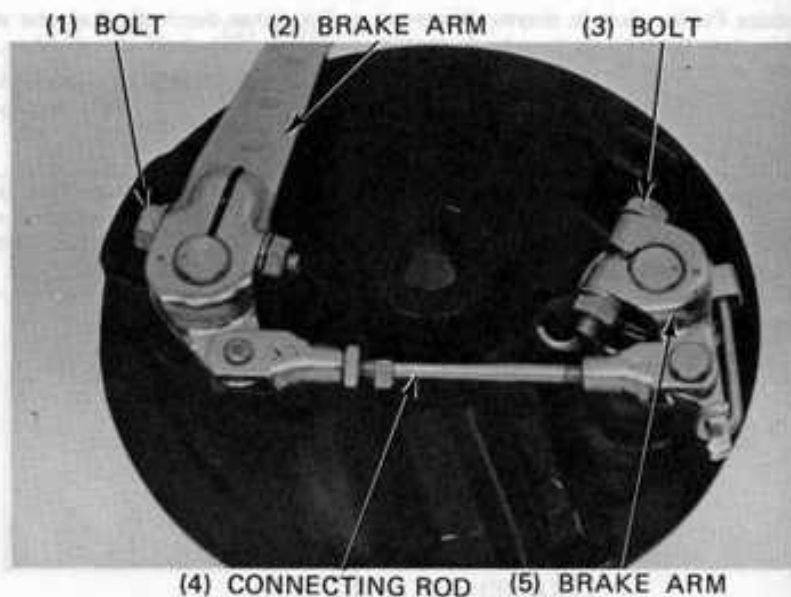
Remove the bolts attaching each brake arm to the brake cams.

Remove the brake arms with the arm connecting rod.

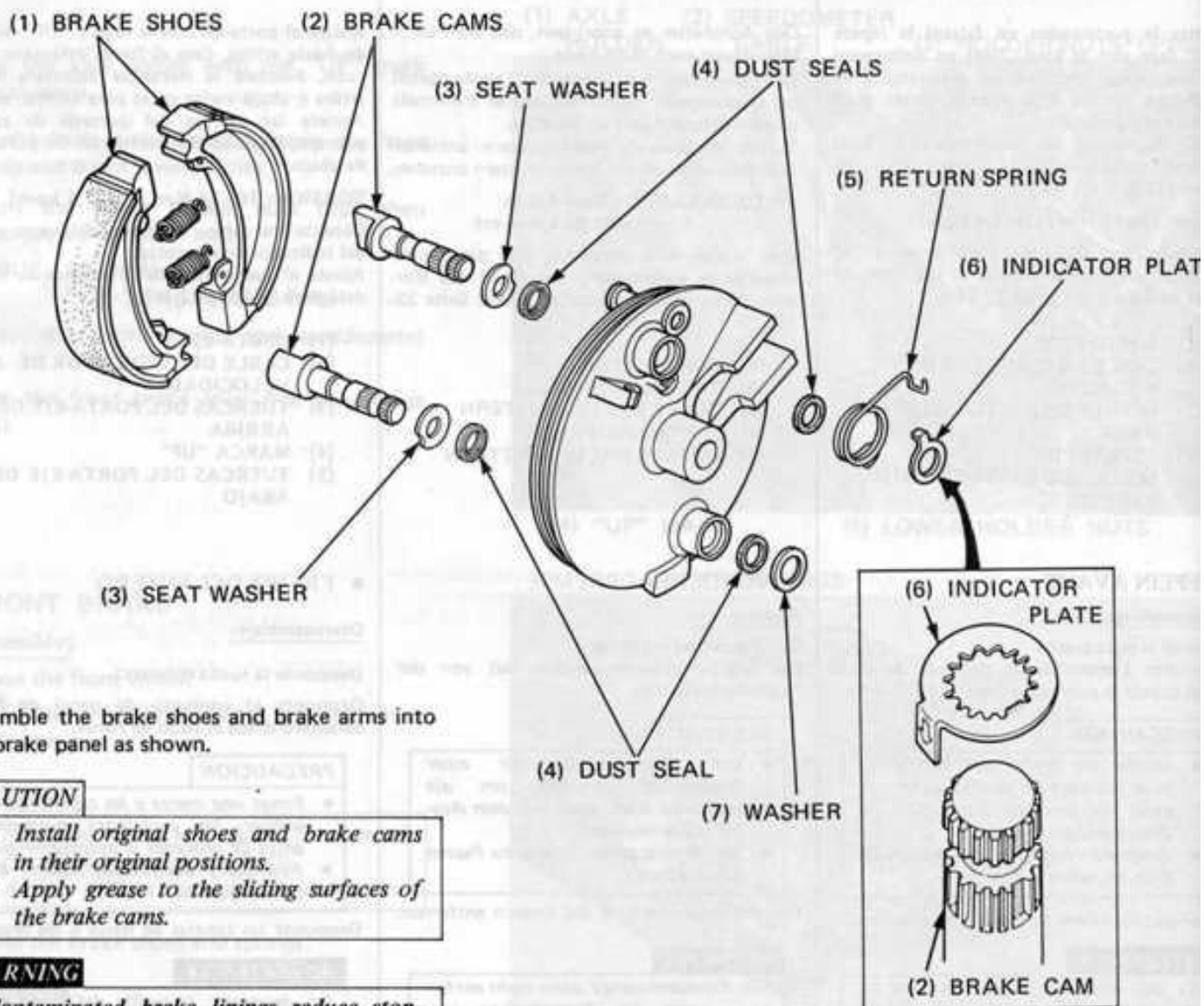
**WARNING**

*Do not try to turn the connecting rod when removing the brake arms of synchronization of the brake arms will be out of order and stopping power will be reduced.*

Remove the brake cams from the brake panel.



