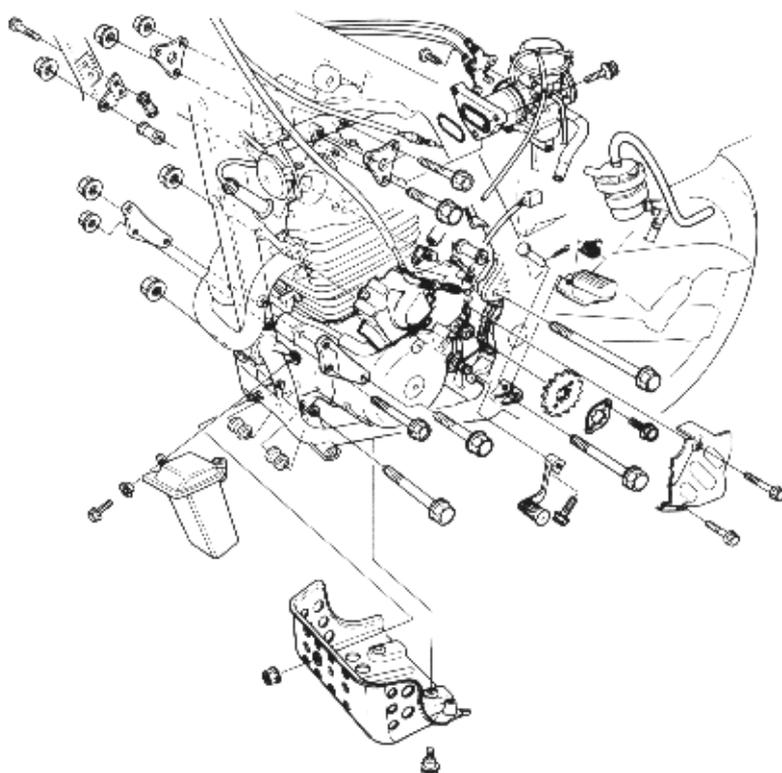
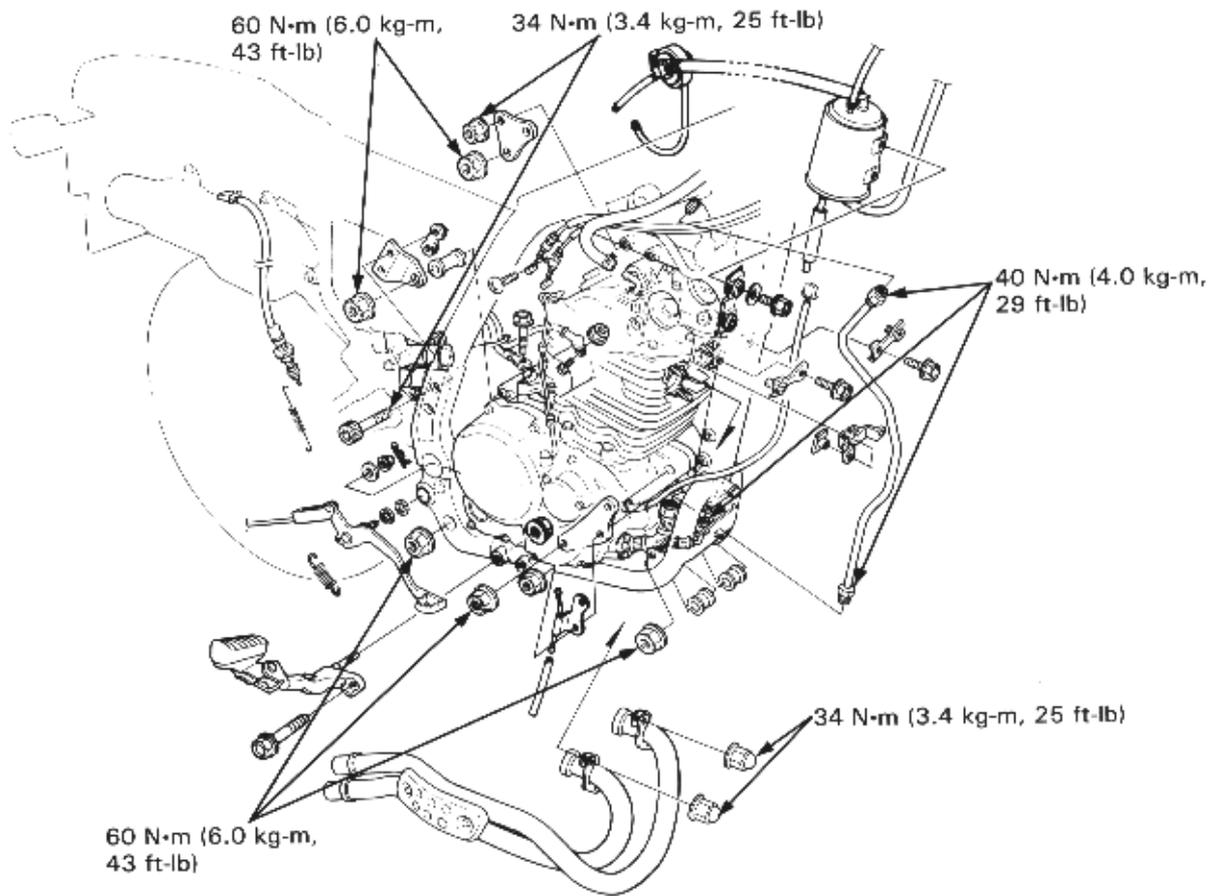


