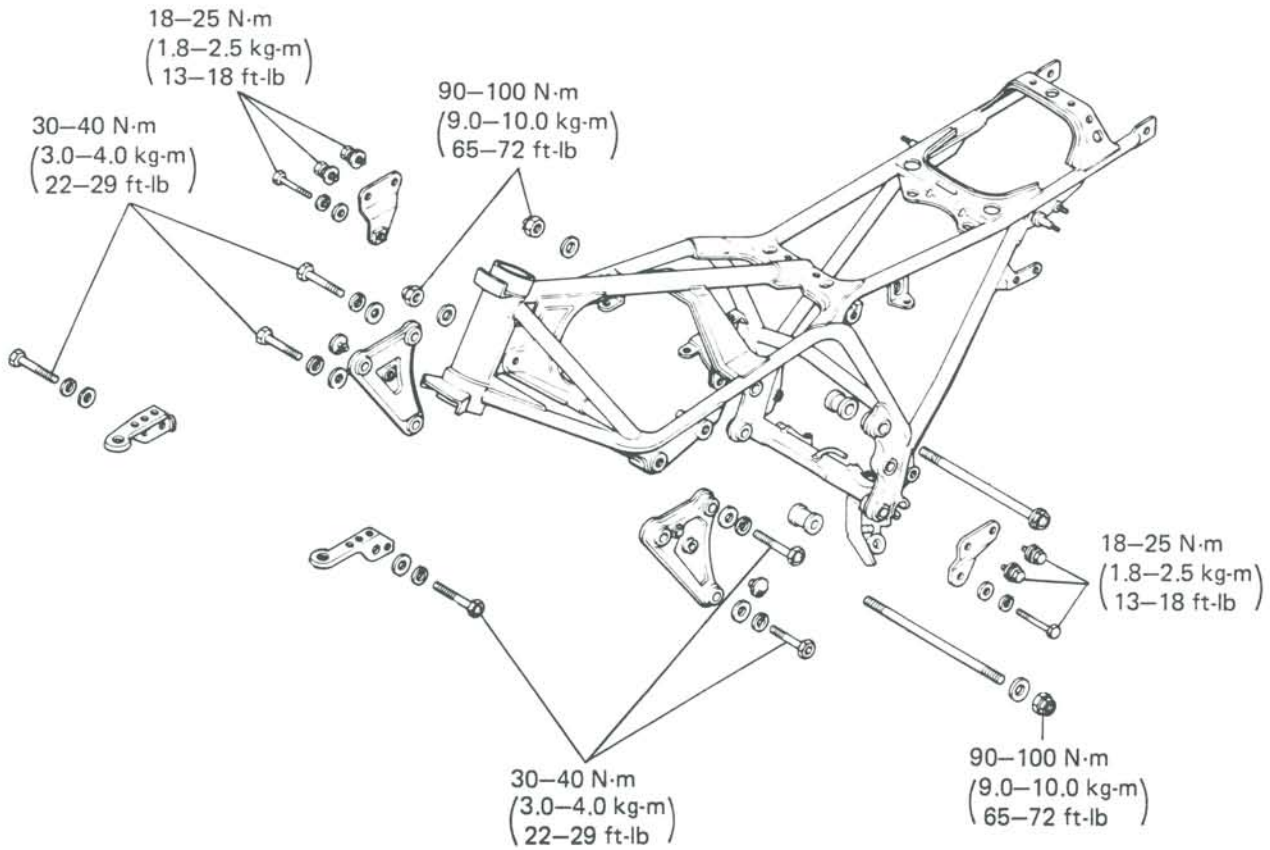
ENGINE REMOVAL/INSTALLATION

DEPOSE/REPOSE DU MOTEUR

MOTORAUS-/EINBAU

DEMONTAJE/INSTALACION DEL MOTOR


18–25 N·m
(1.8–2.5 kg-m)
13–18 ft-lb
30–40 N·m
(3.0–4.0 kg-m)
22–29 ft-lb
90–100 N·m
(9.0–10.0 kg-m)
65–72 ft-lb
18–25 N·m
(1.8–2.5 kg-m)
13–18 ft-lb
90–100 N·m
(9.0–10.0 kg-m)
65–72 ft-lb
30–40 N·m
(3.0–4.0 kg-m)
22–29 ft-lb

