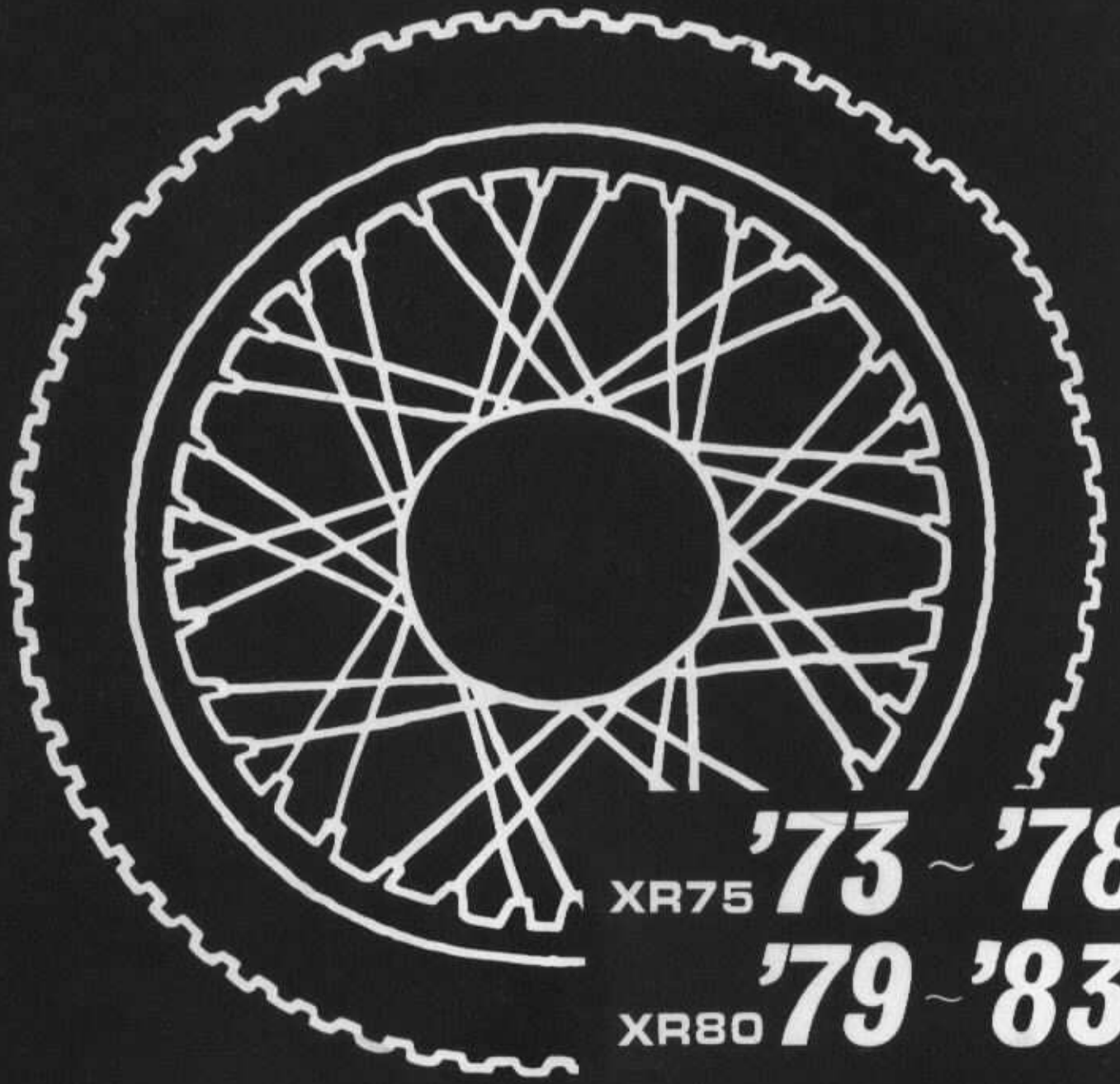
Official

HONDA

SHOP MANUAL

XR75 /XR80



XR75 '73 ~ '78

XR80 '79 ~ '83

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IMPORTANT SAFETY NOTICE

WARNING ***Indicates a possibility of personal injury or loss of life if instructions are not followed.***

CAUTION *Indicates a possibility of equipment damage if instructions are not followed.*

Detailed descriptions of standard workshop procedures, safety principles and service operations are not included. It is important to note that this manual contains some warnings and cautions against some specific service methods which could cause **PERSONAL INJURY** to service personnel or could damage a vehicle or render it unsafe. Please understand that those warnings could not cover all conceivable ways in which service, whether or not recommended by Honda might be done or of the possible hazardous consequences of each conceivable way, nor could Honda investigate all such ways. Anyone using service procedures or tools, whether or not recommended by Honda *must satisfy himself thoroughly* that neither personal safety nor vehicle safety will be jeopardized by the service methods or tools selected.

PREFACE

This shop manual covers 1973 through 1978 XR75's and 1979 through 1983 XR80's.

It is divided into six sections, giving procedures for disassembling, inspecting and reassembling the various components.

Sections VII, VIII, and IX contain update information for later year XR75 models.

Sections X, XI, XII and XIII contain XR80 service information.

Refer to these sections whenever servicing an XR80.

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II. INSPECTION AND ADJUSTMENT

This section covers the inspection and adjustment of important items in the MAINTENANCE SCHEDULE on page 41. For other items, see the **"Inspection"** paragraph of each group.

1. Tappet clearance

Tappet clearance adjustment should be made while the engine is cold.

1. Remove the generator cover and cylinder head cover.
2. Turn the generator rotor counterclockwise until the "T" mark on the rotor is aligned with the index mark. At this position the piston will be at the T.D.C. (top dead center) position on the compression stroke or on the exhaust stroke. The tappet clearance should be adjusted with the piston placed at the T.D.C. position on the compression stroke. Move the intake and exhaust rocker arms as shown in fig. 2–2 and if there is any free movement, the piston is at the T.D.C. position on the compression stroke. If there is no movement and the valves are open, turn the generator rotor further one turn to align the "T" mark with the index mark.
3. Insert a 0.05 mm (0.002 in.) feeler gauge between the tappet adjusting screw and valve stem to check the tappet clearance. If necessary, adjust the clearance by loosening the lock nut and turning the adjusting screw.
4. After adjusting, tighten the lock nut to specification, being careful not to disturb the tappet clearance. Recheck the tappet clearance after the lock nut has been tightened. Torque specification: 70 – 110 kg-cm (5.1 – 8.0 lb-ft)
5. Install the cylinder head cover and generator cover.

2. Contact breaker point gap adjustment (ignition timing adjustment)

Ignition timing adjustment can be made by varying the contact breaker point gap.

1. Remove the generator cover.
2. Turn the generator rotor counterclockwise until the "F" mark on the rotor is aligned with the index mark. If the contact breaker points start opening at that time, the ignition timing is correct. This adjustment may be made more accurately using a timing tester.
3. To adjust the point gap, loosen the contact breaker locking screw and move the point base.
   - Increasing the point gap will advance the ignition timing, and decreasing the gap will retard the timing.
4. After adjusting, tighten the locking screw and recheck the ignition timing.
5. After adjusting the ignition timing, check that the point gap is within 0.3 – 0.4 mm (0.012 – 0.016 in.). If the gap is out of specification, replace the points.

Fig. 2–1
1. Generator rotor 2. Mark "T" 3. Index mark

Fig. 2–2
1. Rocker arm

Fig. 2–3
1. Tappet adjusting screw 2. Lock nut 3. Feeler gauge

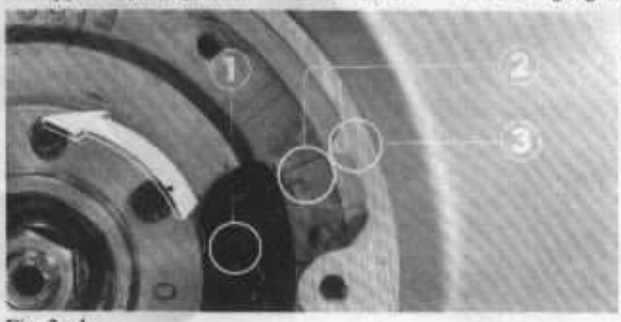

Fig. 2–4
1. Contact breaker points 2. Mark "F" 3. Index mark

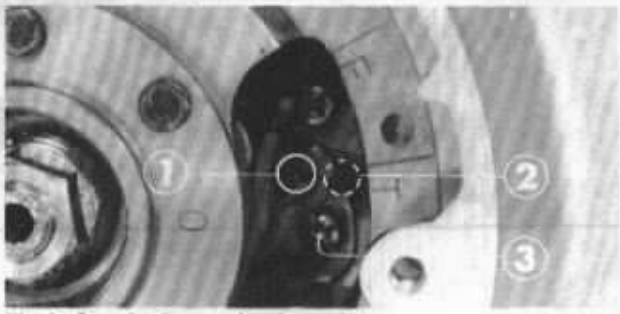

Fig. 2–5. 1. Contact breaker points
2. Groove for screwdriver 3. Locking screw

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3. Carburetor

Carburetor adjustment should be made after the engine is warmed up.

1. Turn the idle speed screw to set the engine speed to 1,400 rpm.
   - Turning the screw clockwise will increase the engine idle speed, and turning it counterclockwise will decrease the speed.

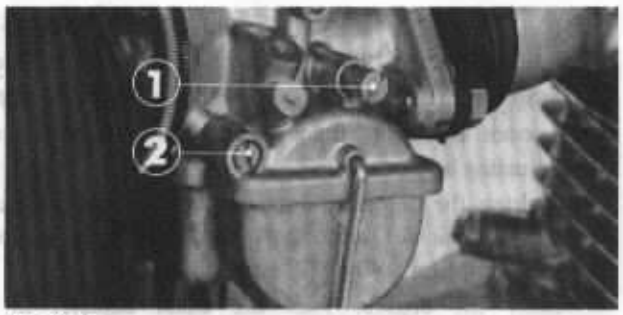

Fig. 2–6
1. Idle speed screw 2. Air screw

2. Turn the air screw clockwise until the engine misses or the engine rpm decreases. Turn the screw counterclockwise until the engine misses or the engine rpm decreases. Set the screw midway between these two extreme positions, where the engine speed is the highest. The air screw is normally obtained by turning 1¼ turns open from a fully closed position.
3. If the engine rpm varies after step 2 has been performed, readjust the idle speed screw.

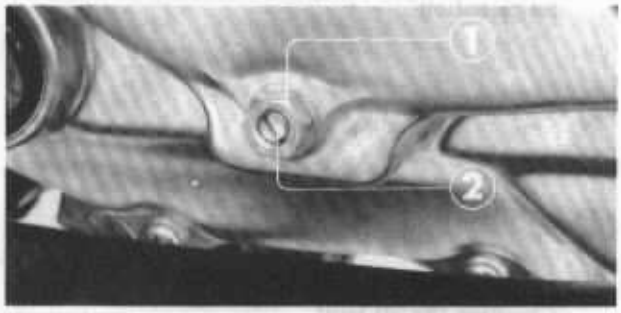

Fig. 2–7
1. Lock nut 2. Clutch adjuster

4. Clutch

1. Loosen the clutch adjuster lock nut and turn the clutch adjuster counterclockwise until it stops. Then turn it 1/8 – 1/4 turns clockwise and lock with the lock nut.
2. Check the clutch lever free play at the tip of the lever. Specification: 10 – 20mm (0.4 – 0.8in.)

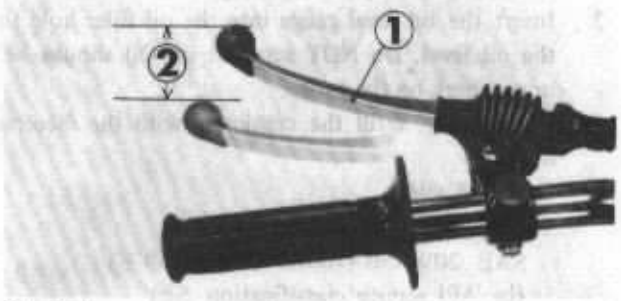

Fig. 2–8
1. Clutch lever 2. Clutch lever free play

3. The clutch lever free play can be adjusted at either end of the clutch cable. Normal adjustment can be made by using the clutch cable lower adjuster and fine adjustment can be made by using the upper adjuster. To adjust, loosen the lock nut and turn the lower (or the upper) adjuster. Turning the adjuster in direction (A) will decrease the free play.
4. After adjusting, make sure that the clutch operates properly.

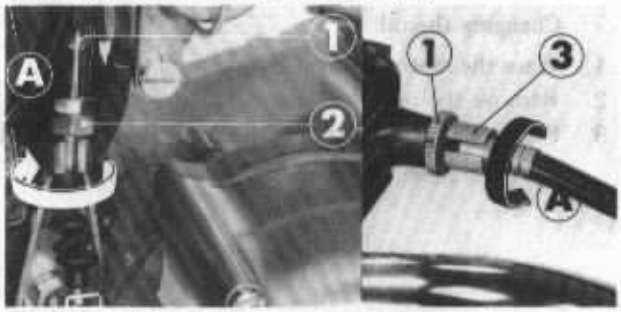

Fig. 2–9 1. Lock nut
2. Clutch cable lower adjuster 3. Clutch cable upper adjuster

5. Cam chain

1. Start the engine.
2. Loosen the set plate bolt and turn the cam chain adjuster in either direction. When chain noise is minimized, tighten the set plate bolt.

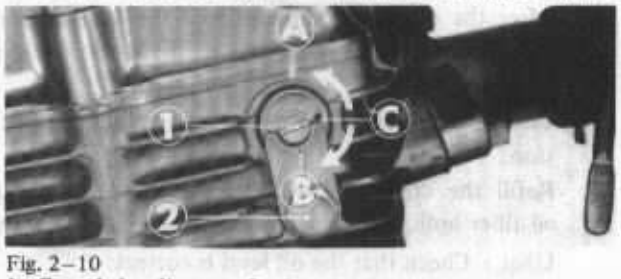

Fig. 2–10
1. Cam chain adjuster 2. Set plate bolt 3. Dot
A: Chain excessively loosened
B: Chain excessively tightened

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3. If the chain is still noisy with the dot on the chain adjuster at the "B" position, tighten the set plate bolt, stop the engine, and proceed with the following steps.
4. Loosen the cam chain adjusting bolt lock nut and the adjusting bolt.
5. Tighten the adjusting bolt and lock it with the lock nut.
6. Loosen the set plate bolt and move the dot on the chain adjuster to the "C" position.
7. Start the engine. Turn the chain adjuster in either direction and stop it when chain noise quiets. Tighten the set plate bolt.

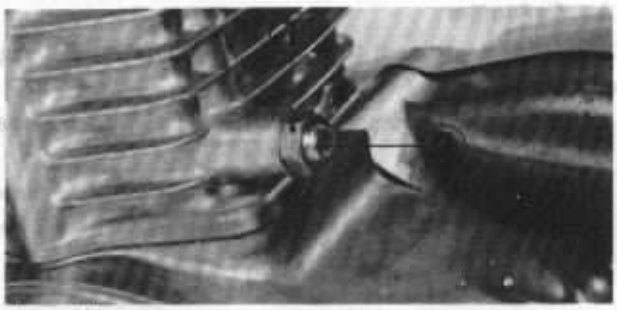

Fig. 2–11
1. Lock nut 2. Cam chain adjusting bolt

6. Engine oil

Checking the oil level

1. Place the motorcycle on level ground.
2. Insert the oil level gauge into the oil filler hole to check the oil level. Do NOT screw it in. Oil should be at the upper mark on the gauge.
3. If necessary, refill the crankcase with the recommended oil.

   Specified oils:

   SAE 10W–40 (All seasons)
   SAE 20W–50 (Above 15°C or 59°F)
   (by API service classification SE)

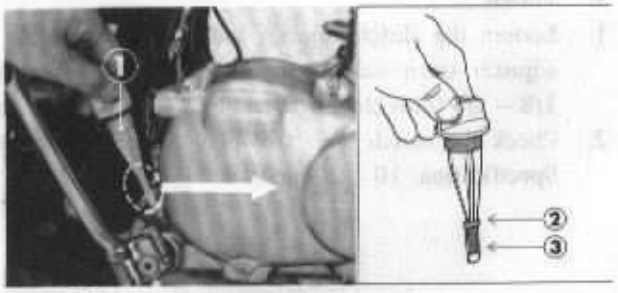

Fig. 2–12
1. Oil level gauge 2. Upper mark 3. Lower mark

Changing the oil

1. Place the motorcycle on level ground.
2. Remove the oil filler cap.
3. Place a pan under the drain hole in the crankcase. Remove the drain plug.

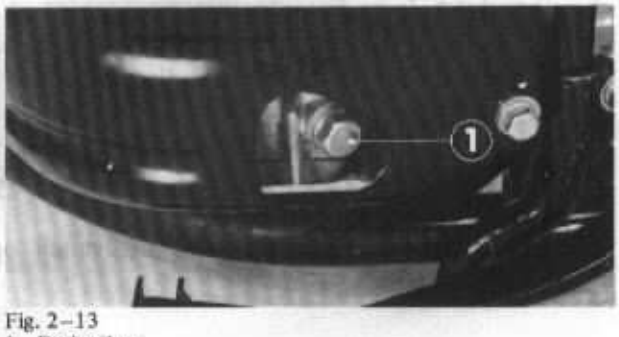

Fig. 2–13
1. Drain plug

4. After the oil stops draining from the crankcase, operate the kick starter several times to drain the oil remaining in the engine.
5. Install the drain plug, noting the sealing washer condition.
6. Refill the crankcase with the specified oil through the oil filler hole. The capacity is approximately 0.9 liter (0.9 USqt.). Check that the oil level is correct.

7. Front brake

1. Check that the front brake lever free play is 20 – 30 mm (0.8 – 1.2 in.) at the tip of the lever.

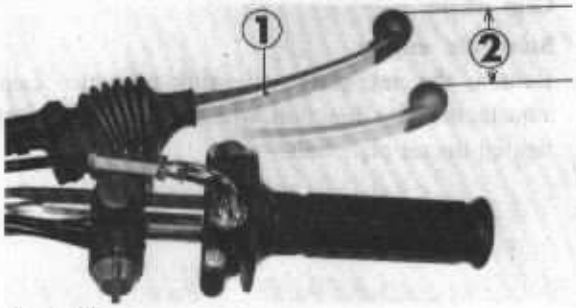

Fig. 2–14
1. Front brake lever 2. Front brake lever free play

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2. To adjust, loosen the lower lock nut and reposition the front brake adjusting bolt by moving it up and down. After adjusting, lock the adjusting bolt with the upper and lower lock nuts.

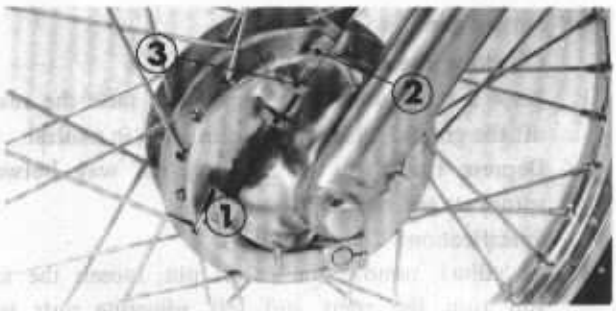

Fig. 2–15 1. Lower lock nut
2. Front brake adjusting bolt 3. Upper lock nut

3. To make a fine adjustment, remove the dust cover, loosen the lock nut and turn the front brake upper adjusting nut in either direction. Turning it in direction (A) will decrease the free play, and turning it in direction (B) will increase the play. After adjusting, install the dust cover.

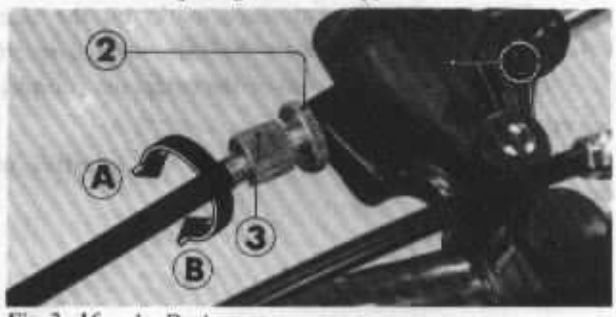

Fig. 2–16 1. Dust cover
2. Lock nut 3. Front brake upper adjusting nut

8. Rear brake

1. Check that the rear brake pedal free play is 20 – 30 mm (0.8 – 1.2in.) at the tip of the pedal.
2. To adjust, turn the rear brake adjusting nut in or out. Turning it in direction (A) will decrease the free play, and turning it in direction (B) will increase the play.

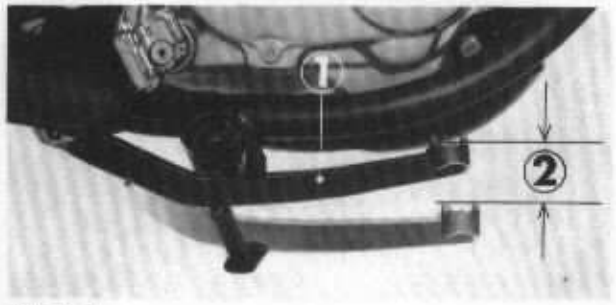

Fig. 2–17
1. Rear brake pedal 2. Rear brake pedal free play

Fig. 2–18
1. Rear brake adjusting nut

9. Air cleaner

1. Remove the right side number plate.
2. Remove the air cleaner case cover by loosening the three case cover nuts. Remove the air cleaner element.
3. Wash the element in clean stoddard solvent and dry it thoroughly.
4. Soak the element in clean gear oil (No. 80 – No. 90) until it is saturated. Squeeze excess oil out.
5. Install the element.
6. Install the right side number plate.

Fig. 2–19
1. Air cleaner case nuts 2. Air cleaner case

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10. Drive chain

Checking the drive chain tension

1. Place a stand under the engine and raise the rear wheel off the ground. Place the transmission in neutral.
2. Depress the chain at a point half way between the sprockets and measure the slack.
   Specification: 20mm (3/4in.).
3. To adjust, remove the cotter pin, loosen the axle nut and turn the right and left adjusting nuts in either direction. Align the index marks on the right and left adjusters with the reference marks on the side scales.
4. After adjusting, retighten the axle nut and insert a new cotter pin. Bend the ends of the cotter pin completely.

NOTE:

Check that the chain protector does not interfere with the drive chain.

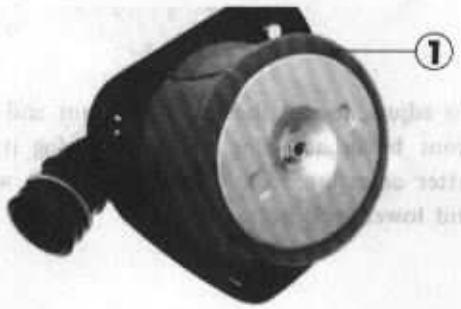

Fig. 2–20
1. Air cleaner element

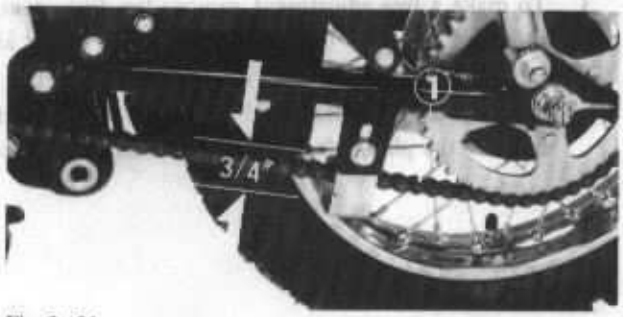

Fig. 2–21
1. Drive chain

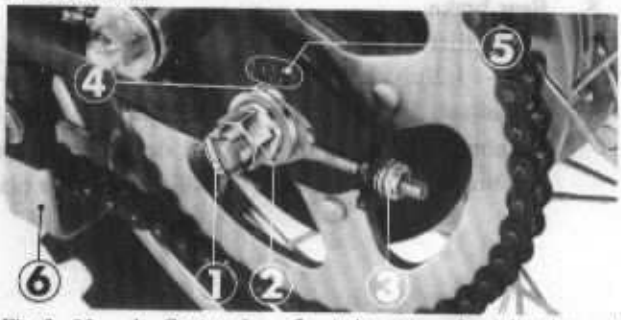

Fig. 2–22 1. Cotter pin 2. Axle nut 3. Adjusting nut
4. Index mark 5. Reference mark 6. Chain protector

11. Front forks

Changing the fork oil

1. Remove the drain plug from each fork leg. Bounce the fork several times and drain the oil thoroughly.
2. Install the drain plugs.
3. Remove the two front fork bolts.

Fig. 2–23
1. Drain plug

4. Refill each fork leg with 110cc (3.702) of ATF (Automatic Transmission Fluid).
5. Install the front fork bolts.

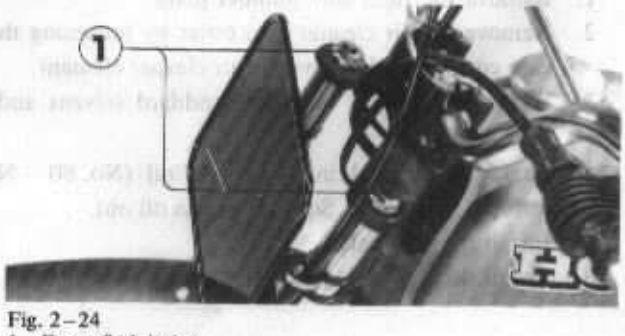

Fig. 2–24
1. Front fork bolts

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1. On-frame servicing

Part to be serviced	Ref. Page
Cylinder head and camshaft	10 – 14
Cylinder and piston	10 – 14
Oil pump and oil filter	15 – 17
Clutch	18 – 19
Sections of gearshift mechanism	20
Carburetor	26 – 27
Electrical system	38 – 39

2. Engine removal and installation

Remove the engine in the numerical order given below.
To install, reverse the removal procedure.

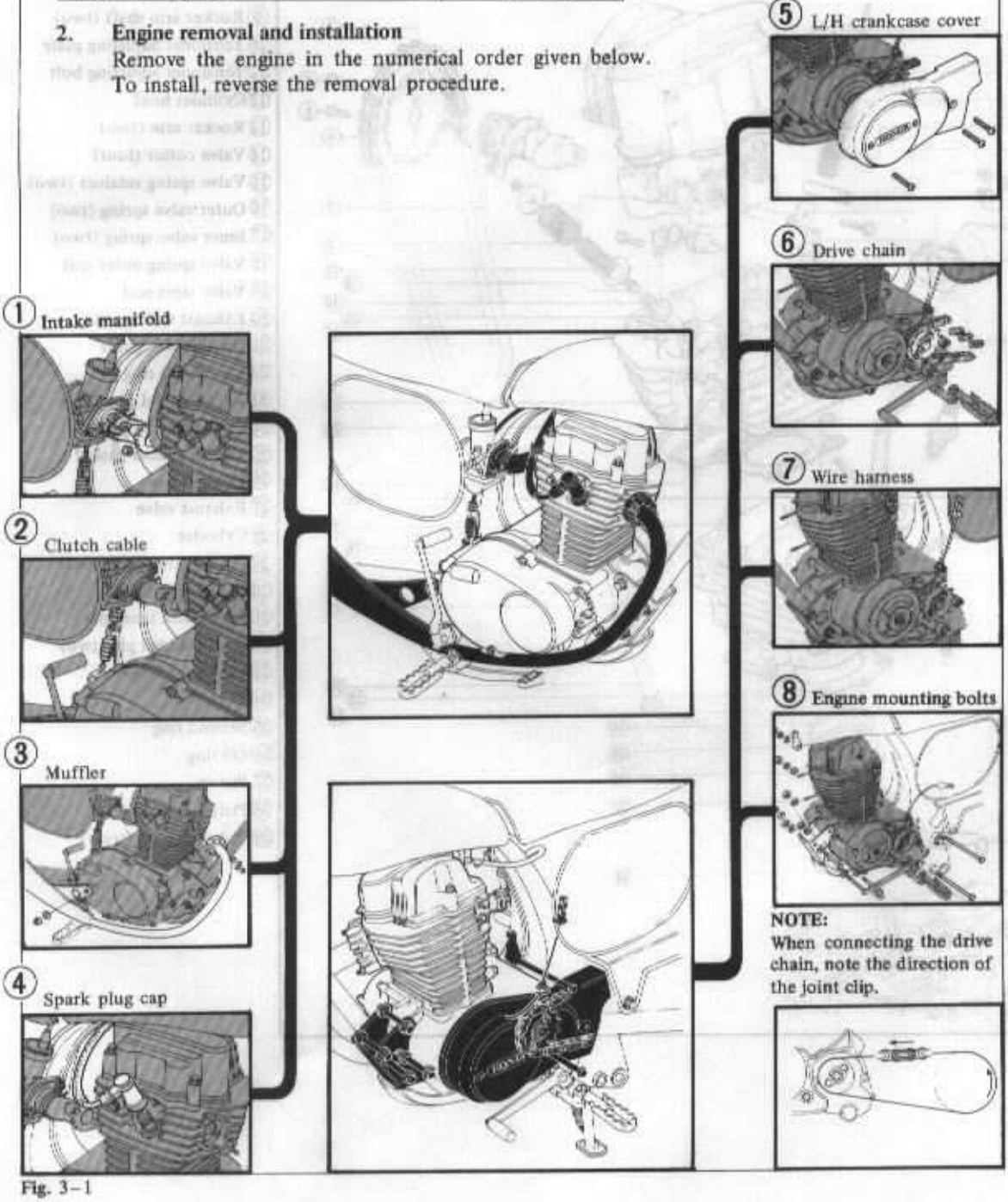

Fig. 3–1

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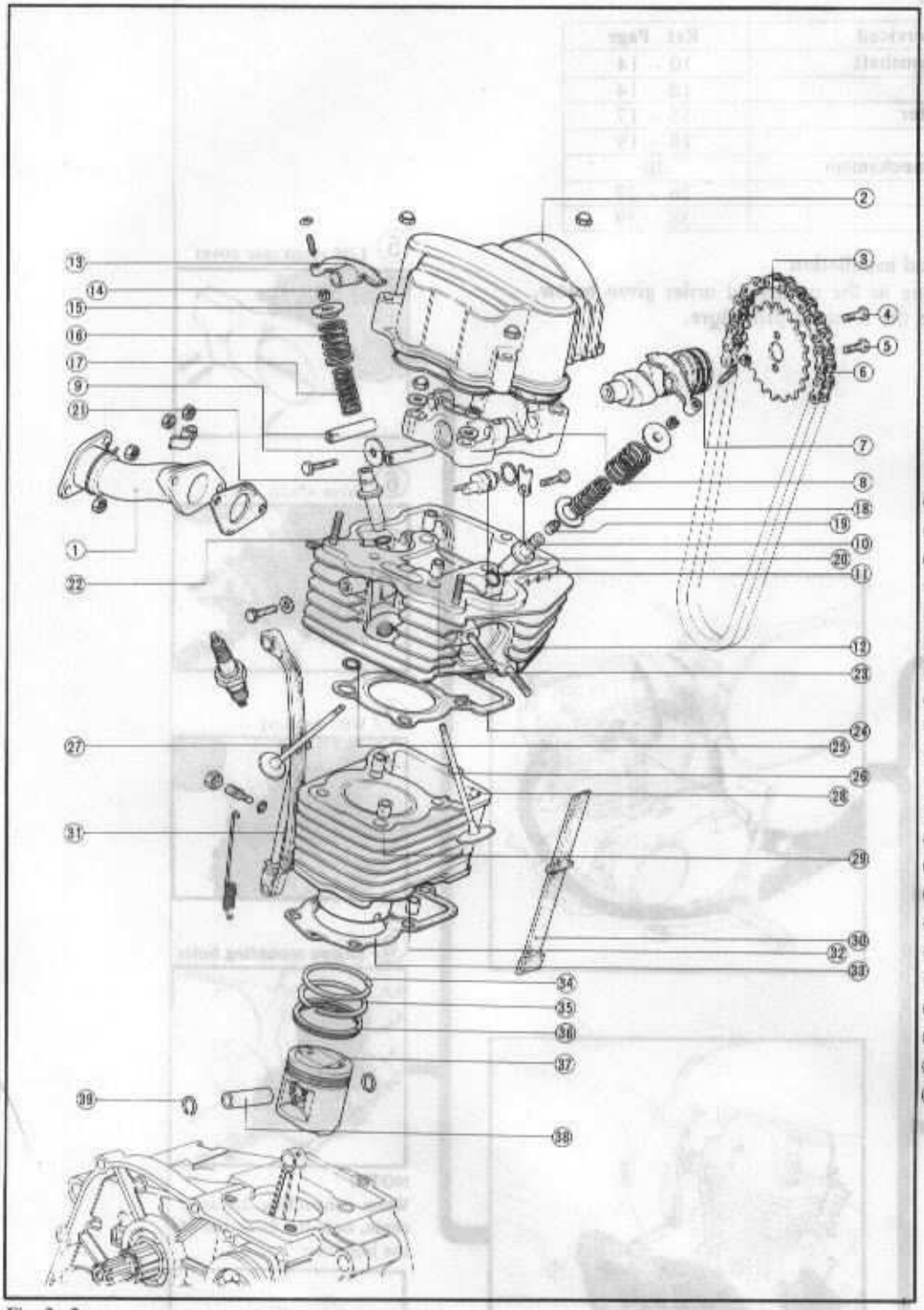
3. Cylinder head, camshaft, cylinder and piston



① Intake manifold
② Cylinder head cover
③ Cam sprocket
④ 6 x 14 knock bolt
⑤ 6 x 14 hex. bolt
⑥ Cam chain
⑦ Cam shaft
⑧ Camshaft holder
⑨ Rocker arm shaft (two)
⑩ Tensioner adjusting plate
⑪ Tensioner adjusting bolt
⑫ Cylinder head
⑬ Rocker arm (two)
⑭ Valve cotter (four)
⑮ Valve spring retainer (two)
⑯ Outer valve spring (two)
⑰ Inner valve spring (two)
⑱ Valve spring outer seat
⑲ Valve stem seal
⑳ Exhaust valve guide
㉑ Intake valve guide
㉒ 10 x 1.6 O ring
㉓ 8 x 14 dowel pin (two)
㉔ Cylinder head gasket
㉕ 7.5mm rubber gasket
㉖ Intake valve
㉗ Exhaust valve
㉘ Cylinder
㉙ 8 x 14 dowel pin (two)
㉚ Cam chain guide
㉛ Cam chain tensioner
㉜ 8 x 14 dowel pin (two)
㉝ Cylinder gasket
㉞ Top ring
㉟ Second ring
㊱ Oil ring
㊲ Piston
㊳ Piston pin
㊴ Piston pin clip (two)

Fig. 3–2

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Disassembly

The cylinder head cover, cam sprocket, camshaft and camshaft holder can be removed without performing steps 1 through 7 below.

1. Remove the two intake pipe 6mm nuts.
2. Disconnect the clutch cable from the clutch lever.
3. Remove the muffler.
4. Remove the spark plug cap.
5. Remove the left crankcase cover.
6. Remove the drive chain.
7. Remove the engine mounting bolts except the one located on the rear lower side. Lean the engine forward.
8. Remove the cylinder head cover.
9. Remove the cam sprocket from the camshaft and the cam chain.

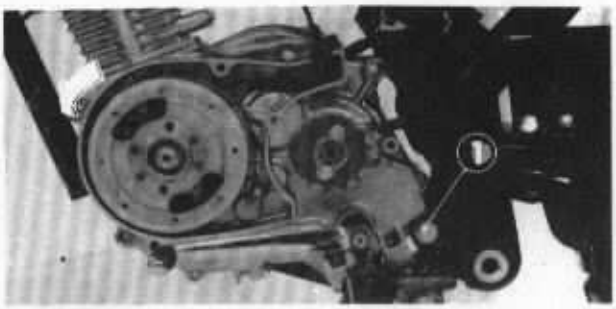

Fig. 3–3
1. Rear lower side bolt

Fig. 3–4 1. Cam sprocket
2. 6mm knock bolts 3. 3.6mm hex bolt 4. Cam chain

10. Remove the camshaft holder.
    - 10–1. Screw an 8mm bolt (jacking bolt) in the threaded hole in the rocker arm shaft and pull the shaft out.
    - 10–2. Pull the camshaft out of its holder.

Fig. 3–5
1. Camshaft holder

11. Remove the 6 mm hex bolt and the tensioner adjusting bolt and plate from the cylinder head.

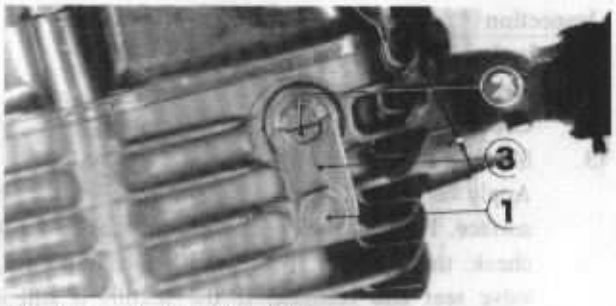

Fig. 3–6 1. 6mm hex. bolt
2. Tensioner adjusting bolt 3. Tensioner adjusting plate

12. Remove the cylinder head.

NOTE:

Do not drop the cam chain into the crankcase.

- 12–1. Using the valve spring compressor (Tool No. 07957-3290001), remove the valve, valve springs and cotters.
- 12–2. Using the valve guide remover (Tool No. 07942-3290100), remove the valve guide.