ENGINE REMOVAL/INSTALLATION



5. ENGINE REMOVAL/INSTALLATION

SERVICE INFORMATION
ENGINE REMOVAL

5-1 ENGINE INSTALLATION
5-2

5-3

SEVICE INFORMATION

GENERAL

- During removal and installation, support the vehicle with suitable blocks.
- Parts requiring engine removal for servicing:

Crankshaft	Section 10
Crankcase	Section 10
Balancer	Section 10
Transmission	Section 11

SPECIFICATIONS

Engine weight	50 kg (110 lb)
Oil capacity	1.9 liters (2.01 US qt, 1.67 Imp qt) at draining
	2.3 liters (2.43 US qt, 2.02 Imp qt) after disassembly

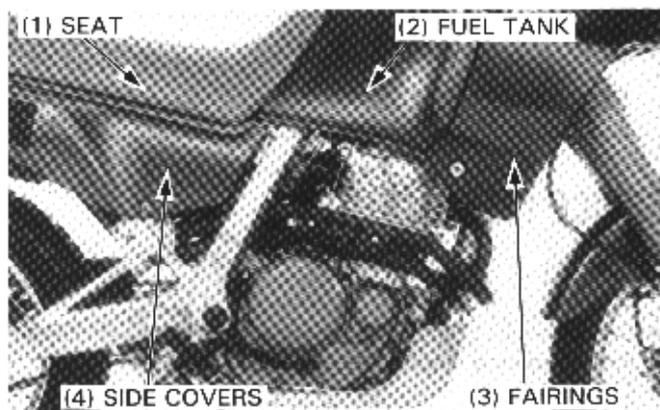
TORQUE VALUES

Engine hanger nut: 10 mm nut	60 N·m (6.0 kg-m, 43 ft-lb)
: 8 mm nut	34 N·m (3.4 kg-m, 25 ft-lb)
Oil pipe flare nut	40 N·m (4.0 kg-m, 29 ft-lb)
Oil hose flare nut	40 N·m (4.0 kg-m, 29 ft-lb)

ENGINE REMOVAL

Remove the following:

- seat and side covers (page 15-2)
- fuel tank (page 4-3)
- right and left fairings (page 15-2)

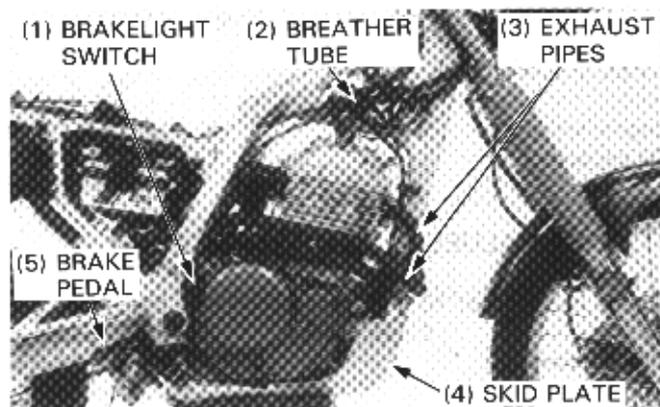


Disconnect the following:

