

Engine Installation

CAUTION

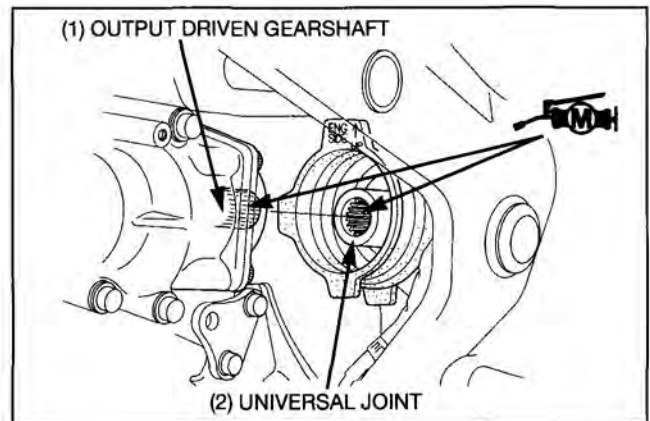
- Carefully align the mounting points with the jack to prevent damage to engine, frame, wires and cables.

NOTE:

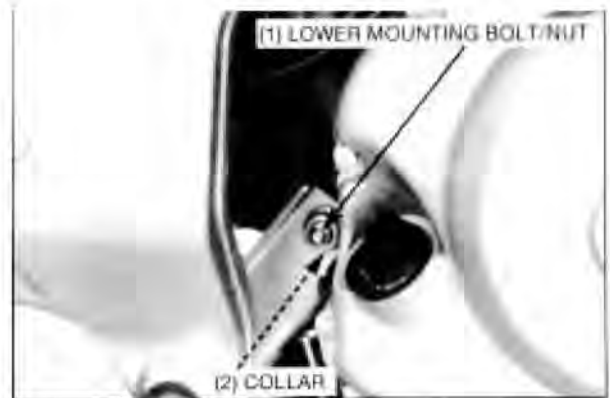
- All the engine mounting bolts and nuts loosely install, then tighten the bolts and nuts to the specified torque.
- Be sure to install the mounting collars in their correct positions.

Apply 1g. (0.04 oz) of molybdenum disulfide grease to the output driven gear shaft spline.

Use a floor jack or other adjustable support to carefully maneuver the engine in to place and insert the output driven gear shaft into the universal joint in the swingarm. Carefully align the bolt holes in the frame and engine.



Install the collar and rear engine lower mounting bolt/nut.



Install the collar and rear engine upper mounting bolt/nut.

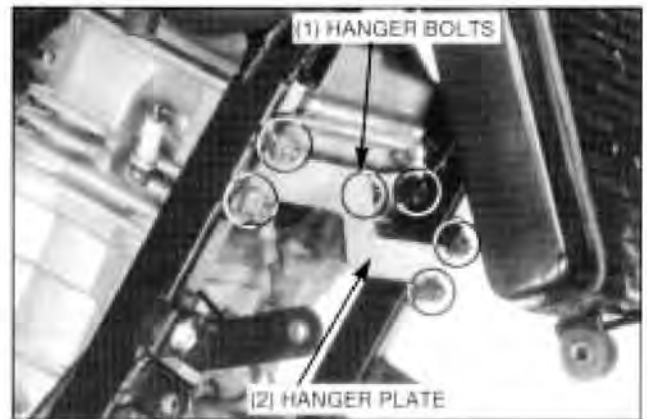


ENGINE REMOVAL/INSTALLATION

Install the collars and front engine lower mounting bolt/nut.



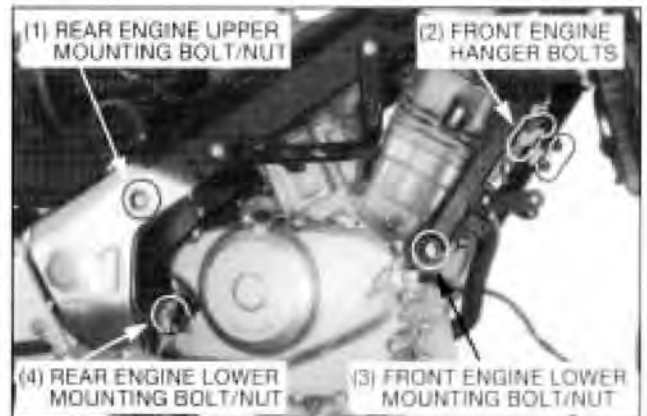
Install the front engine hanger and hanger bolts.