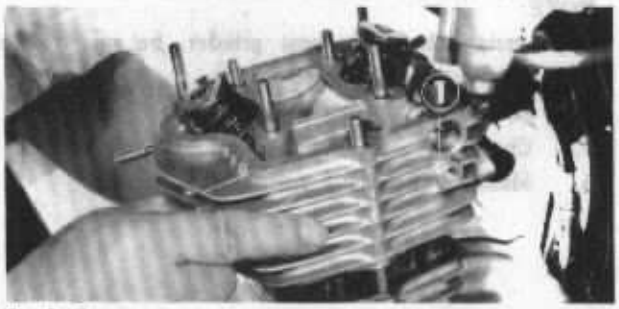

Fig. 3–7
1. Cylinder head

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Cylinder and piston

1. Measure the cylinder bore. Using a cylinder gauge, measure the cylinder bore at the top, center and bottom, in parallel (X) with, and at a right angle (Y) to, the center line of the cylinder.
2. Measure the piston skirt O. D.

NOTE:

The outside diameter of the piston to be measured should be at a right angle to the piston pin hole.

3. Measure the piston pin hole diameter.
4. Measure the piston pin O. D.
5. Check the piston ring side clearance.
6. Check the piston ring gap. Push the piston ring into the cylinder bore skirt and measure the ring gap with a feeler gauge.

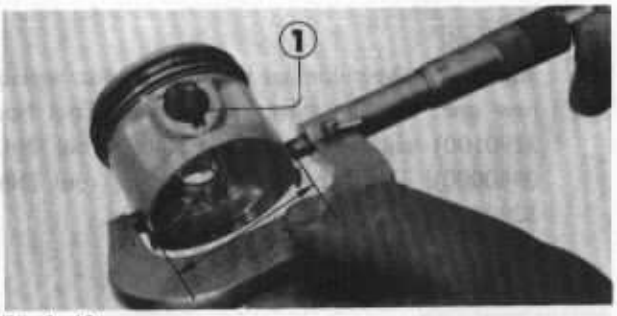

Fig. 3–12
1. Piston pin hole

Assembly

Piston rings

1. Use the piston rings of the same manufacturer in a set. Install the rings to the piston with their markings facing up.

Marking	Manufacturer
N	NIHON PISTON RING
R	RIKEN PISTON RING
T	TEIKOKU PISTON RING

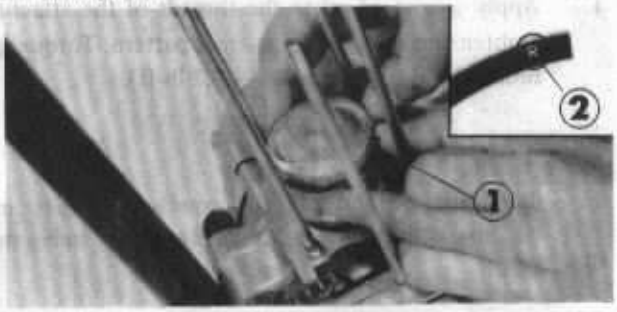

Fig. 3–13
1. Piston rings 2. Manufacturer's marking

2. When using a new piston ring, move the ring back and forth in the groove to check for proper fit.
3. The gaps of the top and second rings should be staggered about 120°.
4. Since the oil ring is a complex type, install the rail, spacer and rail in that order to the piston. The upper and lower railgaps should be staggered about 45° respectively (not in the same direction) with respect to the spacer gap.

Fig. 3–14
1. Piston rings

Piston

1. Install the piston with the marking "IN" facing the intake side (rear side).
2. When installing the piston in the cylinder, apply a thin coat of oil to the piston rings.

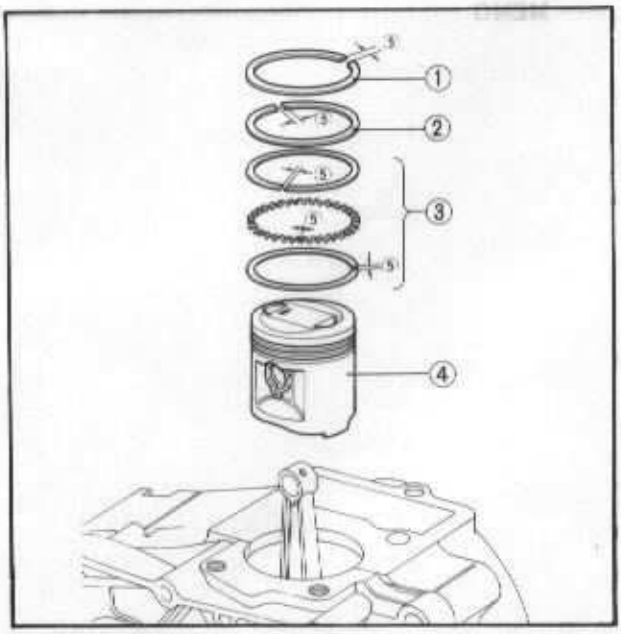

Fig. 3–15
1. Top ring 2. Second ring 3. Oil ring
4. Piston 5. Ring gap

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Cylinder head

1. When the valve guide has been driven out, replace with a new one. Use the valve guide driver (Tool No. 07942-3290100) and valve guide reamer (Tool No. 07984-0980000). Use valve guide installing tool (No. 07942-3290200) to install the new valve guides.

Camshaft holder

1. Apply a coat of oil to the threads of the attaching nuts. Tighten the nuts in a criss-cross pattern. Torque specification: 80 – 120 kg-cm (5.8 – 8.7 lb-ft).

Valve timing

1. Turn the generator rotor counterclockwise until the "T" mark on the rotor is aligned with the index mark.

Fig. 3–16
Attaching nut tightening sequence

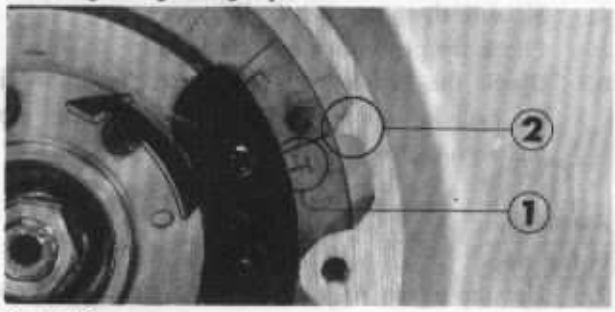

Fig. 3–17
1. "T" Mark 2. Index mark

2. Install the cam sprocket to the cam chain so that the "O" mark is aligned with the matching mark on the camshaft holder. Install the sprocket to the camshaft.

NOTE:

③ and ④ are the two (6 mm) cam sprocket bolts.

3. Adjust the valve tappet clearance. (See page 4.).
   Adjust the cam chain tension. (See pages 5 – 6.).

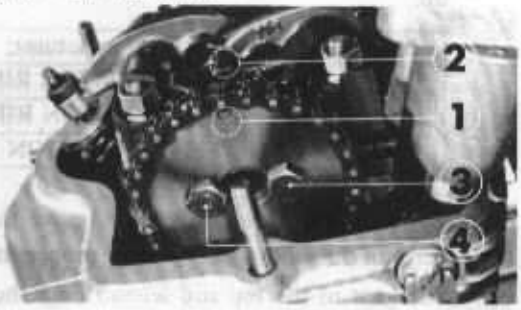

Fig. 3–18
1. Mark "O" 2. Matching mark 3. 6mm knock bolt
4. 6mm bolt

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4. Oil pump and oil filter

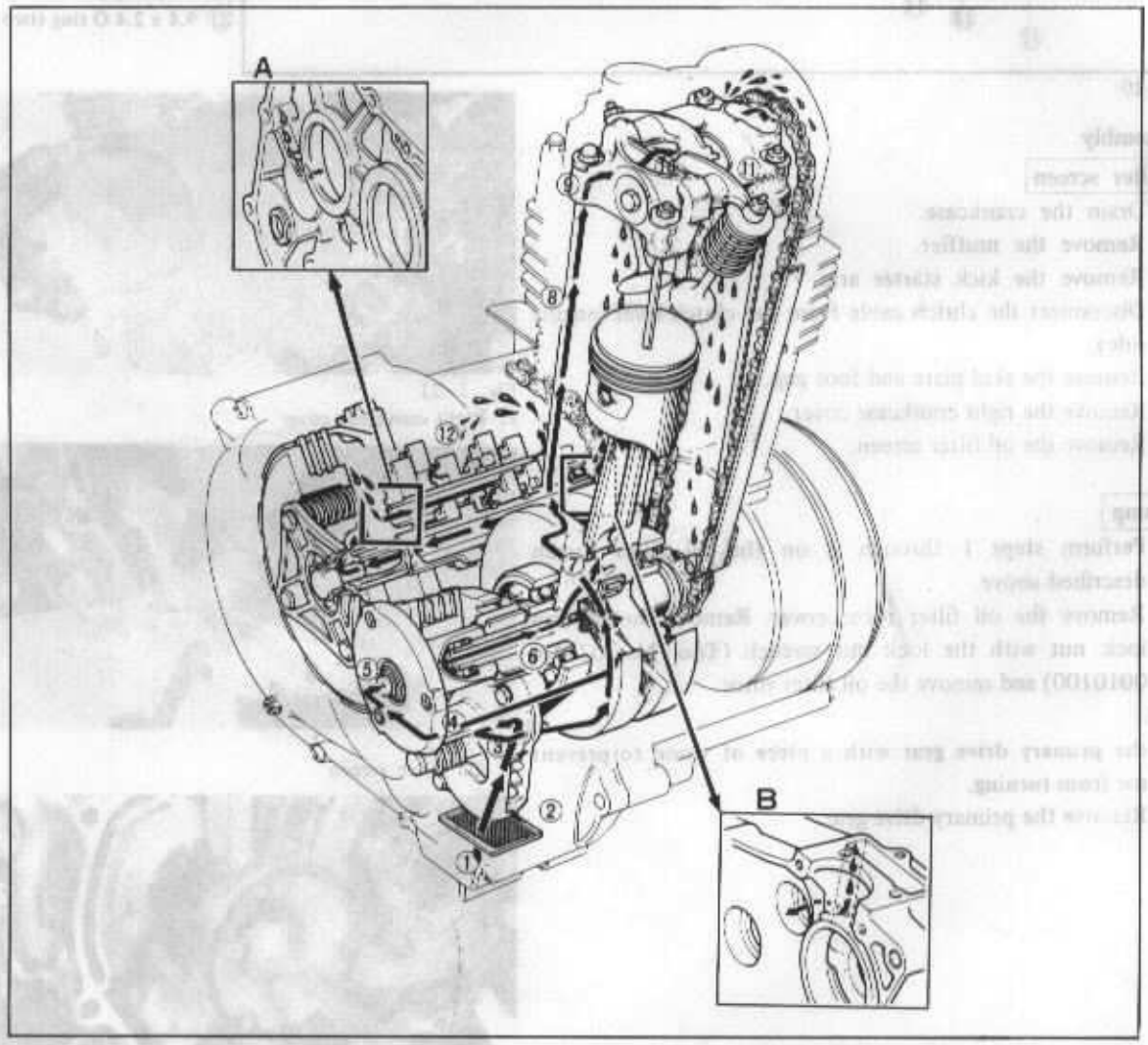
The lubrication oil flow is illustrated in the figure below.

Lubrication oil flow — (1.) Crankcase →(2.) Oil filter screen →(3.) Oil pump →(4.) R/H crankcase cover →(5.) Oil filter →(6.) Crankshaft

(7.) R/H crankcase →(8.) Stud holes in cylinder and cylinder head →(9.) Camshaft holder →(10.) Camshaft →(11.) Rocker arm

A = From R/H crankcase to transmission countershaft

B = From L/H crankcase to transmission main shaft



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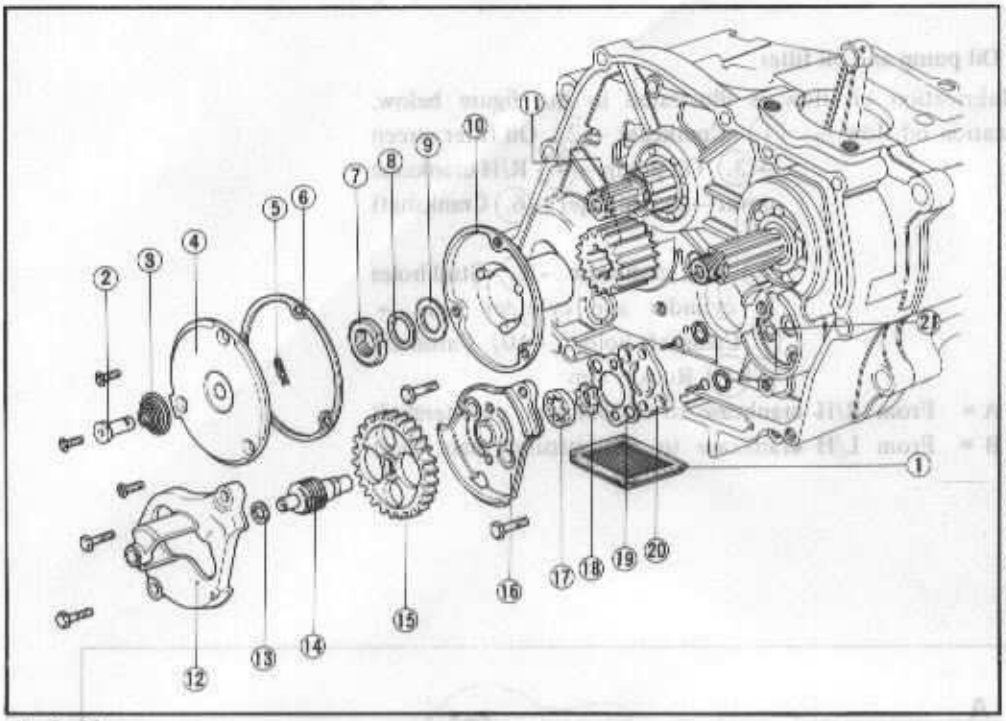

① Oil filter screen
② Oil through
③ Oil through spring
④ Oil filter rotor cap
⑤ 8mm lock pin
⑥ Gasket
⑦ 14mm lock nut
⑧ Super lock washer
⑨ 14.2mm washer
⑩ Oil filter rotor
⑪ Primary drive gear
⑫ Oil pump gear cover
⑬ 8mm thrust washer
⑭ Tachometer pinion gear
⑮ Oil pump drive gear
⑯ Oil pump body
⑰ Oil pump outer rotor
⑱ Oil pump inner rotor
⑲ Oil pump gasket
⑳ Oil pump plate
㉑ 9.4 x 2.4 O ring (two)

Fig. 3–20

Disassembly

Oil filter screen

1. Drain the crankcase.
2. Remove the muffler.
3. Remove the kick starter arm.
4. Disconnect the clutch cable from the clutch lever (engine side).
5. Remove the skid plate and foot peg.
6. Remove the right crankcase cover.
7. Remove the oil filter screen.

Oil pump

1. Perform steps 1 through 6 on the oil filter screen described above.
2. Remove the oil filter rotor cover. Remove the 14 mm lock nut with the lock nut wrench (Tool No. 07716-0010100) and remove the oil filter rotor.

NOTE:

Hold the primary drive gear with a piece of wood to prevent the rotor from turning.

3. Remove the primary drive gear.

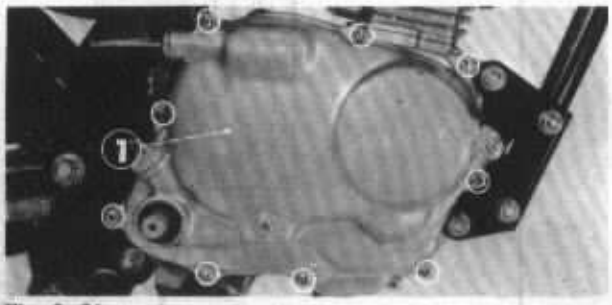

Fig. 3–21
1. Right crankcase cover

Fig. 3–22
1. Oil filter screen

1. Oil filter rotor 2. Primary drive gear

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4. Remove the oil pump gear cover.
5. Remove the oil pump drive gear, pump gear inner and outer rotors, and pump plate.

NOTE:
When removing the oil pump as a unit, remove the two 6mm hex. bolts as shown in Fig. 3–25.

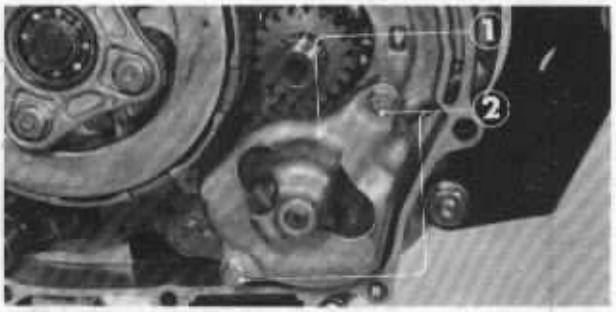

Fig. 3–24
1. Oil pump gear cover 2. 5mm hex. volts

Fig. 3–25
1. 6mm hex. bolt

Inspection

1. Check the outer rotor-to-pump body clearance.
2. Check the inner-to-outer rotor clearance.

Assembly

1. When installing the oil pump, replace the gasket with a new one. Make sure that the gasket does not come in contact with the rotor.
2. Install the oil pump plate to the pump body by fitting the lug of the plate in the recess in the pump body.

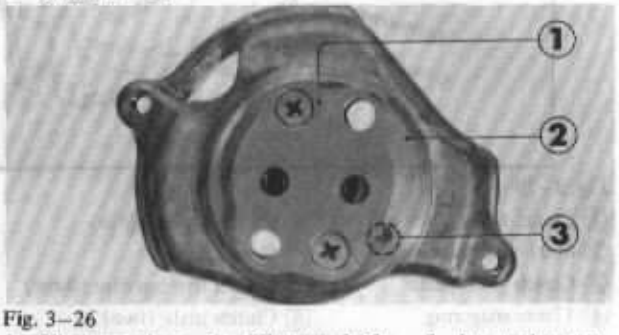

Fig. 3–26
1. Oil pump plate 2. Oil pump body 3. Lug and notch

3. Before installing the oil pump body, install the two 9.4 x 2.4mm O-rings to the crankcase.

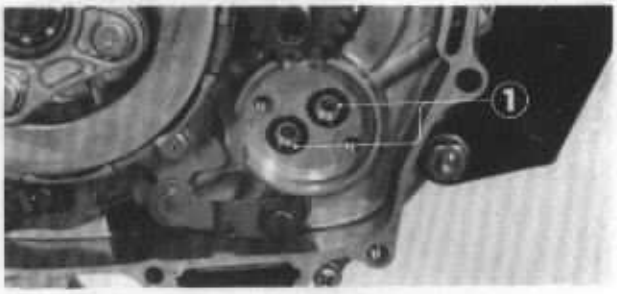

Fig. 3–27
1. 9.4 x 2.4mm O-rings

4. When installing the tachometer pinion to the oil pump gear cover, insert the 8 mm thrust washer.
5. Insert the tachometer pinion shaft into the inner rotor properly.

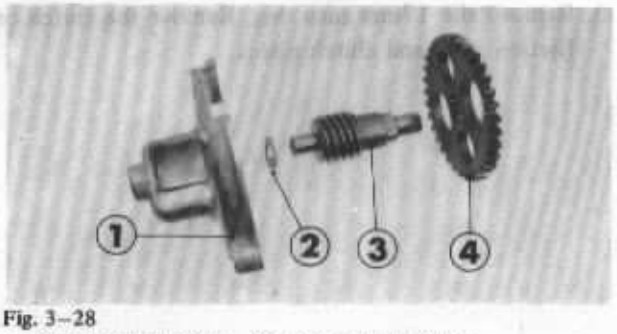

Fig. 3–28
1. Oil pump gear cover 2. 8mm thrust washer
3. Tachometer punion gear 4. Drive gear

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5. Clutch

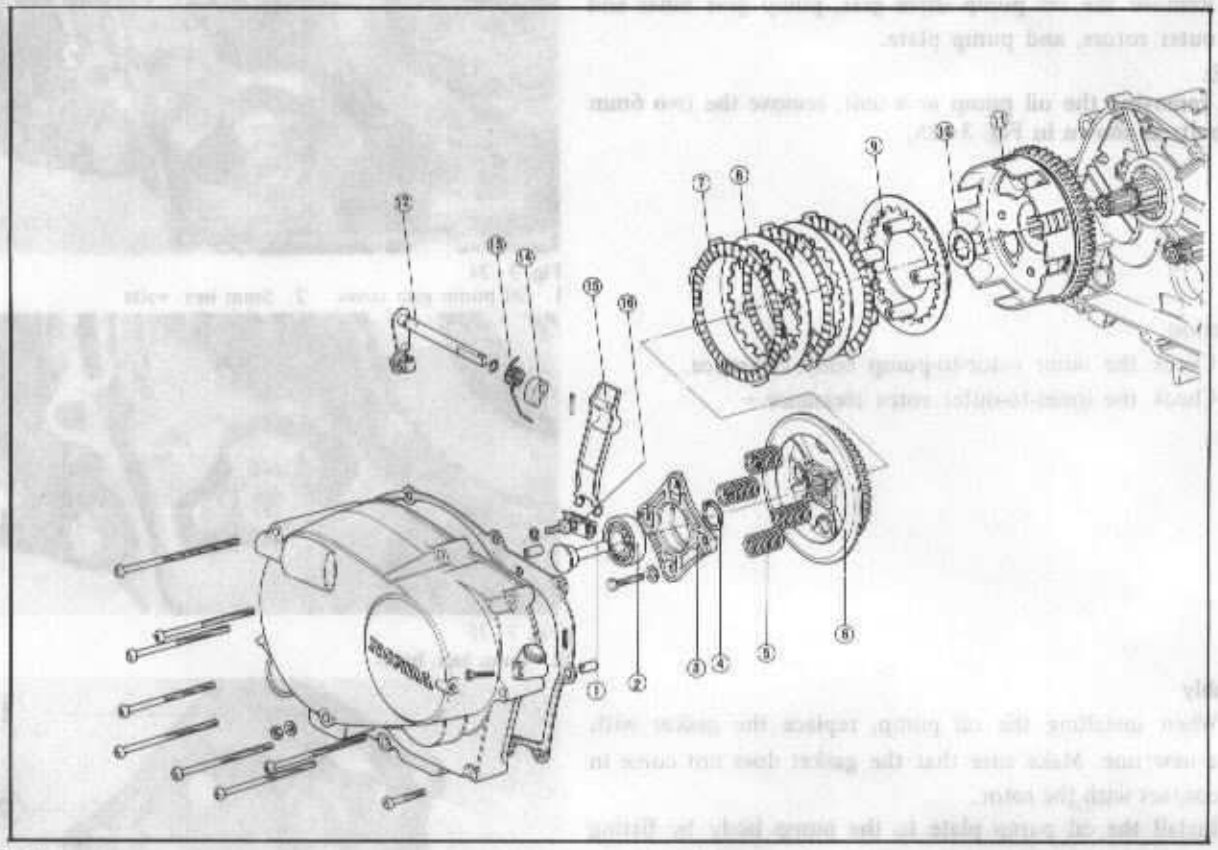

Fig. 3–29

① Clutch lifter guide pin	⑤ Clutch spring (four)	⑨ Clutch pressure plate	⑬ Clutch lever spring
② 6001 ball bearing	⑥ Clutch center	⑩ Spline washer B	⑭ Clutch lifter cam
③ Clutch lifter plate	⑦ Clutch friction disc (three)	⑪ Clutch outer	⑮ Clutch adjusting lever
④ 17mm snap ring	⑧ Clutch plate (two)	⑫ Clutch lever	⑯ Clutch adjusting screw

Disassembly

1. Remove the oil filter rotor. (See page16).
2. Remove the clutch lifter plate.

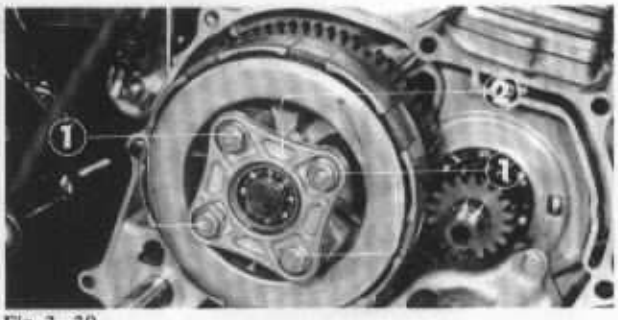

Fig. 3–30
1. 6mm bolts 2. Clutch lifter plate

3. Remove the 17mm snap ring. Remove the clutch center, friction discs and clutch plates.

Fig. 3–31 1. 17mm snap ring 2. Clutch center
3. Friction discs and clutch plates

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4. Remove the spline washer B and the clutch outer.

Fig. 3–32
1. Spline washer B 2. Clutch outer

Inspection

1. Measure the friction disc thickness.
2. Check the clutch plate face runout.
3. Measure the clutch spring free length.

Assembly

1. Install the spline washer B on the clutch outer.

Fig. 3–33
1. Spline washer B

2. Install the friction discs and clutch plates alternately to the clutch center. Install the clutch center to the clutch outer by engaging the splines properly.
3. Install the 17mm set ring, and install the clutch lifter plate by tightening the four 6mm bolts in a criss-cross pattern.
4. Adjust the clutch. (See page 5).

Fig. 3–34
1. Clutch plates and friction discs 2. Clutch outer

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6. Gearshift mechanism

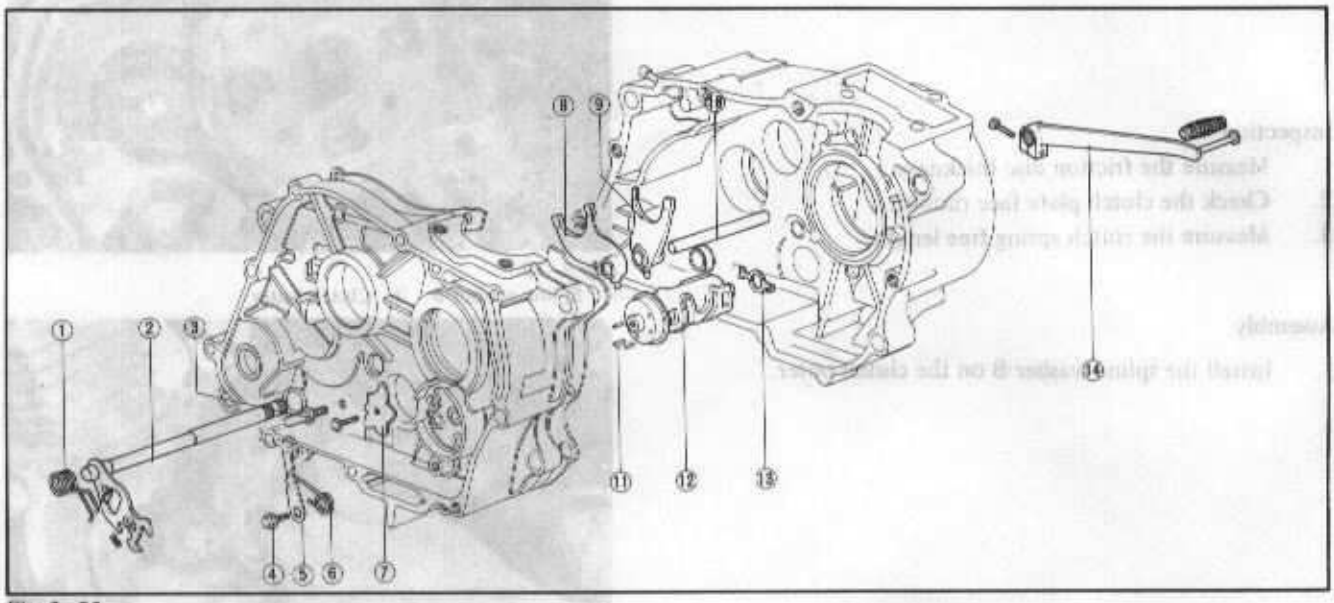

Fig. 3–35

① Gearshift return spring
② Gearshift spindle
③ Return spring pin
④ Shift drum stopper pivot
⑤ Shift drum stopper
⑥ Shift drum stopper spring
⑦ Drum stopper plate
⑧ Right gearshift fork
⑨ Center gearshift fork
⑩ Gearshift fork guide shaft
⑪ Gearshift drum pin (three)
⑫ Gearshift drum
⑬ Neutral switch rotor
⑭ Gear change pedal

Disassembly

1. Remove the oil pump and oil filter rotor. (See pages 16–17).
2. Remove the clutch. (See pages 18–19).
3. Remove the shift drum stopper and the drum stopper plate.
4. Remove the return spring and gearshift spindle.

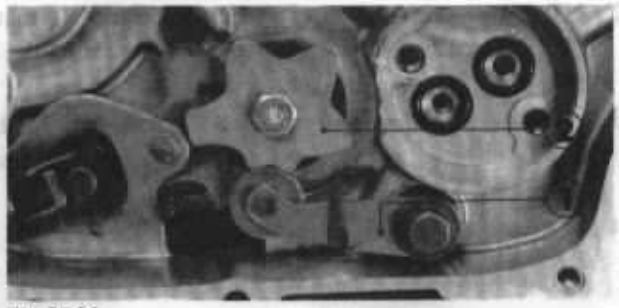

Fig. 3–36
1. Shift drum stopper 2. Drum stopper plate

Fig. 3–37 1. Gearshift spindle 2. Return spring
3. Return spring pin 4. Gearshift drum pin

Inspection

1. Check each part for proper operation or damage, and replace any damaged parts.

Assembly

1. Check the drum stopper plate and the shift drum stopper for proper operation after tightening.
2. Rotate the drum and check to see if the gearshift mechanism operates properly.

Fig. 3–38
Checking for proper operation

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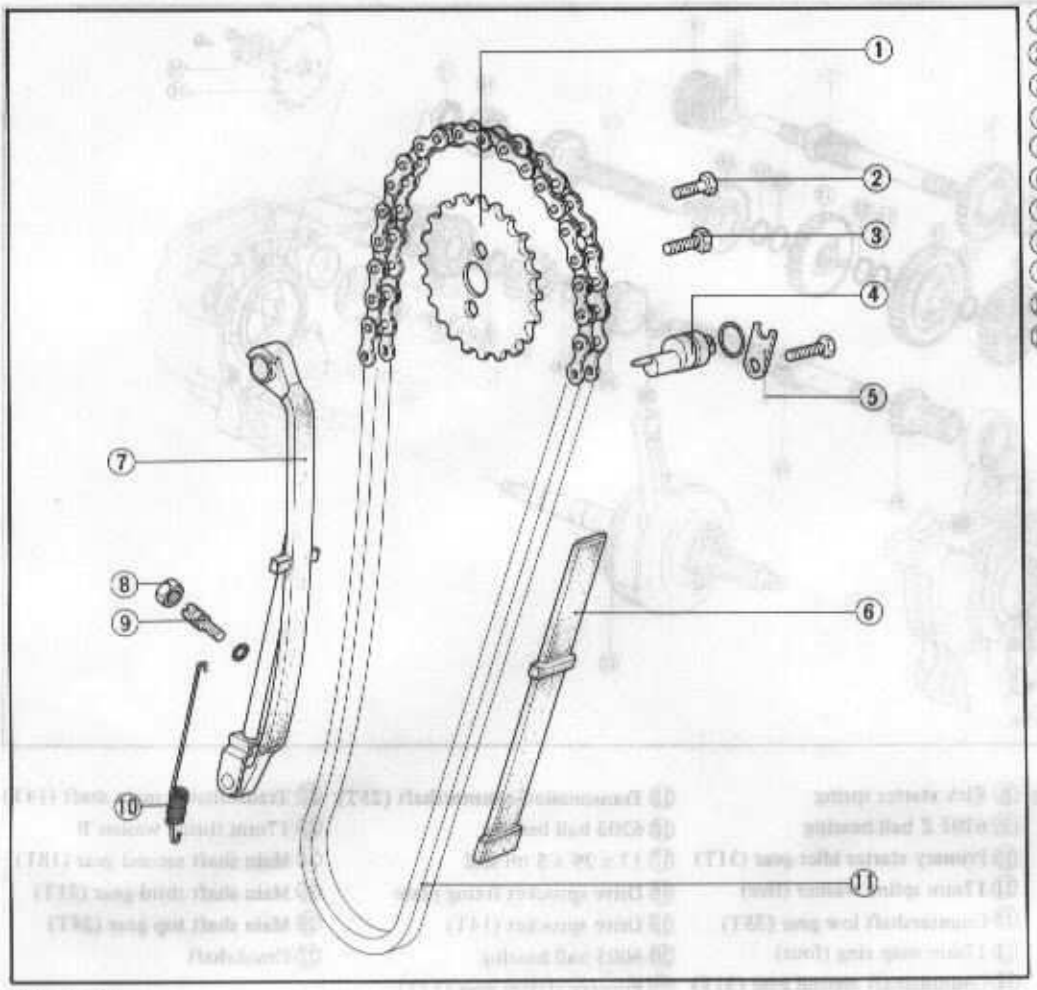
7. Cam chain tensioner



1. Cam sprocket
2. 6 x 14 knock bolt
3. 6 x 14 hex. bolt
4. Tensioner adjusting bolt
5. Tensioner adjusting plate
6. Cam chain guide
7. Cam chain tensioner
8. 8mm lock nut
9. Tensioner adjusting bolt
10. Cam chain tensioner spring
11. Cam chain

Fig. 3–39

Disassembly

1. Remove the cam chain guide. (See page12).
2. Remove the cylinder. (See page12).
3. Remove the cam chain tensioner from the cylinder.

Inspection

1. Check the cam chain guide and chain tensioner for wear.
2. Adjust the cam chain tension. (See pages 5–6).

Assembly

1. Install the cam chain tensioner into the cylinder. Hook the end of the tensioner spring into the receso in the cylinder.

Fig. 3–40 1. Cam chain tensioner
2. Lock nut 3. Tensioner adjusting bolt

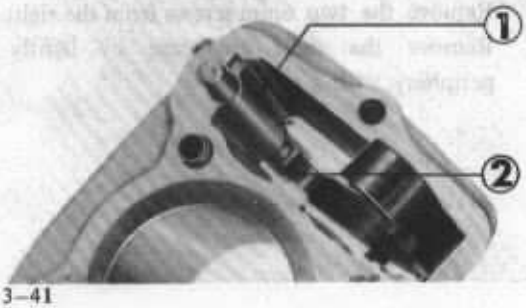


Fig. 3–41
1. Tensioner spring 2. Cam chain tensioner

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8. Transmission, kick starter and crankshaft

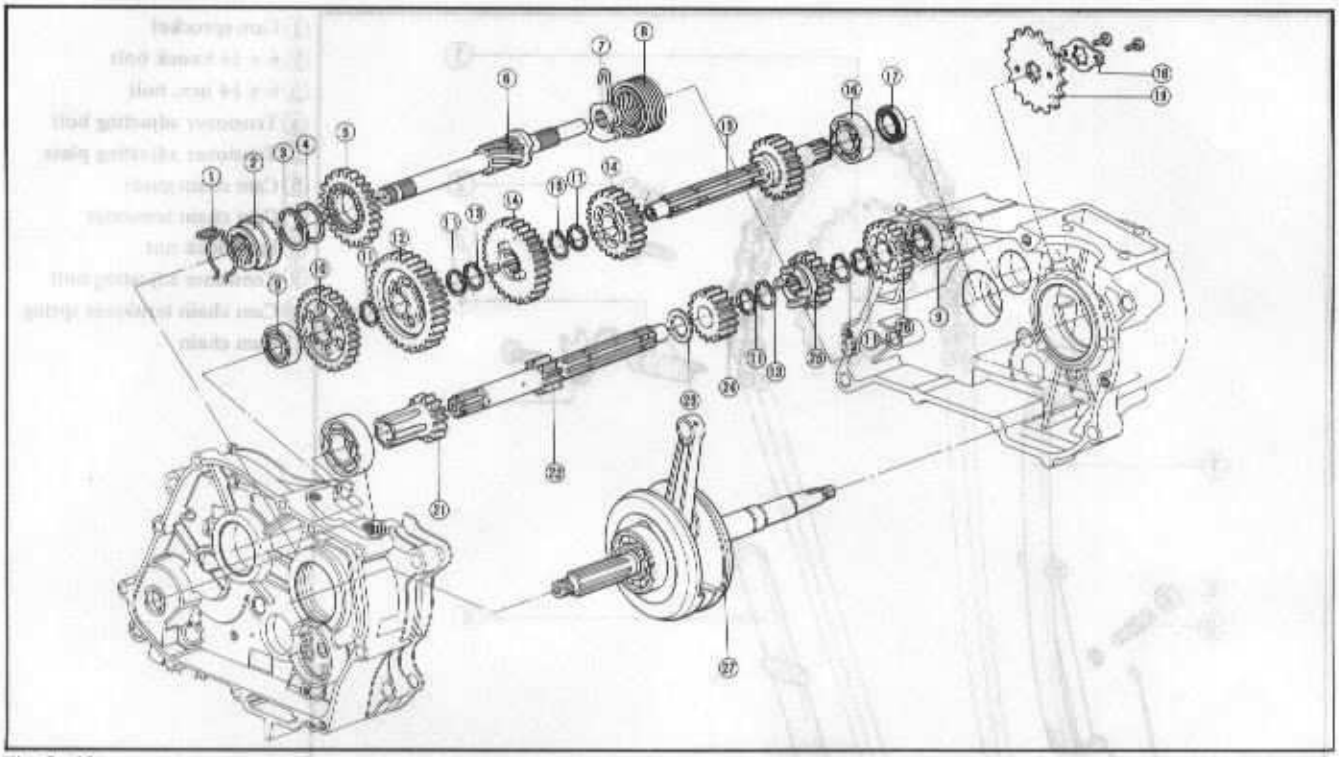

Fig. 3–42

① Starter pinion friction spring
② Starter drive rachet
③ 25mm snap ring
④ 25mm thrust washer
⑤ Kick starter pinion
⑥ Kick starter spindle
⑦ Kick spring retainer
⑧ Kick starter spring
⑨ 6201 Z ball bearing
⑩ Primary starter idler gear (31T)
⑪ 17mm spline washer (five)
⑫ Countershaft low gear (35T)
⑬ 17mm snap ring (four)
⑭ Countershaft second gear (31T)
⑮ Transmission countershaft (25T)
⑯ 6203 ball bearing
⑰ 17 x 29 x 5 oil seal
⑱ Drive sprocket fixing plate
⑲ Drive sprocket (14T)
⑳ 6005 ball bearing
㉑ Primary starter gear (17T)
㉒ Transmission main shaft (14T)
㉓ 17mm thrust washer B
㉔ Main shaft second gear (18T)
㉕ Main shaft third gear (21T)
㉖ Main shaft top gear (24T)
㉗ Crankshaft

Disassembly

1. Dismount the engine. (See page 9).
2. Remove the cylinder head, cylinder and piston. (See pages 10–12).
3. Remove the oil filter rotor and oil pump assembly. (See pages 16–17).
4. Remove the clutch and gearshift mechanism. (See pages 18–19).
5. Remove the AC generator with the rotor puller (Tool No. 07933-0010000).
6. Remove the drive sprocket.
7. Remove the two 6mm screws from the right crankcase.
8. Remove the right crankcase by lightly tapping its periphery with a mallet.

