

1D



## Crankcase Assembly Reassembly

Refer to [Piston Removal and Installation](#) and [Engine Assembly Installation](#).

1) Install the following parts to the crankcases.

- Right crankcase bearing:
- Left crankcase bearings and oil seals:
- Oil pump:
- Transmission component parts:
- Crankshaft assembly:

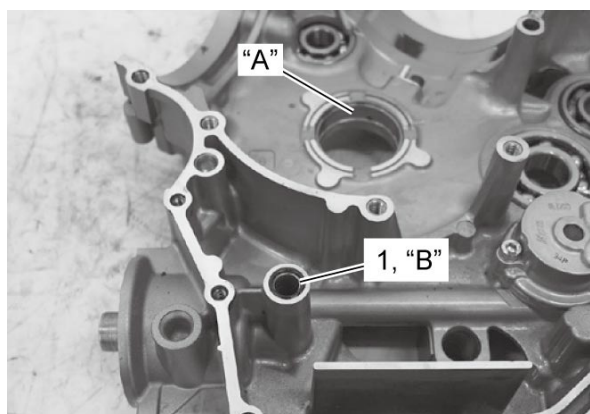
2) Apply engine oil to each running and sliding part.

3) Apply molybdenum oil solution to the crankshaft journal bearing.

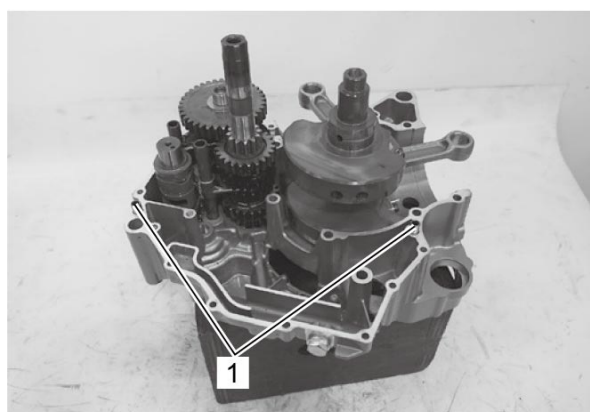
**"A": Assembly lubrication (Molybdenum oil solution)**

4) Apply grease to the new O-ring (1) and install it to the right crankcase.

**"B": Grease 99000-25011 (SUZUKI SUPER GREASE A)**



5) Install the dowel pins (1).



6) Clean the mating surfaces of the left and right crankcase halves. Apply sealant to the mating surface of the left crankcase.

### NOTE:

- **Make surfaces free from moisture, oil, dust and other foreign materials.**

- Spread on surfaces thinly to form an even layer, and assemble the crankcases within few minutes.
- Take extreme care not to apply any sealant to the oil hole, oil groove and bearing.
- Apply to distorted surfaces as it forms a comparatively thick film.

**"A": Sealant 99000-31110 (SUZUKI BOND 1215)**



**7)** Assemble the right and left crankcase halves.

**NOTE:**

**Be careful not to drop the O-ring into the crankcase.**

**8)** Tighten the crankcase bolts a little at a time to equalize the pressure.

**NOTE:**

- Tighten the larger diameter crankcase bolts first and then smaller ones diagonally and evenly.
- Fit the washer (1) to the crankcase bolt.
- Tighten the engine ground lead wire (2) by a crankcase bolt.

**Tightening torque**

**Crankcase bolt (M8) (L110) (a): 26 N·m (2.6 kgf-m, 19.0 lbf-ft)**

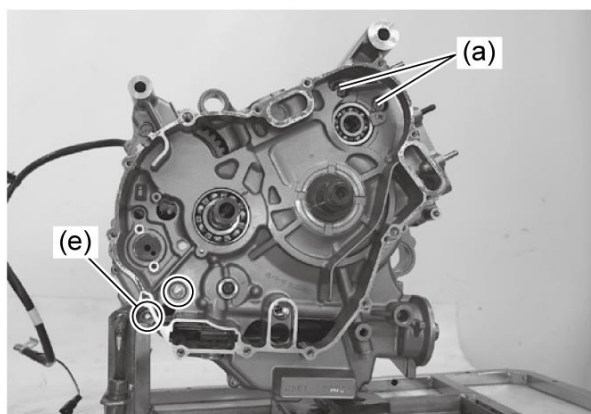
**Crankcase bolt (M8) (L125) (b): 26 N·m (2.6 kgf-m, 19.0 lbf-ft)**