SERVICE INFORMATION	5–1
TILTING ENGINE	5–2
ENGINE REMOVAL	5–5
ENGINE INSTALLATION	5–6

SERVICE INFORMATION

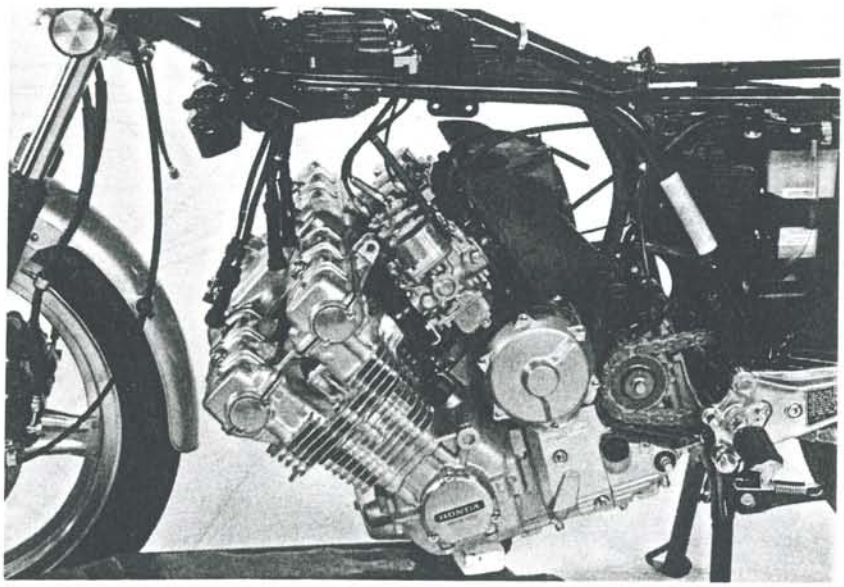
WORKING PRACTICE

- The following parts or components can be serviced with the engine installed in the frame:
  - Clutch
  - Shift linkage
  - Camshaft
  - A. C. generator
  - Starter motor
- The following parts or components can be serviced with the engine tilted forward in the frame:

NOTE

> The engine can be pivoted on the rear lower hanger bolt after removing the three hanger bolts.

  - Carburetor
  - Cylinder
  - Cylinder head
  - Piston



SPECIFICATIONS

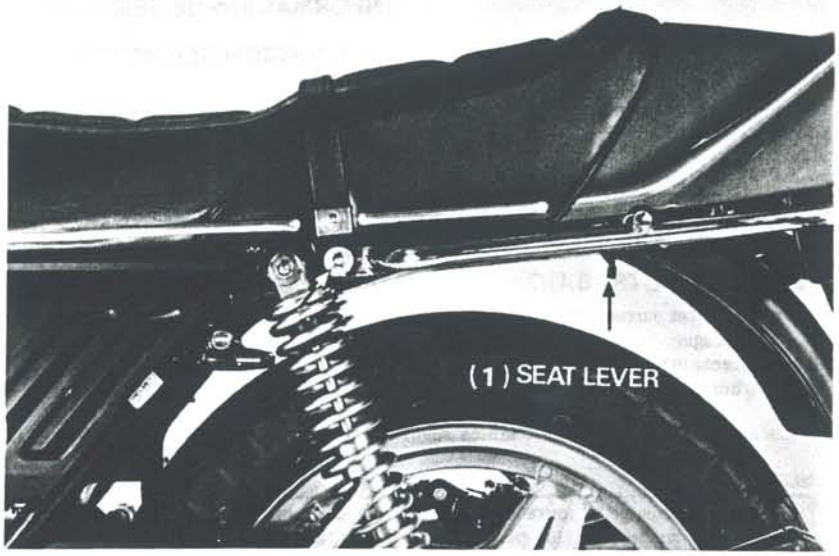
Engine dry weight	106 kg	(234 lb) approx.
Oil capacity	5.5 lit.	(5.8 U.S.qt., 4.8 Imp.qt.) at engine assembly
approximately	4.0 lit.	(4.2 U.S.qt.,3.5 Imp. qt.) at change

