

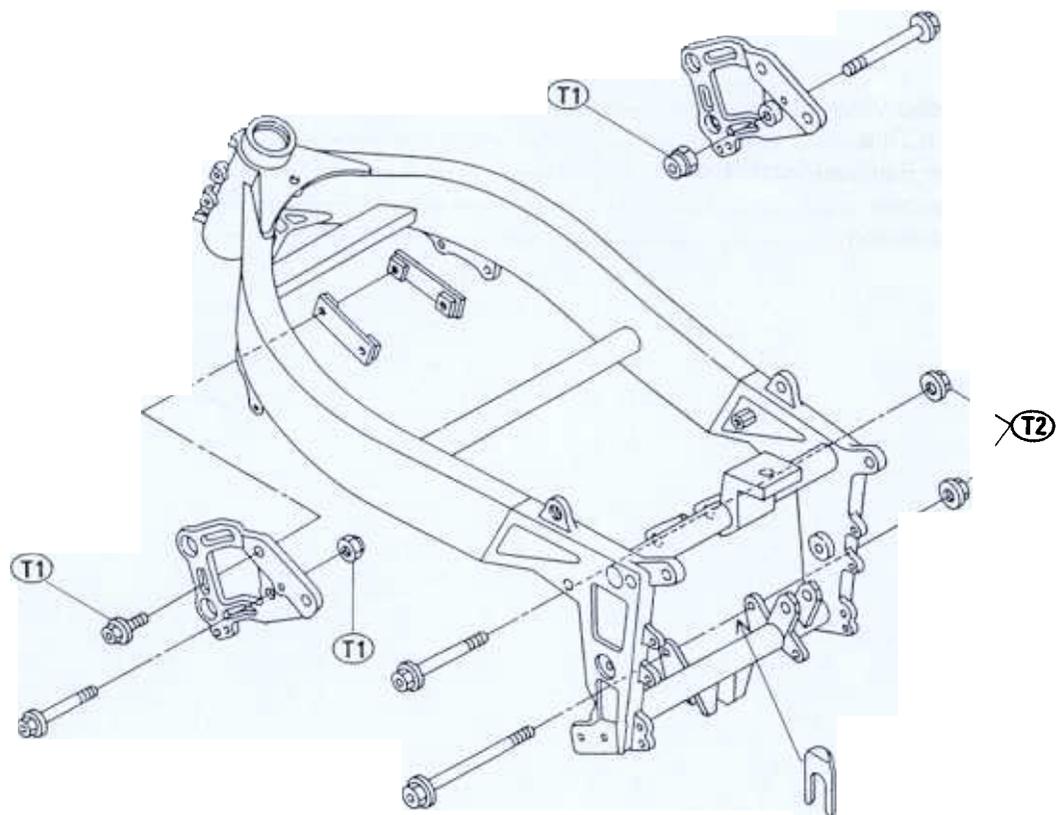
# Engine Removal / Installation

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## 7-2 ENGINE REMOVAL / INSTALLATION

### Exploded View



T1: 30 N-m (3.1 kg-m, 22 ft-lb)  
T2: 36 N-m (3.7 kg-m, 27 ft-lb)

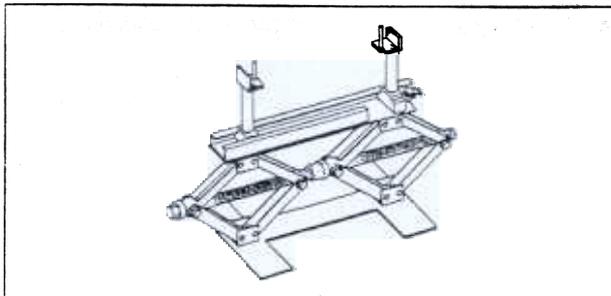
Install a shim (thickness 0.5 mm) between the lower part of the crankcase and the frame bracket.

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**Special Tool**


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Jack: 57001-1238



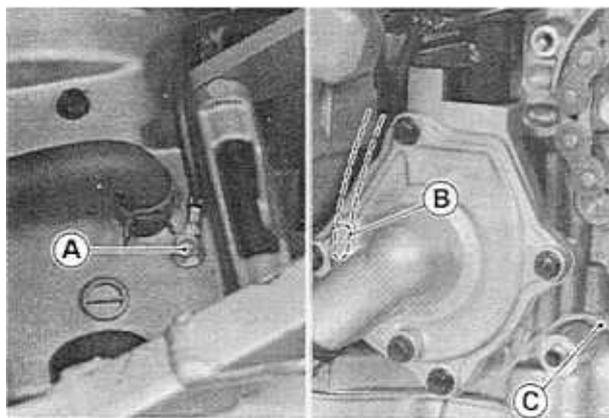

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**Engine Removal/Installation**