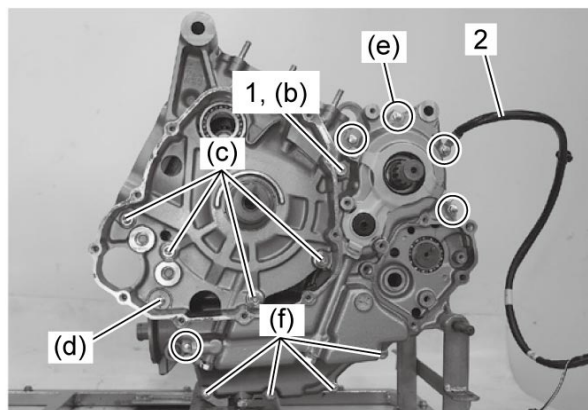
**Crankcase bolt (M8) (L90) (c): 26 N·m (2.6 kgf-m, 19.0 lbf-ft)**

**Crankcase bolt (M6) (L85) (d): 11 N·m (1.1 kgf-m, 8.0 lbf-ft)**

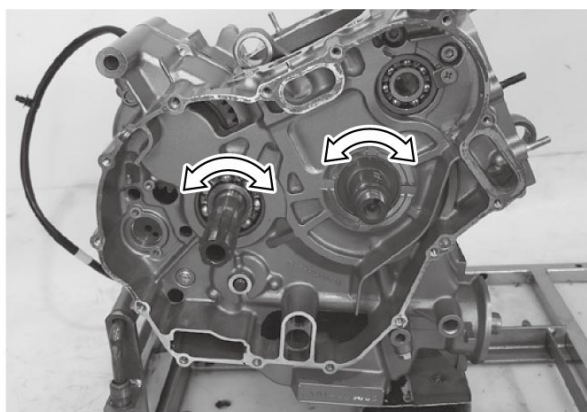
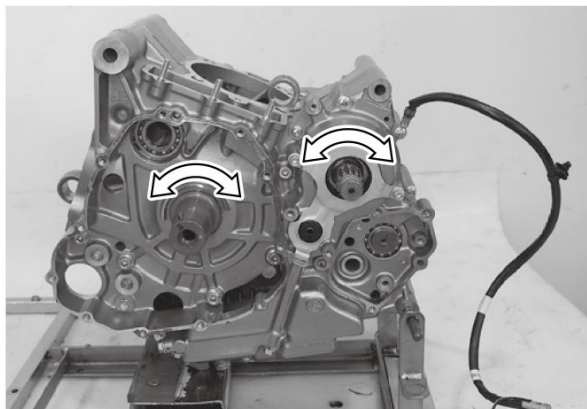
**Crankcase bolt (M6) (L70) (e): 11 N·m (1.1 kgf-m, 8.0 lbf-ft)**

**Crankcase bolt (M6) (L30) (f): 11 N·m (1.1 kgf-m, 8.0 lbf-ft)**





- 9) After the crankcase bolts have been tightened, check if the crankshaft, driveshaft and countershaft rotate smoothly.



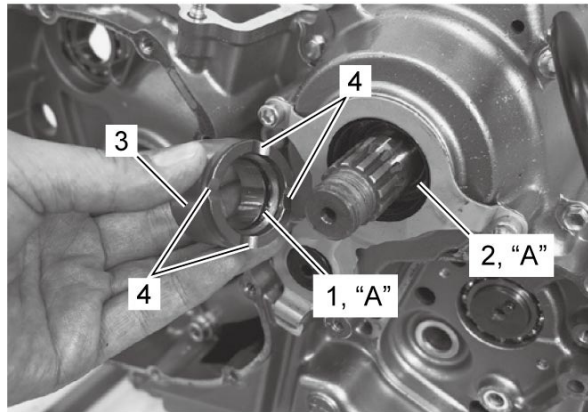
- 10) Apply grease to the new O-ring (1) and oil seal lip (2).

**"A": Grease 99000-25011 (SUZUKI SUPER GREASE A)**

- 11) Install the engine sprocket spacer (3) onto the driveshaft.