TORQUE VALUES

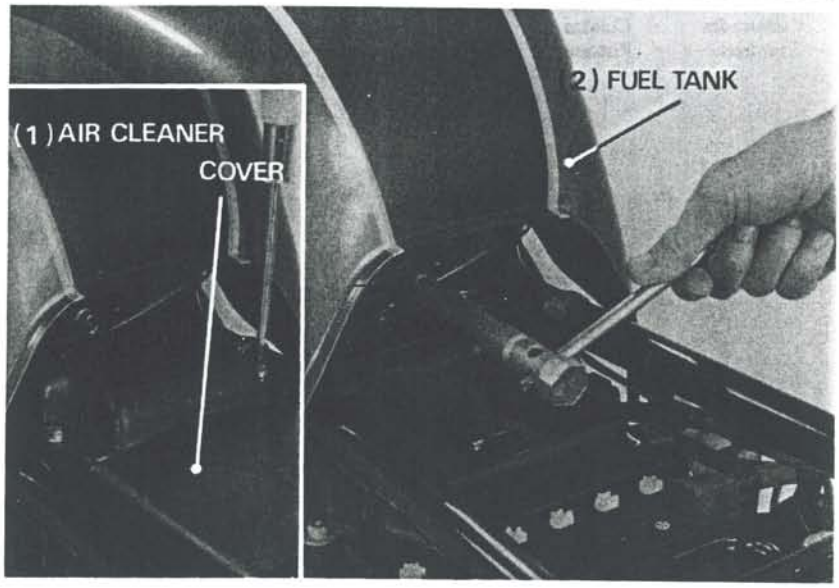
8 mm bolt	18–25 N·m (1.8–2.5 kg-m, 13–18 ft-lb)
10 mm bolt	30–40 N·m (3.0–4.0 kg-m, 22–29 ft-lb)
14 mm bolt	90–100 N·m (9.0–10.0 kg-m, 65–72 ft-lb)
Rear axle nut	80–100 N·m (8.0–10.0 kg-m, 58–72 ft-lb)
Drive sprocket	33–37 N·m (3.3–3.7 kg-m, 24–27 ft-lb)
Spark plug	12–16 N·m (1.2–1.6 kg-m, 9.0–12 ft-lb)

TILTING ENGINE

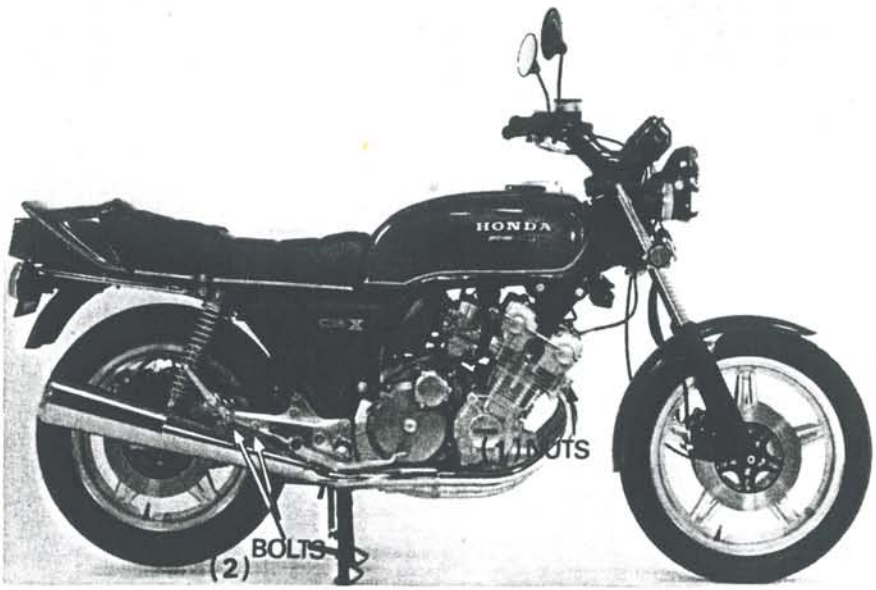
Remove the seat nuts.
Pull back on the seat levers and remove the seat.



