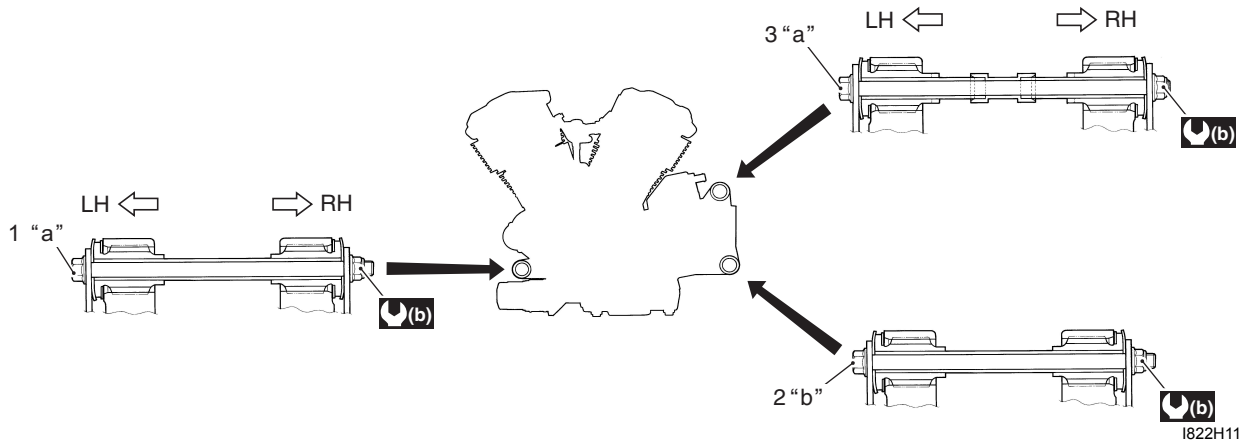


- Tighten all engine mounting bolts and nuts to the specified torque, as shown in the following illustration.



I822H1140398-02

1. Engine mounting bolt (Front)	"a": 215 mm (8.5 in)
2. Engine mounting bolt (Rear lower)	"b": 195 mm (7.7 in)
3. Engine mounting bolt (Rear upper)	: 55 N·m (5.5 kgf-m, 40.0 lb-ft)

- After remounting the engine, route the wiring harness properly. Refer to "Wiring Harness Routing Diagram in Section 9A (Page 9A-7)".
- Connect the clutch cable. Refer to "Clutch Cable Removal and Installation in Section 5C (Page 5C-2)".
- Install the left footrest and tighten the mounting bolts to the specified torque.

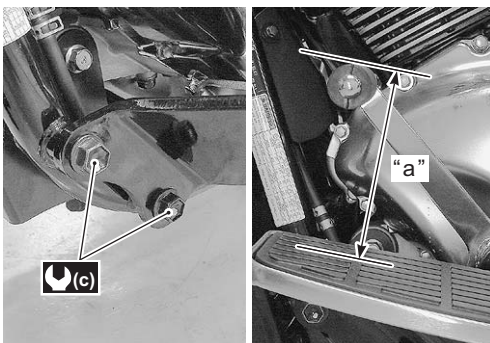
**Tightening torque**

**Front footrest bracket bolt (c): 85 N·m (8.5 kgf-m, 61.5 lb-ft)**

- Install the gearshift link arm to the gearshift shaft in the correct position. Refer to "Gearshift Lever Height Inspection and Adjustment in Section 5B (Page 5B-14)".

**Gearshift lever height "a"**

**Standard: 115 – 125 mm (4.5 – 4.9 in)**

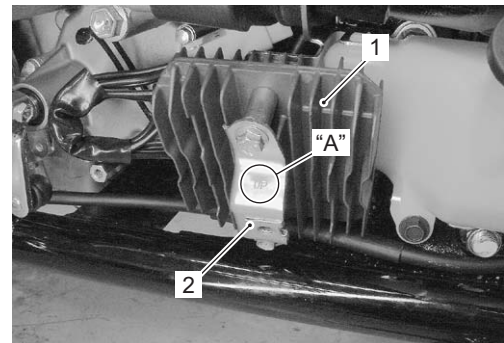


I822H1140399-02

- Install the regulator/rectifier (1).