Fig. 3–43
1. R/H crankcase 2. 6 x 45mm srews

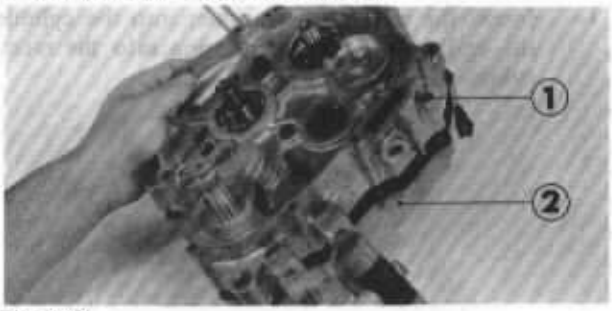

Fig. 3–44
1. R/H crankcase 2. L/H crankcase

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9. Remove the kick starter spring with pliers, and pull the kick starter spindle out.

Fig. 3–45
1. Kick starter spring 2. Kick starter spindle

10. Remove the crankshaft, two shift fork guide shafts and gear shift drum.

NOTE:

Remove the crankshaft after the cam chain is removed from the timing sprocket.

Fig. 3–46 1. Crankshaft 2. Shift fork guide shaft
3. Gearshift fork 4. Gearshift drum

11. Pull the main shaft and countershaft out together.

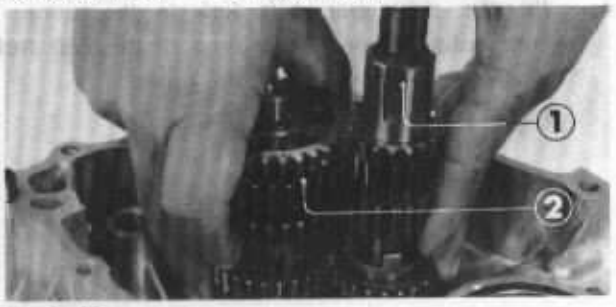

Fig. 3–47
1. Main shaft 2. Countershaft

Inspection

1. Measure the gearshift fork width.
2. Measure the gearshift fork hole diameter.
3. Measure the shift fork guide shaft O. D.
4. Check the gearshift fork guide pin-to-gear shift drum groove clearance.
5. Check the gear backlash.
6. Check the gear dogs for wear or breakage, and replace any damaged gear. Also check if the gear slides smoothly along the shaft spline.
7. Check to see if the kick starter drive ratchet operates properly.

Assembly

1. Before positioning the shafts, apply a coat of oil to their sliding or rotating surfaces. Position the main shaft and countershaft in the left crankcase at the same time.
   - When any gear has slide off the shaft, note the installation positions of the thrust washers and snap rings when assembling.

Fig. 3–48
1. Main shaft 2. Countershaft 3. L/H crankcase

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2. Install the gearshift drum neutral switch rotor toward the neutral switch.

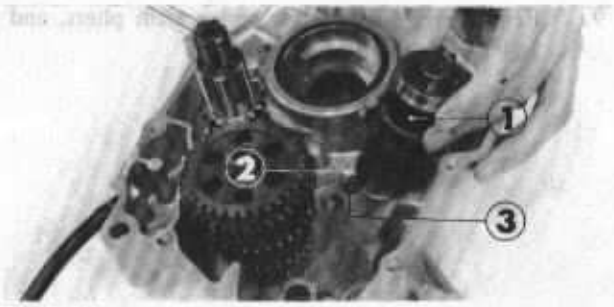

Fig. 3–49
1. Gearshift drum 2. Neutral switch rotor 3. Neutral switch

3. Fit the center gearshift fork in the groove in the main shaft third gear. Then fit the shift fork guide pin in the guide groove in the drum while raising the main shaft third gear.

Fig. 3–50 1. Center gearshift fork
2. Main shaft third gear 3. Guide pin 4. Guide groove

4. Fit the right gear shift fork in the groove in the countershaft second gear. Then fit the shift fork guide pin in the guide groove in the drum.

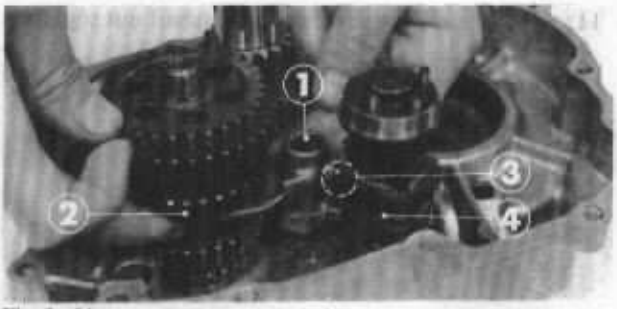

Fig. 3–51 1. R/H gearshift fork
2. Countershaft second gear 3. Guide pin 4. Guide groove

5. Insert the shift fork guide shaft through the two shift forks installed into the hole in the crankcase. Rotate the main shaft gears by hand to check if each gear rotates without binding.

Fig. 3–52
1. Shift fork guide shaft

6. Install the kick starter spindle. Hook the end of the kick starter spring over the lug of the crankcase as shown in Fig. 3–53. Temporarily install the kick starter pedal to the shaft. While rotating the pedal with one hand, press the kick starter retainer into the recess in the case with the other hand as shown in Fig. 3–53.

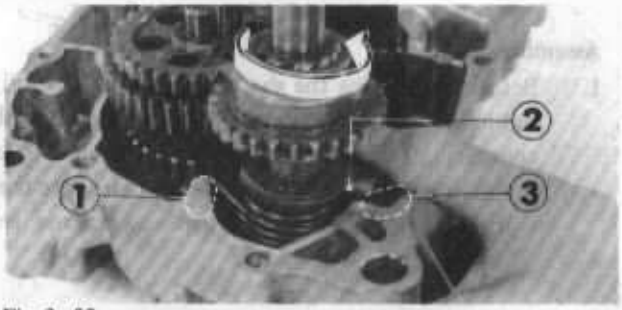

Fig. 3–53
1. Lug 2. Kick spring retainer 3. Groove

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7. Hang the cam chain down through the cam chain hole in the crankcase and install the crankshaft through the chain loop in position. Install the cam chain over the timing sprocket.

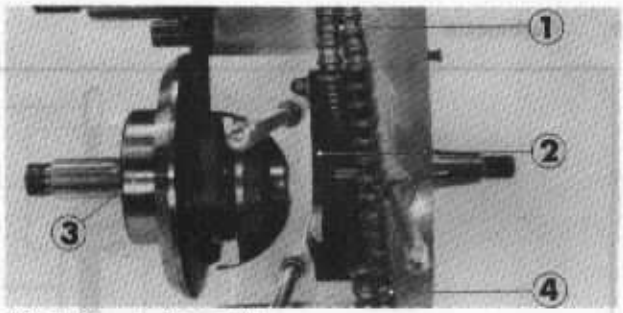

Fig. 3–54 1. Cam chain
2. Timing sprocket 3. Crankshaft 4. L/H crankcase

8. Install the two dowel pins and gasket on the left crankcase. Install the right crankcase carefully so that the starter pinion friction spring and each shaft are properly fitted in the holes in the crankcase.

Fig. 3–55 1. R/H crankcase 2. Starter pinion friction spring
3. Friction spring hole

9. Secure the right crankcase by tightening the two 6 x 45mm screws.

Fig. 3–56
1. Right crankcase 2. 6 x 45mm screws

10. After assembling the right and left crankcases, check that the transmission gears can be shifted without binding while rotating the drum.

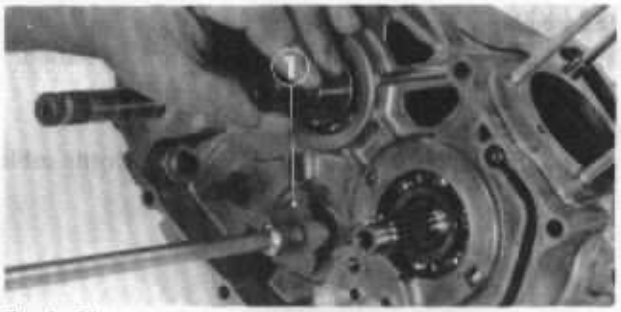

Fig. 3–57
1. Drum stopper plate

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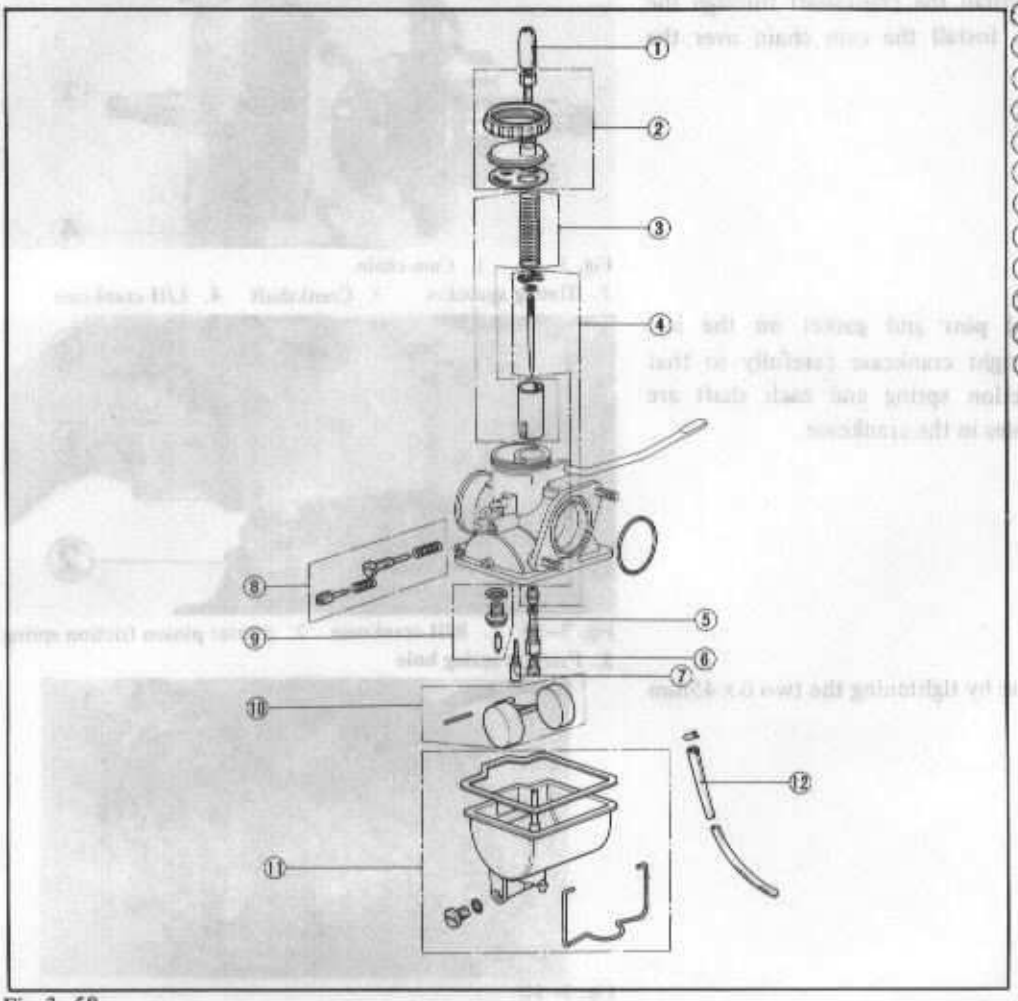
9. Carburetor



① Rubber cap
② Top set
③ Throttle valve set
④ Jet needle set
⑤ Needle jet holder
⑥ Main jet (# 100)
⑦ Slow jet (# 38)
⑧ Screw set
⑨ Float valve set
⑩ Float set
⑪ Float chamber set
⑫ Fuel tube

Fig. 3–58

Disassembly

1. Place the fuel valve lever in the "S" position.
2. Disconnect the fuel tube from the fuel tank.
3. Remove the carburetor assembly.
4. Separate the throttle valve from the throttle cable.

Fig. 3–59
1. Throttle valve 2. Throttle cable

5. Remove the float chamber cover. Remove the float valve, needle jet holder, main and slow jets.

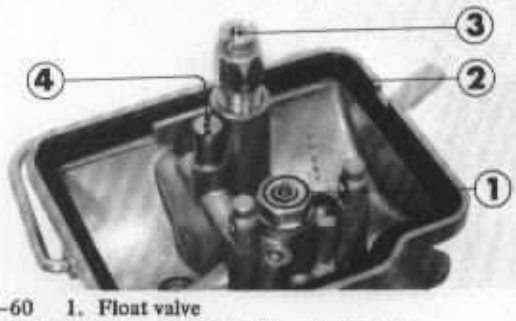


Fig. 3–60 1. Float valve
2. Needle jet holder 3. Main jet 4. Slow jet

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Inspection

1. Blow compressed air into the main and slow jets to check their holes for clogging.
2. Hold the carburetor with one hand and position it as shown in Fig. 3–61. Tilt the carburetor until the float arm touches the valve tip. In this position, measure the distance between the bottom of the groove on the mating surface of the carburetor body and the lowest point of the float, using a float level gauge. If the level is out of specification, adjust it by bending the float arm.

Fig. 3–61
1. Float 2. Float level gauge # 07401-0010000

Assembly

1. To clean the carburetor parts, wash them in cleaning solvent and dry them by applying compressed air.
2. Install the throttle valve so that the locating tab at the center of the side wall of the carburetor body fits into the guide groove in the throttle valve.
3. Adjust the carburetor. (See page 5).

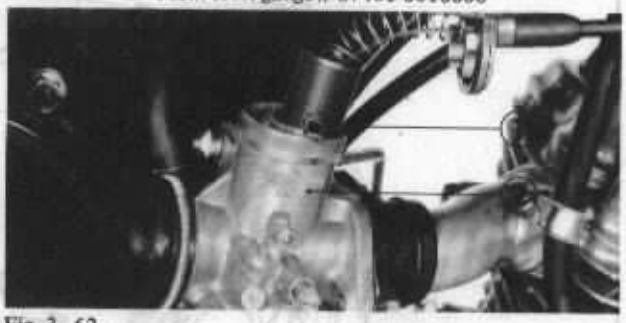

Fig. 3–62
1. Groove in throttle valve guide 2. Carburetor body

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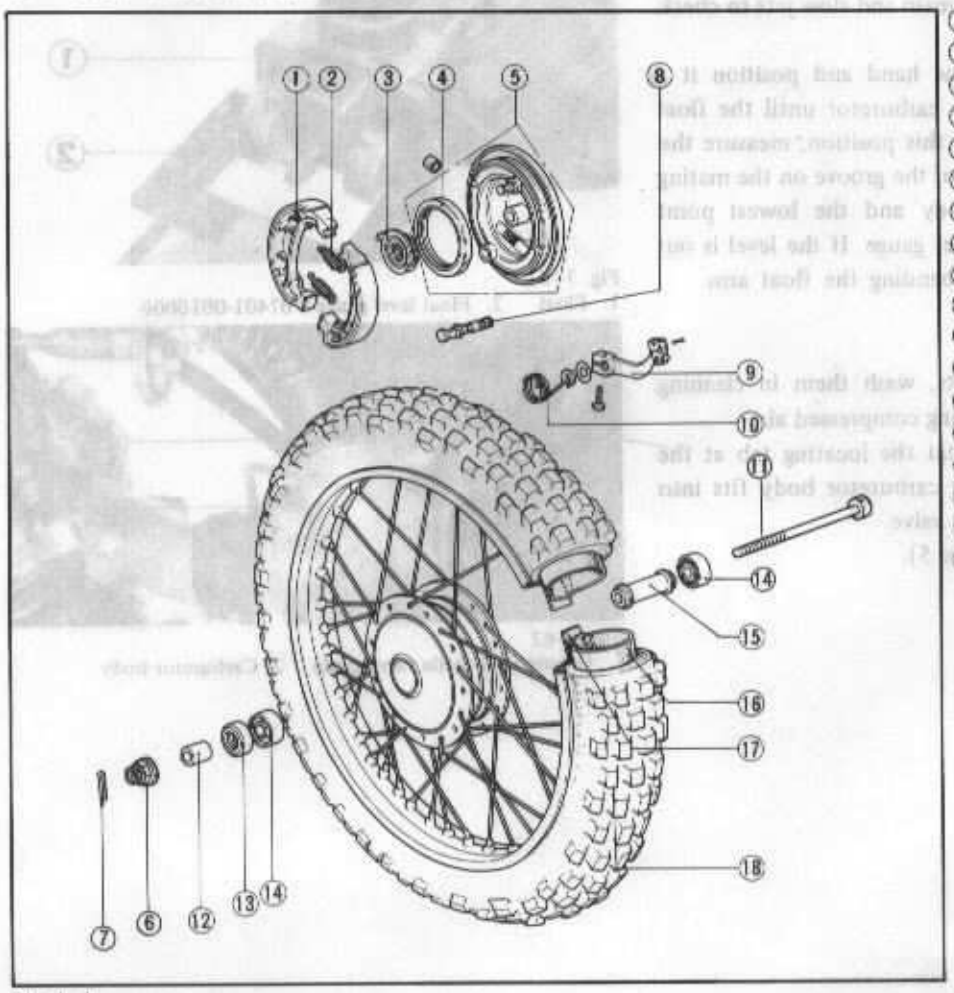
1. Front wheel and brake



① Brake shoe (two)
② Brake shoe spring (two)
③ Speedometer gear
④ 47-60-7 oil seal
⑤ Front panel
⑥ Axle nut
⑦ Cotter pin
⑧ Front brake cam
⑨ Front brake arm
⑩ Brake arm return spring
⑪ Front wheel axle
⑫ Front wheel side collar
⑬ 21377 oil seal
⑭ 6301 radial ball bearing (two)
⑮ Front axle collar
⑯ Front wheel tube (2.50–16)
⑰ Front tube flap
⑱ Front wheel tire (2.50–16)

Fig. 4–1

Disassembly

1. Place a stand under the engine and raise the front wheel off the ground.
2. Remove the cotter pin on the brake arm, and disconnect the front brake cable from the brake arm.
3. Remove the cotter pin, the front axle nut and the front axle. Remove the front wheel.

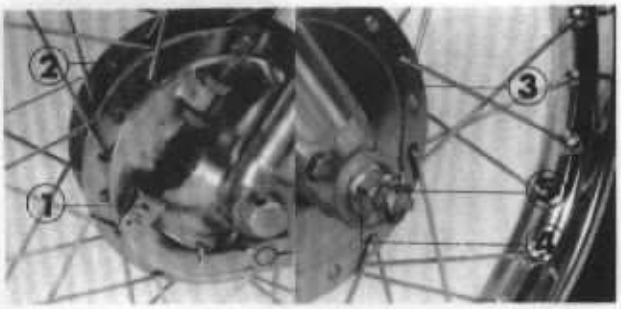


Fig. 4–2 1. Cotter pin 2. Front brake cable 3. Cotter pin 4. Front axle nut 5. Front axle

4. Remove the two brake shoes from the brake panel.
5. Remove the oil seals, ball bearings and collar.

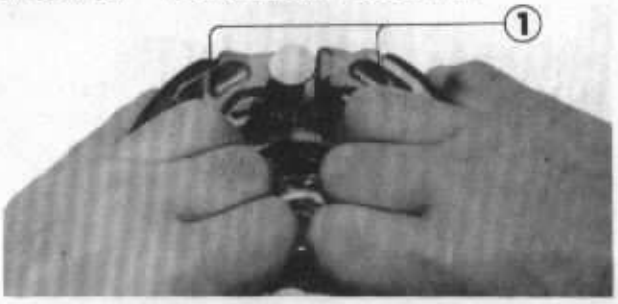


Fig. 4–3
1. Front brake shoes

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Inspection

1. Check the front axle for bending.
2. Check the front wheel rim for face runout.
3. Check the spokes for looseness, bending or other damage.

   Spoke torque specification: 15 – 20 kg-cm
   (1.1 – 1.5 lbs-ft)
4. Check the tire for wear, cracks or other damage.
5. Check the tube valve for air leaks.
6. Check the tire inflation pressure.
   Specification: 1.2kg/cm
   (17psi)
7. Measure the brake drum I. D.
8. Measure the brake shoe thickness.

Fig. 4–4
1. Front brake arm 2. Front brake cam

Assembly

1. Align the punch mark on the front brake arm with the matching mark on the front brake cam.
2. Install the front brake panel to the front wheel by fitting the speedometer gear pawls in the grooves in the drum properly.

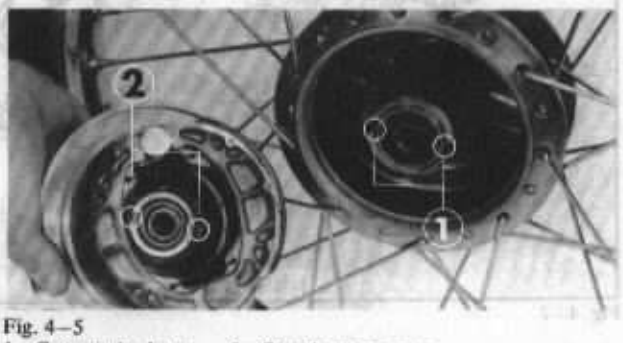

Fig. 4–5
1. Grooves in drum 2. Speedometer gear

3. Install the front wheel by fitting the tongue of the front fork legs in the groove in the front brake panel.
4. After tightening the axle nut, insert the cotter pin and bend the ends of it completely
   Torque specification: 400 – 550kg-cm
   (29.0 – 39.8lbs-ft)
5. Install the front brake cable and adjust the front brake. (See pages 6–7)

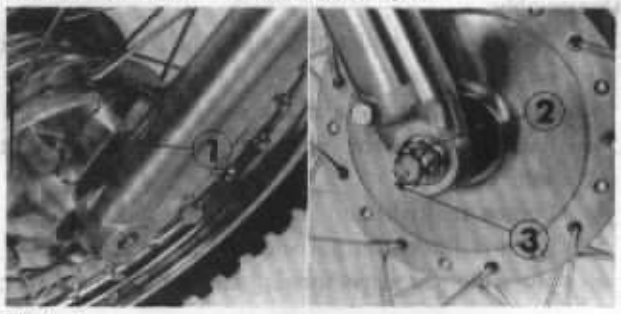

Fig. 4–6
1. Tongue and groove 2. Axle nut 3. Cotter pin

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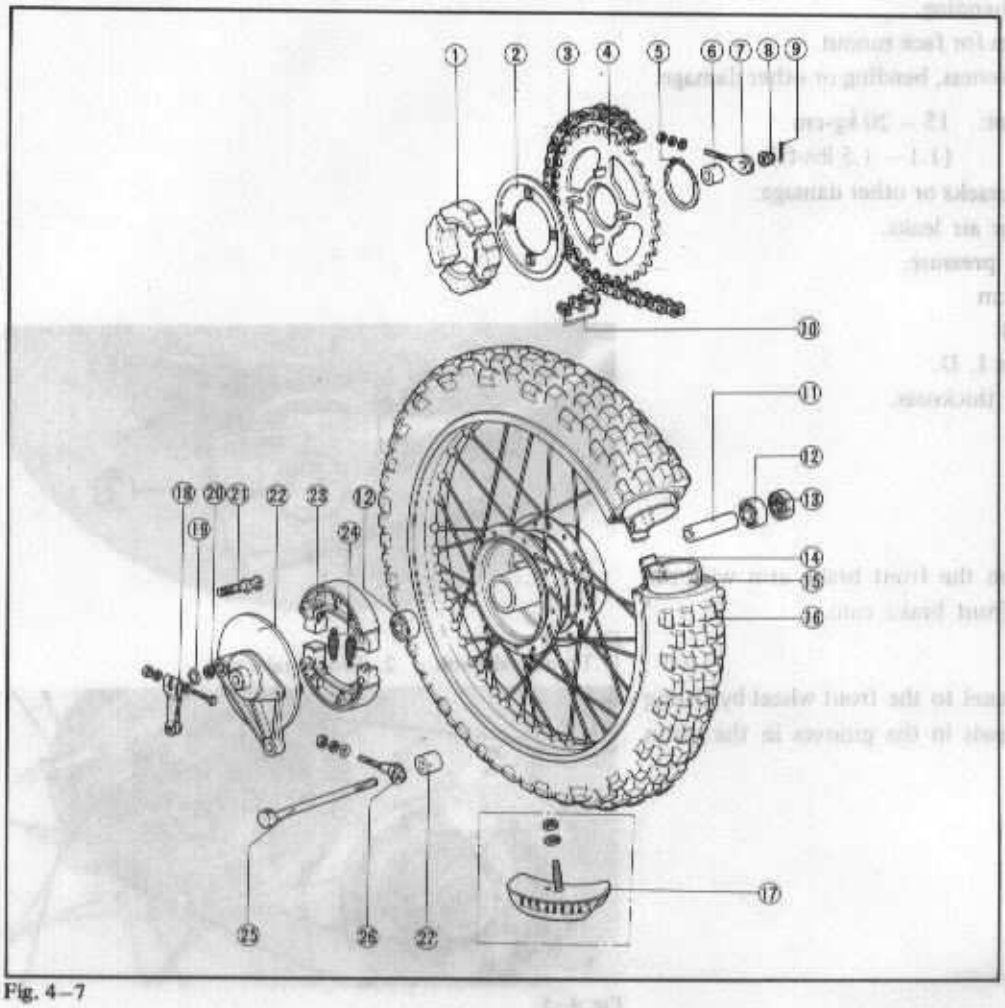
2. Rear wheel and brake



① Rear wheel damper (four)
② Rear wheel damper cover
③ Drive chain
④ Final driven sprocket (44T)
⑤ 50mm external circlip
⑥ Rear wheel side collar
⑦ Left drive chain adjuster
⑧ Rear axle nut
⑨ Cotter pin
⑩ Chain joint
⑪ Rear axle collar
⑫ 6301 ball bearing
⑬ 26376 oil seal
⑭ Rear tube flap
⑮ Rear wheel tube (3.00–14)
⑯ Rear wheel tire (3.00–14)
⑰ Bead spacer
⑱ Rear brake arm
⑲ 14mm plain washer
⑳ Brake cam dust seal
㉑ Rear brake cam
㉒ Rear brake panel
㉓ Brake shoe
㉔ Brake shoe spring
㉕ Rear wheel axle
㉖ Rear chain adjuster
㉗ Rear brake panel side collar

Fig. 4–7

Disassembly

1. Place a stand under the engine and raise the rear wheel off the ground.
2. Remove the rear brake adjusting nut.
3. Remove the cotter pin and the stopper arm attaching bolt.
4. Loosen the right and left chain adjusting nuts.
5. Remove the cotter pin and axle nut.
6. Move the rear wheel forward and remove the drive chain.

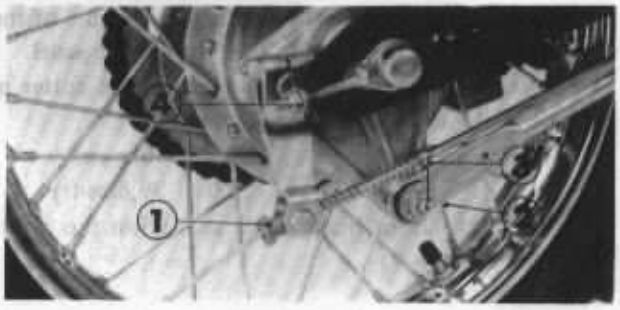


Fig. 4–8
1. Rear brake adjusting nut 2. Cotter pin 3. Stopper arm attaching bolt
4. Chain adjusting nut 5. Drive chain 6. Cotter pin 7. Axle nut
8. Rear axle

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7. Remove the rear axle. Remove the rear wheel.
8. Remove the 50 mm snap ring and the final driven sprocket.
9. Remove the oil seals, bearings and collar.

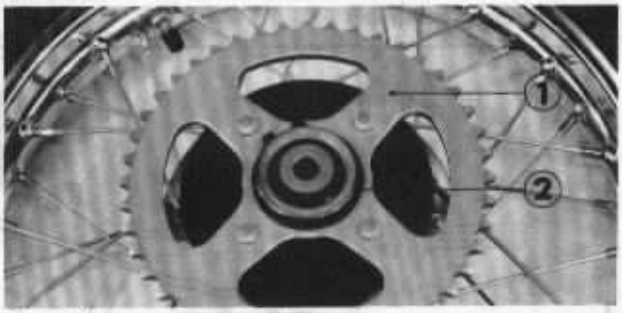

Fig. 4–9
1. Final driven sprocket 2. 50mm set ring

Inspection

1. Check the rear axle for bending.
2. Check the rear wheel rim for face runout.
3. Check the spokes for looseness, bending or other damage.
   Spoke torque specification: 15–20 kg-cm
   (1.1 – 1.5 lbs-ft)
4. Check the tire for wear, cracks or other damage.
5. Check the tube valve for air leaks.
6. Check the tire inflation pressure.
   Specification: 1.4kg/cm
   (20psi)
7. Measure the brake drum I. D.
8. Measure the brake shoe thickness.
9. Check the final driven sprocket for wear or damage.
10. Check the drive chain for dirty or wear.

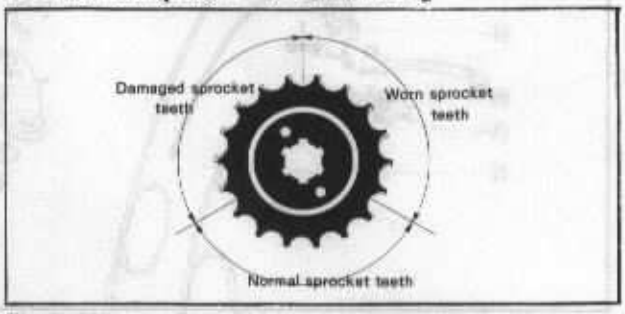

Fig. 4–10
Checking sprocket for wear

Assembly

1. Before installing, thoroughly wash the drive chain, if it's dirty, and lubricate it. Install the clip so that its closed end faces in the direction of rotation.
2. Adjust the drive chain tension. (See page 8).
3. Adjust the rear brake pedal free play. (See page 7).

Fig. 4–11
1. Clip

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3. Steering handlebar

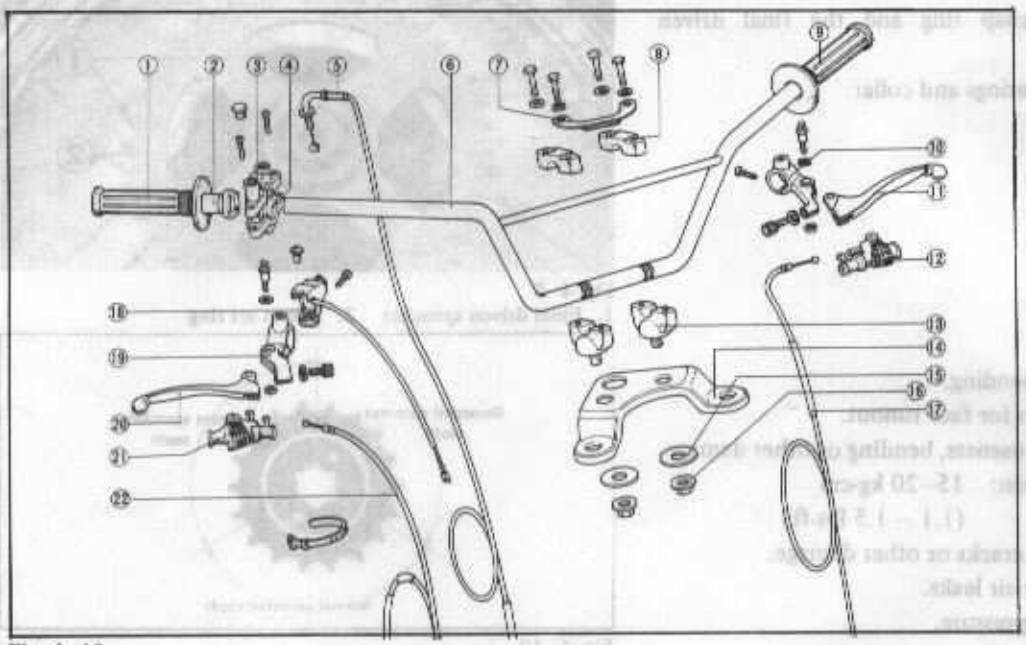

Fig. 4–12

① Right handle grip
② Throttle grip pipe
③ Upper throttle housing
④ Lower throttle housing
⑤ Throttle cable
⑥ Handlebar
⑦ Cable holder
⑧ Upper holder (two)
⑨ Left handle grip
⑩ Left handle lever bracket
⑪ Clutch lever
⑫ Left steering handle cover
⑬ Under holder (two)
⑭ Fork top bridge
⑮ Handle cushion seat (two)
⑯ 10mm hex. nut (two)
⑰ Clutch cable
⑱ Ignition switch
⑲ Right handle lever bracket
⑳ Front brake lever
㉑ Right steering handle cover
㉒ Front brake cable

Disassembly

1. Disconnect the front brake cable and clutch cable from the levers.
2. Remove the ignition switch.
3. Remove the throttle housing, and disconnect the throttle cable from the throttle grip pipe.
4. Remove the two handlebar upper holders and remove the handlebar.
5. Remove the two front fork bolts and stem nut, and remove the fork top bridge.

Fig. 4–13
1. Throttle grip pipe 2. Throttle cable

Inspection

1. Check the handlebar for bending or other damage.
2. Check the wirings for damage.
3. Check each cable for damage.

Fig. 4–14
1. Handlebar 2. Punch marks 3. Under holder

Assembly

1. Install the upper holders by aligning the punch marks on the handlebar with the face of the under holders. The part of the upper holder having a punch mark should face the rear side.
   Torque specification: 80 – 120kg-cm (5.8 – 8.7lbs-ft)
2. Tighten the front fork bolts and stem nut.
3. Apply a coat of grease to the throttle cable when connecting it to the throttle grip pipe.

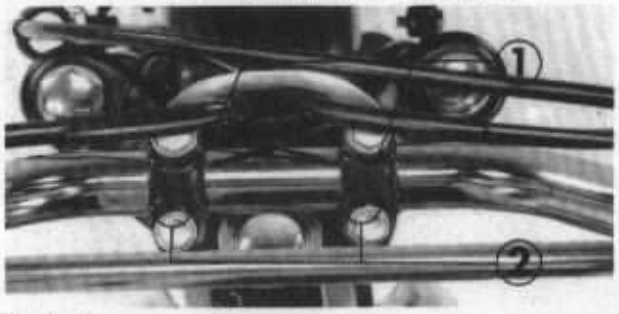

Fig. 4–15
1. Upper holders 2. Punch marks

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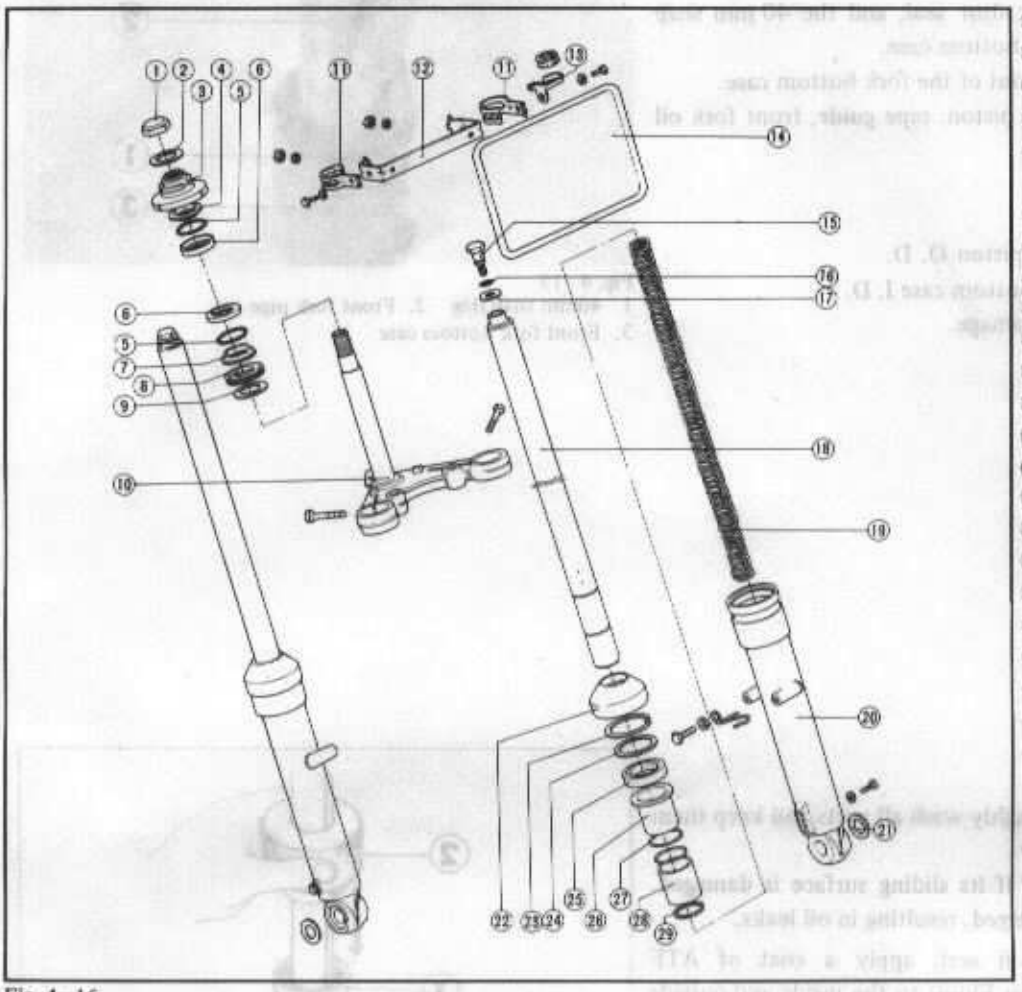
4. Steering stem and front suspension



① Steering stem nut
② Steering stem nut washer
③ Steering head top thread
④ Steering top cone race
⑤ #6 steel ball (forty-two)
⑥ Steering ball race (two)
⑦ Steering bottom cone race
⑧ Steering head dust seal
⑨ Steering head dust seal washer
⑩ Steering stem
⑪ Front number setting stay (two)
⑫ Number plate bracket
⑬ Cable guide holder
⑭ Number plate
⑮ Fork bolt
⑯ 8.4 x 2.4 O ring
⑰ 13mm washer
⑱ Front fork pipe
⑲ Fork cushion spring
⑳ Fork bottom case
㉑ 12.5mm washer (two)
㉒ Front fork dust seal (two)
㉓ 40mm snap ring (two)
㉔ Back up ring
㉕ Front fork oil seal
㉖ Front fork pipe guide
㉗ Piston stopper ring (four)
㉘ Front fork piston (two)
㉙ Snap ring (two)

Fig. 4–16

Disassembly

1. Remove the front wheel. (See page 28.)
2. Remove the handlebar and fork top bridge. (See page 32.)
3. Remove the front fender.
4. Loosen the front number plate bracket retainer bolts.