- cylinder head cover breather tube
- alternator connector
- pulse generator connector

Remove the following:

- exhaust pipes (page 15-7)
- brake pedal (page 13-11)
- skid plate
- brakelight switch



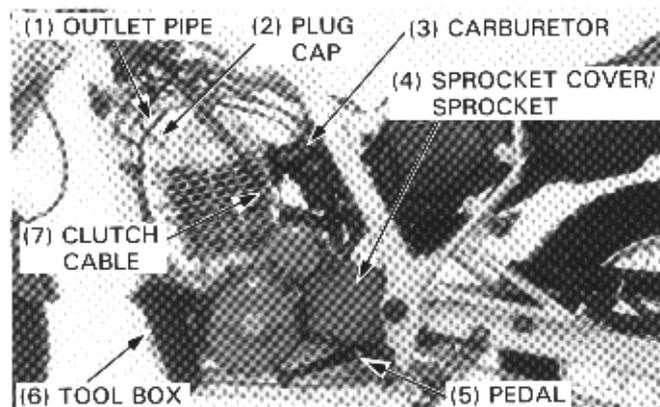
Disconnect the following:

- clutch cable at the clutch lifter arm
- spark plug cap
- starter motor cable

Loosen the drive chain adjuster fully (page 3-8).

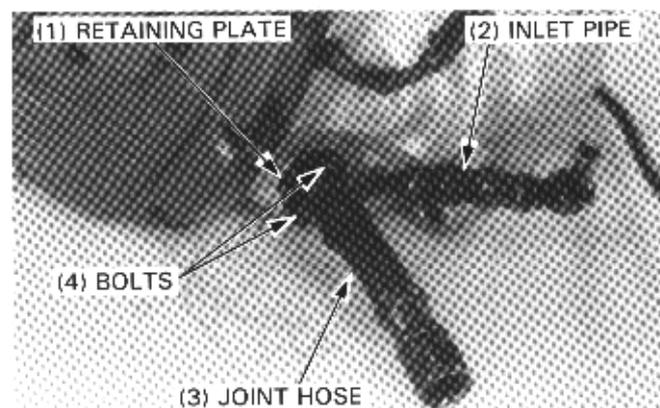
Remove the following:

- carburetor (page 4-7)
- drive sprocket cover and drive sprocket
- gearshift pedal
- tool box
- oil outlet pipe
- oil inlet hose
- engine hanger nuts, bolts and plates



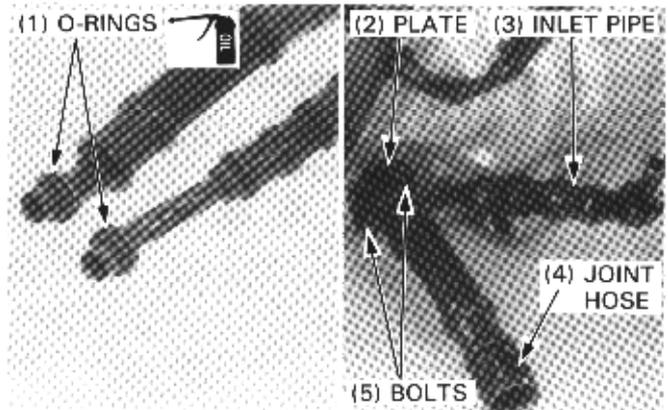
Remove the engine from the right side of the frame.

Remove the retaining plate, oil joint hose and oil inlet pipe.



ENGINE INSTALLATION

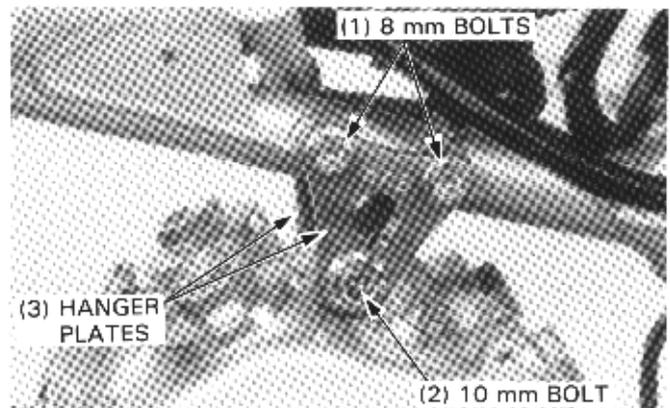
Apply clean engine oil to a new O-rings.
 With the new O-rings, install the oil joint hose and oil inlet pipe to the engine.
 Install the retaining plate and secure it with two bolts



Install the engine from the right side of the frame.