**NOTE**

**When installing the frame lower cover bracket (2), bring the "UP" mark "A" upward.**



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- Install the right footrest and rear brake master cylinder assembly. Refer to "Rear Brake Master Cylinder Removal and Installation in Section 4A (Page 4A-14)".
- Connect the water hoses. Refer to "Water Hose Routing Diagram in Section 1F (Page 1F-3)".
- Install the throttle body. Refer to "Throttle Body Removal and Installation (Page 1D-10)".
- Install the exhaust pipes and mufflers. Refer to "Exhaust Pipe / Muffler Removal and Installation in Section 1K (Page 1K-9)".

## 1D-25 Engine Mechanical:

- Install the air cleaner chamber. Refer to “Air Cleaner Chamber Removal and Installation (Page 1D-6)”.
- Pour engine coolant and engine oil. Refer to “Cooling System Inspection in Section 0B (Page 0B-15)” and “Engine Oil and Filter Replacement in Section 0B (Page 0B-11)”.
- After finishing the engine installation, check the following items.
  - Throttle cable play  
Refer to “Throttle Cable Play Inspection and Adjustment in Section 0B (Page 0B-14)”.
  - Throttle valve synchronization  
Refer to “Throttle Valve Synchronization in Section 0B (Page 0B-15)”.
  - Engine oil and coolant leakage  
Refer to “Cooling Circuit Inspection in Section 1F (Page 1F-4)”.
  - Clutch cable play  
Refer to “Clutch Cable Play Inspection and Adjustment in Section 0B (Page 0B-17)”.

### Engine Top Side Disassembly

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It is unnecessary to remove the engine assembly from the frame when servicing the cylinder head cover and camshafts.

#### NOTE

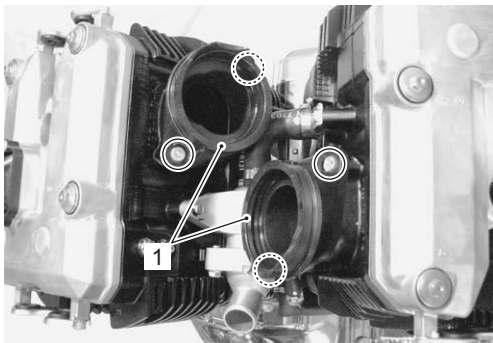
“Engine top side components” can not be serviced with the engine installed in the frame.

#### CAUTION

Identify the position of each removed part. Organize the parts in their respective groups (e.g., intake, exhaust) so that they can be reinstalled in their original positions.

### Intake Pipe

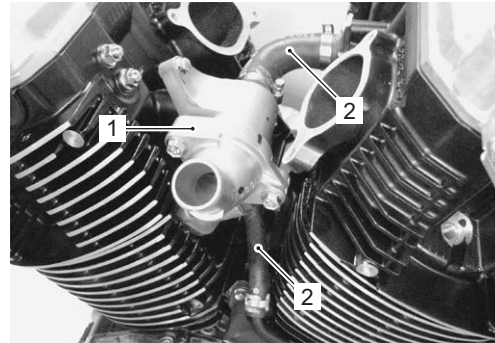
Remove the front and rear intake pipes (1).



I822H1140039-01

### Thermostat

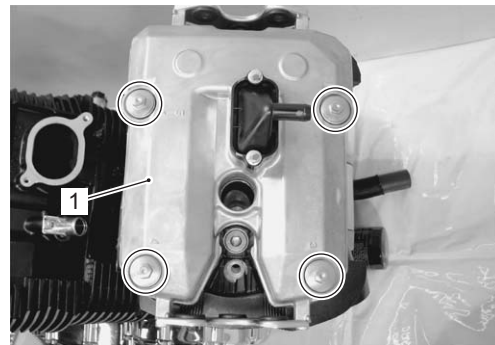
Remove the thermostat assembly (1) and disconnect the water hoses (2).