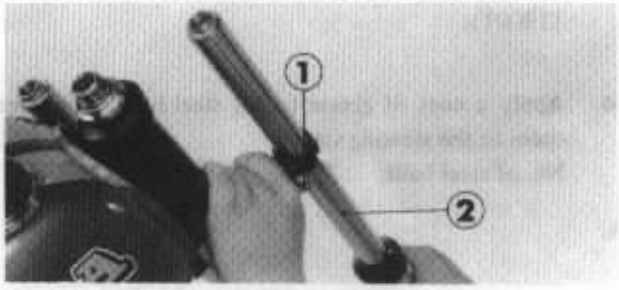


Fig. 4–17
1. 8mm bolt 2. Front fork

5. Loosen the 8mm front fork bolt and pull the front fork down.
6. Remove the steering stem nut and pull the steering stem down.

NOTE:

Do not lose the steel balls.

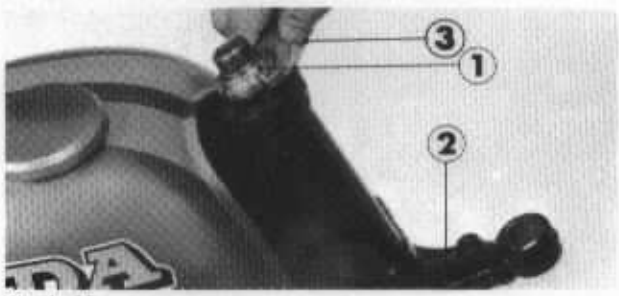


Fig. 4–18
1. Steering stem nut 2. Steering stem
3. Stem nut wrench tool No. 07902-0010000

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7. Drain the oil from the front forks.
8. Remove the front fork dust seal, and the 40 mm snap ring from the front fork bottom case.
9. Pull the front fork pipe out of the fork bottom case.
10. Remove the front fork piston, pipe guide, front fork oil seal and back-up ring.

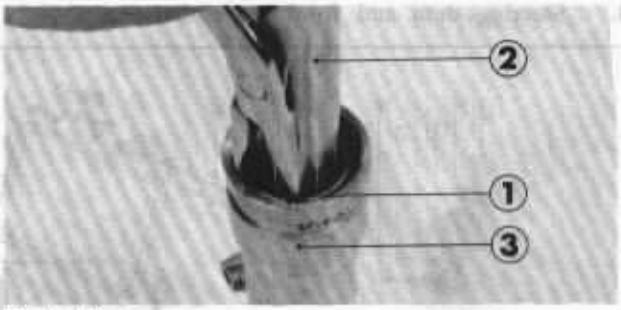

Fig. 4–19
1. 40mm snap ring 2. Front fork pipe
3. Front fork bottom case

Inspection

1. Measure the front fork piston O. D.
2. Measure the front fork bottom case I. D.
3. Check the oil seal for damage.

Assembly

1. Before installing, thoroughly wash all parts and keep them free from dirt and dust.
2. Replace the fork pipe if its sliding surface is damaged. The oil seal may be damaged, resulting in oil leaks.
3. When installing the oil seal, apply a coat of ATF (Automatic Transmission Fluid) to the inside and outside surfaces. Use the fork seal driver (Tool No. 07947-118001).

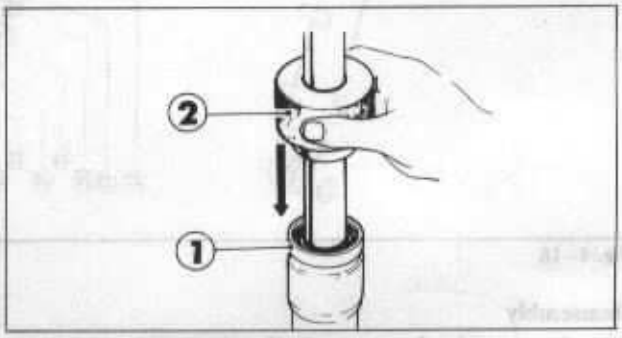

Fig. 4–20
1. Oil seal 2. Seal driver tool No. 07942-1180001

4. Apply a coat of grease to the steel balls, when installing them to the steering stem.
   No. of steel balls: 21 on upper side
   21 on lower side

Fig. 4–21
1. Steel ball 2. Steering stem

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5. Rear suspension and rear fork

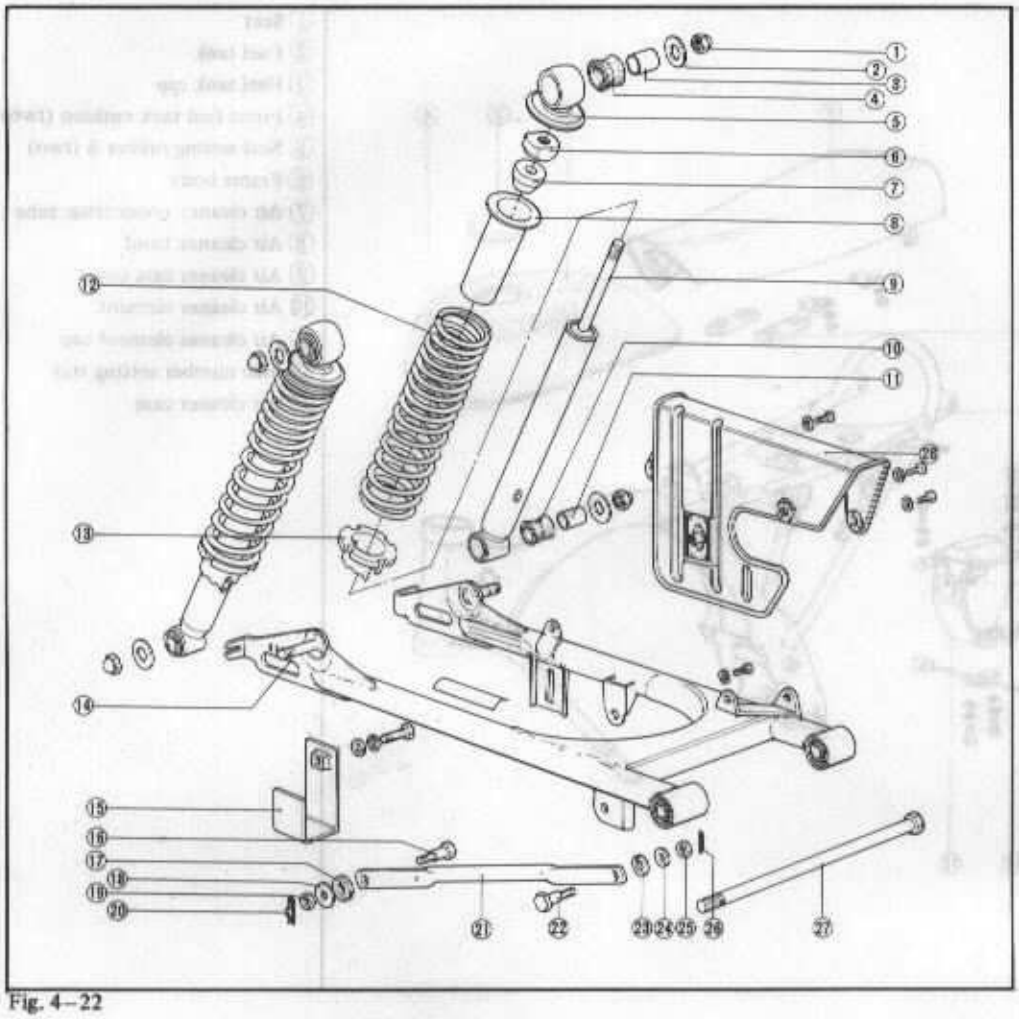

Fig. 4–22

① 10mm cap nut (four)
② 10.3mm washer (four)
③ Upper rubber bush collar (two)
④ Rear cushion rubber bush (two)
⑤ Rear cushion upper metal (two)
⑥ Lock nut (two)
⑦ Stopper rubber (two)
⑧ Spring guide (two)
⑨ Rear damper (two)
⑩ Under rubber bush (two)
⑪ Rubber bush collar (two)
⑫ Rear cushion spring (two)
⑬ Spring adjuster (two)
⑭ Rear fork
⑮ Chain guide
⑯ Rear brake torque bolt
⑰ Stopper arm cushion rubber
⑱ Washer
⑲ 8mm hex. nut
⑳ 8mm lock pin
㉑ Rear brake stopper arm
㉒ Rear brake stopper arm bolt
㉓ 10mm spring washer
㉔ 8mm plain washer
㉕ 8mm hex. nut
㉖ Cotter pin
㉗ Rear fork pivot bolt
㉘ Drive chain case

Disassembly

1. Remove the rear wheel. (See pages 30–31.)
2. Remove the muffler. (See page 9.)
3. Remove the rear suspension cap nuts (on the upper and lower sides), and remove the rear shock absorbers from the frame.
4. Using the rear shock absorber disassembly tool (Tool No. 07959-3290000 with spring holder No. 07967-1180100), remove the spring, spring guide, stopper rubber lock nut and upper metal.
5. Remove the rear fork pivot bolt and the rear fork.

Inspection

1. Measure the rear shock absorber spring free length.
2. Check the rear shock absorber for deformation or oil leaks.
3. Check the stopper rubber for deformation.
4. Check the rear forks for deformation or other damage.

Assembly

1. To install the muffler, tighten the cylinder head stud nuts first and then the rear fork pivot bolt.

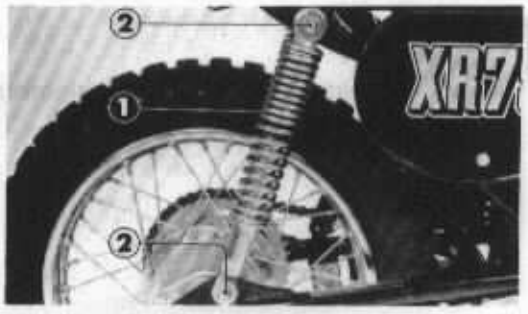

Fig. 4–23
1. Rear suspension 2. Cap nuts

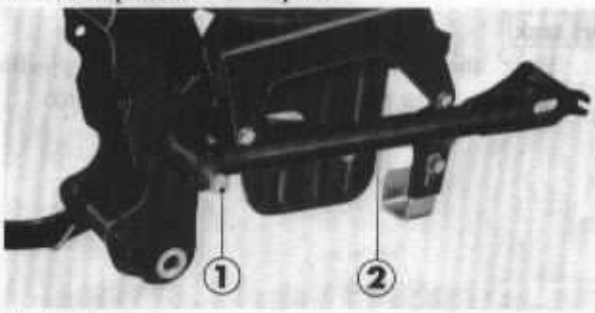

Fig. 4–24
1. Rear fork pivot bolt 2. Rear fork

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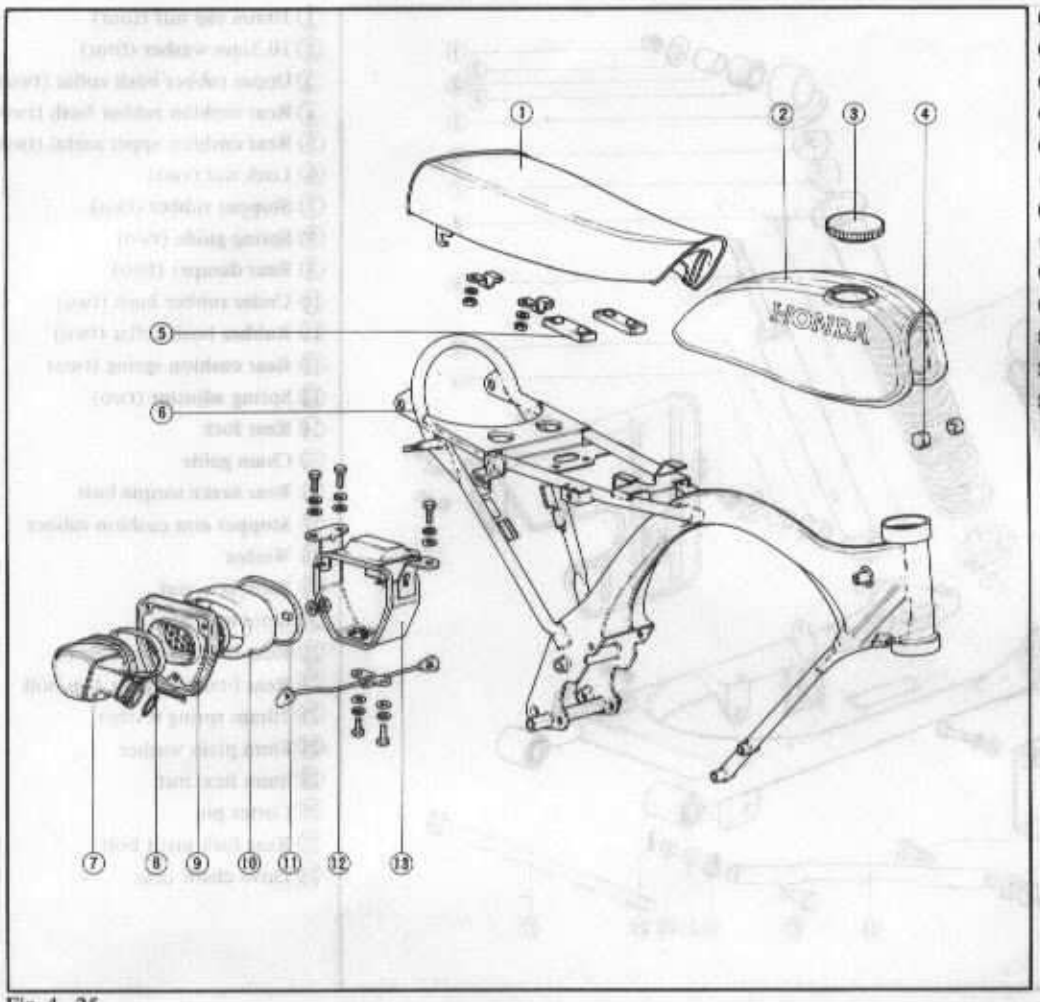
6. Frame body, seat and fuel tank



① Seat
② Fuel tank
③ Fuel tank cap
④ Front fuel tank cushion (two)
⑤ Seat setting rubber B (two)
⑥ Frame body
⑦ Air cleaner connecting tube
⑧ Air cleaner band
⑨ Air cleaner case cover
⑩ Air cleaner element
⑪ Air cleaner element cap
⑫ Side number setting stay
⑬ Air cleaner case

Fig. 4–25

Disassembly

Seat

1. Loosen the right and left rear shock absorber cap nuts and remove the seat.

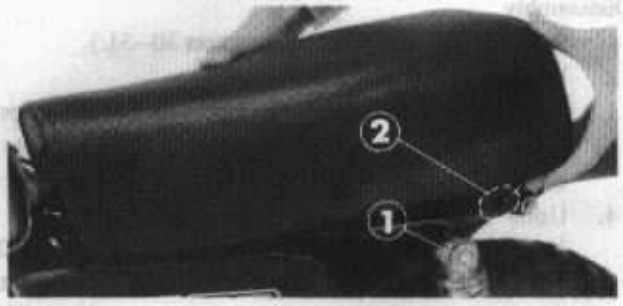


Fig. 4–26
1. Cap nut 2. Seat hook

Fuel tank

1. Place the fuel valve lever in the "S" position and disconnect the fuel tube. Remove the fuel tank.

Fig. 4–27
1. Rear fuel tank cushion 2. Fuel tank

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Frame

Remove the parts listed belows:

Part name	Part name
1. Engine	7. Rear wheel
2. Seat and fuel tank	8. Rear suspension
3. Air cleaner	9. Rear fender
4. Handlebar	10. Rear brake pedal
5. Front wheel	11. Foot pegs
6. Steering stem and front suspension	12. Wire harnesses and ignition coil

Inspection

1. Check the frame body for deformation or other damage.
2. Check the fuel tank for leaks or clogging.

MEMO

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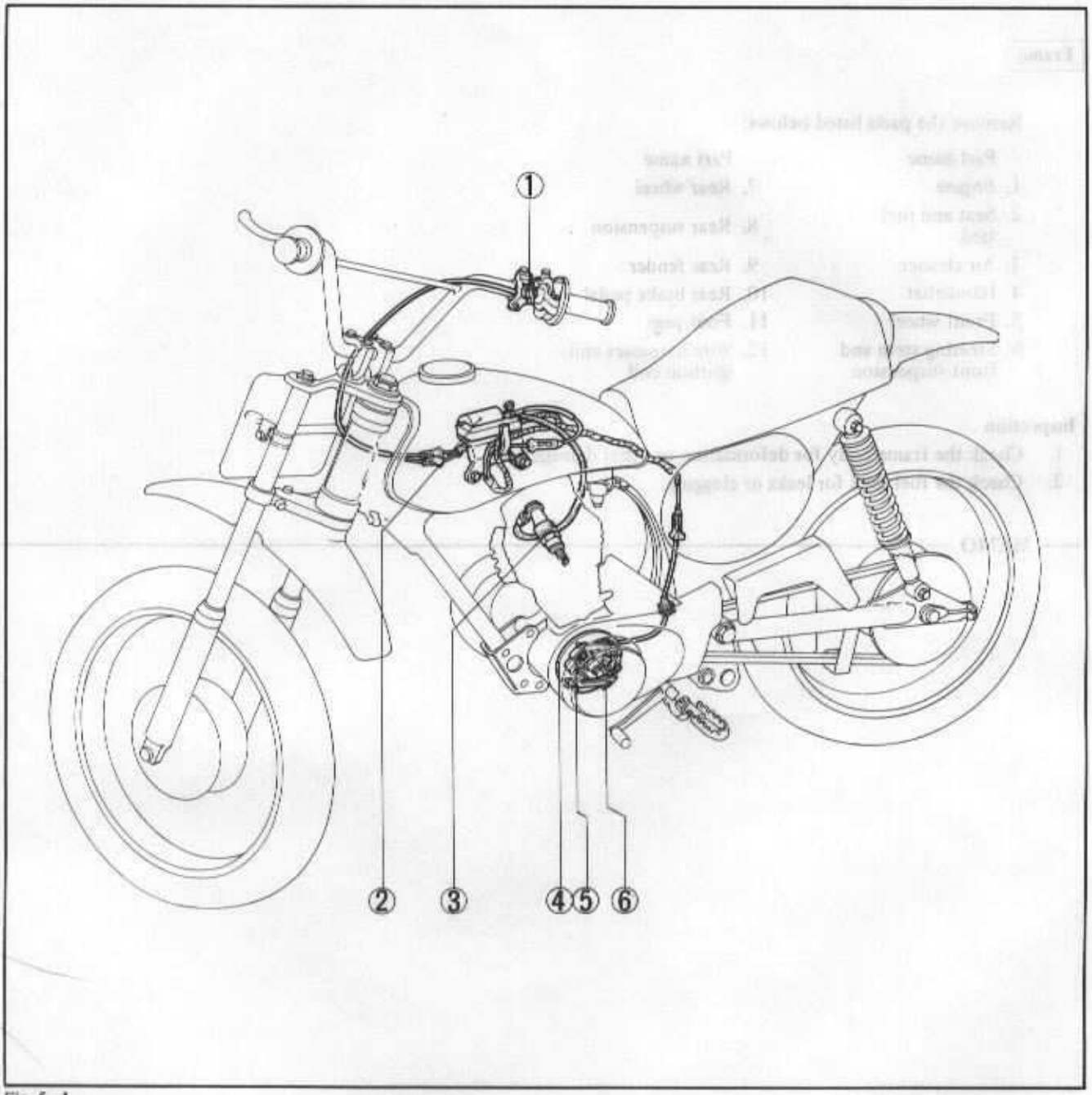

Fig. 5–1
Phantom view of electrical equipment

① Ignition switch
② Ignition coil
③ Spark plug
④ A. C. generator
⑤ Capacitor
⑥ Contact breaker

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1. **Ignition coil**

Continuity test

Check for continuity between the high-tension (secondary) lead and primary wire. If there is no continuity, replace the ignition coil.

Performance test

This test should be conducted with a 3–point spark tester. Fig. 5–2 shows the measurement with the service tester SRH500 (Tool No. 07171-99900).

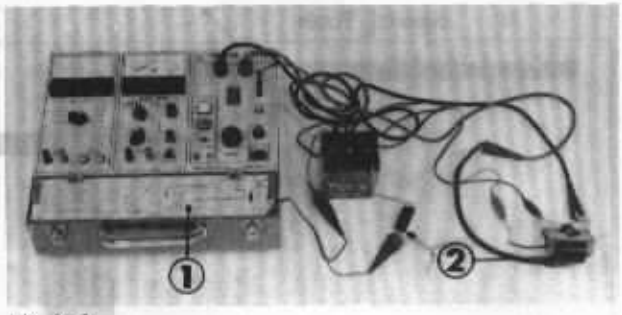

Fig. 5–2
1. Service tester 2. Ignition coil

2. **Spark plug**

Check the spark plug for a worn or fouled electrodes or excessive gap. Clean a fouled spark plug with a plug cleaner or a wire brush.

The gap can be measured with a wire gauge. The gap is changed by bending the side electrode.

Gap specification: 0.6 – 0.7 mm
(0.024 – 0.028 in.)

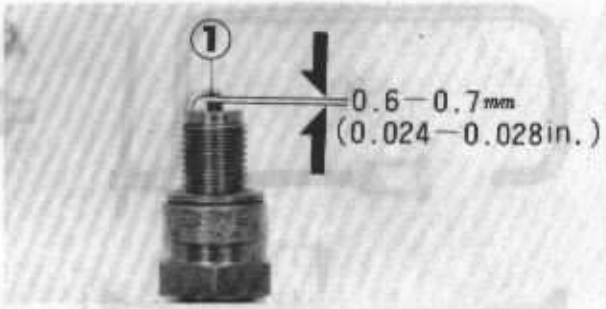

Fig. 5–3
1. Side electrode

3. **Contact breaker and capacitor**

Check the breaker point gap. (See page 4).

Measure the capacitor capacity with the service tester.

Capacity: 0.3 μF $\pm$ 0.03

4. **Ignition switch**

Turn the ignition switch "OFF" and check for continuity between the black and green wires.

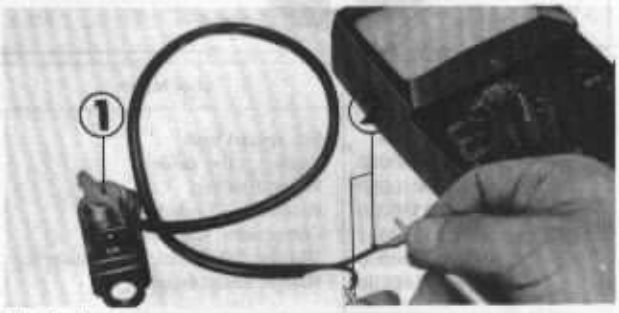

Fig. 5–4
1. Ignition switch 2. Black and green wire

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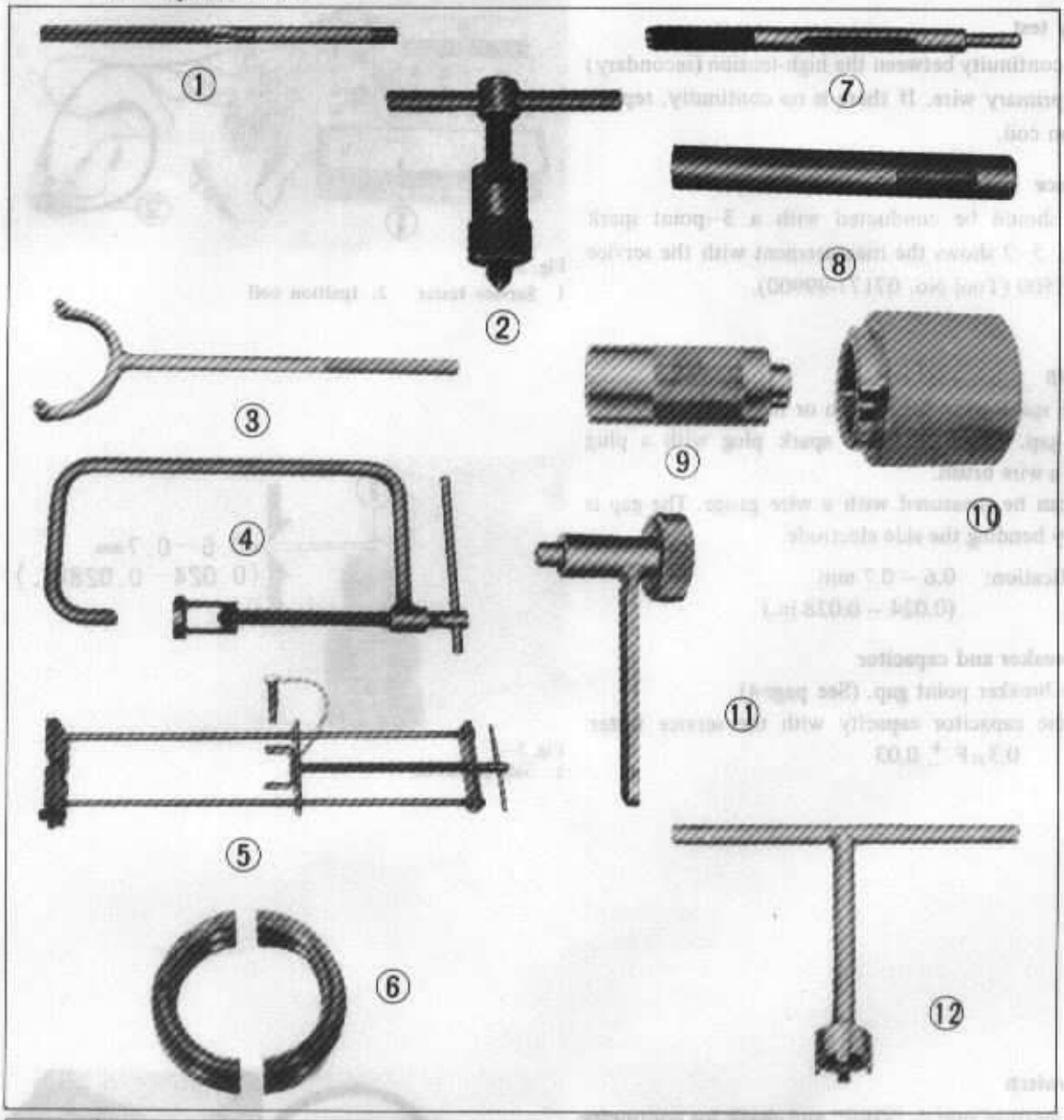
1. Special Tools



Item No.	Tool No.	Tool Name	Item No.	Tool No.	Tool Name
	07000-11600	Set, special tool	7	07942-3290100	Remover, valve guide
1	07984-0980000	Reamer, valve guide	8	07942-3290200	Driver, valve guide
2	07933-0010000	Puller, flywheel	9	07945-3230200	Driver, ball bealing
3	07922-2590000	Holder, flywheel	10	07947-1180001	Driver, fork seal
4	07957-3290001	Compressor, valve spring	11	07908-0010000	Set, tappet wrench
5	07959-3290000	Dis/assembling tool, shock absorber	12	07716-0010100	Wrench, lock nut 14mm
6	07967-1180100	Holder, absorber spring	13	07902-0010000	Stem nut wrench

CAUTION:

Use the valve seat grinder (tool No. M924x-017-xxx. A set : only U.S.A. or tool No. 07782-0020000.A set : others) to correct the valve seat width and contact surface from the following serial number.

Frame NO. XR75-1015011

Read the valve seat grinder instructions carefully.

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2. Maintenance Schedule

The maintenance intervals shown in the following schedule are based upon average riding conditions. Machines subjected to severe use, or ridden in unusually dusty areas, require more frequent servicing.
Items marked *should be serviced by an authorized Honda dealer, unless the owner has proper tools and is mechanically proficient.
Other maintenance items are simple to perform and may be serviced by the owner.

INITIAL SERVICE PERIOD **FIRST WEEK OF OPERATION**	• ENGINE OIL–Change. •*CONTACT POINTS AND IGNITION TIMING – Clean, check, and adjust or replace if necessary. •*VALVE TAPPET CLEARANCE – Check and adjust if necessary. •*CARBURETOR – Check and adjust if necessary. • THROTTLE OPERATION–Inspect cable. Check and adjust free play. •*CLUTCH – Check operation and adjust if necessary.	• DRIVE CHAIN – Check, lubricate, and adjust if necessary. • BRAKE CONTROL LINKAGE–Check linkage and adjust if necessary. • TIRES–Inspect and check air pressure. • LIGHTING EQUIPMENT–Check. • ALL NUTS, BOLTS, AND OTHER FASTENERS–Check security and tighten if necessary. •*WHEELS, RIMS, AND SPOKES–Check. Tighten spokes and tire rim locks if necessary.
EVERY 30 OPERATING DAYS NOTE: **Change oil every 30 operating days or every 3 months, whichever occurs first.**	• ENGINE OIL–Change. • SPARK PLUG–Clean and adjust gap, or replace if necessary. •*CONTACT POINTS AND IGNITION TIMING–Clean, check, and adjust or replace if necessary. •*VALVE TAPPET CLEARANCE–Check and adjust if necessary. • POLYURETHANE FOAM AIR FILTER ELEMENT–Clean and oil. Service more frequently if operated in dusty areas. •*CARBURETOR–Check and adjust if necessary. •*WHEELS, RIMS, AND SPOKES–Check. Tighten spokes and tire rim locks if necessary.	•*CAM CHAIN TENSION–Adjust (only initial service). • THROTTLE OPERATION–Inspect cable. Check and adjust free play. •*CLUTCH–Check operation and adjust if necessary. • DRIVE CHAIN–Check, lubricate, and adjust if necessary. • BRAKE CONTROL LINKAGE–Check linkage and adjust if necessary. • TIRES–Inspect and check air pressure. • ALL NUTS, BOLTS, AND OTHER FASTENERS–Check security and tighten if necessary.
EVERY YEAR	• FUEL FILTER SCREEN–Clean. • FUEL LINE–Check. • FRONT FORK OIL–Drain and refill. •*OIL FILTER SCREEN–Clean. •*CENTRIFUGAL OIL FILTER–Clean. • FRONT AND REAR SUSPENSION–Check operation. •*STEERING HEAD BEARINGS–Adjust. •*BRAKE SHOES–Inspect and replace if worn. •*CAM CHAIN TENSION–Adjust.	

3. Torque specifications

Engine

Tightening point	Thread dia. (mm)	Torque	
		kg-cm	lbs-ft
Crankcases and crankcase covers	6	70–120	5.1–8.7
Cylinder head cover	6	80–120	5.8–8.7
Camshaft holder	6	80–120	5.8–8.7
Intake pipe to cylinder head	6	80–120	5.8–8.7
Generator rotor	10	300–380	21.7–27.5
Oil filter rotor	14	350–450	25.3–32.6
Tappet adjusting nut	5	70–110	5.1–8.0
Cam sprocket	6	100–160	7.3–11.6
Engine oil drain bolt	12	200–300	14.5–21.7

Frame

Tightening point	Thread dia. (mm)	Torque	
		kg-cm	lbs-ft
Steering stem nut	22	600–900	43.4–65.1
Handlebar under holders	10	300–400	21.7–28.9
Handlebar holder	6	80–120	5.8–8.7
Front fork bottom bridge	8	200–300	14.5–21.7
Spokes	2.6	15–20	1.1–1.5
Front axle (w/cotter pin)	12	400–550	29.0–39.8
Engine slinger bolt	8	200–300	14.5–21.7
Rear axle (w/cotter pin)	12	400–550	29.0–39.8
Rear brake arm	6	80–120	5.8–8.7
Rear brake torque arm (w/cotter pin)	8	100–200	7.3–14.5
Rear shock absorber	10	300–400	21.7–29.0
Step bar	8	200–300	14.5–21.7
Gear change pedal and kick starter arm	6	80–120	5.8–8.7
Rear fork pivot bolt	10	300–400	21.7–29.0
Bead spacer	8	80–140	5.8–10.1
Engine slinger plate	8	150–250	10.8–18.1

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4. Service data

Engine

Unit: mm (in.)

Item		Assembly standard	Service limit
Cam height	Intake	27.677 – 27.717 (1.0896 – 1.0972)	27.5 (1.0827), min.
	Exhaust	27.540 – 27.586 (1.0833 – 1.0861)	27.36 (1.0772), min.
Rocker arm–to–shaft clearance		0.013 – 0.037 (0.0005 – 0.0015)	0.1 (0.0039), max.
Valve seat width		1.0 (0.0394)	1.5 (0.0591), max.
Valve stem O. D.	Intake	5.450 – 5.465 (0.2146 – 0.2152)	5.42 (0.2134), min.
	Exhaust	5.430 – 5.445 (0.2138 – 0.2144)	5.40 (0.2126), min.
Valve–to–valve guide clearance			
	Intake	0.010 – 0.035 (0.0004 – 0.0014)	0.08 (0.0031), max.
	Exhaust	0.030 – 0.055 (0.0012 – 0.0022)	0.1 (0.0039), max.
Valve spring free length			
	Inner	28.05 (1.1043)	27.0 (1.0630), min.
	Outer	33.8 (1.3307)	32.7 (1.2874), min.
Cylinder bore		47.00 – 47.01 (1.8504 – 1.8508)	47.1 (1.8543), max.
Piston skirt O. D.		46.97 – 46.99 (1.8492 – 1.8500)	46.90 (1.8465), min.
Piston pin hole dia.		13.002 – 13.008 (0.5119 – 0.5121)	13.06 (0.5142), max.
Piston pin O. D.		12.994 – 13.000 (0.5116 – 0.5118)	12.9 (0.5079), min.
Piston ring side clearance			
	Top	0.015 – 0.045 (0.0006 – 0.0018)	0.15 (0.0059), max.
	Second		
	Oil	0	

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Unit: mm(in.)

Item		Assembly standard	Service limit
Piston ring gap	Top Second	0.15 – 0.35 (0.0059 – 0.0138)	0.5 (0.0197), max.
	Oil	0.3 – 0.9 (0.0118 – 0.0354)	
Outer rotor–to–pump body clearance		0.15 (0.0059)	0.2 (0.0079), max.
Inner –to–outer rotor clearance		0.15 (0.0059)	0.2 (0.0079), max.
Friction disc thickness		2.8 – 2.9 (0.1102 – 0.1142)	2.5 (0.0984), min.
Clutch plate face runout		0.1 (0.0039), min.	0.2 (0.0079), max.
Clutch spring free length		27.3 (1.0748)	25.3 (0.9961), min.
Cam chain guide wear		———	1.0 (0.0394), max.
Cam chain tensioner wear		———	1.0 (0.0394), max.
Gear shift fork width		4.93 – 5.00 (0.1941 – 0.1969)	4.5 (0.1772), min.
Gear shift fork hole dia.		12.000 – 12.018 (0.4724 – 0.4731)	12.05 (0.4726), max.
Gear shift fork guide shaft O. D.		11.976 – 11.994 (0.4715 – 0.4722)	11.9 (0.4685), min.
Gear shift fork guide pin–to–drum groove clearance		0.05 – 0.20 (0.0020 – 0.0079)	0.3 (0.0118), max.
Gear backlash	Low	0.085 – 0.169 (0.0033 – 0.0067)	0.2 (0.0079), max.
	Second	0.089 – 0.179 (0.0035 – 0.0070)	
	Third & fourth	0.084 – 0.170 (0.0033 – 0.0067)	
Carburetor	Main jet	#100	
	Slow jet	#38	
	Air screw opening	1¼	
	Float level	21mm (0.827)	

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Frame

Unit: mm (in.)