Remove the air cleaner cover and fuel tank.
Remove the air cleaner.



Remove the exhaust system.
Remove the right and left side covers.



Remove the tachometer cable from the cylinder head cover.
Remove all spark plug caps, and remove the No. 1 and No. 6 spark plugs.

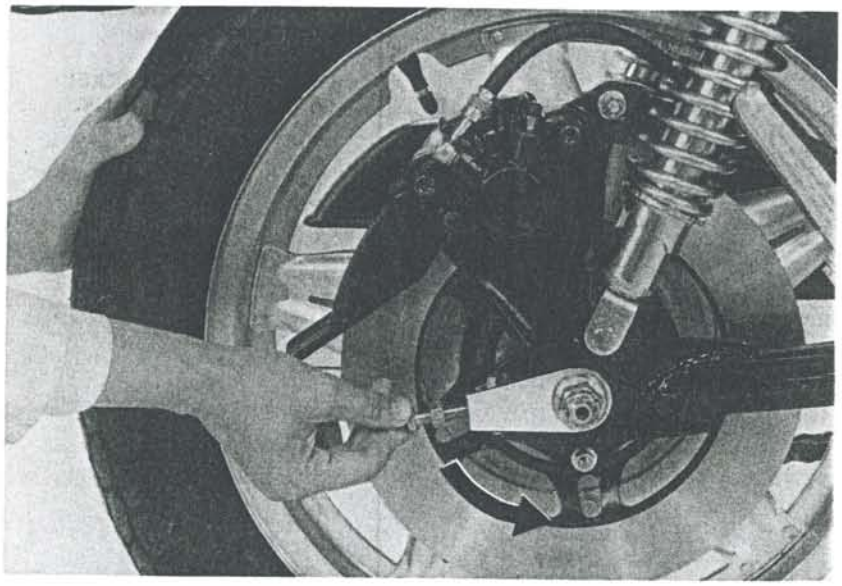
NOTE

Do not allow screws and nuts to fall into the cylinders through the spark plug holes.