I822H1140040-01

### Front Cylinder Head Cover

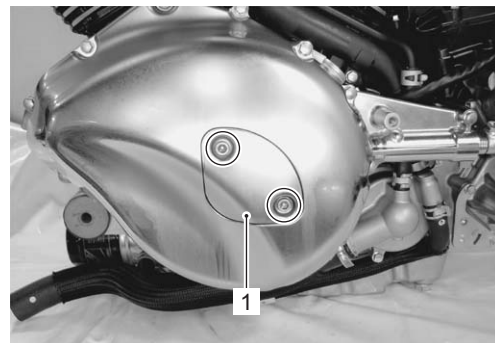
- 1) Remove the front cylinder spark plugs. Refer to “Spark Plug Removal and Installation in Section 1H (Page 1H-6)”.
- 2) Remove the front cylinder head cover (1) and its gasket.



I822H1140041-01

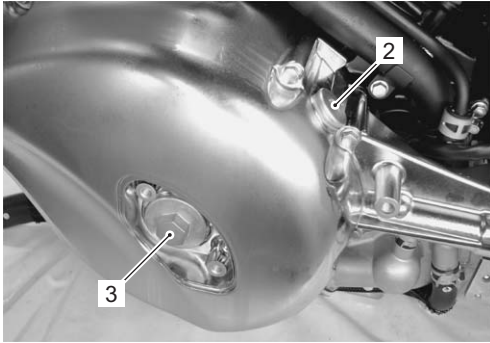
### Front Camshaft

- 1) Remove the generator cover cap (1).



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- Remove the valve timing inspection plug (2) and generator cover plug (3).

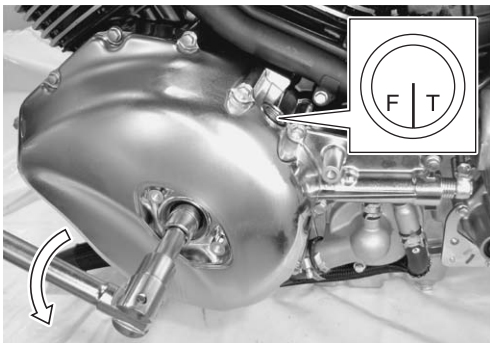


I822H1140043-01

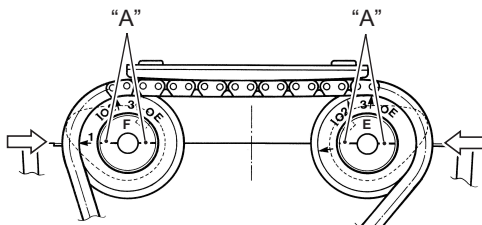
- Turn the crankshaft to bring the "F I T" line mark on generator rotor to the index mark of the valve inspection hole and also to bring the cams to the position as shown in the figure.

**NOTE**

At the above condition, the front cylinder is at TDC on compression stroke and also the engraved lines "A" on the camshafts are parallel with the mating surface of the cylinder head.

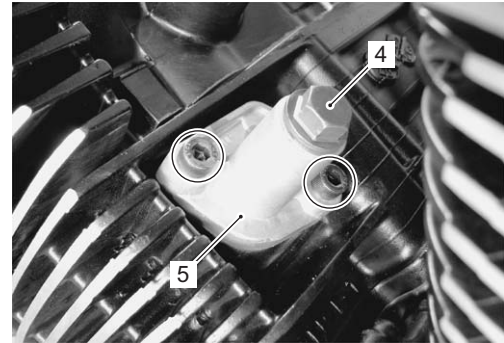


I822H1140044-01



I822H1140045-01

- Remove the cam chain tension adjuster cap bolt (4), washer and spring.
- Remove the front cam chain tension No. 2 adjuster (5) and gasket.

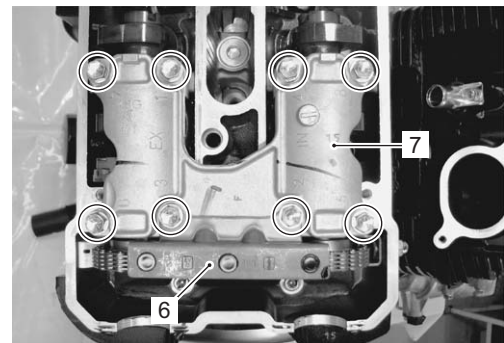


I822H1140046-01

- Remove the cam chain guide No. 3 (6).
- Remove the camshaft journal holder (7).
- Remove the dowel pins.