Item	Assembly standard	Service limit
Front axle runout	0.01 (0.0004), min.	0.2 (0.0079), max.
Front wheel rim face runout	0.5 (0.0197), min.	2.0 (0.0787), max.
Front brake drum I. D.	109.8 – 110.2 (4.3228 – 4.3386)	111.0 (4.3701), max.
Front brake shoe thickness	3.9 – 4.1 (0.1535 – 0.1614)	2.0 (0.0787), min.
Rear axle runout	0.01 (0.0004), min.	0.2 (0.0079), max.
Rear wheel rim face runout	0.5 (0.0197), min.	2.0 (0.0787), max.
Rear brake drum I. D.	109.8 – 110.2 (4.3228 – 4.3386)	111.0 (4.3701), max.
Rear brake shoe thickness	3.9 – 4.1 (0.1535 – 0.1614)	2.0 (0.0787), min.
Front fork piston O. D.	30.950 – 30.975 (1.2185 – 1.2195)	30.90 (1.2165) min.
Front fork bottom case I. D.	31.000 – 31.039 (1.2205 – 1.2220)	31.18 (1.2276), max.
Rear shock absorber spring free length	188.7 (7.4291)	183 (7.09), min.

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5. Trouble Shooting

ENGINE

Trouble	Probable Cause	Remedies
Engine does not start	1. Excessive wear of piston ring or cylinder.	Replace.
	2. Seized valve in valve guide.	Replace.
	3. Seized piston.	Replace.
	4. Faulty valve timing.	Adjust.
	5. Low or no compression pressure. Pressure leak	Lap the valve to obtain good valve seating or replace.
	6. Blown out cylinder head gasket.	Replace.
	7. Warped gasket surface of the cylinder and cylinder head.	Repair or replace.
Poor engine idling	1. Incorrect tappet clearance.	Adjust to standard value.
	2. Low or no compression pressure.	Repair.
	3. Excessive valve guide clearance.	Replace valve and guide.
Loss of power	1. Valve sticking open.	Replace.
	2. Incorrect valve seating.	Lap valve.
	3. Weak or broken valve spring.	Replace.
	4. Faulty valve timing.	Check valve timing and adjust if necessary.
	5. Blown out cylinder head gasket.	Replace.
	6. Excessive wear of cylinder and piston.	Replace.
	7. Worn, weak or broken piston ring.	Replace.
	8. Loose spark plug.	Retighten.
Overheating	1. Heavy carbon deposit on combustion chamber and piston head.	Remove carbon.
	2. Lean fuel mixture.	Adjust the carburetor.
	3. Retarded ignition timing.	Adjust ignition timing.
	4. Low oil level, poor quality oil.	Add good grade oil.
	5. Extended operation in low gear.	
Backfire	1. Incorrect seating of intake valve.	Check the valve seating.
	2. Faulty valve timing.	Adjust.
	3. Incorrect ignition timing.	Adjust.
	4. Excessive spark plug gap.	Adjust the gap to 0.024–0.028 in. (0.6–0.7mm).
	5. Improper fuel.	Use good quality fuel.
White exhaust smoke	1. Excessive wear of cylinder and piston.	Replace the piston.
	2. Overfilled engine oil.	Adjust the oil level.
	3. Excessively high oil pressure.	Check the breather.
	4. Poor quality oil	Replace with good quality oil.
Black exhaust smoke	1. Rich fuel mixture.	Adjust the carburetor.
Difficult gear shifting	1. Improper clutch disengagement.	Adjust the clutch.
	2. Damaged gear or foreign object lodged in the gear.	Replace the defective parts.
	3. Gear shift fork inoperative.	Repair or replace.
	4. Incorrect operation of the gear shift drum stopper and change pedal.	Repair or replace.
	5. Mainshaft and countershaft out of alignment.	Repair or replace.
	6. High oil viscosity.	Change the oil.
Excessive high gear noise	1. Excessive gear backlash.	Repair or replace.
	2. Worn main and countershaft bearing.	Repair or replace.

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Trouble	Probable Cause	Remedies
Slips out of gear	1. Worn fingers on gear shift fork. 2. Worn gear dog hole. 3. Worn spline.	Replace. Replace. Replace.
Clutch slippage	1. No clutch lever play. 2. Weak or non-uniform clutch spring. 3. Worn or glazed friction disc.	Adjust the clutch. Replace the weak spring. Replace.
Poor clutch engagement	1. Excessive clutch lever play. 2. Warped friction disc. 3. Warped pressure plate. 4. Bent main shaft.	Adjust clutch lever play. Replace. Replace. Replace.
Gear shift pedal does not return	1. Faulty return spring. 2. Unhooked return spring.	Replace. Hook return spring.
Kick starter gear does not rotate	1. Excessive wear of kick starter pawl.	Replace.
Engine does not start	Carburetor 1. Choke fully open. 2. Carburetor air screw improperly set. 3. Air leaking into the cylinder head. 4. Clogged carburetor slow jet. 5. Clogged fuel valve or fuel line. 6. Clogged vent hole in the fuel tank cap. 7. No fuel in the tank.	 Close choke. Adjust air screw. Retighten carburetor connecting tube. Check, clean and retighten. Disassemble and clean. Disassemble and clean. Fill tank with gasoline.
Poor engine idling	Carburetor 1. Clogged or loose carburetor slow jet. 2. Improper float level. 3. Incorrect air screw adjustment. 4. Air leaks.	 Check, clean and retighten. Adjust. Adjust. Tighten all air passage connections.
Improper running of engine	Carburetor 1. Jet size too small. 2. Improper float level. 3. Clogged carburetor main jet. 4. Air leaks.	 Replace with larger size jet. Adjust. Clean and retighten. Tighten all air passage connections.

CHASSIS

Trouble	Probable Cause	Remedies
Difficult steering	1. Steering stem excessively tightened. 2. Damaged steering stem steel balls. 3. Bent steering. 4. Low front tire pressure.	Loosen the steering stem nut. Replace. Replace. Add air to the specified pressure of 1.2 kg/sq·cm (17 psi).
Front and rear wheel wobble	1. Loose steering stem mounting bolt. 2. Worn front and rear wheel bearings. 3. Front or rear wheel runout or distorted. 4. Loose spoke. 5. Defective tire.	Retorque. Replace bearing. Repair or replace. Retorque. Replace.
Soft suspension	1. Spring tension loss. 2. Excessive load.	Replace.
Hard suspension	1. Ineffective front fork damper. 2. Ineffective rear damper.	Repair. Replace.
Suspension noise	1. Front case or rear damper rubbing. 2. Interference between shock absorber case and spring. 3. Faulty fork stopper rubber. 4. Insufficient front fork oil.	Inspect cushion spring and case. Repair or replace. Replace. Add ATF.
Defective brake	1. Worn brake lining. 2. Worn brake shoe or poor contacts. 3. Worn brake cam. 4. Wet brake from water or oil. 5. Worn brake shaft. 6. Brake pedal out of adjustment.	Replace. Replace. Replace. Clean. Replace. Readjust.

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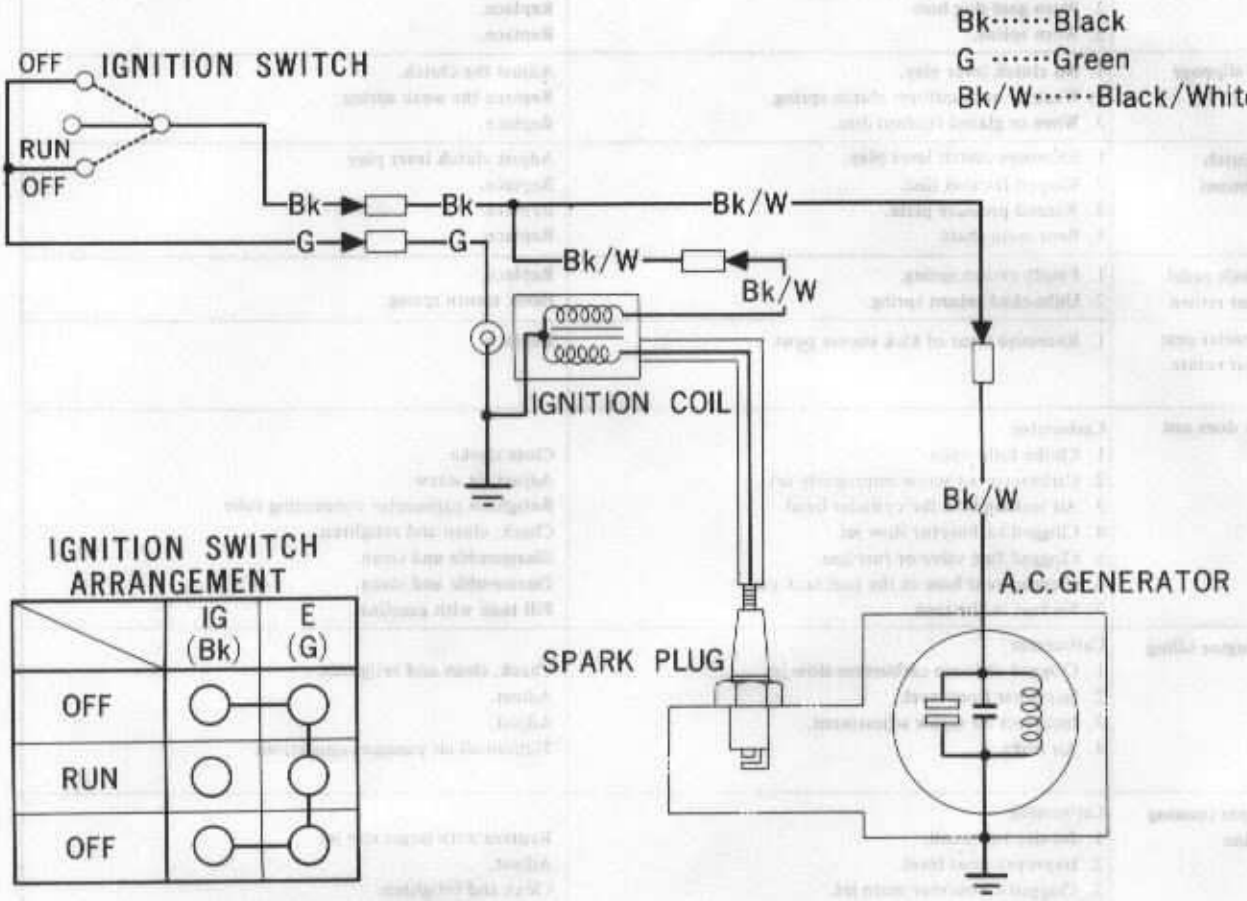
WIRING DIAGRAM



IGNITION SWITCH ARRANGEMENT

	IG (Bk)	E (G)
OFF	○	○
RUN	○	○
OFF	○	○

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7. SPECIFICATIONS

	Item		Metric	English
Dimension	Overall length		1,670 mm	65.7 in.
	Overall width		740 mm	29.1 in.
	Overall height		950 mm	37.4 in.
	Wheel base		1,140 mm	44.9 in.
	Seat height		675 mm	26.6 in.
	Foot peg height		240 mm	9.4 in.
	Ground clearance		170 mm	6.7 in.
	Dry weight		64 kg	141 lbs.
Frame	Type		Diamond frame	
	F. suspension, travel		Telescopic fork, travel 104 mm (4.1 in.)	
	R. suspension, travel		Swing arm, travel 62 mm (2.4 in.)	
	F. tire size, pressure		2.50–16 (4PR), 1.2 kg/sq-cm (17 psi)	
	R. tire size, pressure		3.00–14 (4PR), 20 psi (1.4 kg/sq-cm)	
	F. brake, lining area		Internal expanding shoes, swept area 86.4 sq-cm (14 sq.in.)	
	R. brake, lining area		Internal expanding shoes, swept area 86.4 sq-cm (14 sq.in.)	
	Fuel capacity		4.5 lit.	1.2 US gal.
	Fuel reserve capacity		1.0 lit.	0.3 US gal.
	Caster angle		62-degree	
	Trail length		82 mm	3.3 in.
Engine	Type		Air cooled, 4-stroke OHC engine	
	Cylinder arrangement		Single cylinder 12° inclined from vertical	
	Bore and stroke		47.0 x 41.4 mm	1.850 x 1.630 in.
	Displacement		72 cc	4.4 cu-in
	Compression ratio		8.8 : 1	
	Valve train		Chain driven over head camshaft	
	Maximum horsepower		7.0 BHP/10,000 rpm	
	Maximum torque		0.55 kg-m/8,500 rpm	4.0 lb-ft/8,500 rpm
	Oil capacity		0.9 lit.	1.0 US qt.
	Lubrication system		Forced and wet sump	
	Cylinder head compression pressure		12 kg/sq-cm at 1,000 rpm	
	Intake valve	Opens	BTDC 4°	
		Closes	ABDC 21	
	Exhaust valve	Opens	BBDC 23°	
		Closes	ATDC 8°	
	Valve tappet clearance		0.05 mm	0.002 in.
	Idle speed		1,400 rpm	
Drive train	Clutch		Wet, multi plates	
	Transmission		4-speed constant mesh	
	Primary reduction		3.033	
	Gear ratio I		2.500	
	Gear ratio II		1.722	
	Gear ratio III		1.333	
	Gear ratio VI		1.041	
	Final reduction		3.142	
	Gear shift pattern		Left foot operated return system	
Electrical	Ignition		Flywheel magneto	
	Starting system		Kick starter	
	Alternator		A. C. generator	
	Spark plug		NGK C 7HS or ND U 22FS	

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SUPPLEMENT TO XR75K2 , 75

Frame No. XR 75−1200001 and subsequent

1. BRAKE CABLE ROUTING

The location of the front brake cable guide was changed from the left front fork to the number plate.

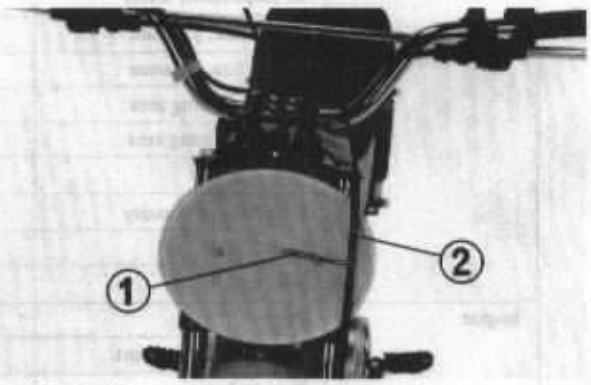

Fig. K2–1 (1) Front brake cable guide
(2) Front brake cable

2. CLUTCH CABLE ROUTING

The clutch cable was routed outside of the cable holder.

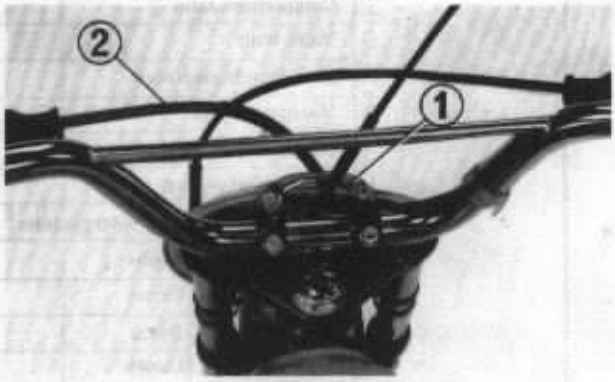

Fig. K2–2 (1) Cable holder
(2) Clutch cable

3. MAINTENANCE SCHEDULE

Some Additions which occurred in the MAINTENANCE SCHEDULE below:

REGULAR SERVICE PERIOD EVERY 30 OPERATING DAYS	*SIDE STAND–Check installation, operation, deformation, damage and wear.

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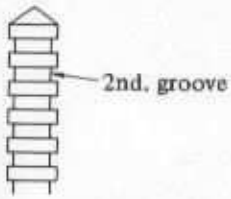
SUPPLEMENT TO XR75K3, 76

Engine No. XR 75E−4000001 and subsequent
Frame No. XR 75 −4000001 and subsequent

1. CARBURETOR SETTING

Item		XR75K3	XR75K2
Setting mark		PC03A	680A
Main jet		#100	←
Air jet		#150	←
Main air bleed	AB1	0.6x2	←
	AB2	0.6x2	←
	AB3	0	←
	AB4	0.6x2	0.7x2
	AB5	0.6x4	0.7x4
Needle jet		2.6mm (0.1024 in.)	←
Jet needle	Mark	309501	062306
	Setting		←
Air screw opening		1 1/4	←
Slow jet		#35	#38
Slow air bleed	AB1	0.7x2	0.8x2
	AB2	0.7x2	0.8x2
	AB3	0.7x2	0.8x2
	AB4	0	0.8x2
Valve seat		1.6mm (0.0630 in.)	1.5mm (0.0591 in.)
By-pass		0.9mm (0.0354 in.) p = 7.4mm (0.2913 in.)	1.0mm (0.0394 in.) p = 7.0mm (0.2756 in.)
Main bore		20mm (0.7874 in.)	19.5mm (0.7677 in.)
Fuel level (gauge)		20mm (0.7874 in.)	21mm (0.827 in.)
Idle speed		1,400 rpm	←

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2. LEFT CRANKCASE COVER

1. A new breather tube has been added to the left crankcase cover.

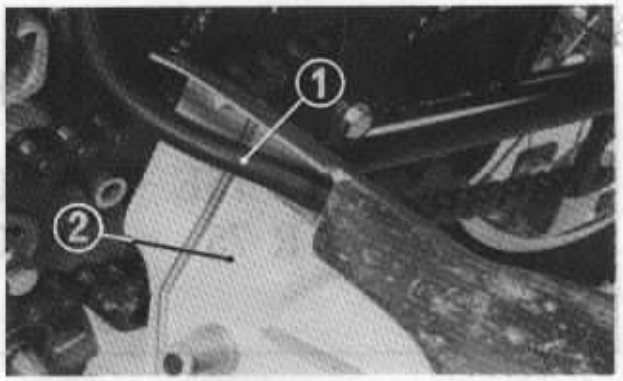

Fig. K3–1 (1) Breather tube
(2) Left crankcase cover

NOTE:
Route the breather tube properly as shown in Fig.K3-2.

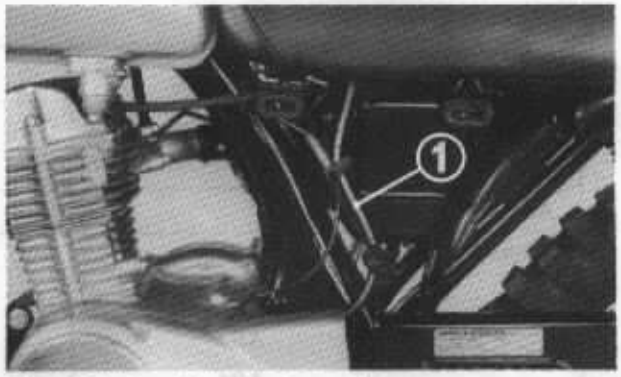

Fig. K3–2 (1) Breather tube

2. A new rubber plugs located in the breather hole under the left crankcase cover.

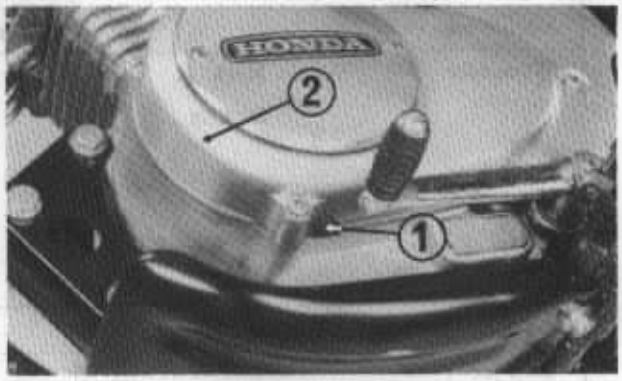

Fig. K3–3 (1) Rubber plug
(2) Left crankcase cover

3. A new left crankcase cover gasket has been added between the crankcase and the left crankcase cover.

Fig. K3–4 (1) Gasket (2) Crankcase
(3) Left crankcase cover

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3. SPECIFICATIONS

	Item		Metric	English
Dimension	Overall length		1,670 mm	65.7 in.
	Overall width		730 mm	28.7 in.
	Overall height		950 mm	37.4 in.
	Wheel base		1,140 mm	44.9 in.
	Seat height		675 mm	26.6 in.
	Foot peg height		240 mm	9.4 in.
	Ground clearance		170 mm	6.7 in.
	Dry weight		64 kg	141 lbs.
Frame	Type		Diamond frame	
	F. suspension, travel		Telescopic fork travel 104 mm (4.1 in.)	
	R. suspension, travel		Swing arm, travel 62 mm (2.4 in.)	
	F. tire size, pressure		2.50–16 (4PR), 1.2 kg/sq-cm (17 psi)	
	R. tire size, pressure		3.00–14 (4PR), 1.4 kg/sq-cm (20 psi)	
	F. brake, lining area		Internal expanding shoes, swept area 86.4 sq-cm (14 sq-in.)	
	R. brake, lining area		Internal expanding shoes, swept area 86.4 sq-cm (14 sq-in.)	
	Fuel capacity		3.0 lit.	0.8 US gal.
	Fuel reserve capacity		1.0 lit.	0.3 US gal.
	Caster angle		62-degree	
	Trail length		82 mm	3.2 in.
Engine	Type		Air cooled, 4-stroke OHC engine	
	Cylinder arrangement		Single cylinder 12° inclined from vertical	
	Bore and stroke		47.0 x 41.4 mm	1.850 x 1.630 in.
	Displacement		72cc	4.4 cu-in.
	Compression ratio		8.8 : 1	
	Valve train		Chain driven over head camshaft	
	Oil capacity		0.9 lit.	
	Lubrication system		Forced and wet sump	
	Cylinder head compression pressure		12 kg/sq-cm at 1,000 rpm	
	Intake valve	Opens	BTDC 4°	
		Closes	ABDC 21°	
	Exhaust valve	Opens	BBDC 23°	
		Closes	ATDC 8°	
	Valve tappet clearance		0.05 mm	0.002 in.
	Idle speed		1,400 rpm	
Drive train	Clutch		Wet, multi plates	
	Transmission		4-speed constant mesh	
	Primary reduction		3.833	
	Gear ratio I		2.500	
	Gear ratio II		1.722	
	Gear ratio III		1.333	
	Gear ratio VI		1.041	
	Final reduction		3.142	
	Gear shift pattern		Left foot operated	
Electrical	Ignition		Flywheel magneto	
	Starting system		Kick starter	
	Alternator		A.C. generator	
	Spark plug		NGK C 7HS or ND U 22FS	

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SUPPLEMENT TO XR75K4('77)

Engine No. XR75E-1400001 and subsequent
Frame No. XR75-1400001 and subsequent

I INSPECTION AND ADJUSTMENT

1. Tappet clearance
   The index mark location has been changed. Remove the left crankcase cover to adjust the tappet clearance.
   1. Refer to page 4 for inspection and adjustment.

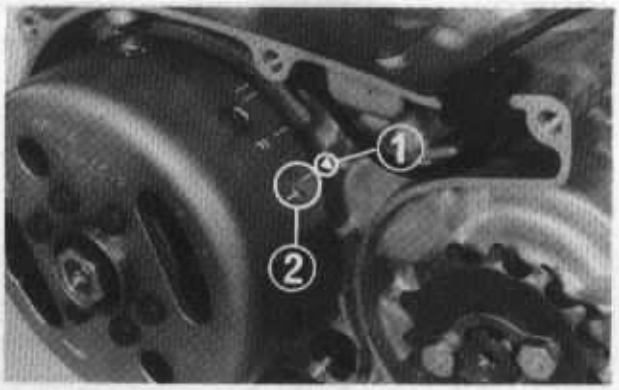

Fig. 1 (1) Index mark (2) "T" mark

2. Front and rear brakes
   The front and rear brakes incorporate wear indicators.
   1. Refer to pages 6 and 7 for adjustment.
   2. With the brake lever pulled and the brake depresses. Check if the arrow on the brake arm aligns with the marking on the brake panel.
   3. Replace the shoe with new ones if they align. Check the brake drum for excessive or abnormal wear. Replace the drum if the wear is beyond the service limit.

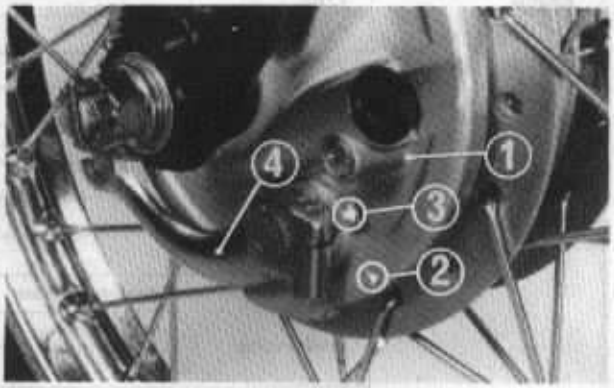

Fig. 2 (1) Front brake panel (2) Marking
(3) Arrow (4) Brake arm

3. Front fork
   Changing oil:
   The oil capacity has been changed to 110cc (6.7 oz.), (ATF).
   For oil changing procedure, refer to page 8.

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II ENGINE

1. CYLINDER HEAD, CYLINDER AND PISTON

(1) Intake manifold
(2) Valve cover
(3) Cam sprocket
(4) 6 x 14 knock bolt
(5) 6 x 14 hex. bolt
(6) Cam chain
(7) Camshaft
(8) Camshaft holder
(9) Rocker arm shaft
(10) Tensioner adjusting plate
(11) Tensioner adjusting bolt
(12) Cylinder head
(13) Rocker arm
(14) Valve cotter
(15) Valve spring retainer
(16) Outer valve spring
(17) Inner valve spring
(18) Exhaust valve guide
(19) Intake valve guide
(20) 10 x 1.6 O-ring
(21) 8 x 14 dowel pin
(22) Cylinder head gasket
(23) 7.5 mm rubber gasket
(24) Exhaust valve
(25) Intake valve
(26) Cylinder
(27) 8 x 14 dowel pin
(28) Cam chain guide
(29) Cam chain tensioner
(30) 8 x 14 dowel pin
(31) Cylinder gasket
(32) Top ring
(33) Second ring
(34) Oil ring
(35) Piston
(36) Piston pin
(37) Piston pin clip

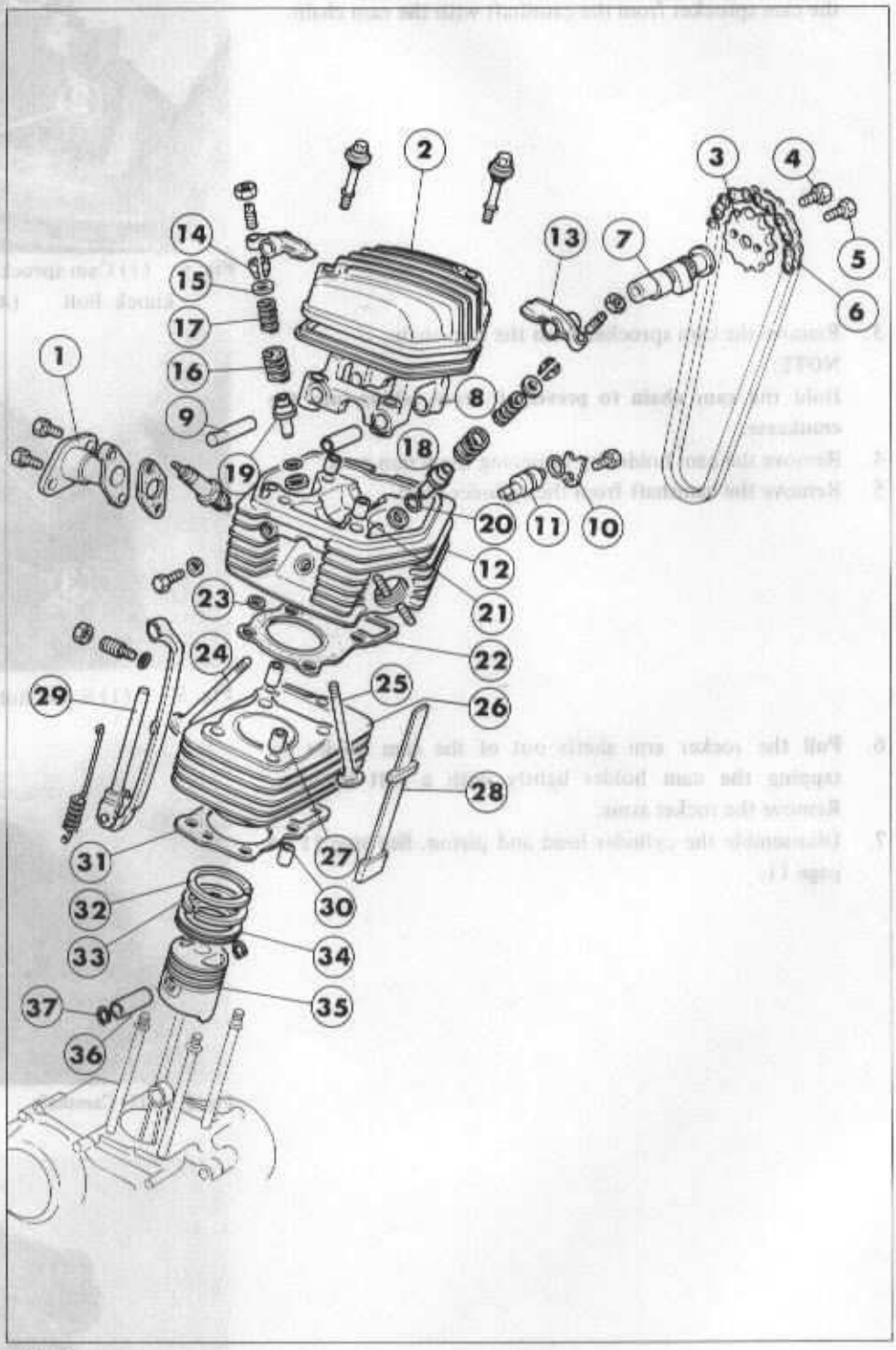

Fig. 3

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INSPECTION

1. Cylinder I. D.

STANDARD	SERVICE LIMIT
48.00–48.01 mm (1.8898–1.8902 in.)	48.1 mm max. (1.8937 in.)

2. Piston O. D.

STANDARD	SERVICE LIMIT
47.965–47.990 mm (1.8884–1.8894 in.)	47.80 mm min. (1.8819 in.)

3. Cam height

STANDARD	SERVICE LIMIT
INTAKE 28.20 mm (1.1102 in.)	27.99 mm min. (1.0941 in.)
EXHAUST 28.00 mm (1.1024 in.)	27.79 mm min. (1.0941 in.)

4. Ring end gap

OIL RING	
STANDARD	SERVICE LIMIT
0.15–0.35 mm (0.0059–0.0138 in.)	0.5 mm max. (0.0197 in.)

ASSEMBLY

Piston rings

The oil ring has been changed from the previous three-piece type to a one-piece type.

1. See page 13 for assembly.

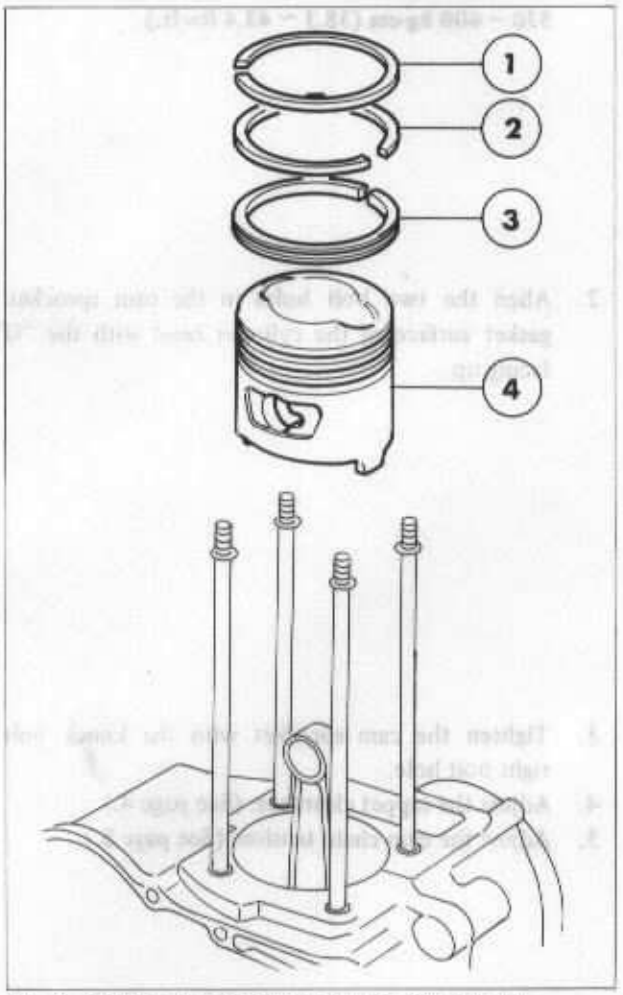

Fig. 8 (1) Top ring (2) Second ring (3) Oil ring (4) Piston

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Camshaft holder

1. Install the rocker arm shaft A in the camshaft holder on the intake side, and shaft B on the exhaust side.

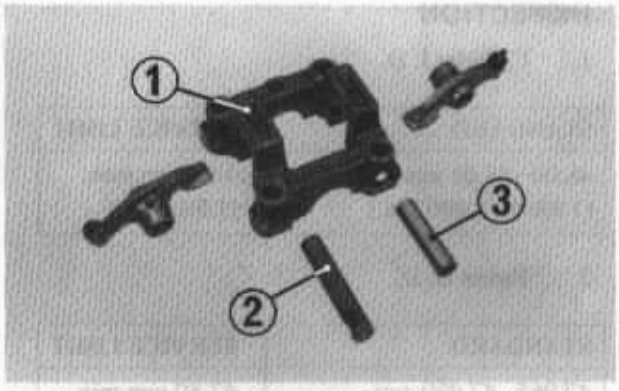

Fig. 9 (1) Camshaft holder (2) Rocker arm shaft A (3) Rocker arm shaft B

Valve timing

1. Rotate the generator rotor until the "T" mark aligns with the index mark on the crankcase.
   NOTE:
   Generator rotor nut torque valve
   530 – 600 kg-cm (38.3 ~ 43.4 lbs-ft.)

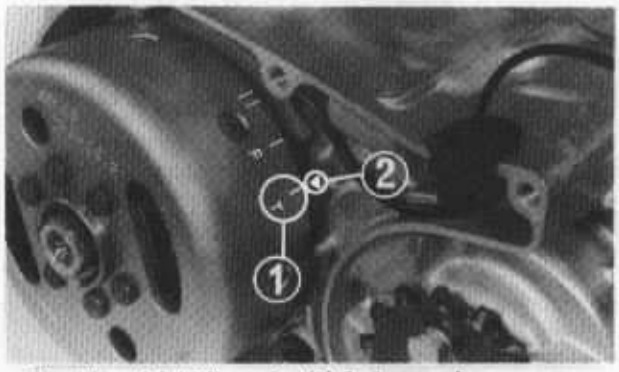

Fig. 10 (1) "T" mark (2) Index mark

2. Align the two bolt holes in the cam sprocket to the gasket surface of the cylinder head with the "O" mark facing up.

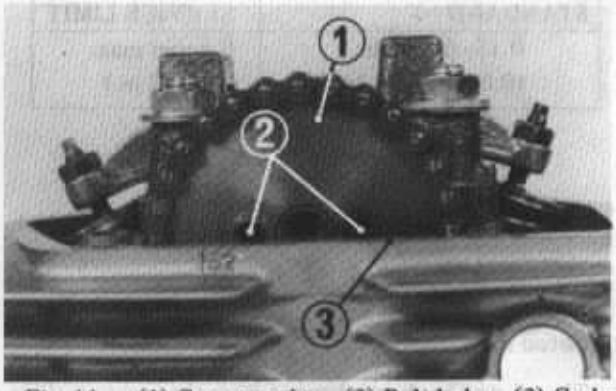

Fig. 11 (1) Cam sprocket (2) Bolt holes (3) Gasket face of cylinder head

3. Tighten the cam sprocket with the knock bolt in the right bolt hole.
4. Adjust the tappet clearance. (See page 4.)
5. Adjust the cam chain tension. (See page 5.)