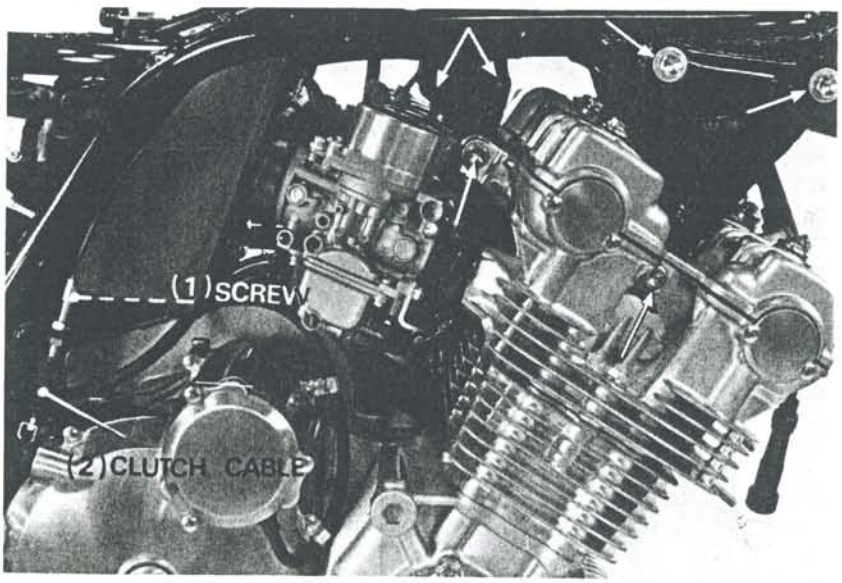




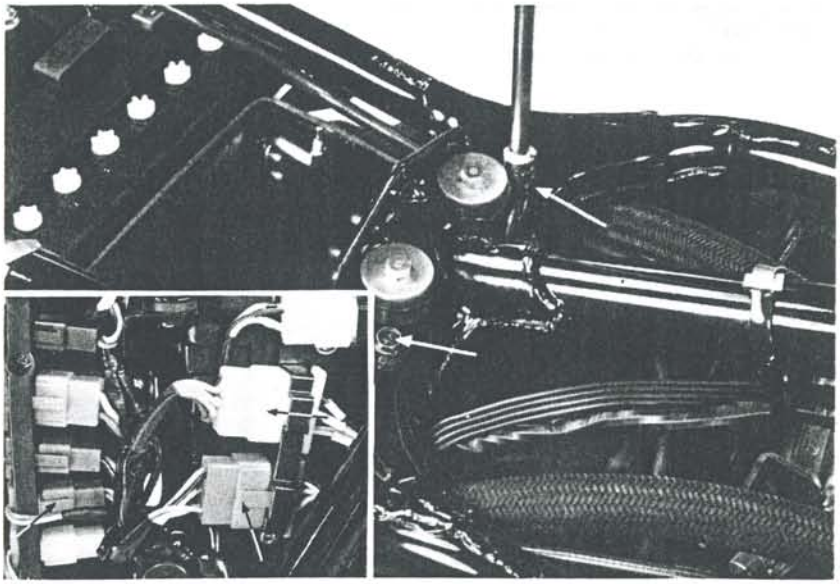
Remove the choke cable from the choke lever.
Remove the throttle cable from the right handlebar switch.
Loosen the rear axle nut and drive chain adjusting bolts. Push the rear wheel forward.



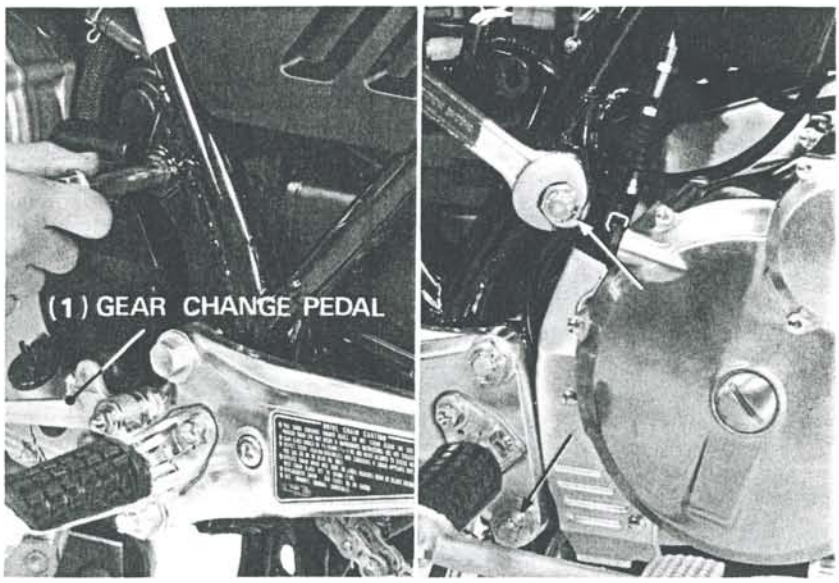
Remove the clutch cable at the clutch arm.
Place a jack under the engine.
Remove the right and left engine hanger brackets and plates.
Loosen the screw securing the air cleaner-to-air funnel connecting tube band.