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**Removal**

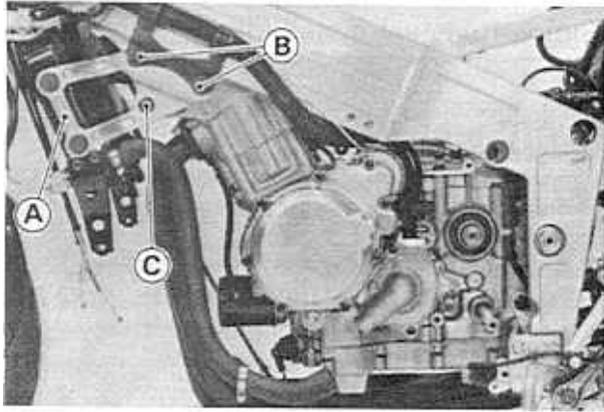
- Remove the following.
  - Fairings (see Frame chapter)
  - Engine Oil (Drain, see Engine Lubrication System chapter)
  - Coolant (Drain, see Cooling System chapter)
  - Fuel Tank (see Fuel System chapter)
  - Air Cleaner Housing (see Fuel System chapter)
  - Carburetors (see Fuel System chapter)
  - Baffle Plate
  - Oil Cooler and Oil Pipes (see Engine Lubrication System chapter)
  - Radiator (see Cooling System chapter)
  - Muffler (see Engine Top End chapter)
  - Engine Sprocket (see Final Drive chapter)
- Disconnect wiring from the engine and free them from the clamps.
  - Clutch Cable
  - Spark Plug Caps
  - Pickup Coil Lead Connector
  - Battery Ground Lead Terminal
  - Starter Motor Lead Terminal
  - Water Temperature Sensor Lead Connector
  - Oil Pressure Switch Connector
  - Side Stand Switch Connector
  - Alternator Leads Connector
  - Neutral Switch Connector



- A. Battery Ground Lead Terminal
- B. Side Stand Switch Connector
- C. Neutral Switch Connector

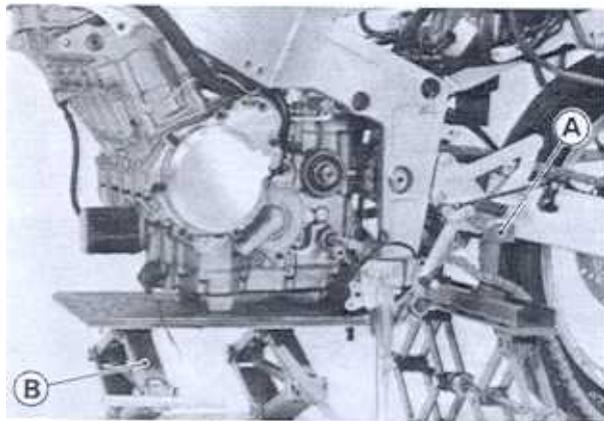
- If the crankshaft is to be removed after engine removal, you may remove the following parts at this time.
  - Cylinder
  - Alternator
- In case of the transmission, you may remove the clutch.
- Remove the engine mounting nuts and the bracket nuts but do not remove the bolt as yet.

## 7-4 ENGINE REMOVAL / INSTALLATION



- A. Bracket
- B. Bracket Bolts and Nuts
- C. Engine Mounting Bolts and Nuts

- Place the jack (special tool) under the swing arm to steady the motorcycle.
- Place the suitable stand or the jack under the engine.
- Remove the engine mounting bolts. Support the engine before sliding out the engine mounting bolts.



- A. Jack: 57001-1238
- B. Suitable Stand

### *Installation*

- Installation is the reverse of removal. Note the following.
- Install a shim (thickness 0.5 mm) between the lower part of the crankcase and the frame bracket (see Exploded View).
- Supporting the engine, first insert the upper bolts, and then the lower bolts.
- Tighten the following fasteners to the specified torque (see Exploded View).
  - Engine Mounting Bolts
  - Engine Bracket Bolts
- Run the wires, cables, and hoses as shown in the Wiring, Cables, and Hose Routing section of the General Information chapter.
- Adjust the following.
  - Throttle Cables (see Fuel System chapter)
  - Choke Cable (see Fuel System chapter)
  - Clutch Cable (see Clutch chapter)

Drive Chain (see Final Drive chapter)

- Fill the engine with engine oil (see Engine Lubrication System chapter).
- Fill the engine with coolant and bleed the air from the cooling system (see Cooling System chapter).
- Adjust the carburetor synchronization and idling.