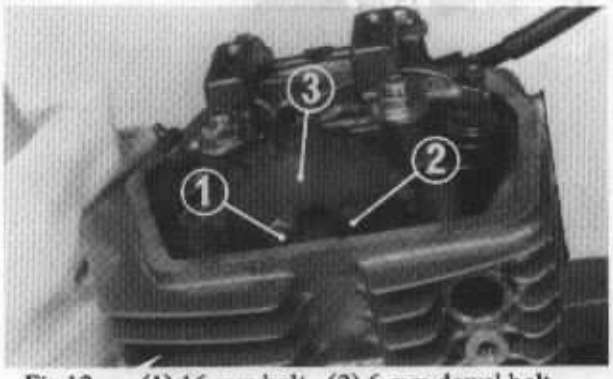

Fig 12 (1) 16 mm bolt (2) 6 mm dowel bolt (3) Cam sprocket

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OIL PUMP AND OIL FILTER

(1) Oil pump gear cover
(2) Drive gear shaft
(3) Drive gear
(4) Body
(5) Outer rotor
(6) Inner rotor
(7) Gasket
(8) Plate
(9) O-ring
(10) Oil filter screen
(11) 14 mm nut
(12) Lock washer
(13) Oil through pipe
(14) Spring
(15) Primary drive gear

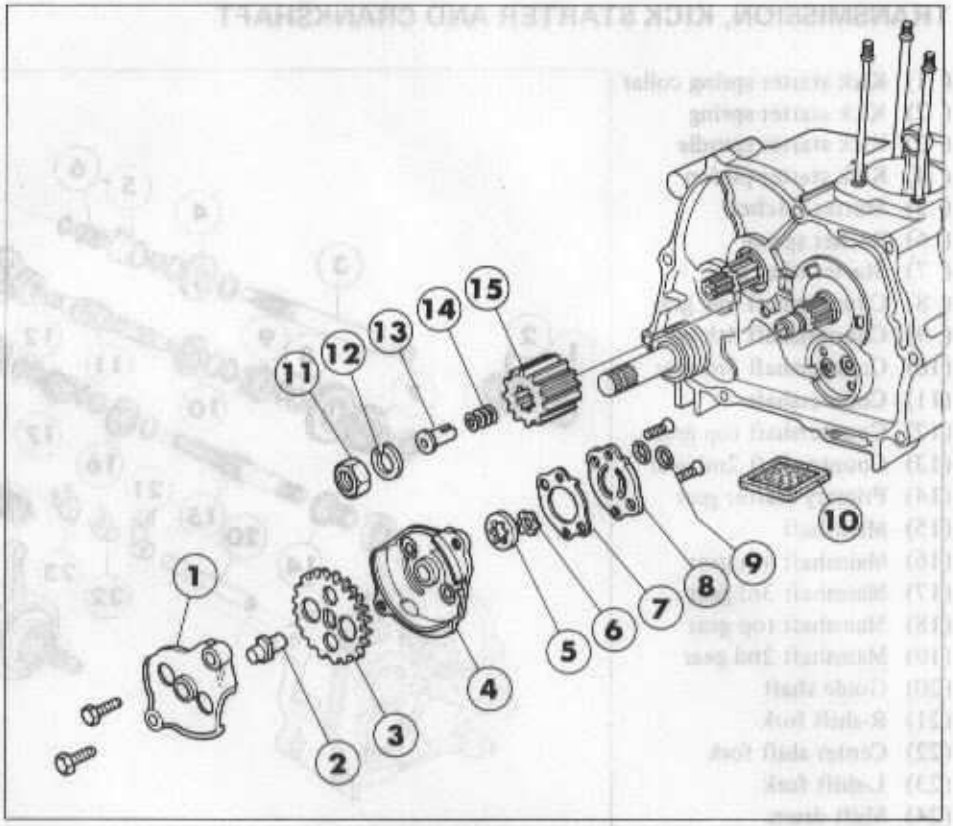

Fig13

1. Disassembly
   Refer to pages 16 and 17.
2. Inspection
   Refer to page 17.
3. Assembly
   Refer to page 17.

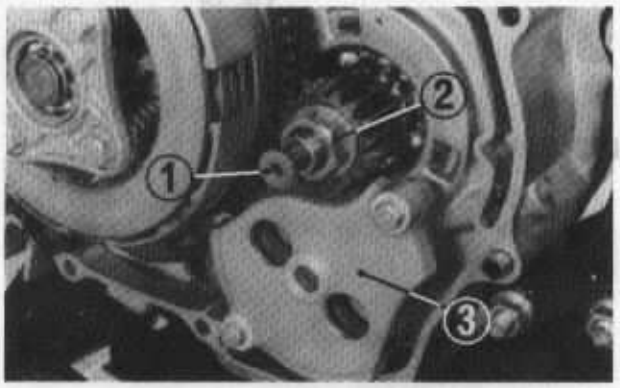

Fig. 14 (1) Oil through pipe (2) 14 mm lock nut (3) Oil pump

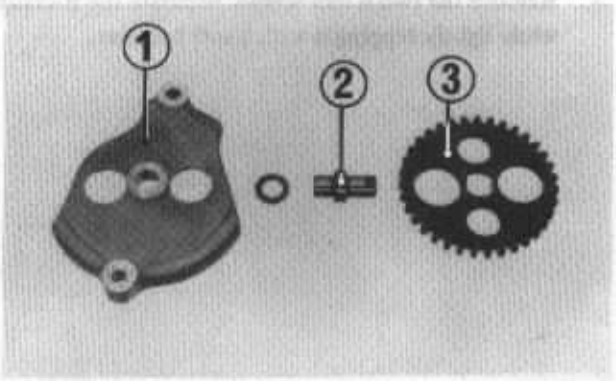

Fig. 15 (1) Oil pump gear cover (2) Drive gear shaft (3) Drive gear

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TRANSMISSION, KICK STARTER AND CRANKSHAFT

(1) Kick starter spring collar
(2) Kick starter spring
(3) Kick starter spindle
(4) Kick starter pinion
(5) Starter ratchet
(6) Rachet spring
(7) Starter idler gear
(8) Countershaft low gear
(9) Countershaft 4th gear
(10) Countershaft 3rd gear
(11) Countershaft
(12) Countershaft top gear
(13) Countershaft 2nd gear
(14) Primary starter gear
(15) Mainshaft
(16) Mainshaft 4th gear
(17) Mainshaft 3rd gear
(18) Mainshaft top gear
(19) Mainshaft 2nd gear
(20) Guide shaft
(21) R-shift fork
(22) Center shift fork
(23) L-shift fork
(24) Shift drum
(25) Crankshaft

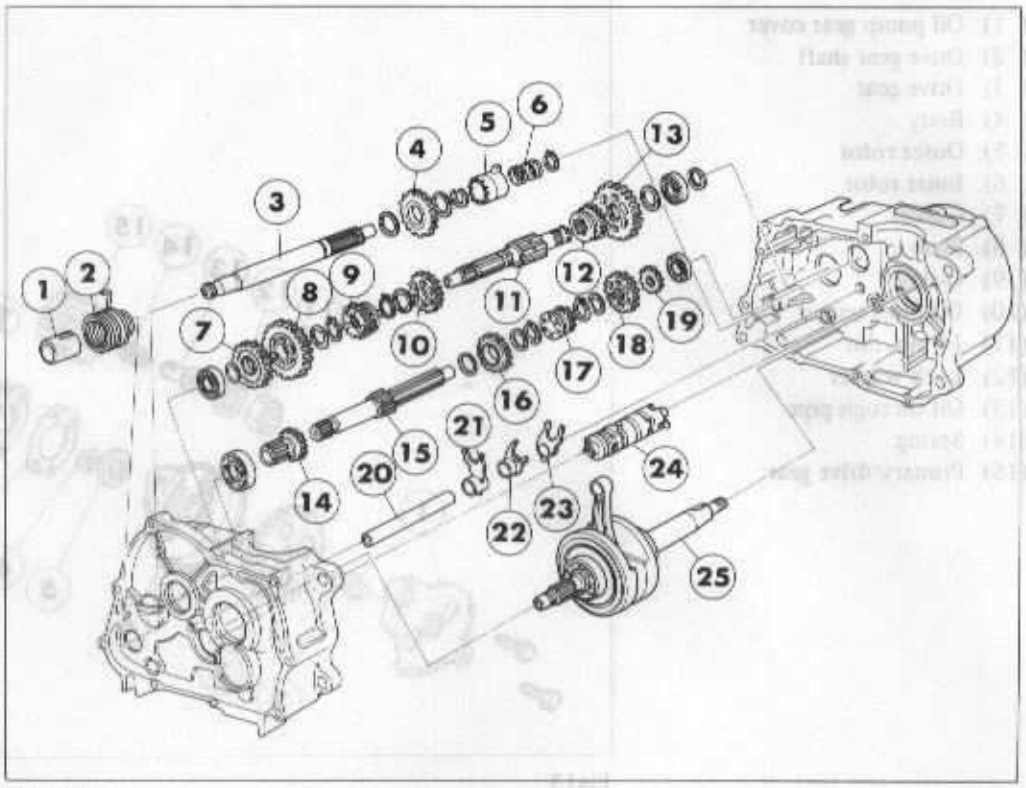

Fig. 16

DISASSEMBLY

1. Remove the engine from the frame. (See page 9)
2. Remove the cylinder head, cylinder and piston. (See page 56)
3. Remove the drive gear and oil pump. (See page 59)
4. Remove the clutch and gearshift mechanism. (See page 18)
5. Remove the A.C. generator.
6. Remove the spring collar and kick starter spring.
7. Remove the two 6 mm screws. Separate the R-crankcase while lightly tapping it with a soft hammer.

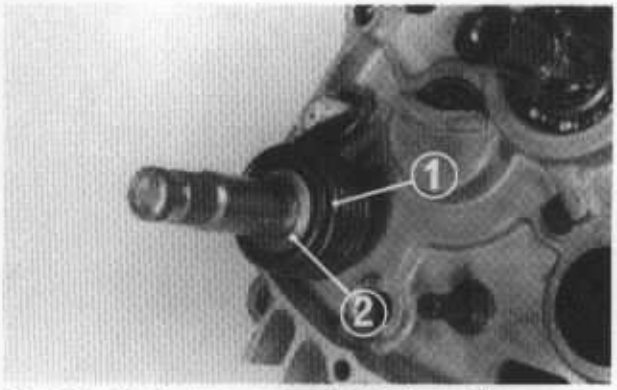

Fig. 17 Kick starter spring (2) Spring collar

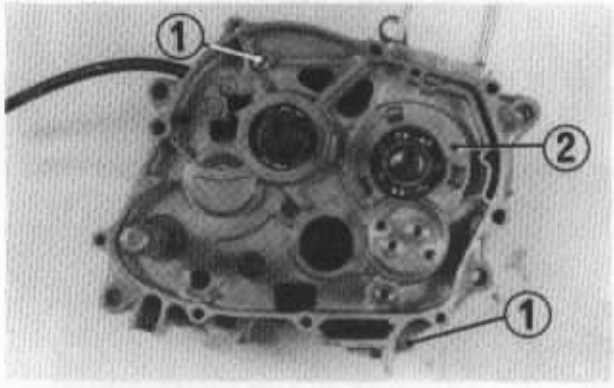

Fig. 18 (1) 6 mm screws (2) R-crankcase

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8. Remove the kick starter spindle from the L-crankcase while turning in the direction of the arrow.

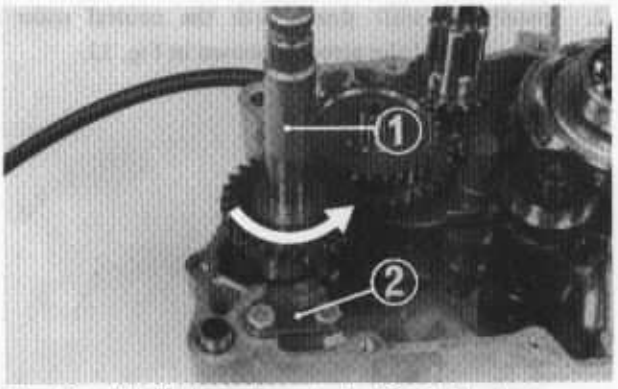

Fig. 19 (1) Kick starter spindle (2) Guide plate

9. Remove the crankshaft.
10. Remove the shift fork guide shaft, shift drum and three shift forks.

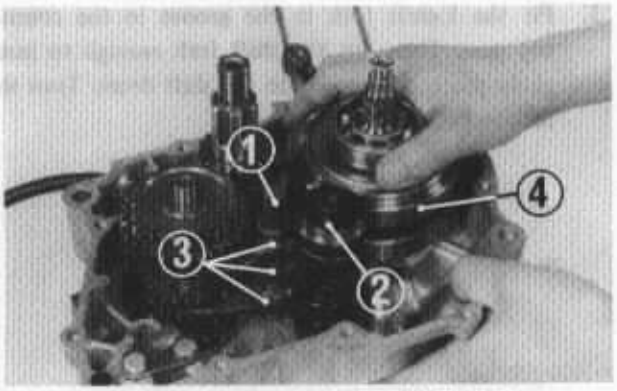

Fig. 20 (1) Shift fork guide shaft (2) Shift drum (3) Shift forks (4) Crankshaft

11. Remove the main shaft and countershaft from the L-crankcase as an assembly.

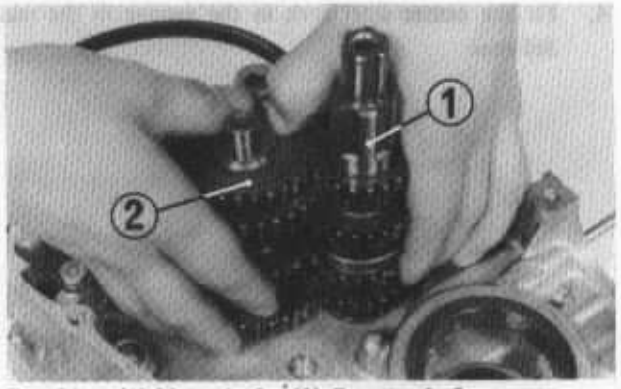

Fig. 21 (1) Main shaft (2) Countershaft

INSPECTION

Refer to page 23.

ASSEMBLY

1. Install the main shaft and countershaft as an assembled unit.
   - Do not forget to install a 12 mm thrust washer.
   - Replace the thrust washers and snap rings when the gears are disassembled.

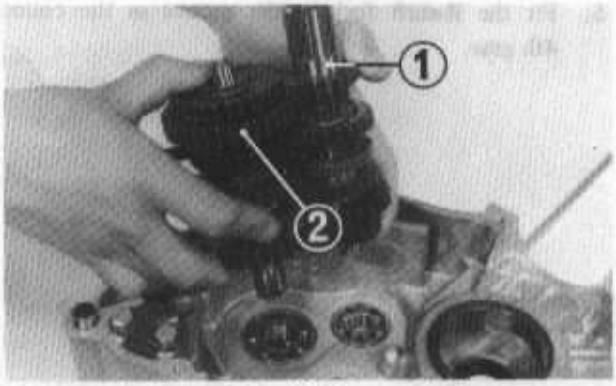

Fig. 22 (1) Main shaft (2) Countershaft

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2. Install the shift drum with the neutral rotor switch facing toward the arrow as shown in Fig. 23.

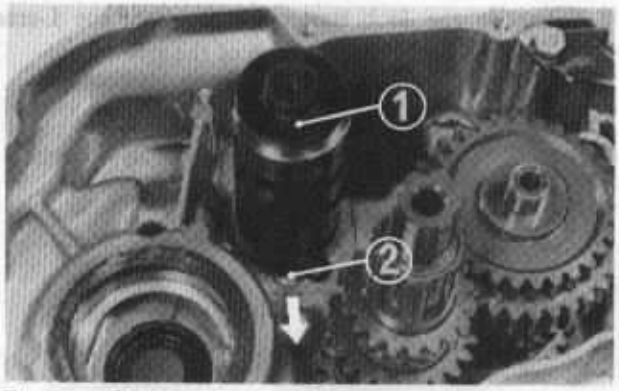

Fig. 23 (1) Shift drum . (2) Neutral switch

3. Fit the L-shift fork in the groove in the countershaft top gear. Then lift the shift fork enough to install the guide pin in the groove in the shift drum. Turn the shift fork to fit.

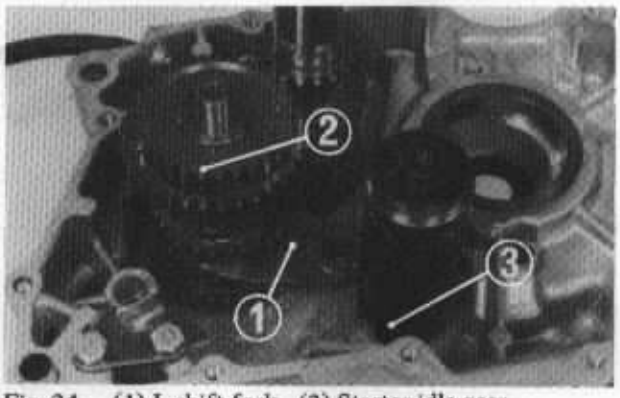

Fig. 24 (1) L-shift fork (2) Starter idle gear
(3) Groove in drum guide

4. Fit the center shift fork in the groove in the mainshaft 3rd gear.

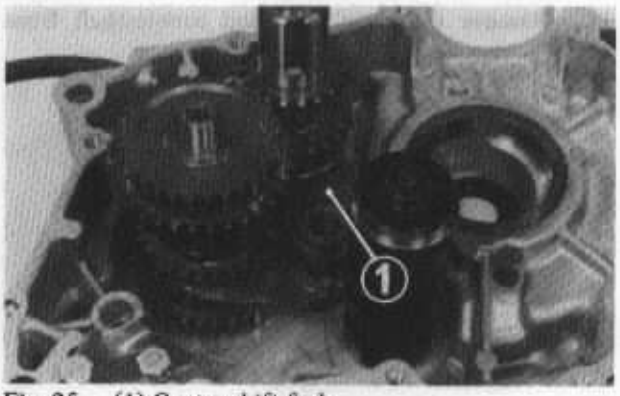

Fig. 25 (1) Center shift fork

5. Fit the R-shift fork in the groove in the countershaft 4th gear.

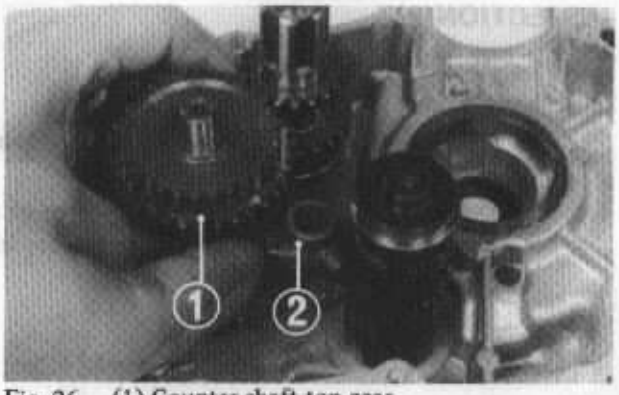

Fig. 26 (1) Counter shaft top gear
(2) R-shift fork

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6. Install shift fork guide shaft, making sure that all forks are fitted properly in the grooves in the gears.
7. After installing the guide shaft, rotate the main shaft gears to see if they rotate smoothly without binding.

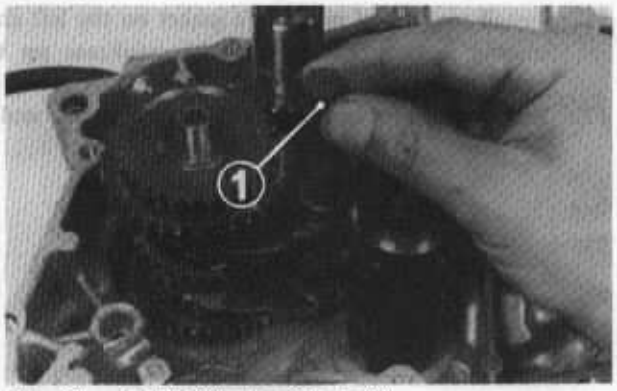

Fig. 27 (1) Shift fork guide shaft

8. Assemble the kick starter spindle and starter ratchet with the punch marks properly aligned.

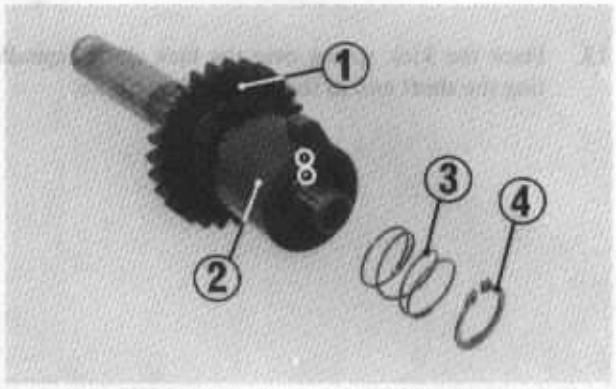

Fig. 28 (1) Kick starter pinion (2) Starter ratchet (3) Starter ratchet spring (4) 18 mm snap ring

9. Install the kick starter spindle in the left crankcase and rotate in the direction of the arrow so that the starter ratchet stopper is under the guide plate.

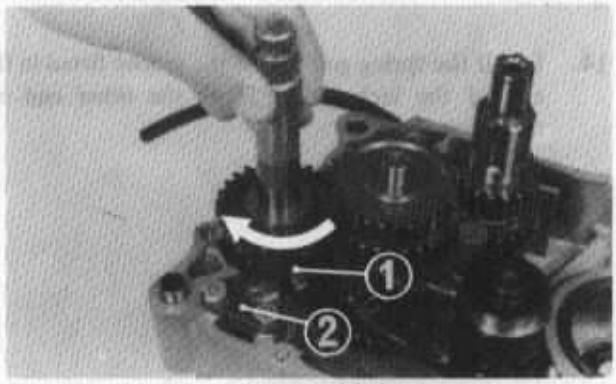

Fig. 29 (1) Starter ratchet (2) Guide plate

10. Place the cam chain in the left crankcase. Install the crankshaft, placing the cam chain over the crankshaft timing sprocket.

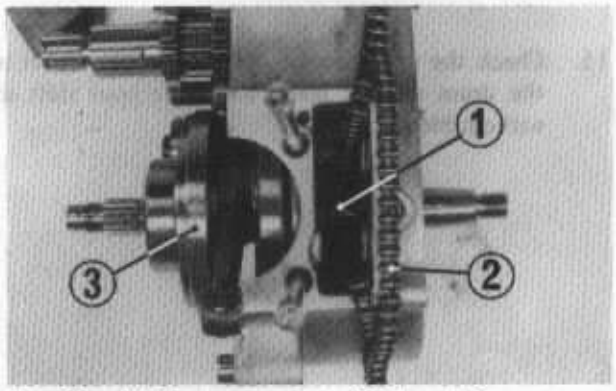

Fig. 30 (1) Timing sprocket (2) Cam chain (3) Crankshaft

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11. Install two dowel pins and a gasket on the left crankcase mating surface. Place the right crankcase on the left crankcase.
12. Install two 6 mm screws in the right crankcase and tighten securely.

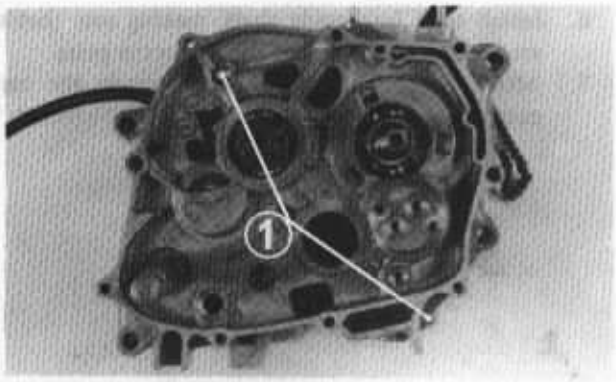

Fig. 31 (1) 6 mm screw

13. Place the kick spring over the kick starter spindle, inserting the short end in the hole in the spindle.

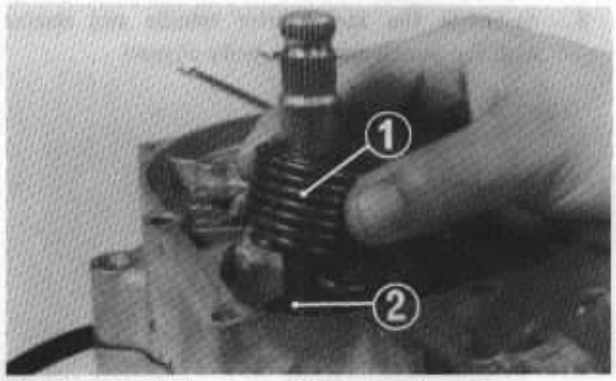

Fig. 32 (1) Kick spring (2) Kick spring hole

14. Install the spring guide with the groove fitted in the short end of the kick spring. Hook the other end over the crankcase abutment.

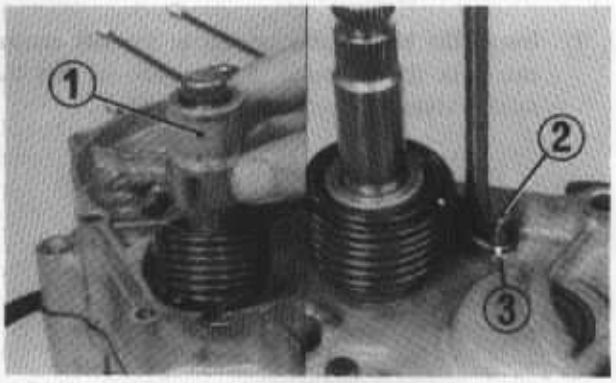

Fig. 33 (1) Spring guide (2) Abutment
(3) Kick spring

15. Check the operation of the kick starter. After installing the drum stopper plate, see if the gears shift smoothly without binding.

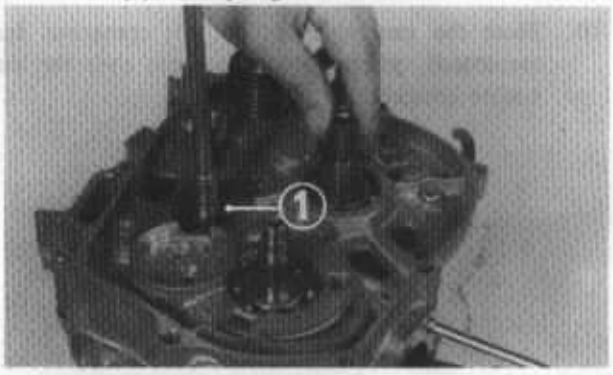

Fig. 34 (1) Drum stopper plate

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CARBURETOR

(1) Cable cap
(2) Carburetor top
(3) Throttle valve spring
(4) Jet needle
(5) Throttle valve
(6) Carburetor body
(7) Screw set
(8) Slow jet
(9) Needle jet holder
(10) Main jet
(11) Jet holder
(12) Float
(13) Float valve
(14) Float chamber bowl
(15) Fuel tube line

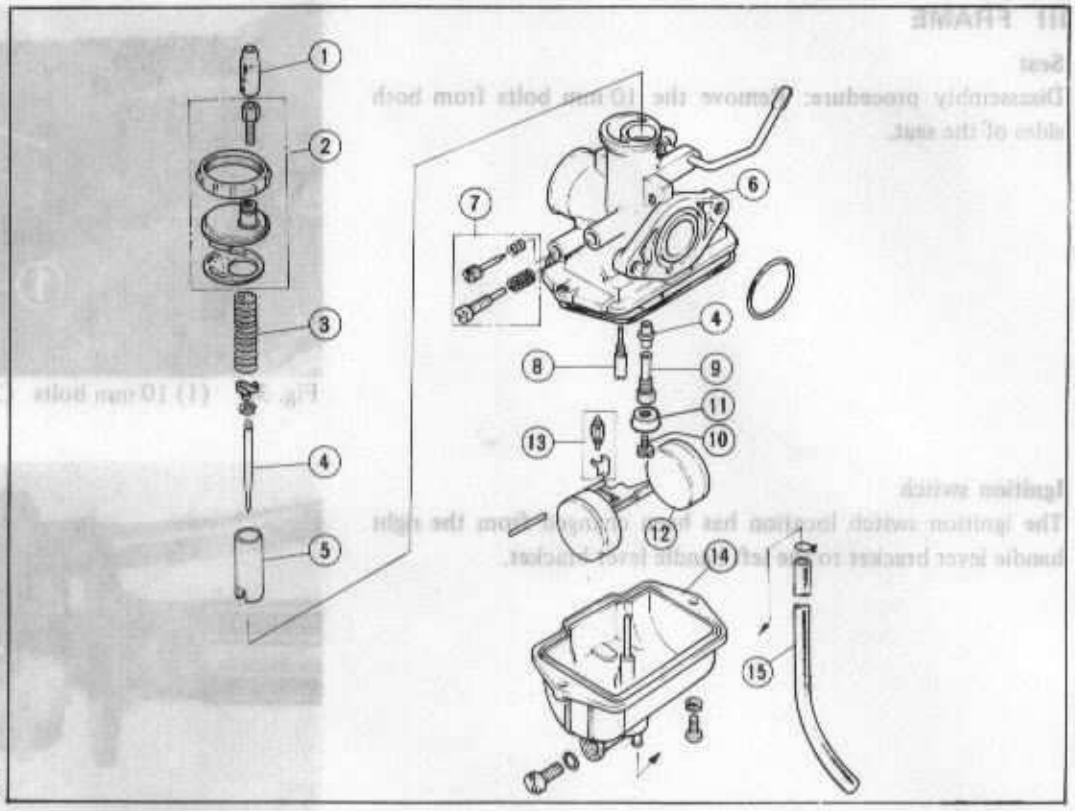
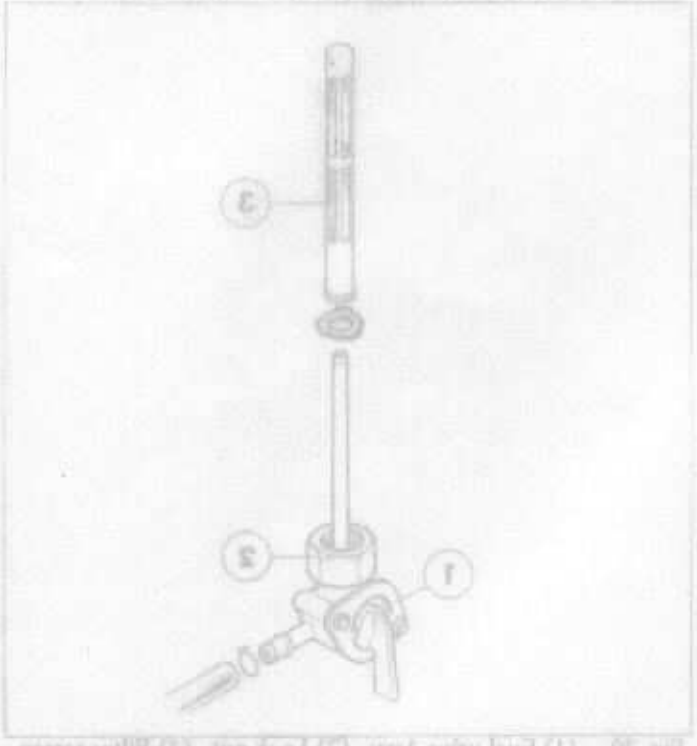


Fig. 35

1. Refer to pages 26 and 27 for disassembly, inspection and assembly.

Carburetor setting

Item	XR75K4
Setting mark	PC10A
Main jet	#92
Slow jet	#35
Jet needle setting	4th notch
Air screw opening	1 1/2 (Standard)
Float level	20 mm
Idle speed	1500 rpm



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III FRAME

Seat

Disassembly procedure: Remove the 10 mm bolts from both sides of the seat.

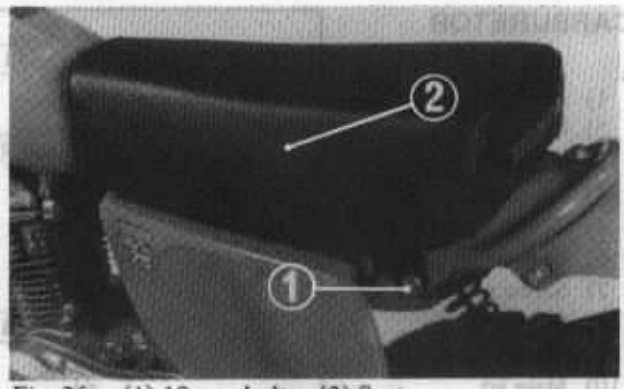

Fig. 36 (1) 10 mm bolts (2) Seat

Ignition switch

The ignition switch location has been changed from the right handle lever bracket to the left handle lever bracket.

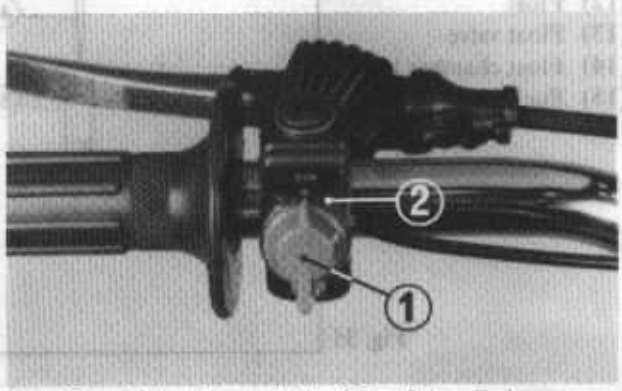

Fig. 37 (1) Ignition switch (2) Left handle lever bracket

Fuel valve

The fuel valve has been changed as shown in Fig. 39.

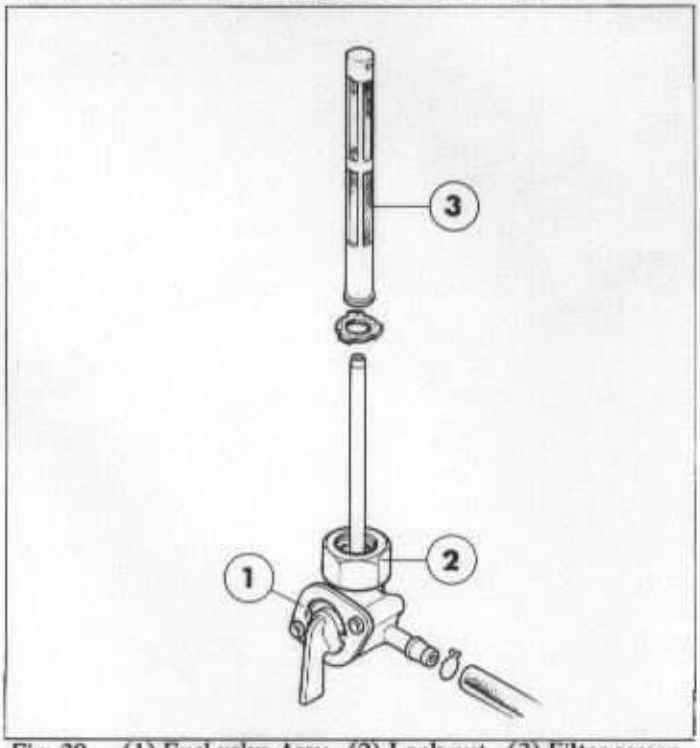

Fig. 39 (1) Fuel valve Assy (2) Lock nut (3) Filter screen

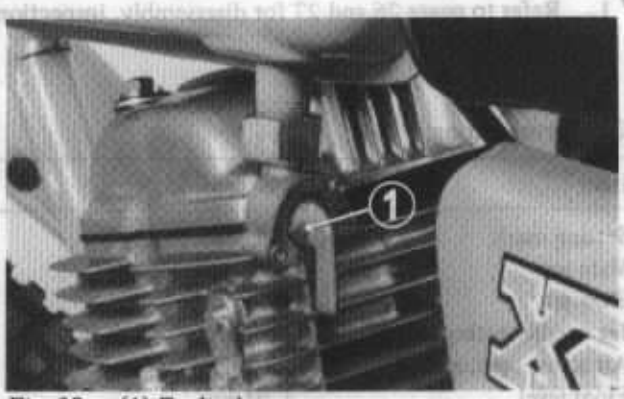

Fig. 38 (1) Fuel valve

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SPECIFICATIONS

	Item		Metric	English
Dimension	Overall length		1,700 mm	67 in.
	Overall width		750 mm	29.5 in.
	Overall height		1,010 mm	39.7 in.
	Wheel base		1,143 mm	45 in.
	Seat height		725 mm	28.5 in.
	Foot peg height		270 mm	10.6 in.
	Ground clearance		188 mm	7.4 in.
	Dry weight		67 kg	147.6 lbs.
Frame	Type		Diamond frame	
	F. suspension, travel		Telescopic fork, travel 126 mm (4.96 in.)	
	R. suspension, travel		Swing arm, travel 84.6 mm (3.33 in.)	
	F. tire size, pressure		2.50–16 (4PR), 1.2 kg/cm^2 (17 psi)	
	R. tire size, pressure		3.00–14 (4PR), 1.4 kg/cm^2 (20 psi)	
	F. brake, lining area		Internal expanding shoes, swept area 86.4 cm^2 (14 sq. in.)	
	R. brake, lining area		Internal expanding shoes, swept area 86.4 cm^2 (14 sq. in.)	
	Fuel capacity		3.0 lit.	0.8 US gal
	Fuel reserve capacity		0.8 lit.	0.2 US gal
	Caster angle		62°50'	
	Trail length		78 mm	3.07 in.
Engine	Type		Air cooled, 4-stroke OHC engine	
	Cylinder arrangement		Single cylinder 12° inclined from vertical	
	Bore and stroke		48.0 x 41.4 mm	1,889 x 1,629 in.
	Displacement		74.9 cc	4.57 cu-in.
	Compression ratio		9.5 : 1	
	Valve train		Chain driven overhead camshaft	
	Oil capacity		0.9 lit.	0.95 US qt.
	Lubrication system		Forced and wet sump	
	Cylinder head compression pressure		12 kg/cm^2 at 1,000 rpm	
	Intake valve	Opens	BTDC 5°	
		Closes	ABDC 15°	
	Exhaust valve	Opens	BBDC 15°	
		Closes	ATDC 5°	
	Valve tappet clearance		0.005 mm	0.002 in.
	Idle speed		1,500 rpm	
	Generator rotor nut torque valve		530 – 600 kg-cm	38.3 – 43.4 lbs-ft
Drive train	Clutch		Wet, multi plates	
	Transmission		5 speed constant mesh	
	Primary reduction		4.437	
	Gear ratio I		2.690	
	Gear ratio II		1.820	
	Gear ratio III		1.400	
	Gear ratio VI		1.130	
	Gear ratio V		0.960	
	Final reduction		3.285	
	Gear shift pattern		Left foot operated	
Electrical	Ignition		Flywheel magneto	
	Starting system		Primary kick starter	
	Alternator		A.C. generator	
	Spark plug		(NGK) C 7 HS or ND U 22 FS	

Date of Issue : JULY 1977

X. XR80'79 ADDENDUM

INTRODUCTION

This '79 addendum contains service information pertinent to the HONDA XR80.