Remove the two bolts holding the air funnel.
Disconnect three couplers.

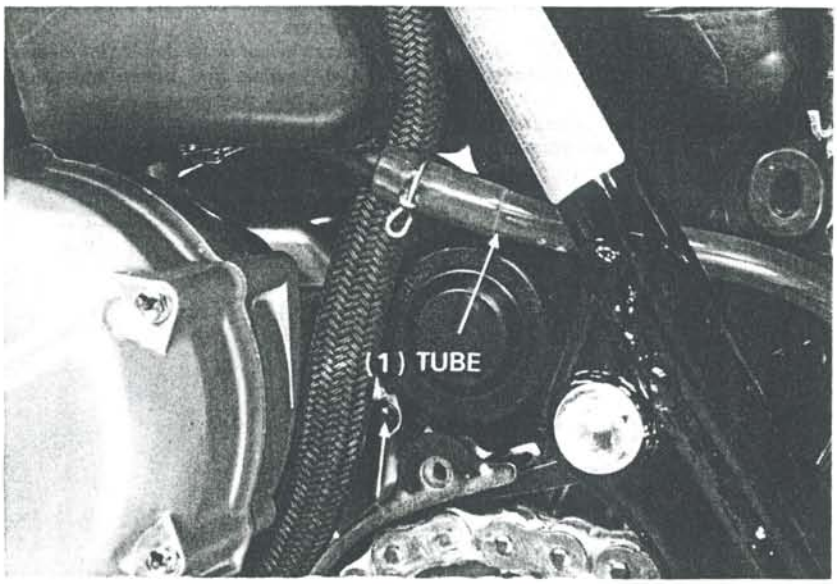


Loosen the engine hanger bolts and remove the upper end.
Remove the gear change pedal.



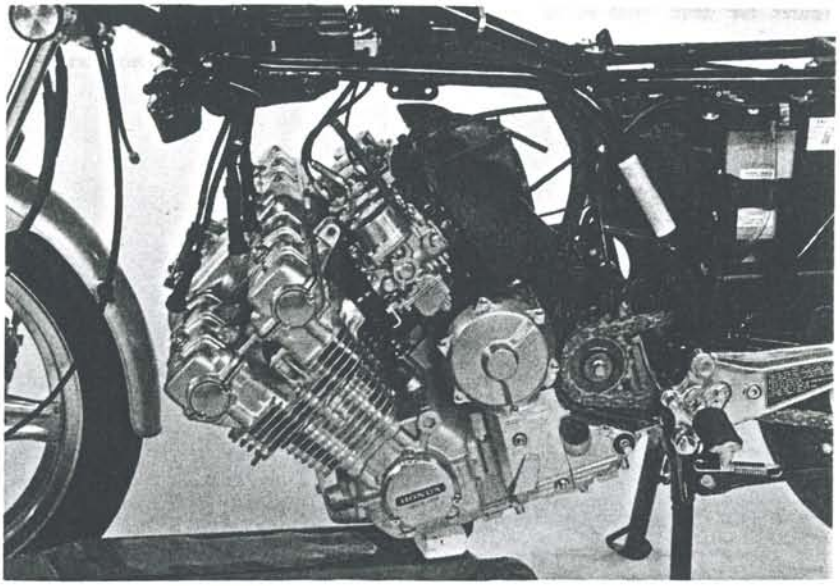
Remove the left rear cover.
Disconnect the battery negative terminal at the starter motor.
Disconnect the tube.

Tilt the engine forward on the lower rear hanger bolt by lowering the jack.