Install the top engine hanger plates, and tighten the bolts and nuts.

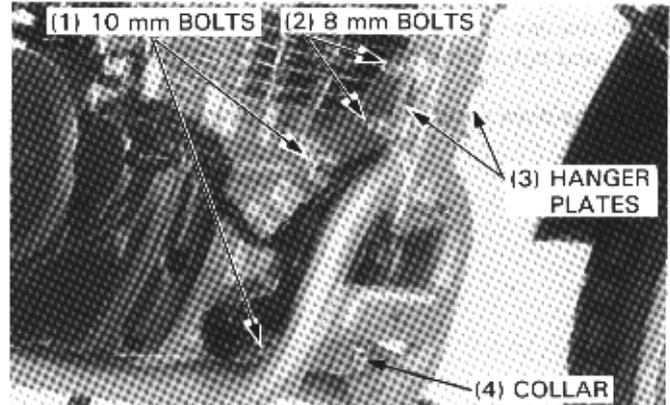
TORQUE: 10 mm nut: 60 N·m (6.0 kg-m, 43 ft-lb)
8 mm nut: 34 N·m (3.4 kg-m, 25ft-lb)



Install the front engine hanger plates, and tighten the bolts and nuts.

Install the front lower hanger bolt with the collar and tighten the nut.

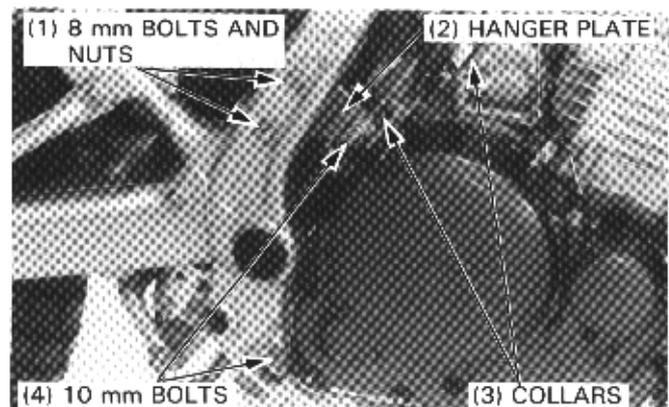
TORQUE: 10 mm bolt: 60 N·m (6.0 kg-m, 43 ft-lb)
8 mm bolt: 34 N·m (3.4 kg-m, 25 ft-lb)



Install and tighten the rear lower engine hanger bolt and nut.
 Install the rear upper engine hanger plate, and tighten the 8 mm bolts and nuts loosely.

Install the collars, 10 mm bolt and nut, then tighten the 8 mm bolts and 10 mm nut.

TORQUE: 10 mm nut: 60 N·m (6.0 kg-m, 43 ft-lb)
8 mm bolt: 34 N·m (3.4 kg-m, 25 ft-lb)

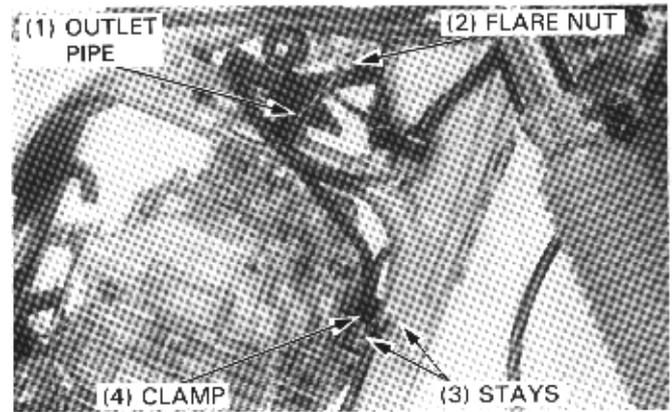


ENGINE REMOVAL/INSTALLATION

Install the oil outlet pipe, and tighten the oil pipe flare nut.