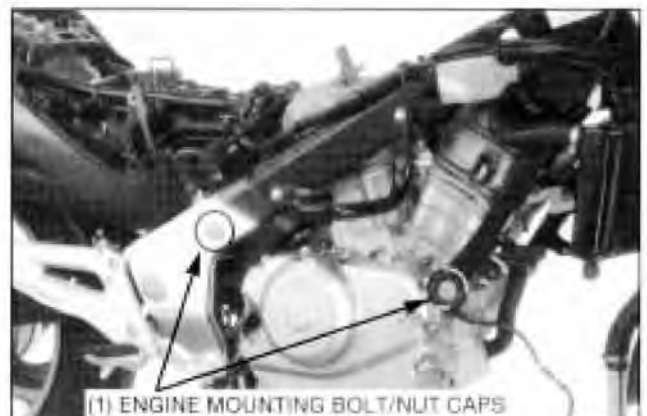
Tighten the engine hanger and mounting bolt/nut to the specified torque.

Torques:

Front engine lower mounting bolt	39 N·m (4.0 kgf·m, 29 lbf·ft)
Front engine hanger bolt	27 N·m (2.8 kgf·m, 20 lbf·ft)
Rear engine upper mounting bolt	39 N·m (4.0 kgf·m, 29 lbf·ft)
Rear engine lower mounting bolt	39 N·m (4.0 kgf·m, 29 lbf·ft)

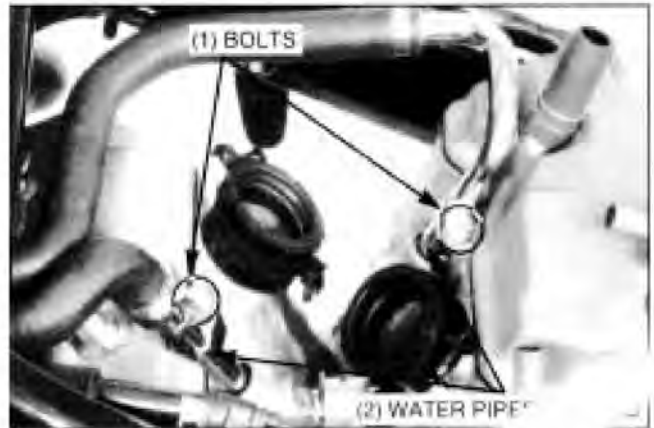


Install the engine mounting bolt/nut caps.

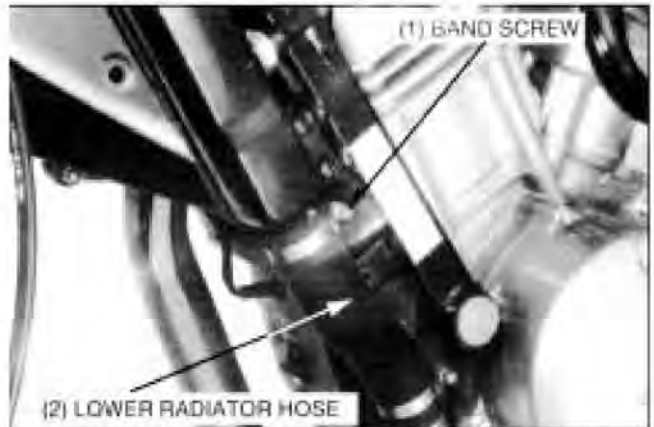


ENGINE REMOVAL/INSTALLATION

Connect the water pipes and O-rings (thermostat housing-to-cylinder heads) to the cylinder heads.
Install and tighten the mounting bolts securely.



Install and tighten the radiator bolt securely.
Connect the lower radiator hose to the radiator and tighten the radiator hose band securely.



Route the ignition pulse generator wire harness properly (page 1-27).
Connect the ignition pulse generator 2P connector.