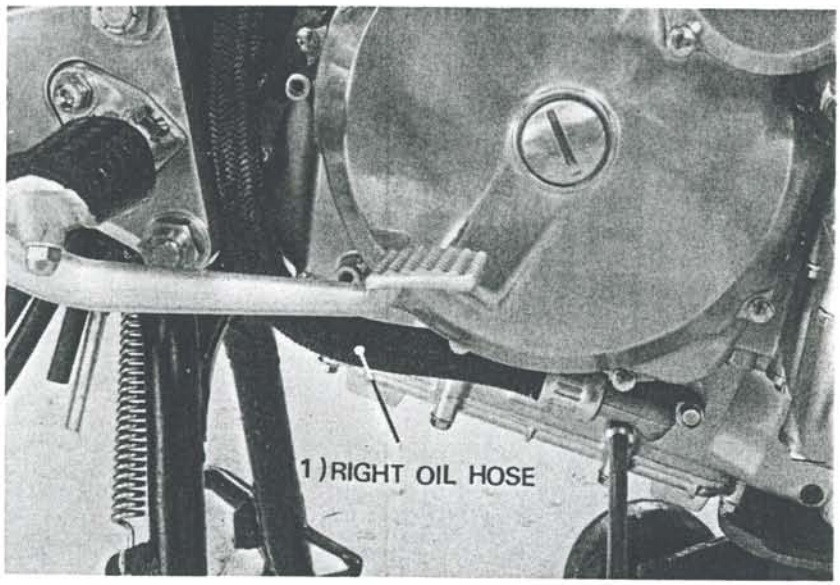


ENGINE REMOVAL

Drain oil from the engine.
Perform tilting engine procedures (page 5-2).
Disconnect the wires from the starter magnetic switch.

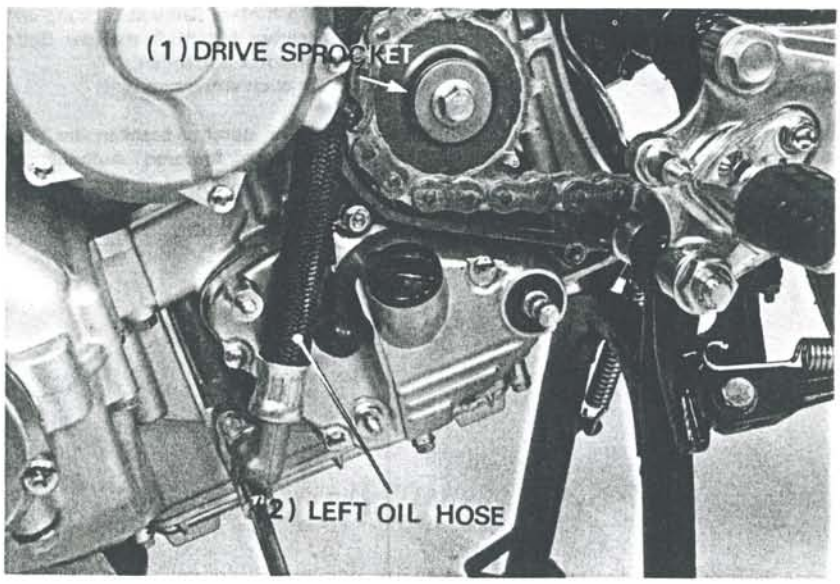


Remove the right oil hose cover and remove the oil hose.
Remove the brake pedal.



Remove the left oil hose cover and remove the oil hose.

Remove the drive sprocket.
Remove the rear engine mounting bolt.
Lower the jack and remove the engine.