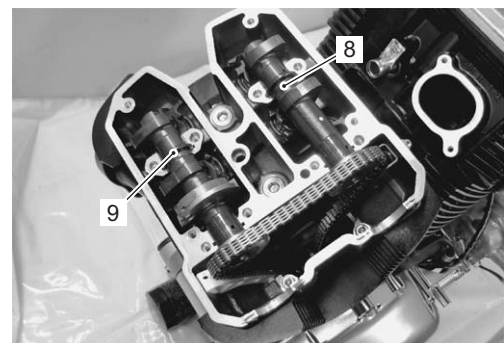
**⚠ CAUTION**

Be sure to loosen the camshaft journal holder bolts evenly by shifting the wrench in the descending order of numbers.



I822H1140047-01

- Remove the intake camshaft (8) and exhaust camshaft (9).



I822H1140048-01

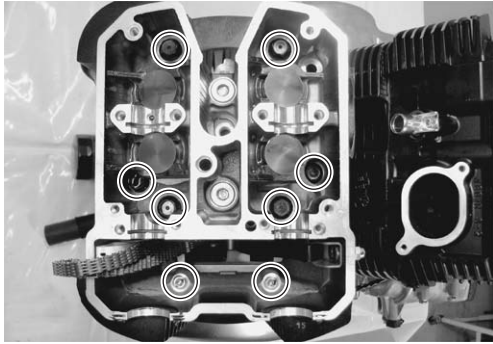
## 1D-27 Engine Mechanical:

### Front Cylinder Head

- 1) Remove the front cylinder head.

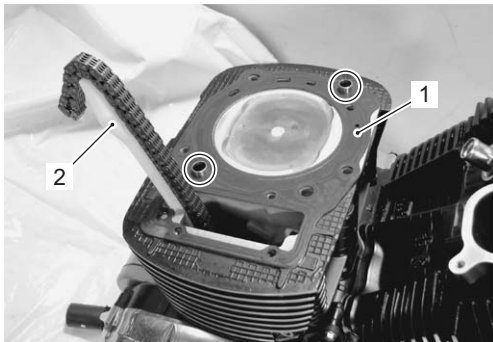
#### NOTE

Loosen the cylinder head bolts little by little diagonally with the smaller sizes first.



I822H1140049-01

- 2) Remove the front cylinder head gasket (1) and dowel pins.
- 3) Remove the front cam chain guide No. 2 (2).



I822H1140050-01

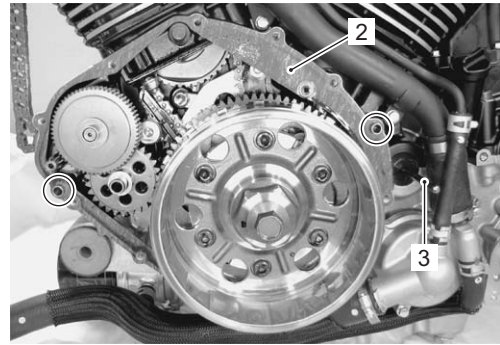
### Generator Cover

- 1) Remove the generator cover (1).



I822H1140051-01

- 2) Remove the dowel pins and gasket (2).
- 3) Remove the clutch push rod (3).



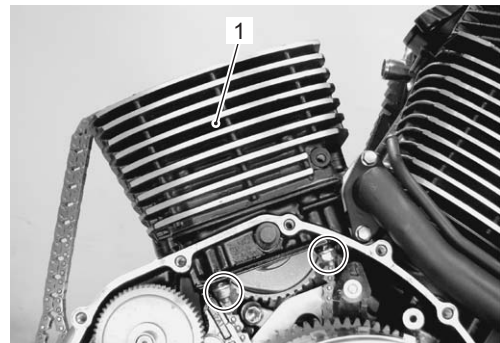
I822H1140052-01

### Front Cylinder

- 1) Remove the front cylinder (1).

#### NOTE

Firmly grip the cylinder at both ends, and lift it straight up. If the cylinder does not come off, lightly tap on the finless portions of the cylinder with a plastic hammer.



I822H1140053-01

- 2) Remove the front cylinder gasket (2) and dowel pins.



I822H1140054-01