Route the alternator wire harness properly (page 1-27).
Connect the alternator wire 3P connector.

Route the neutral switch/oil pressure switch wire harness properly (page 1-27).
Connect the neutral switch/oil pressure switch 2P connector.



ENGINE REMOVAL/INSTALLATION

Connect the clutch cable to the clutch lifter arm.
Install the clutch cable holder and bolt.
Tighten the holder bolts securely.

Connect the starter motor cable and ground cable to the starter motor (page 19-12).

Connect the spark plug caps.

Install the following:

- Exhaust pipe/muffler (page 2-14)
- Carburetor (page 5-19)
- Air cleaner housing (page 5-4)
- Fuel tank (page 2-11)

Fill the engine oil (page 3-11).

Fill and bleed the cooling system (page 6-5).

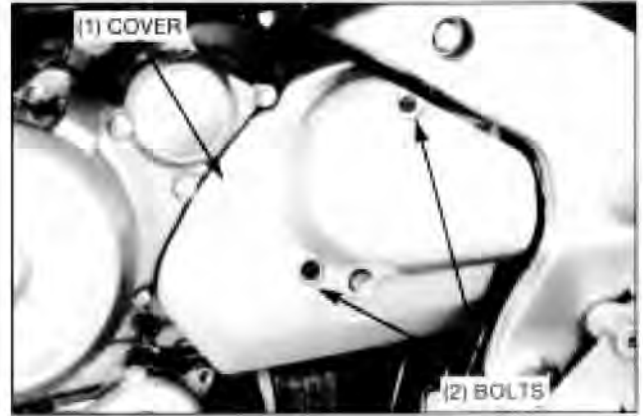
Connect the battery negative cable to the battery terminal.

Install the left engine rear cover.

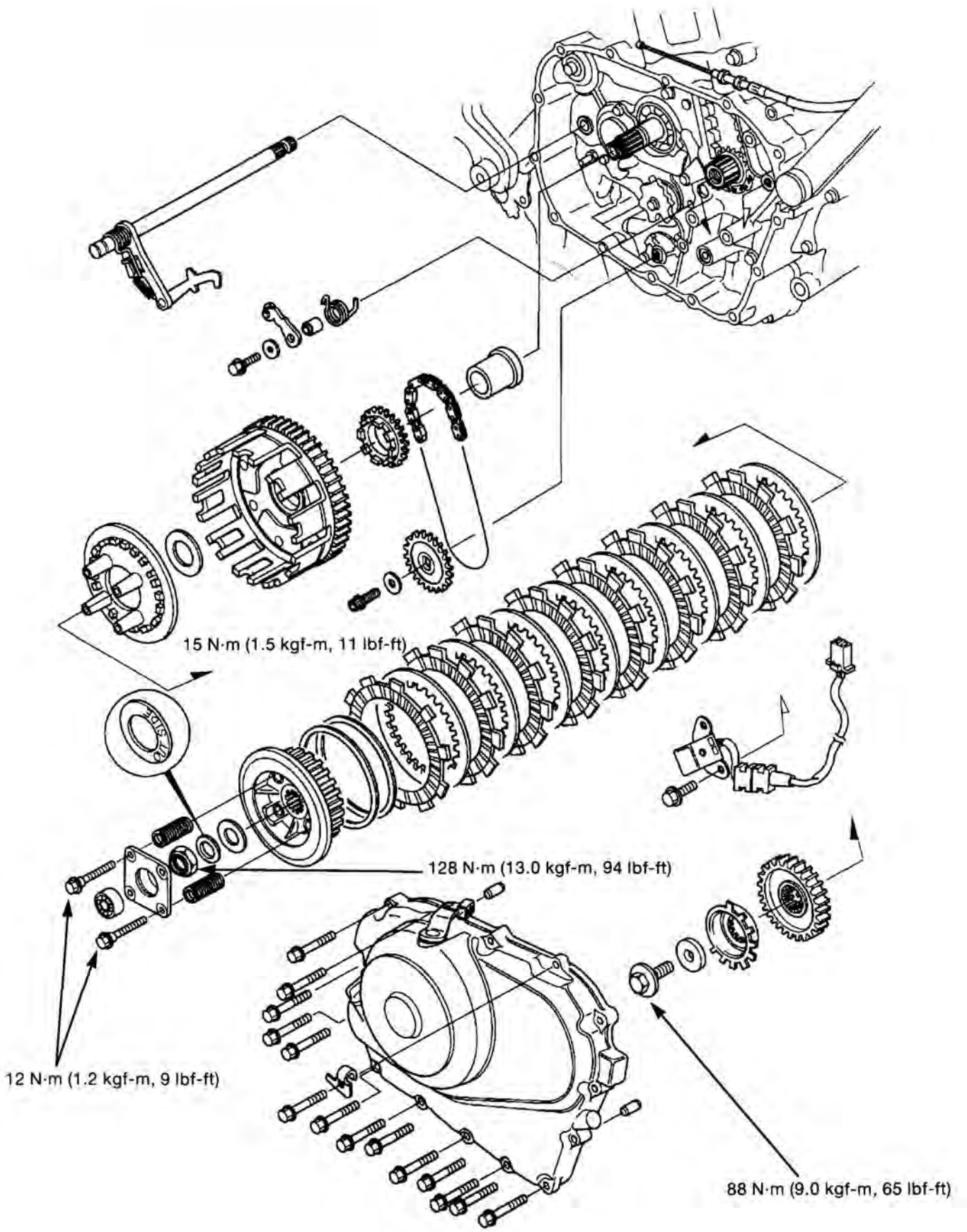
Install and tighten the bolts securely.