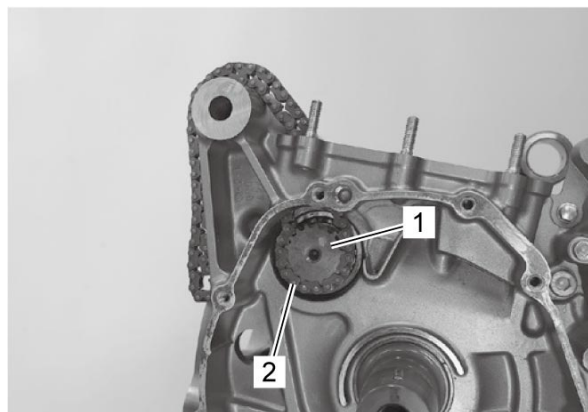
**NOTE:**

**The grooved side (4) of the engine sprocket spacer faces crankcase side.**



**12)** Install the gearshift arm stopper, gearshift cam stopper, gearshift cam plate, gearshift shaft assembly and gearshift cover.

**13)** Install the cam drive idle gear shaft (1) and cam chain (2).



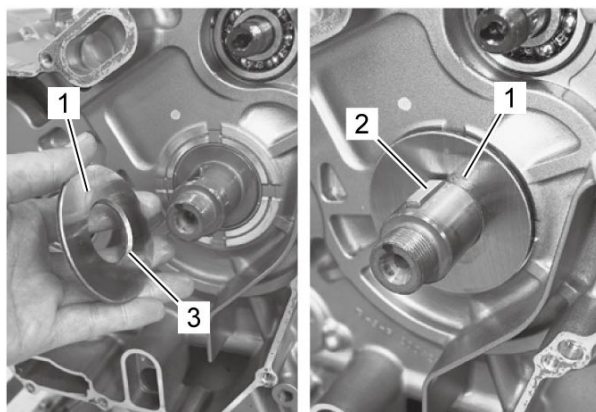
**14)** Install the starter driven gear.

**15)** Install the generator rotor.

**16)** Install the thrust washer (1) and key (2).

**NOTE:**

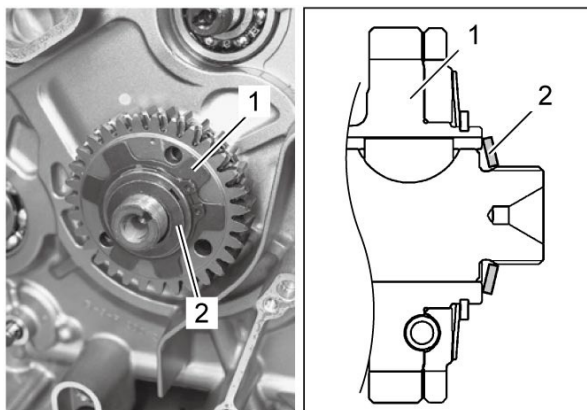
**The chamfer side (3) of the thrust washer (1) faces the crankcase side.**



- 17)** Install the primary drive gear assembly (1) and the conical spring washer (2).

**NOTE:**

**The conical curve side of the spring washer (2) faces outside.**



- 18)** Install the primary drive gear nut (1).

**NOTE:**

**The primary drive gear nut (1) has left-hand threads.**

**The "L" mark (2) on the nut (1) faces outside.**

- 19)** Hold the generator rotor (3) with the special tool and tighten the primary drive gear nut (1) to the specified torque.