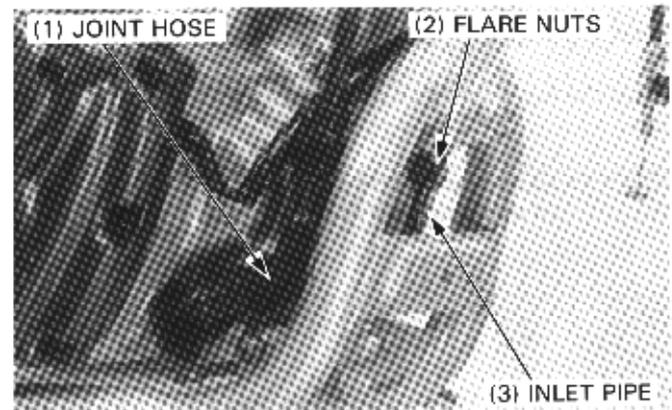
TORQUE: 40 N·m (4.0 kg-m, 29 ft-lb)

Install the oil pipe/pulse generator wire clamp and fairing stays, and secure them with bolts.



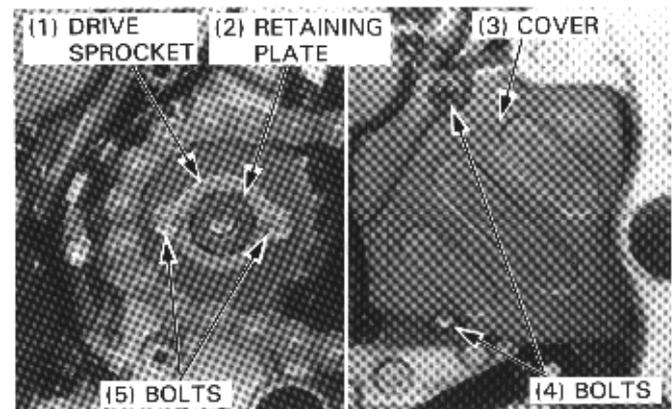
Connect the oil outlet pipe and joint hose, and the oil inlet pipe to the oil strainer nut. Tighten the flare nuts.

TORQUE: 40 N·m (4.0 kg-m, 29 ft-lb)

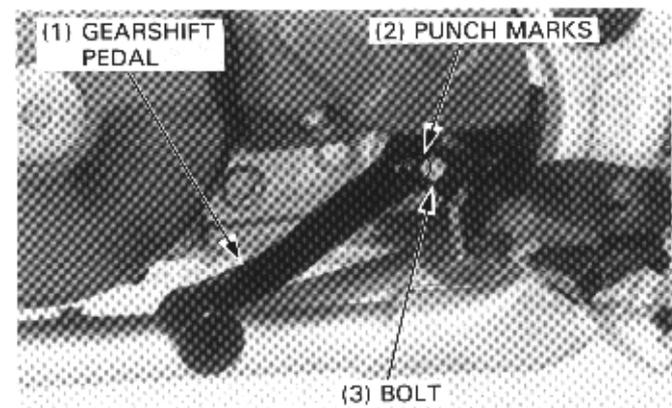


Install the drive sprocket and retaining plate over the counter shaft, and tighten the bolts.

Install the drive sprocket cover and secure it with two bolts.



Install the gearshift pedal aligning the punch marks on the pedal and gearshift spindle, and tighten the bolt.



Install the tool box, aligning the boss on the bottom of the tool box with the gromet. Secure with a bolt.

Install the skid plate and secure it with three bolts.

Install the following parts in the reverse order of removal.

- Starter motor cable
- Spark plug cap
- Clutch cable
- Brakelight switch
- Brake pedal (page 13-11)
- Exhaust pipe (page 15-7)
- Pulse generator connector
- Alternator connector
- Cylinder head cover breather tube
- Fuel tank (page 4-3)
- Right and left fairings (page 15-2)
- Seat and side covers (page 15-2)

Adjust the followings:

- Drive chain (page 3-8)
- Brake pedal (page 3-10)
- Brakelight switch (page 3-11)
- Clutch lever free play (page 3-11)

Start the engine and check the following:

- Exhaust pipes for leakage
- Oil pipes/hoses for leakage