Install the gearshift pedal to the gearshift spindle.

Install and tighten the bolt securely.



CLUTCH/GEARSHIFT LINKAGE



8. Clutch/Gearshift Linkage

SERVICE INFORMATION	8-1	PRIMARY DRIVE GEAR	8-9
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CLUTCH REMOVAL	8-4	RIGHT CRANKCASE COVER INSTALLATION	8-17

Service Information

GENERAL

- The clutch and gearshift linkage maintenance can be done with the engine in the frame.
- Engine oil viscosity and level, and the use of oil additives have an effect on clutch disengagement. Oil additives of kind are not recommended. When the clutch does not disengage or the motorcycle creeps with the clutch disengaged, inspect the engine oil viscosity and level before servicing the clutch system.
- Clean off any gasket material from the right crankcase cover surface.
- Be careful not to damage the crankcase cover mating surface when servicing.
- When removing or servicing the clutch and gearshift linkage, use care not to allow dust or dirt to enter the engine.
- The crankcase must be separated when the transmission requires service (Section 12).
- Refer to section 18 for ignition pulse generator inspection.

SPECIFICATIONS

Unit: mm (in)

Item		Standard	Service Limit
Clutch lever free play		10-20 (3/8-3/4)	—
Clutch spring free length		42.3 (1.67)	43.9 (1.73)
Clutch disc thickness	A	2.62-2.78 (0.103-0.107)	2.3 (0.09)
	B	2.92-3.08 (0.115-0.121)	2.6 (0.10)
	C	2.62-2.78 (0.103-0.107)	2.3 (0.09)
Clutch plate warpage		—	0.30 (0.012)
Clutch outer guide	I. D.	21.991-22.016 (0.8658-0.8668)	22.09 (0.870)
	O. D.	31.959-31.975 (1.2582-1.2589)	31.92 (1.257)
Oil pump drive sprocket I. D.		32.025-32.145 (1.2608-1.2655)	30.15 (1.187)
Mainshaft O. D. at clutch outer guide		21.967-21.980 (0.8648-0.8654)	21.95 (0.864)

TORQUE VALUES

Clutch lifter plate bolt	12 N·m (1.2 kgf-m, 9 lbf-ft)	
Clutch center lock nut	128 N·m (13.0 kgf-m, 94 lbf-ft)	Apply oil to the threads and seating surface
Primary drive gear bolt	88 N·m (9.0 kgf-m, 65 lbf-ft)	Stake
Gearshift return spring pin	23 N·m (2.3 kgf-m, 17 lbf-ft)	Apply oil to the threads and seating surface
Oil pump driven sprocket bolt	15 N·m (1.5 kgf-m, 11 lbf-ft)	Apply a locking agent to the threads