Refer to the base XR75 Shop Manual for service items not described in this addendum.

HONDA MOTOR CO., LTD.
SERVICE PUBLICATION OFFICE

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3. SPECIAL TOOL 75
4. CABLE ROUTING 76

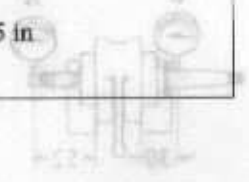
Date of Issue: JULY 1978

I. SPECIFICATIONS

Item	Metric	English
DIMENSIONS		
Overall length	1,700 mm	66.9 in
Overall width	750 mm	29.5 in
Overall height	1,010 mm	39.8 in
Wheel base	1,140 mm	44.9 in
Seat height	725 mm	28.5 in
Ground clearance	185 mm	7.3 in
Dry weight	66.5 kg	146.3 lb
FRAME		
Type	Diamond	
Front suspension, travel	Telescopic fork, 126 mm (5.0 in)	
Rear suspension, travel	Swing arm, 84.6 mm (3.3 in)	
Front tire size, type	2.50-16-4PR Knobby, (Tire air pressure: 1.2 kg/cm² 17 psi)	
Rear tire size, type	3.00-14-4PR Knobby, (Tire air pressure: 1.4 kg/cm² 20 psi)	
Front brake	Internal expanding shoes	
Rear brake	Internal expanding shoes	
Fuel capacity	3.6 lit	0.95 US gal
Fuel reserve capacity	0.8 lit	0.21 US gal
Caster angle	62°50′	
Trail length	78 mm	3.10 in
Front fork oil capacity		
To fill dry fork assembly	115–120 cc	3.9–4.1 US oz
To refill after draining	105–110 cc	3.6–3.7 US oz
ENGINE		
Type	Air cooled 4-stroke OHC engine	
Cylinder arrangement	Single cylinder 12° inclined from vertical	
Bore and stroke	47.5 x 45.0 mm	1.870 x 1.771 in
Displacement	79.7 cc	4.85 cu in
Compression ratio	9.7 : 1	
Compression pressure	12 kg/cm² (1,000 rpm)	170.7 psi (1,000 rpm)
Carburetor, venturi dia	Piston valve type, 20 mm (0.79 in)	
Valve train	Chain driven over head camshaft	
Oil capacity	0.9 lit	0.95 US qt
Lubrication system	Forced pressure and wet sump	
Fuel required	All gasoline types, 91 Research Octane Minimum	
Air filtration	Oiled polyurethane foam filter	
Valve timing (Valve clearance: 0.05 mm) IN. Opens	8° BTDC (at 1 mm lift),	53°12′ BTDC (at 0 lift)
IN. Closes	40° ABDC (at 1 mm lift),	102°56′ ABDC (at 0 lift)
EX. Opens	40° BBDC (at 1 mm lift),	104°32′ BBDC (at 0 lift)
EX. Closes	8° ATDC (at 1 mm lift),	60°04′ ATDC (at 0 lift)
Valve clearance	0.05 mm	0.002 in
Engine dry weight	18.2 kg	40.1 lb
Idle speed	1500 ± 100 rpm	

Date of Issue: JULY 1978

Item	Metric	English
DRIVE TRAIN		
Clutch	Wet, multi-plate	
Transmission	5-speed constant mesh	
Primary reduction	4.437	
Gear ratio I	2.692	
II	1.823	
III	1.400	
IV	1.130	
V	0.960	
Final reduction	3.285, 46/14	
Gear shift pattern	Left foot operated return system	1–N–2–3–4–5
ELECTRICAL		
Ignition	A C Magneto	
Ignition timing "F" mark	15° BTDC	
Starting system	Kickstart	
Spark plug	USA model NGK C7HS ND U22FS Canadian model NGK CR7HS ND U22FSR-L	
Condenser capacity	0.22–0.27 μF	
CARBURETOR SPECIFICATIONS		
Identification number	PC10B	
Main jet	#95	
Jet needle mark	332501	
Float height	21.5 mm	0.85 in
Air screw opening	1-3/4	



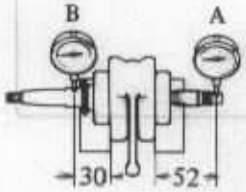
Date of Issue: JULY 1978

II. GENERAL INFORMATION

The service data listed here is for the XR80 only.

1. SERVICE DATA

Engine

		STANDARD	SERVICE LIMIT
Valve stem O.D.	Exhaust	5.430– 5.445 mm (0.2138–0.2144 in)	5.40 mm (0.213 in)
Stem-to-guide clearance	Exhaust	0.03 – 0.055 mm (0.0012–0.0022 in)	0.10 mm (0.004 in)
Cylinder I.D.		47.50 –47.51 mm (1.8700–1.8704 in)	47.6 mm (1.874 in)
Piston O.D. (measured at 7 mm from end)		47.465–47.490 mm (1.8686–1.8697 in)	47.40 mm (1.866 in)
Cylinder-to-piston clearance		0.010–0.045 mm (0.0004–0.0018 in)	0.20 mm (0.008 in)
Piston ring-to-piston groove clearance	Top	0.015–0.050 mm (0.0006–0.0020 in)	0.15 mm (0.006 in)
	Second	0.015–0.045 mm (0.0006–0.0018 in)	0.15 mm (0.006 in)
Piston ring end gap	Top	0.15 – 0.35 mm (0.006–0.014 in)	0.5 mm (0.02 in)
	Second	0.15 – 0.35 mm (0.006–0.014 in)	0.5 mm (0.02 in)
	Oil (Side rail)	0.3 – 0.9 mm (0.01–0.04 in)	1.1 mm (0.04 in)
Piston pin hole bore		13.002–13.008 mm (0.5119–0.5121 in)	13.06 mm (0.514 in)
Connecting rod small end I.D.		13.016–13.034 mm (0.5124–0.5131 in)	13.04 mm (0.513 in)
Piston-to-piston pin clearance		0.002– 0.014 mm (0.0001–0.0006 in)	0.03 mm (0.001 in)
Piston pin-to-connecting rod small end clearance		0.016– 0.040 mm (0.0006–0.0016 in)	0.06 mm (0.002 in)
Crankshaft runout  unit: mm	at A	0.035 mm (0.0014 in)	0.085 mm (0.0033 in)
	at B	0.020 mm (0.0008 in)	0.070 mm (0.0027 in)
Connecting rod large end side clearance		0.10 – 0.35 mm (0.004–0.014 in)	0.5 mm (0.02 in)

Frame

Refer to XR75 Shop manual

2. TORQUE VALUE

Fuel tank mounting bolt: 0.8 – 1.2 kgm (5.8 – 8.7 ft-lb)

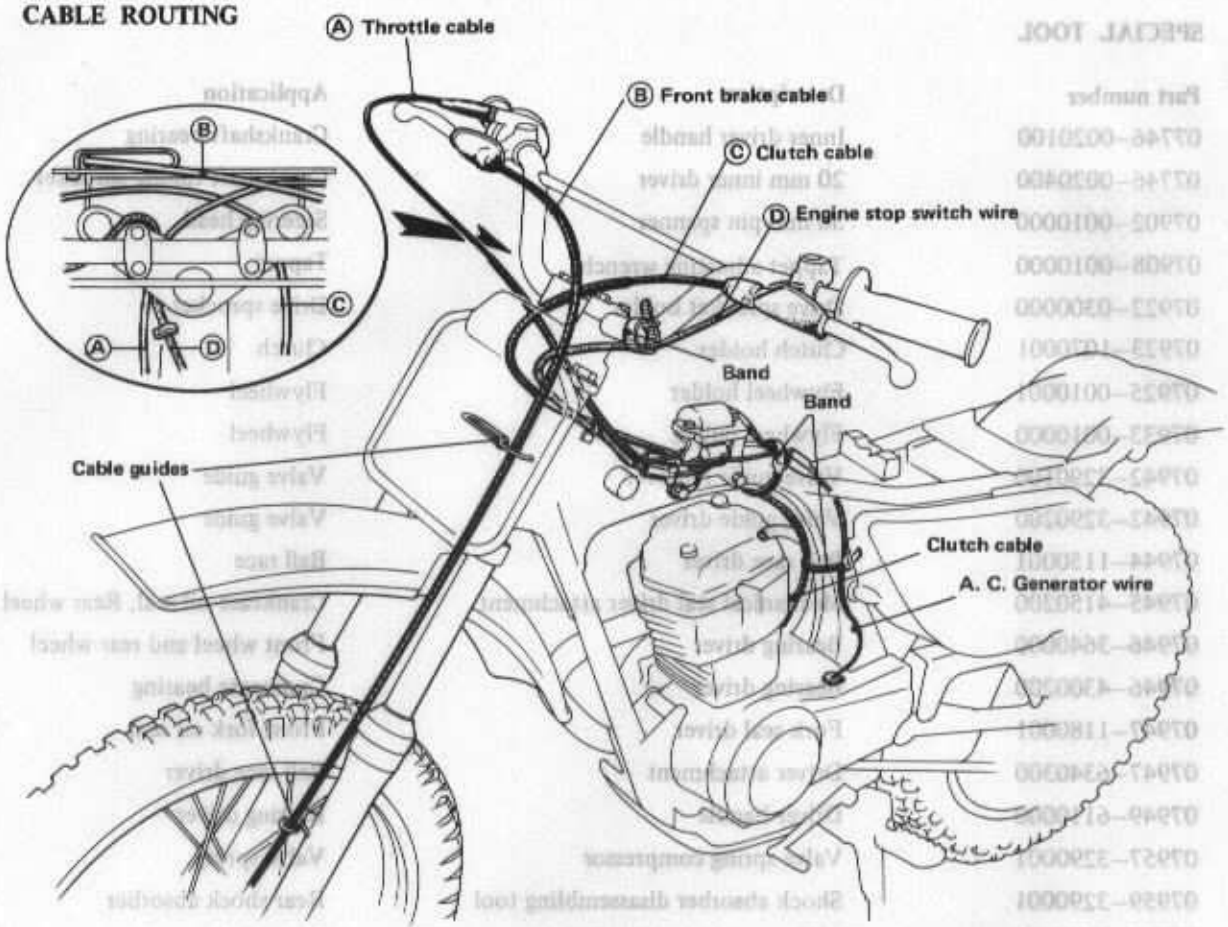
Date of Issue: JULY 1978

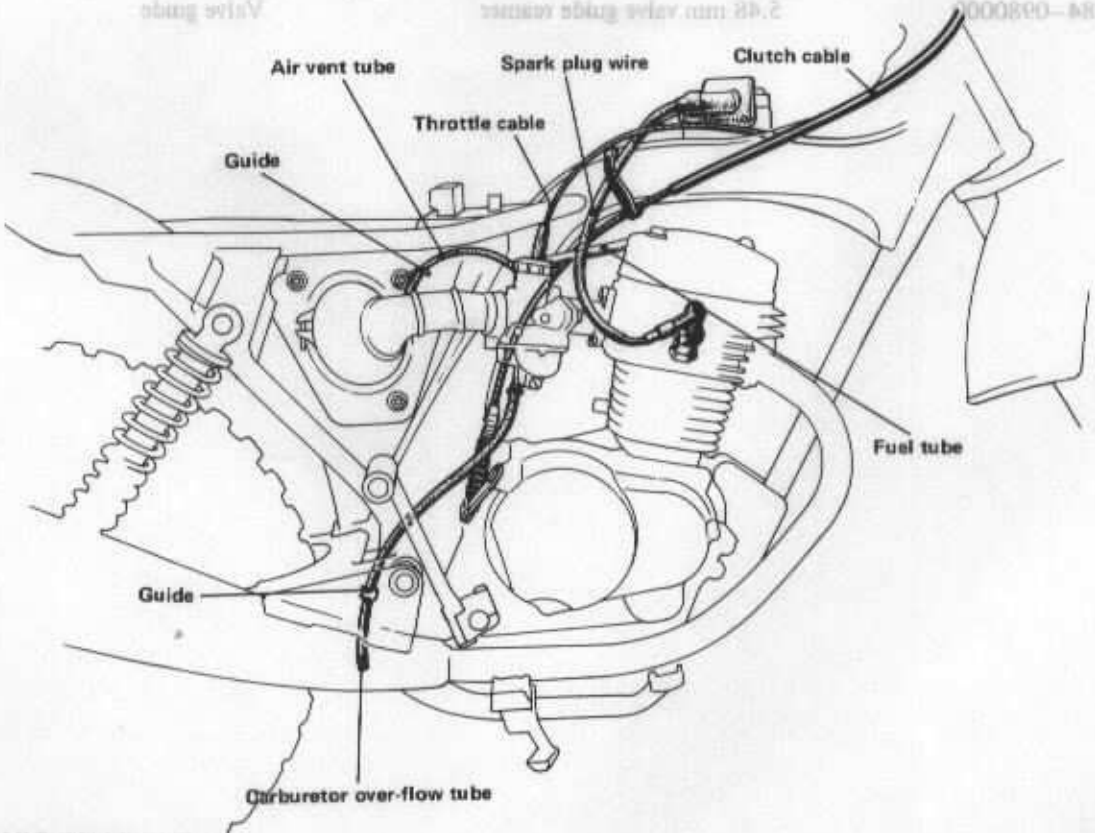
3. SPECIAL TOOL

Part number	Description	Application
07746–0020100	Inner driver handle	Crankshaft bearing
07746–0020400	20 mm inner driver	Crankshaft timing sprocket
07902–0010000	36 mm pin spanner	Steering head
07908–0010000	Tappet adjusting wrench	Tappet
07922–0300000	Drive sprocket holder	Drive sprocket
07923–1070001	Clutch holder	Clutch
07925–0010001	Flywheel holder	Flywheel
07933–0010000	Flywheel puller	Flywheel
07942–3290100	Valve guide remover	Valve guide
07942–3290200	Valve guide driver	Valve guide
07944–1150001	Ball race driver	Ball race
07945–4150200	Mechanical seal driver attachment	Crankcase oil seal, Rear wheel oil seal
07946–3640000	Bearing driver	Front wheel and rear wheel
07946–4300200	Bearing driver	Crankcase bearing
07947–1180001	Fork seal driver	Front fork oil seal
07947–6340300	Driver attachment	Ball race driver
07949–6110000	Driver handle	Bearing driver
07957–3290001	Valve spring compressor	Valve spring
07959–3290001	Shock absorber disassembling tool	Rear shock absorber
07984–0980000	5.48 mm valve guide reamer	Valve guide

Date of Issue: JULY 1978

4. CABLE ROUTING





Date of Issue: JULY 1978

XI. XR80 '80ADDENDUM

INTRODUCTION

This '80 addendum contains service information for the XR80.

Refer to the base Shop Manual for service items not described in this addendum.

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I. SPECIFICATIONS

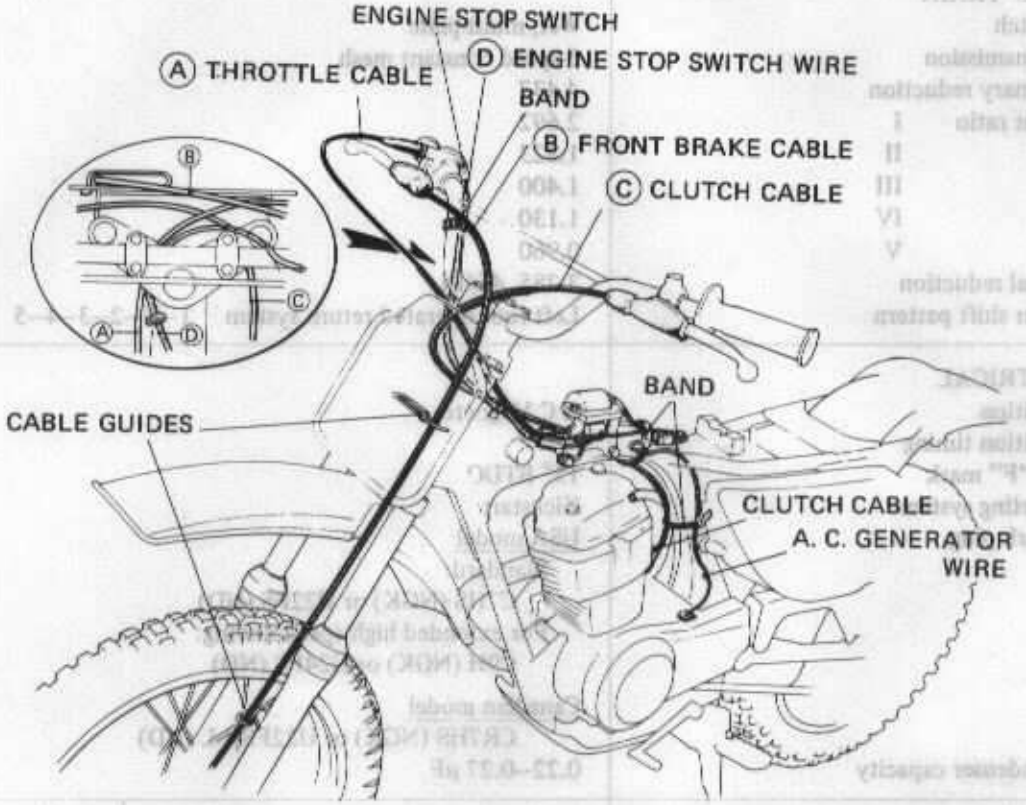
Item	Metric	English
DIMENSIONS		
Overall length	1,700 mm	66.9 in
Overall width	750 mm	29.5 in
Overall height	1,010 mm	39.8 in
Wheel base	1,140 mm	44.9 in
Seat height	725 mm	28.5 in
Ground clearance	195 mm	7.7 in
Dry weight	66.5 kg	146.3 lb
FRAME		
Type	Diamond	
Front suspension, travel	Telescopic fork, 126 mm (5.0 in)	
Rear suspension, travel	Swing arm, 112 mm (4.4 in)	
Front tire size, type	2.50-16-4PR Knobby, (Tire air pressure: 1.2 kg/cm² 18 psi)	
Rear tire size, type	3.00-14-4PR Knobby, (Tire air pressure: 1.4 kg/cm² 20 psi)	
Front brake	Internal expanding shoes	
Rear brake	Internal expanding shoes	
Fuel capacity	3.6 lit	0.95 US gal
Fuel reserve capacity	0.8 lit	0.21 US gal
Caster angle	27°10′	
Trail length	78 mm	3.10 in
Front fork oil capacity		
To fill dry fork assembly	115–120 cc	3.9–4.1 US oz
To refill after draining	105–110 cc	3.6–3.7 US oz
ENGINE		
Type	Air cooled 4-stroke OHC engine	
Cylinder arrangement	Single cylinder 12° inclined from vertical	
Bore and stroke	47.5 x 45.0 mm	1.87 x 1.77 in
Displacement	79.7 cc	4.85 cu in
Compression ratio	9.7 : 1	
Compression pressure	12 kg/cm² (1,000 rpm)	170.7 psi (1,000 rpm)
Carburetor, venturi dia	Piston valve, 20 mm (0.79 in)	
Valve train	Chain driven over head camshaft	
Oil capacity	0.9 lit	0.95 US qt
Lubrication system	Forced pressure and wet sump	
Fuel required	All gasoline types, 91 Research Octane Minimum	
Air filtration	Oiled polyurethane foam filter	
Valve timing IN. Opens	8° BTDC (at 1 mm lift),	53°12′ BTDC (at 0 lift)
Closes	40° ABDC (at 1 mm lift),	102°56′ ABDC (at 0 lift)
Valve clearance: 0.05 mm EX. Opens	40° BBDC (at 1 mm lift),	104°32′ BBDC (at 0 lift)
Closes	8° ATDC (at 1 mm lift),	60°04′ ATDC (at 0 lift)
Valve clearance	0.05 mm	0.002 in
Engine dry weight	18.7 kg	40.1 lb
Idle speed	1500±100 rpm	

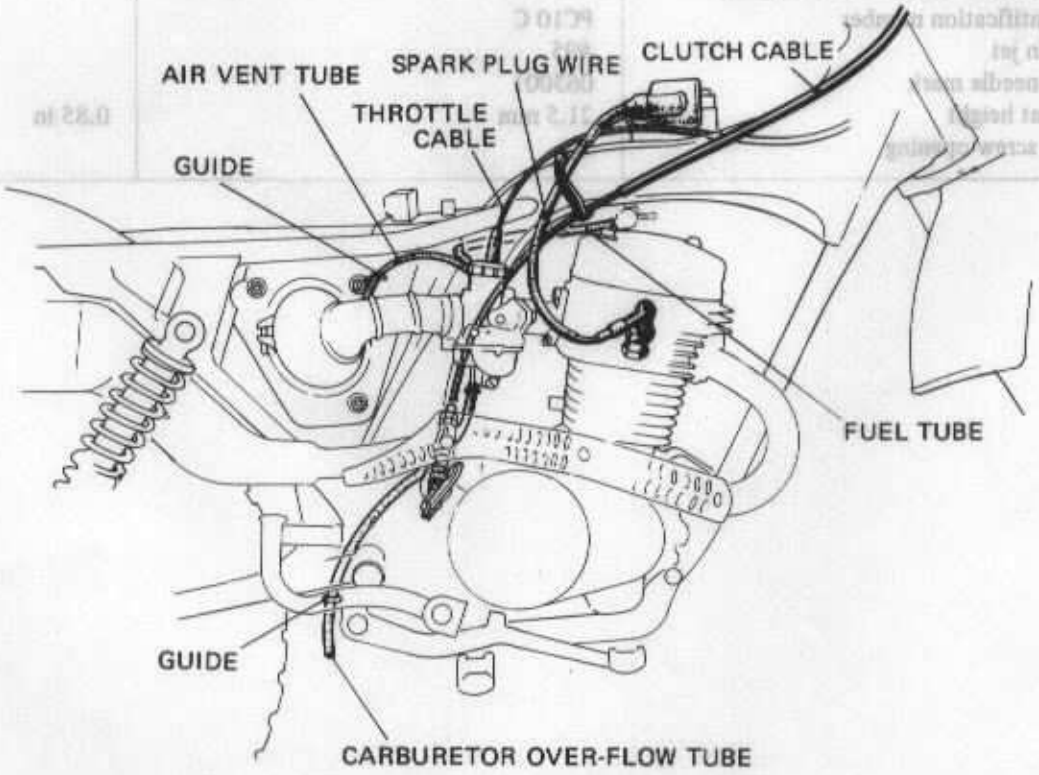
Date of Issue: JULY 1979

Item	Metric	English
DRIVE TRAIN		
Clutch	Wet, multi-plate	
Transmission	5-speed constant mesh	
Primary reduction	4.437	
Gear ratio I	2.692	
II	1.823	
III	1.400	
IV	1.130	
V	0.960	
Final reduction	3.285, 46/14	
Gear shift pattern	Left foot operated return system 1–N–2–3–4–5	
ELECTRICAL		
Ignition	A C Magneto	
Ignition timing "F" mark	15° BTDC	
Starting system	Kickstart	
Spark plug	USA model Standard: C7HS (NGK) or U22FS (ND) For extended high speed driving: C9H (NGK) or U24FS (ND) Canadian model CR7HS (NGK) or U22FSR-L (ND)	
Condenser capacity	0.22–0.27 μF	
CARBURETOR SPECIFICATIONS		
Identification number	PC10 C	
Main jet	#95	
Jet needle mark	063001	
Float height	21.5 mm	0.85 in
Air screw opening	1¾	

Date of Issue: JULY 1979

II. CABLE AND HARNESS ROUTING





Date of Issue: JULY 1979

III. MAINTENANCE SCHEDULE

The maintenance intervals shown in the following schedule are based upon average riding conditions. Machines subjected to severe use, or ridden in unusually dusty areas, require more frequent servicing.

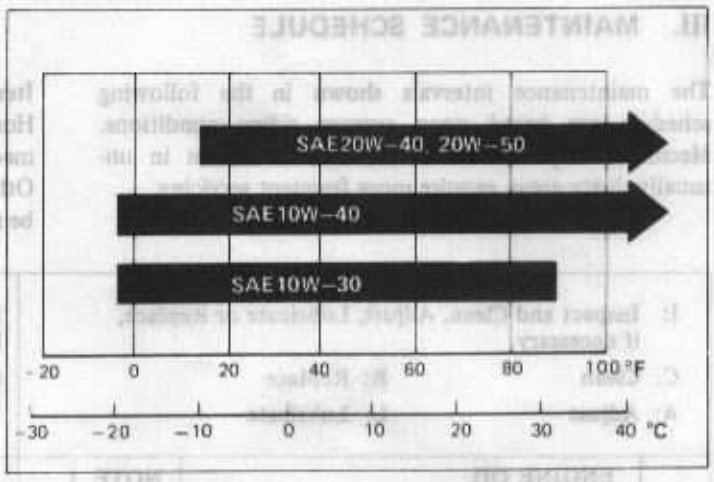
Items marked *should be serviced by an authorized Honda dealer, unless the owner has proper tools and is mechanically proficient.
Other maintenance items are simple to perform and may be serviced by the owner.

I: Inspect and Clean, Adjust, Lubricate or Replace, if necessary. C: Clean R: Replace A: Adjust L: Lubricate			INITIAL SERVICE PERIOD (First week of operation)	REGULAR SERVICE PERIOD (Every 30 operating days)
	ENGINE OIL	NOTE 1	R	R
*	ENGINE OIL FILTER SCREEN			C: (EVERY YEAR)
	AIR CLEANER ELEMENT	NOTE 2		C
	SPARK PLUG			I
*	VALVE CLEARANCE		I	I
*	CONTACT BREAKER POINTS		I	I
*	IGNITION TIMING		I	I
*	CAM CHAIN TENSIONER			A: (EVERY YEAR)
*	CARBURETOR		I	I
	FUEL LINE			I: (EVERY YEAR)
*	FUEL FILTER SCREEN			C: (EVERY YEAR)
	THROTTLE OPERATION		I	I
	DRIVE CHAIN		I	I
*	BRAKE SHOES			I: (EVERY YEAR)
	BRAKE CONTROL LINKAGE		I	I
*	CLUTCH		I	I
	FRONT AND REAR SUSPENSION			I: (EVERY YEAR)
	FRONT FORK OIL			R: (EVERY YEAR)
*	SIDE STAND			I
*	SPARK ARRESTER			C
	ALL NUTS, BOLTS, FASTENERS		I	I
*	WHEELS, RIMS, AND SPOKES			I
	TIRES		I	I
*	STEERING HEAD BEARING			A: (EVERY YEAR)

NOTE: 1. Replace every 30 operating days or every 3 months, whichever comes first.
2. Service more frequently when riding in dusty areas.

Date of Issue: JULY 1979

IV. LUBRICATION



ENGINE OIL RECOMMENDATION

Use HONDA 4-STROKE OIL or equivalent.
API SERVICE CLASSIFICATION: SE
VISCOSITY: SAE 10W–40

Other oil viscosities may be used when the average temperature in your riding area is within the indicated range.

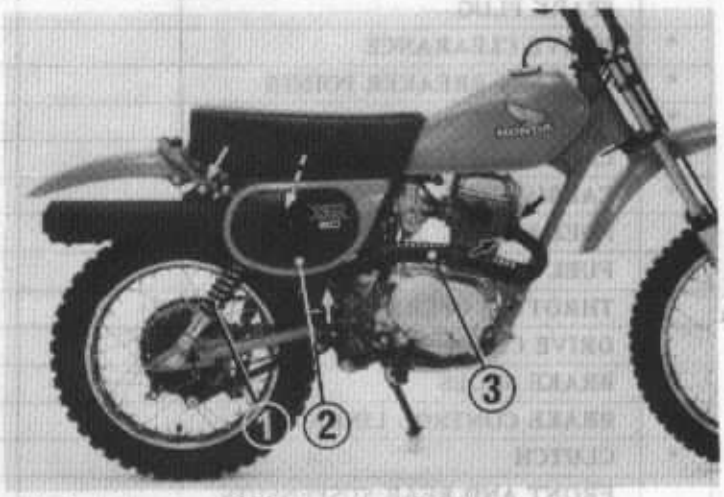
CONTROL CABLE LUBRICATION

Disconnect the throttle, clutch and brake cables at their upper ends. Thoroughly lubricate the cables and their pivot points with a commercially available cable lubricant.

V. INSPECTION AND ADJUSTMENT

Exhaust Pipe Removal

Remove the right number plate.
Remove the rear shock absorber.
Remove the exhaust pipe mounting bolts and nuts.



(1) Shock absorber (2) Number plate (3) Exhaust pipe

Spark Arrester

1. Remove the spark arrester screws (1).
2. Remove the spark arrester from the exhaust pipe.
3. Remove the drain plug (3)
4. Start the engine and rev about twenty times.
5. After cleaning the spark arrester install the spark arrester and fasteners.

WARNING

- *Do not perform this operation immediately after the engine has been run because the exhaust system becomes very hot.*
- *Because of the increased fire hazard ensure that there are no combustible materials in the area when cleaning the spark arrester.*
- *Wear eye protection.*
- *Never run the engine in a closed area. The exhaust contains poisonous carbon monoxide gas.*

(1) Spark arrester screws (2) Spark arrester (3) Drain plug

Date of Issue: JULY 1979

XII. XR80 '81–'82 ADDENDUM

INTRODUCTION

This addendum contains service information for the '81–'82 XR80.

Refer to the base Shop Manual for service items not described in this addendum.

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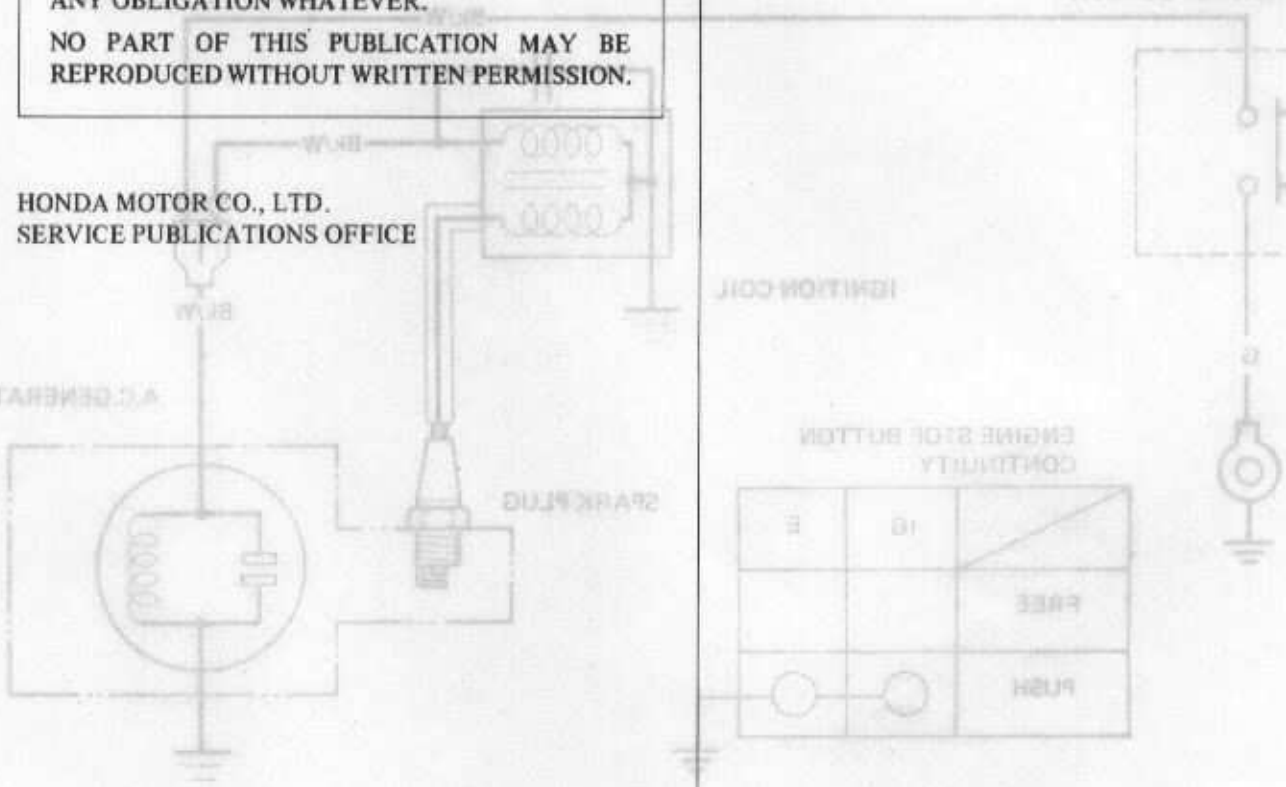


Date of Issue: Apr. 1982

I. SPECIFICATIONS

New specifications for the 1981 and 1982 XR80 are listed below.

Rear tire size: 3.60–14–4PR, Knobby
(Tire air pressure: 1.4 kg/cm², 20 psi)

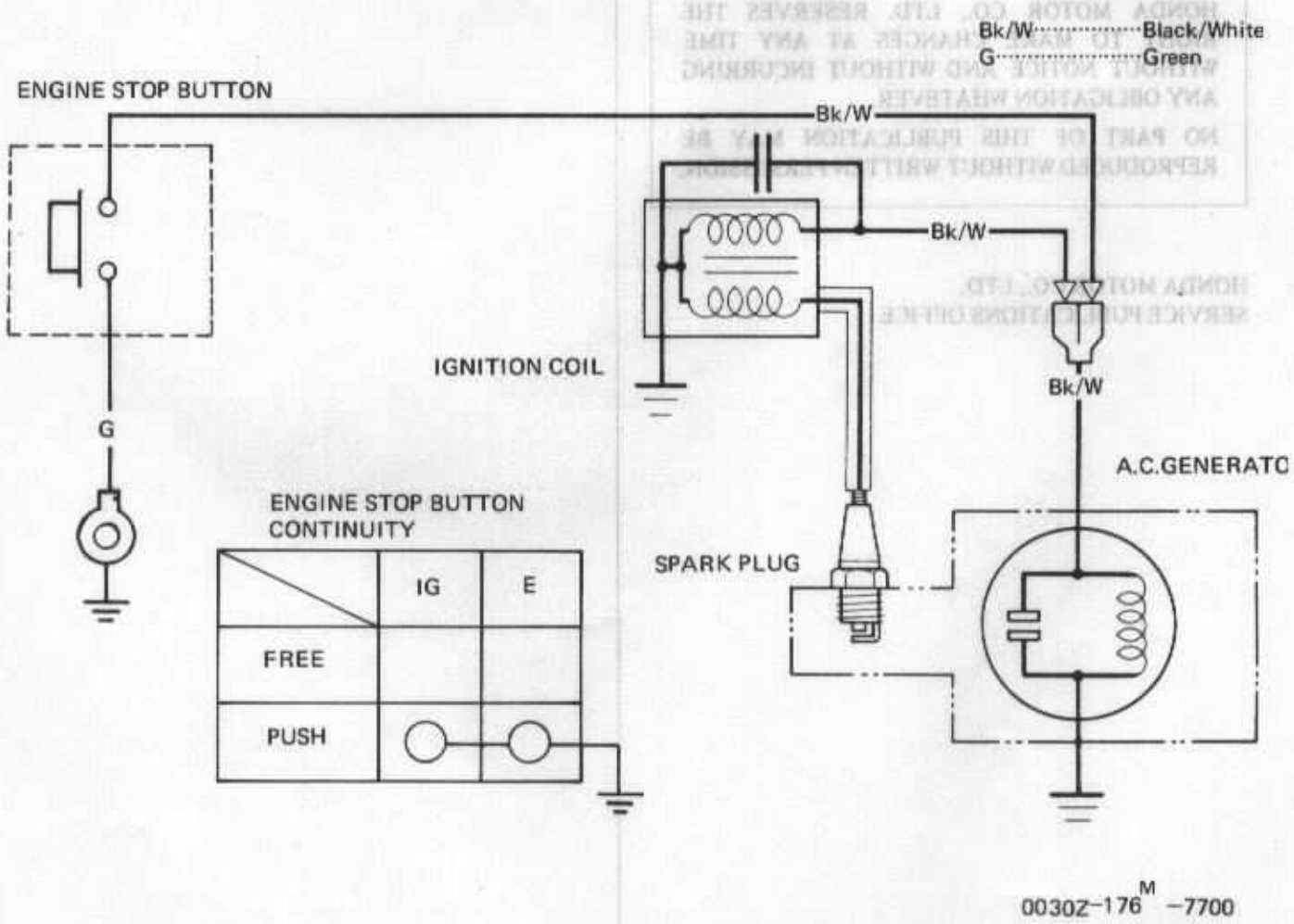
Fuel capacity: 4.5 lit. (1.9 U.S. gal)

*Engine Oil: Use Honda 4-Stroke Oil or equivalent.
API Service Classification: SE or SF
Viscosity: SAE 10W-40

*Spark Plug: CR7HS (NGK) or U22FSR-U (ND)

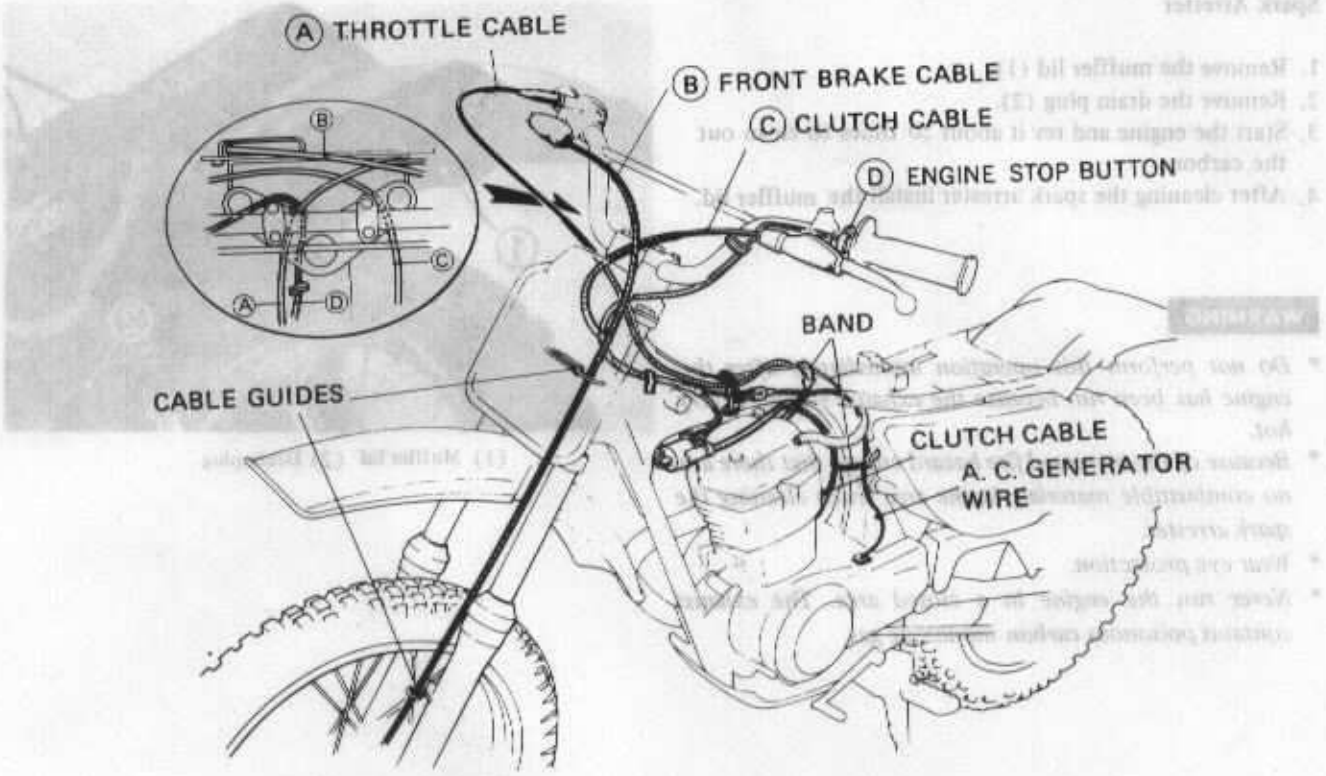
* These specifications are specifically for the 1982 model but can be applied to the 1981 model also.