NOTE

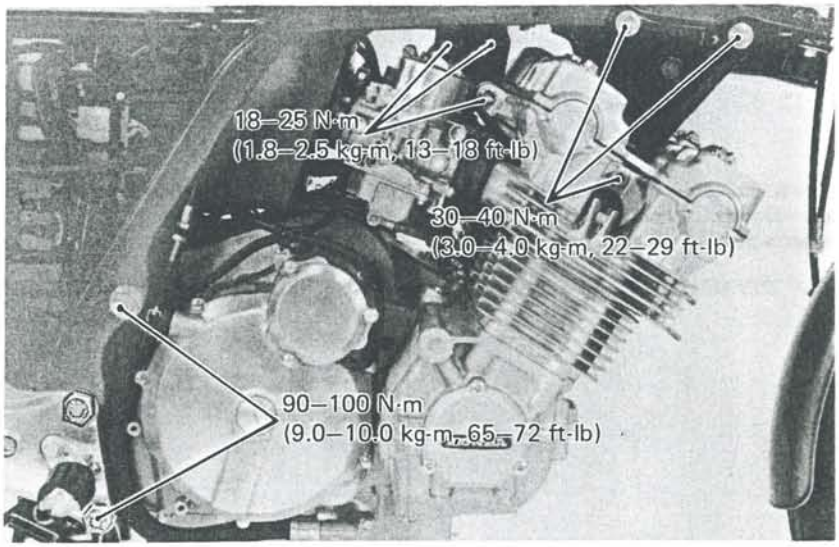
Jack height must be continuously adjusted during engine removal and installation to prevent damage to mounting bolt threads, wire harnesses and cables.

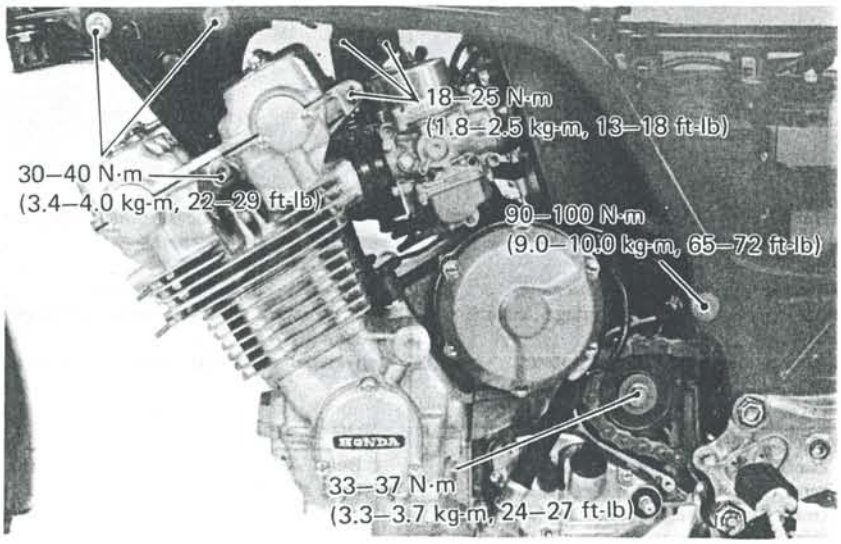
ENGINE INSTALLATION

The installation sequence is essentially the reverse of removal.

NOTE

- Do not damage parts during installation.
- Route the wires and cables properly **(Page 1-8)**.
- Fill the crankcase to the proper level **(Page 2-1)**.
- Perform the following inspection and adjustments:
  Throttle cable free play **(Page 3-19)**.
  Clutch lever free play **(Page 3-6)**.
  Drive chain tension **(Page 3-15)**.
  Choke cable free play **(Page 3-9)**.





8 mm bolt	18–25 N·m (1.8–2.5 kg-m, 13–18 ft-lb)
10 mm bolt	30–40 N·m (3.0–4.0 kg-m, 22–29 ft-lb)
14 mm bolt	90–100 N·m (9.0–10.0 kg-m, 65–72 ft-lb)
Drive sprocket	33–37 N·m (3.3–3.7 kg-m, 24–27 ft-lb)