**Assembly:**



Assemble the brake shoes and brake arms into the brake panel as shown.

**CAUTION**

- Install original shoes and brake cams in their original positions.
- Apply grease to the sliding surfaces of the brake cams.

**WARNING**

*Contaminated brake linings reduce stopping power. Keep grease off the linings.*



Install the brake arm assembly on the brake cams.

**NOTE**

When installing the brake arm, align the punch marks on each brake arm and brake cam.

**CAUTION**

Be careful to do not turn the arms and connecting rod during installation.

Tighten the brake arm bolts.

**TORQUE:**

Upper arm: 8–12 N·m  
(0.8–1.2 kg-m, 6–9 ft-lb)

Lower arm: 10–14 N·m  
(1.0–1.4 kg-m, 7–10 ft-lb)

Visually inspect the brake cam synchronization by operating the brake arm.

Adjust the brake cam synchronization if necessary.

**Adjustment:**

Adjust the brake arm connecting rod whenever the cam, arm or connecting rod are replaced.

While pushing the brake shoes in toward one another by hand to remove any clearance between the shoes and brake cams, loosen the brake arm connecting rod lock nut, turn the rod until it shows free play, and then turn the rod in direction A just enough to remove that free play.

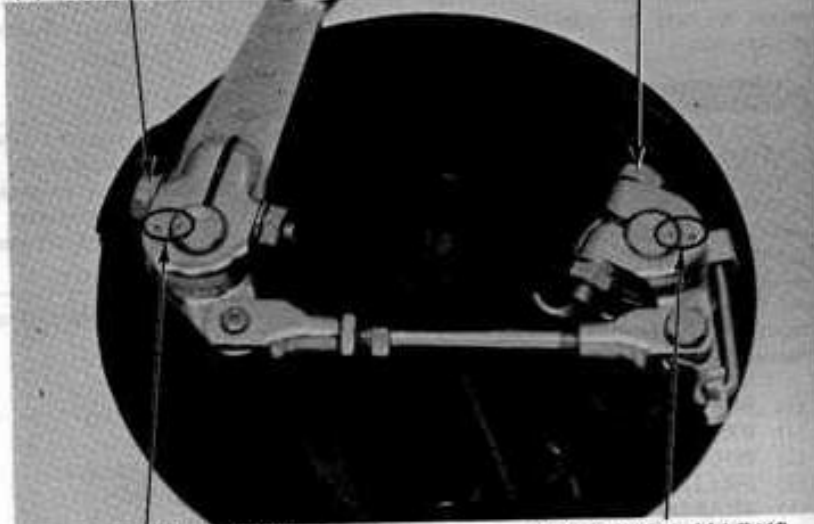
**NOTE**

You are looking for the point that free play is just removed.

Tighten the lock nut.

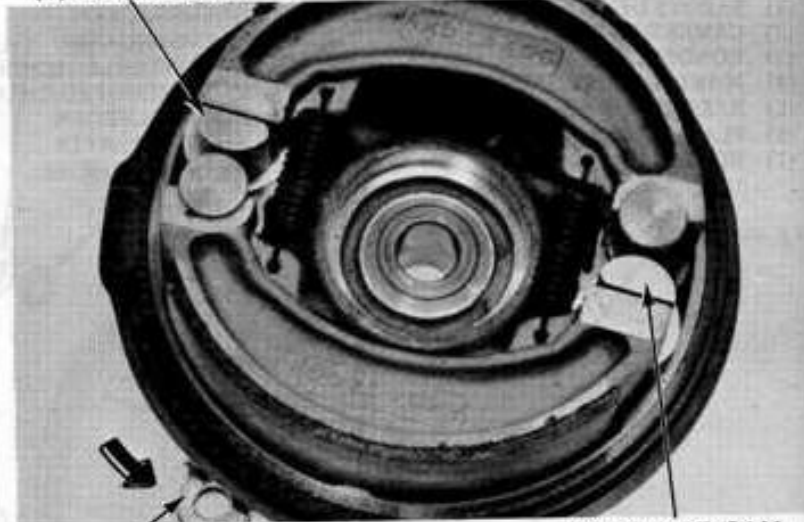
Make sure that both brake cams are parallel to each other and that arms upper and lower start to move at the same time when the brake is applied.

(1) LOWER ARM BOLT (2) UPPER ARM BOLT



(4) PUNCH MARKS (3) PUNCH MARKS

(1) BRAKE CAM



(2) BRAKE ARM (3) BRAKE CAM

(1) CONNECTING ROD (2) UPPER BRAKE ARM