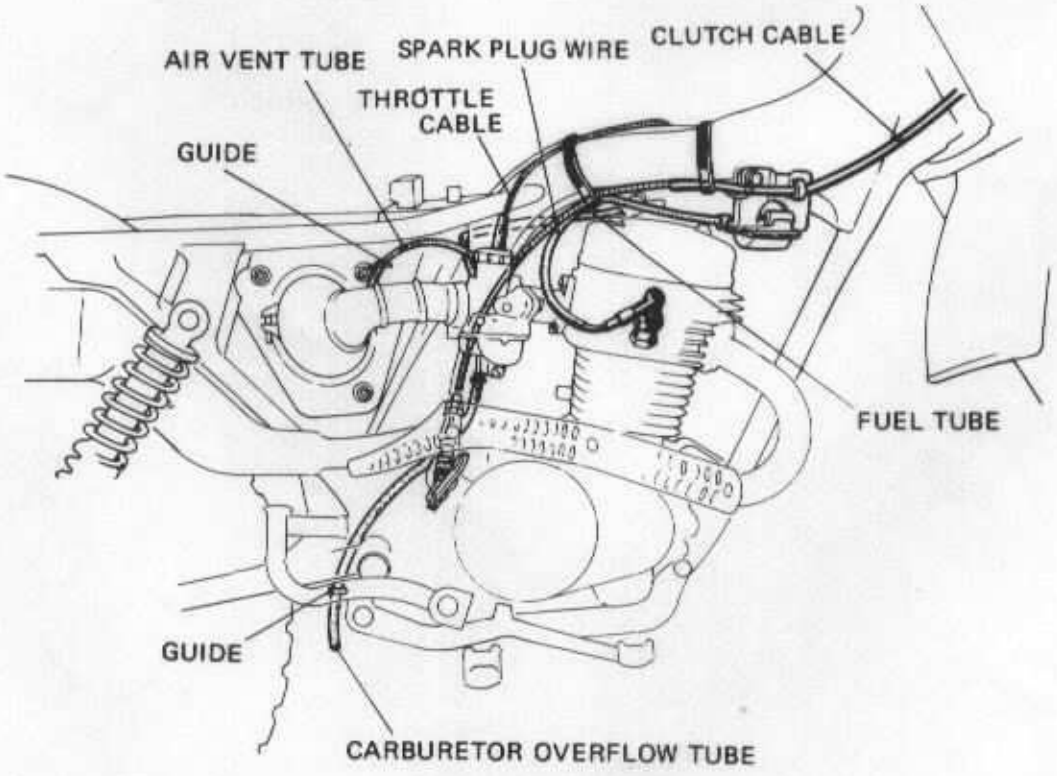
II. WIRING DIAGRAM



Date of Issue: Apr. 1982

III. CABLE AND HARNESS ROUTING





Date of Issue: Apr. 1982

IV. INSPECTION AND ADJUSTMENT

Spark Arrester

1. Remove the muffler lid (1).
2. Remove the drain plug (2).
3. Start the engine and rev it about 20 times to clean out the carbon.
4. After cleaning the spark arrester install the muffler lid.

(1) Muffler lid (2) Drain plug

WARNING

* *Do not perform this operation immediately after the engine has been run because the exhaust system is very hot.*
* *Because of the increased fire hazard ensure that there are no combustible materials in the area when cleaning the spark arrester.*
* *Wear eye protection.*
* *Never run the engine in a closed area. The exhaust contains poisonous carbon monoxide gas.*

Date of Issue: Apr. 1982

XIII. XR80 '83 ADDENDUM

INTRODUCTION

This addendum contains service information for the '83 XR80.

Refer to the base Shop Manual and previous addendums for service items not described in this addendum.

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IV. FRONT WHEEL 91
V. FRONT FORK 92

Date of Issue: November, 1982

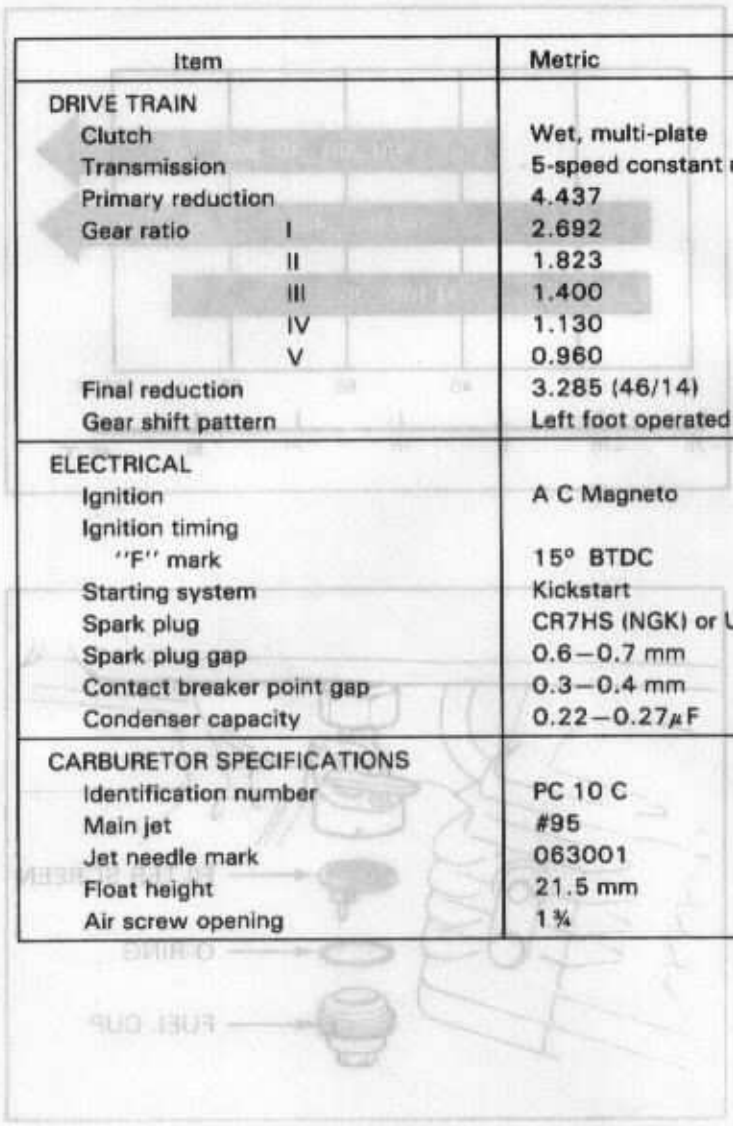
I. SPECIFICATIONS

Item	Metric	English
DIMENSIONS		
*Overall length	1,695 mm	66.7 in
Overall width	750 mm	29.5 in
Overall height	1,010 mm	39.8 in
Wheel base	1,140 mm	44.9 in
Seat height	725 mm	28.5 in
Ground clearance	195 mm	7.7 in
Dry weight	66.5 kg	146.6 lb
FRAME		
Type	Diamond	
Front suspension, travel	Telescopic fork, 126 mm (5.0 in)	
Rear suspension, travel	Swing arm, 112 mm (4.4 in)	
Front tire size, type	2.50-16-4PR Knobby, (Tire air pressure: 1.25 kg/cm² 18 psi)	
Rear tire size, type	3.60-14-4PR Knobby, *(Tire air pressure: 1.50 kg/cm² 21 psi)	
Front brake	Internal expanding shoes	
Rear brake	Internal expanding shoes	
*Fuel capacity	6.0 liters	1.6 US gallons
*Fuel reserve capacity	1.4 liters	0.4 US gallons
Caster angle	27°10′	
Trail length	78 mm	3.10 in
*Front fork oil capacity (To fill dry fork assembly)	68.5–73.5 cc	2.32–2.49 US oz
ENGINE		
Type	Air cooled 4-stroke OHC engine	
Cylinder arrangement	Single cylinder 12° inclined from vertical	
Bore and stroke	47.5 x 45.0 mm	1.87 x 1.77 in
Displacement	79.7 cc	4.85 cu in
Compression ratio	9.7:1	
Compression pressure	12 kg/cm²	170.7 psi
Carburetor, venturi dia	Piston valve, 20 mm (0.79 in)	
Valve train	Chain driven overhead camshaft	
Oil capacity	0.9 liters	0.95 US qt
Lubrication system	Forced pressure and wet sump	
Fuel required	All gasoline types, 91 Research Octane Minimum	
Air filtration	Oiled polyurethane foam filter	
Valve timing IN. Opens	8° BTDC (at 1 mm lift),	53°12′ BTDC (at 0 lift)
Closes	40° ABDC (at 1 mm lift),	102°56′ ABDC (at 0 lift)
Valve clearance: EX. Opens	40° BBDC (at 1 mm lift),	104°32′ BBDC (at 0 lift)
0.05 mm Closes	8° ATDC (at 1 mm lift),	60°04′ ATDC (at 0 lift)
Valve clearance	0.05 mm	0.002 in
Engine dry weight	18.7 kg	41.2 lb
Idle speed	1,500 ± 100 rpm	

* New specification.

Date of Issue: November, 1982

Item	Metric	English
DRIVE TRAIN		
Clutch	Wet, multi-plate	
Transmission	5-speed constant mesh	
Primary reduction	4.437	
Gear ratio I	2.692	
II	1.823	
III	1.400	
IV	1.130	
V	0.960	
Final reduction	3.285 (46/14)	
Gear shift pattern	Left foot operated return system 1—N—2—3—4—5	
ELECTRICAL		
Ignition	A C Magneto	
Ignition timing		
"F" mark	15° BTDC	
Starting system	Kickstart	
Spark plug	CR7HS (NGK) or U22FSR-U (ND)	
Spark plug gap	0.6—0.7 mm	0.024—0.028 in
Contact breaker point gap	0.3—0.4 mm	0.012—0.016 in
Condenser capacity	0.22—0.27μF	
CARBURETOR SPECIFICATIONS		
Identification number	PC 10 C	
Main jet	#95	
Jet needle mark	063001	
Float height	21.5 mm	0.85 in
Air screw opening	1¾	



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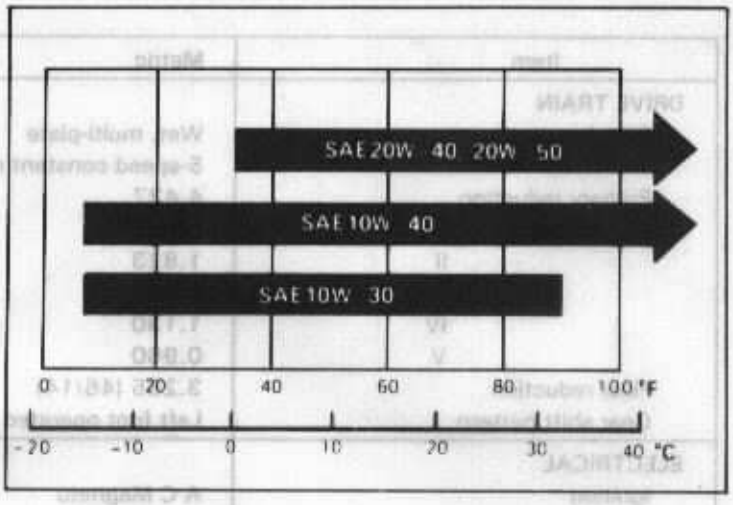
II. LUBRICATION

ENGINE OIL RECOMMENDATION

Use HONDA 4-STROKE OIL or equivalent.
API SERVICE CLASSIFICATION: SE or SF
VISCOISTY: SAE 10W–40

Other oil viscosities may be used when the average temperature in your riding area is within the indicated range.



III. INSPECTION AND ADJUSTMENT

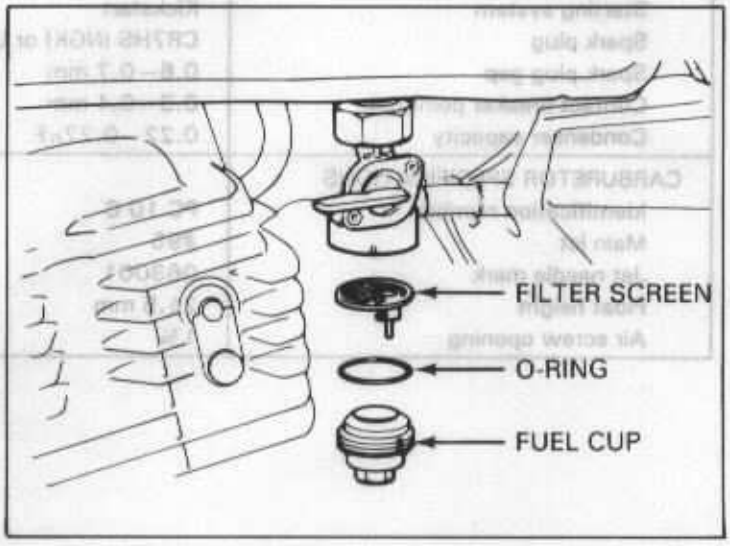
FUEL STRAINER

Turn the fuel valve OFF and remove the fuel cup, O-ring and filter screen.

Drain the gasoline into a suitable container.

WARNING

* ***Gasoline is extremely flammable and is explosive under certain conditions. Perform this operation in a well ventilated area. Do not smoke or allow flames or sparks in the area.***



Wash the fuel cup and filter screen in clean non-flammable or high flash point solvent.

WARNING

* ***Never use gasoline or low flash point solvents for cleaning the filter screen. A fire or explosion could result.***

Reinstall the screen, aligning the index marks on the fuel valve body and filter screen. Install a new O-ring into the fuel valve body. Reinstall the fuel cup, making sure the new O-ring is in place. Hand tighten the fuel cup then torque to specification.

TORQUE: 0.3–0.5 kg-m (2–4 ft-lb)

After installing, turn the fuel valve ON and check that there are no leaks.

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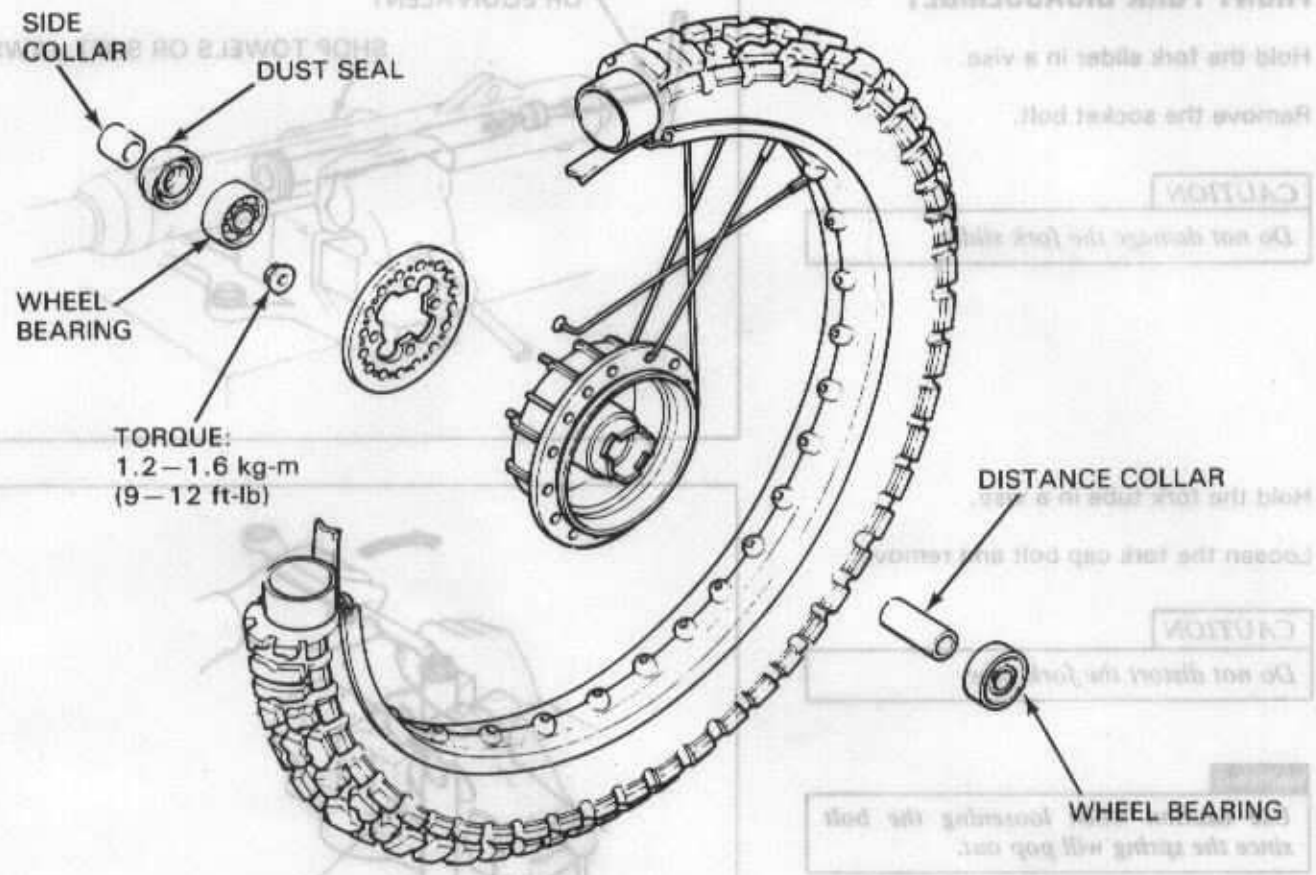
IV. FRONT WHEEL



FRONT WHEEL ASSEMBLY

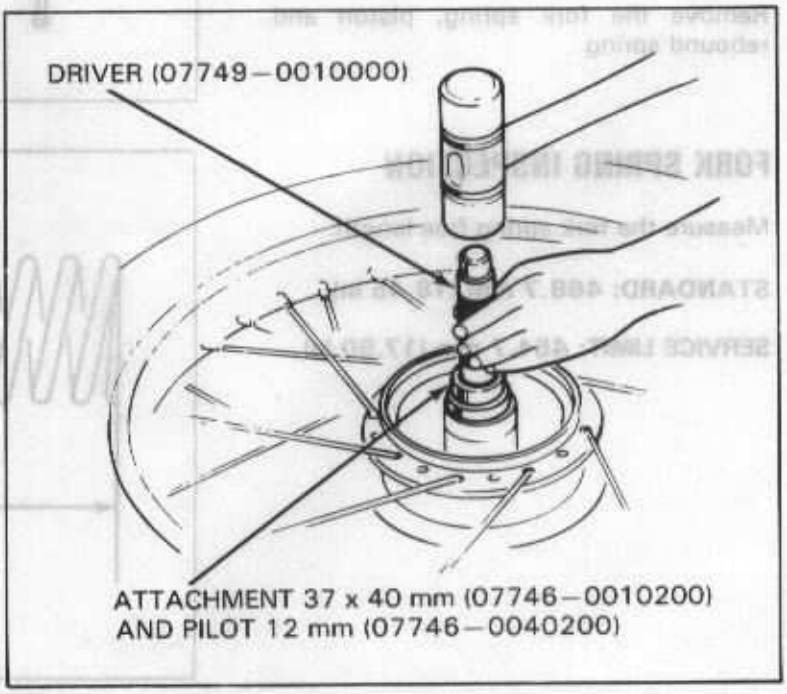
Pack the wheel bearings with grease.

The bearings must be installed with their sealed sides facing out, away from the center of the hub. Drive in the right side bearing first. Be certain to drive the bearing in straight and make sure that it is fully seated in the hub.

Install the distance collar and then drive in the left side bearing.

WARNING

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



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V. FRONT FORK

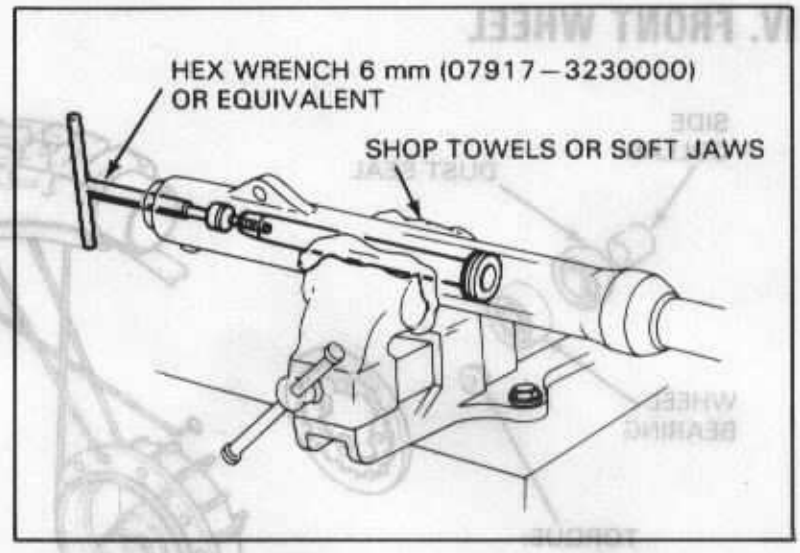
FRONT FORK DISASSEMBLY

Hold the fork slider in a vise.

Remove the socket bolt.

CAUTION

Do not damage the fork slider.



Hold the fork tube in a vise.

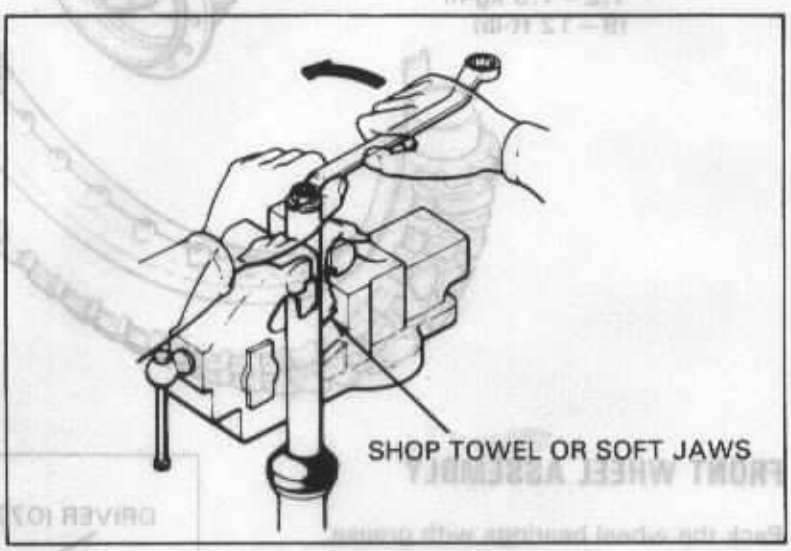
Loosen the fork cap bolt and remove.

CAUTION

Do not distort the fork tube.

WARNING

Use caution when loosening the bolt since the spring will pop out.



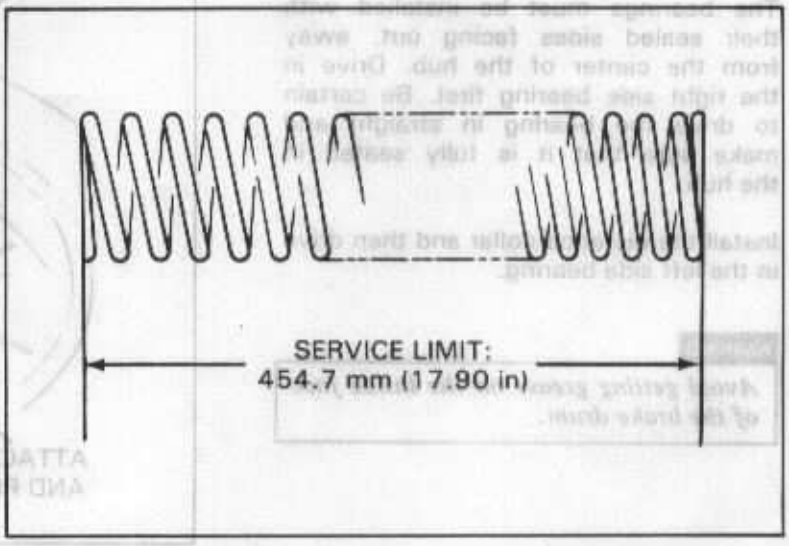
Remove the fork spring, piston and rebound spring.

FORK SPRING INSPECTION

Measure the fork spring free length.

STANDARD: 468.7 mm (18.45 in)

SERVICE LIMIT: 454.7 mm (17.90 in)



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OIL SEAL REMOVAL

Remove the dust seal and the stop ring.

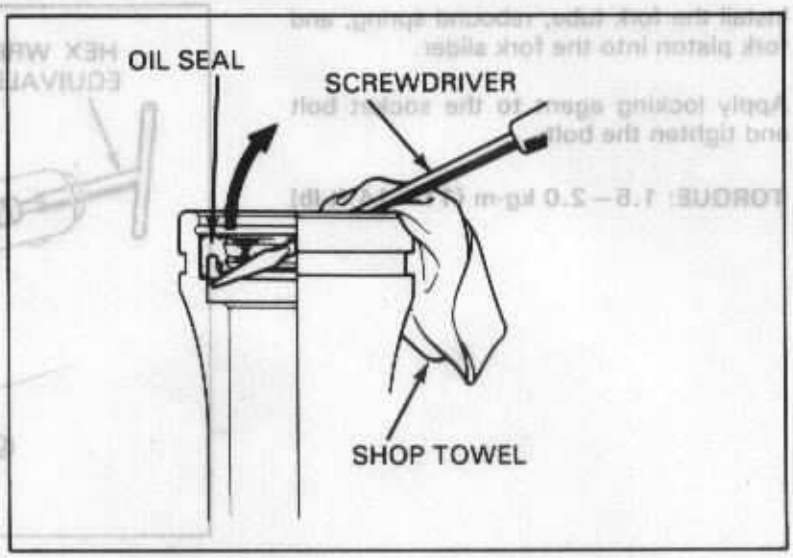
Remove the oil seal.

CAUTION

Avoid damaging the inner and outer surfaces of the fork slider when removing the stop ring and oil seal.

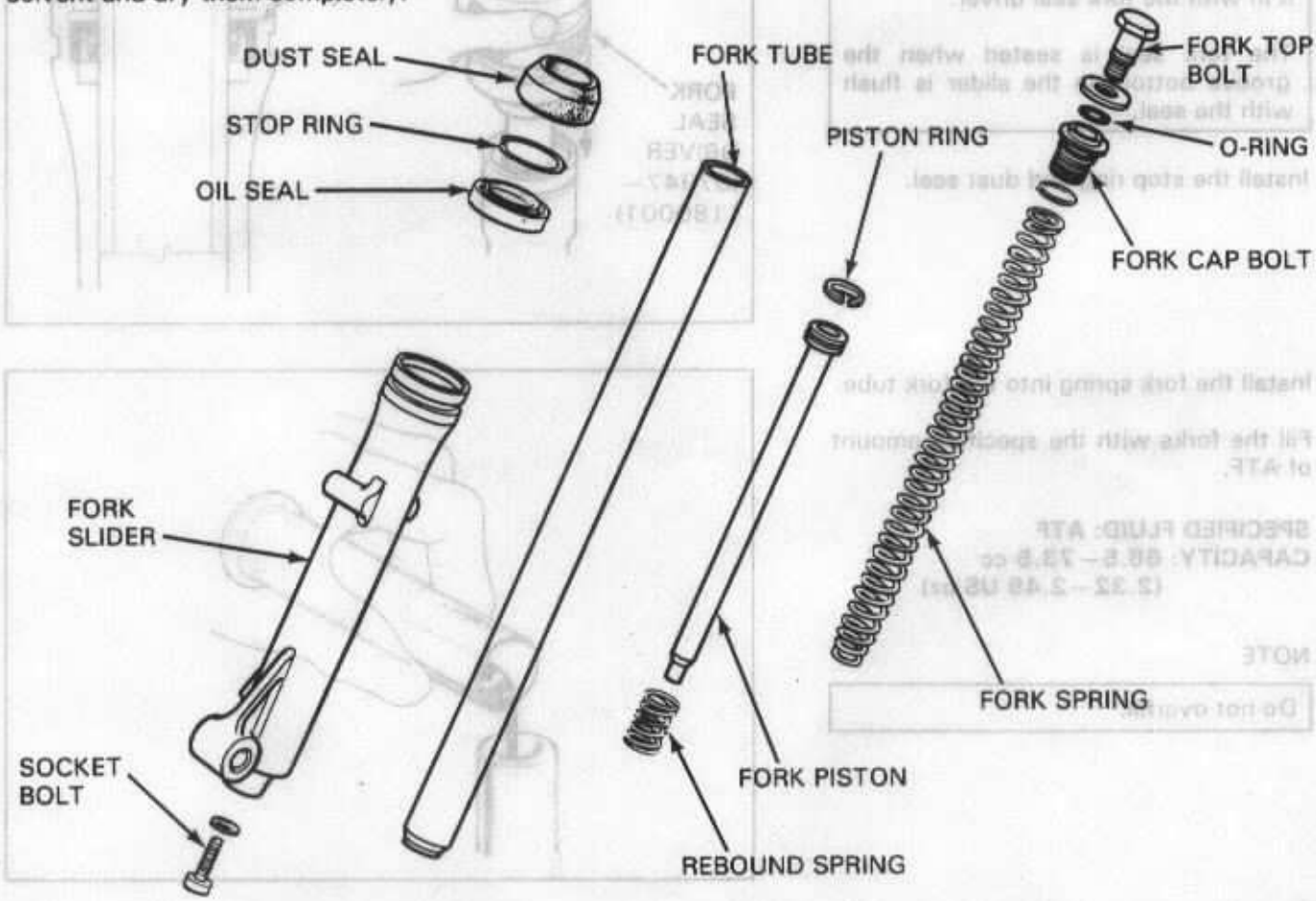
Check the fork tube, piston and slider for score marks, scratches or abnormal wear.

Replace items which are worn or damaged.



FRONT FORK ASSEMBLY

Before assembly, wash all parts in solvent and dry them completely.



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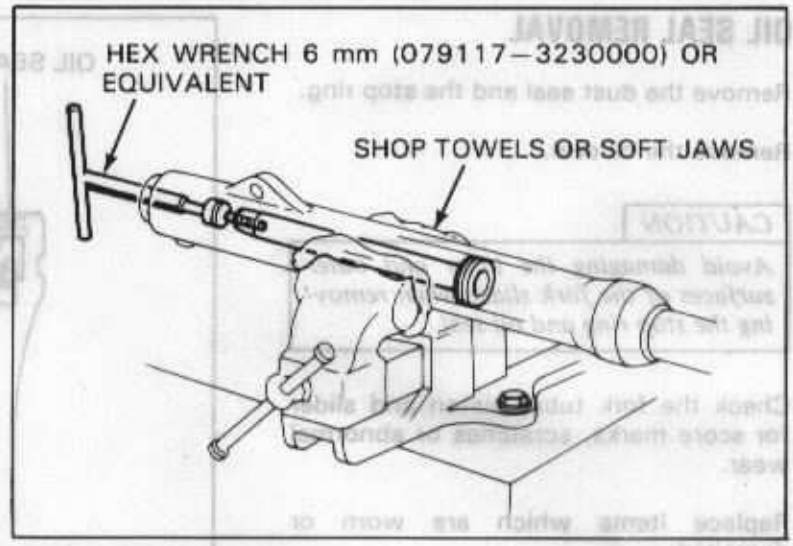
Install the fork tube, rebound spring, and fork piston into the fork slider.

Apply locking agent to the socket bolt and tighten the bolt.

TORQUE: 1.5–2.0 kg-m (11–14 ft-lb)



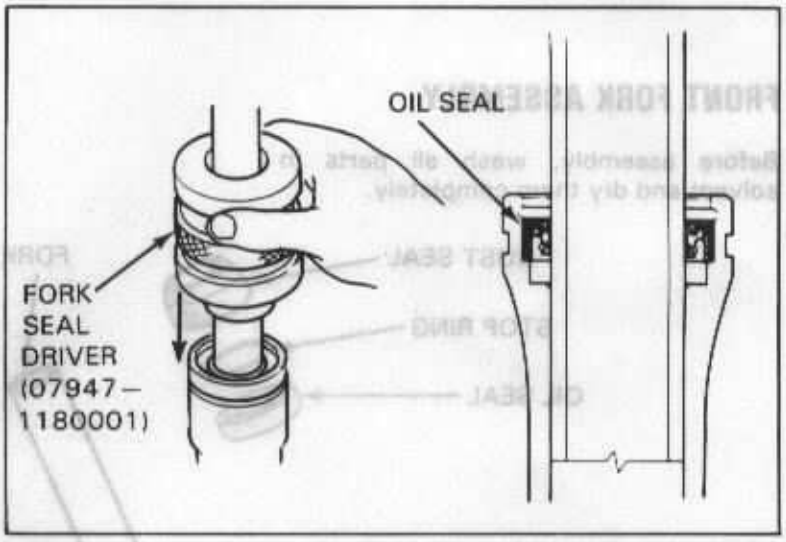
Install the oil seal into the top of the fork slider.

NOTE

Apply ATF to the oil seal and drive it in with the fork seal driver.

The fork seal is seated when the groove bottom in the slider is flush with the seal.

Install the stop ring and dust seal.



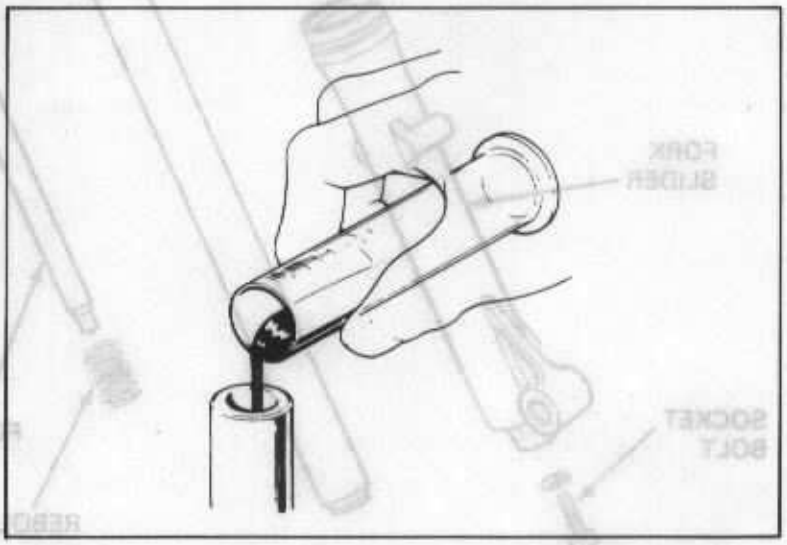
Install the fork spring into the fork tube.

Fill the forks with the specified amount of ATF.

SPECIFIED FLUID: ATF
CAPACITY: 68.5–73.5 cc (2.32–2.49 US oz)

NOTE

Do not overfill.



Hold the fork tube in a vise and tighten the fork cap bolt to specification.

TORQUE: 1.5—3.0 kg-m (11—22 ft-lb)

CAUTION

Use a shop towel or soft jaws to avoid damaging the tube.