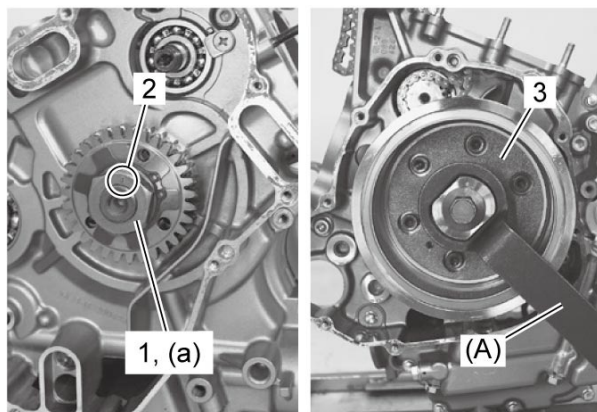
**Special Tool**

**(A): 09930-44541**

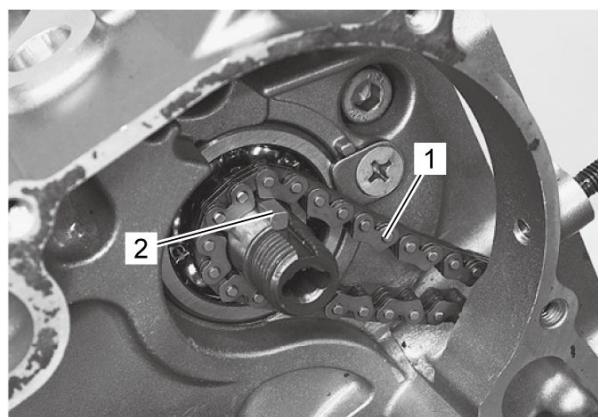
**Tightening torque**

**Primary drive gear nut (a): 160 N·m (16.0 kgf-m, 116.0 lbf-ft)**





**20)** Install the cam chain (1) and key (2).

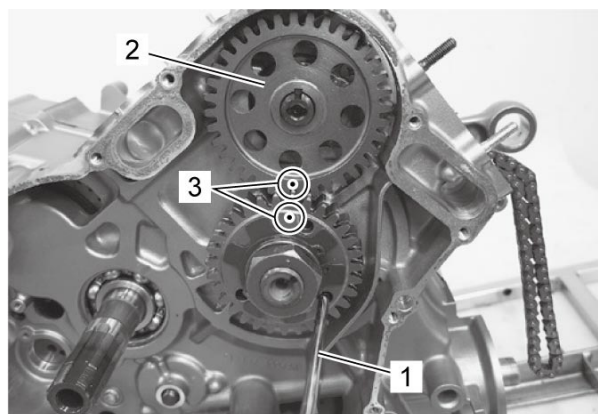


**21)** Insert a suitable bar (1) into the holes of primary drive gears and align the teeth of scissors gears.

**22)** Install the cam drive idle gear/sprocket No. 1 (2).

**NOTE:**

**Align the punch marks (3) on the cam drive idle gear/sprocket No. 1 (2) and primary drive gear.**





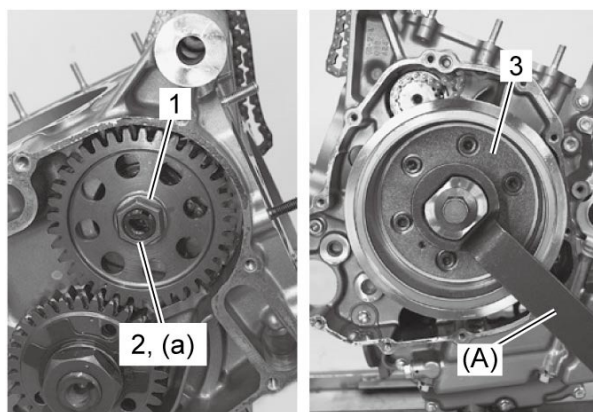
- 23)** Install the washer (1) and cam drive idle gear/sprocket No. 1 nut (2).
- 24)** Hold the generator rotor (3) with the special tool and tighten the cam drive idle gear/sprocket No. 1 nut (2) to the specified torque.

**Special Tool**

**(A): 09930-44541**

**Tightening torque**

**Cam drive idle gear/sprocket No. 1 nut (a): 71 N·m (7.1 kgf-m, 51.5 lbf-ft)**



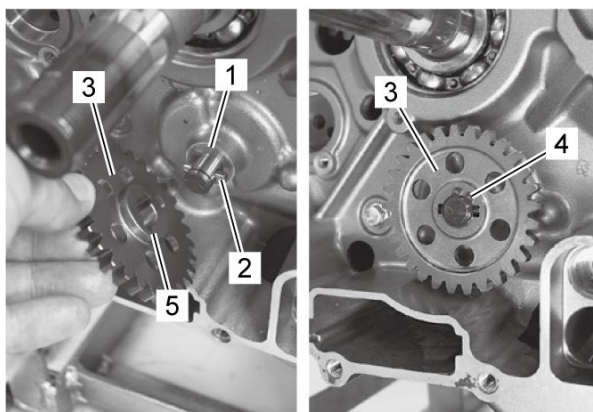
- 25)** Install the washer (1) and pin (2).
- 26)** Install the oil pump driven gear (3) and new snap ring (4).

**NOTE:**






**The boss (5) of the oil pump driven gear (3) faces crankcase side.**

**Special Tool**

**09900-06107**



- 27)** Install the oil pressure regulator and oil strainer.
- 28)** Install the oil pressure switch.
- 29)** Install the GP switch.

- 30)** Install the clutch component parts. 
- 31)** Install the clutch cover and water pump case. 
- 32)** Install the starter idle gear and starter torque limiter. 
- 33)** Install the generator cover. 
- 34)** Install the oil filter. 
- 35)** Install the starter motor assembly. 