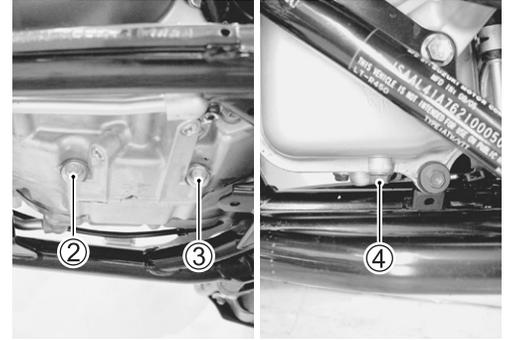


ENGINE OIL REPLACEMENT

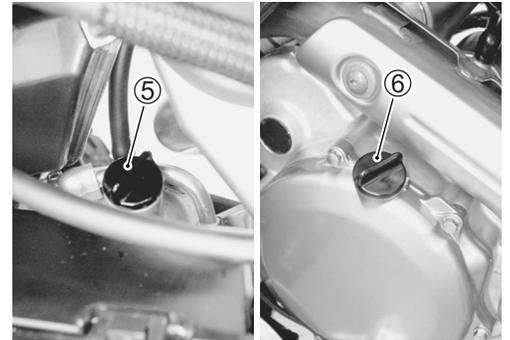
Crankcase side

- Remove the engine protector cover ①.
- Place an oil pan below the drain plug ② and ③ on the crankcase and drain plug ④ on the oil tank. Then drain out the engine oil by removing the engine oil drain plug ②, ③, ④ and engine oil filler cap ⑤, ⑥.
- Reinstall the drain plug ②, ③, ④ and gasket. Tighten the engine oil drain plug ②, ③ and ④ to the specified torque, and then pour the fresh oil through the oil filler hole. When performing an oil change (without oil filter replacement), the oil tank will hold about 1.2 L (1.3 US qt, 1.1 Imp qt) of oil and the engine will hold about 0.4 L (0.4 US qt, 0.4 Imp qt) of oil. Use of SF/SG or SH/SJ in API with MA in JASO.

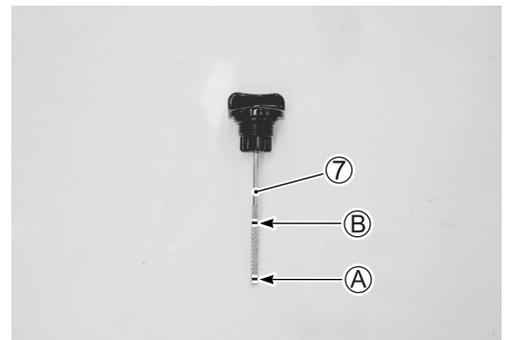


- **Engine oil drain plug ②, ③: 18 N·m (1.8 kgf·m, 13.0 lb·ft)**
Engine oil tank drain plug ④: 12 N·m (1.2 kgf·m, 8.5 lb·ft)

- Make sure that the engine is cooled.
- Place the motorcycle on level ground and hold it vertically.
- Install the oil filter cap ⑤, ⑥.
- Start the engine and allow it to run for three minutes at idling speed.



- Turn off the engine and wait about three minutes, and then check the oil level on the dipstick ⑦. The oil level should be between the “L” (low) ① and “F” (full) ② level lines. If the oil level is lower than the “L” ① level line, add oil to the “F” ② level line.

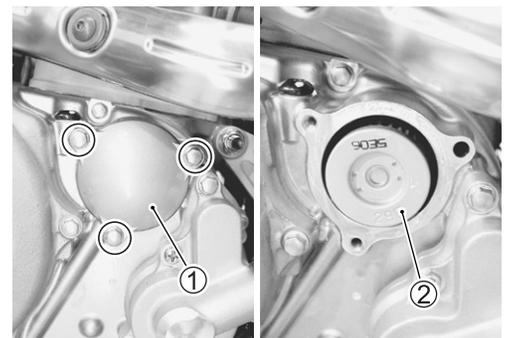


NOTE:

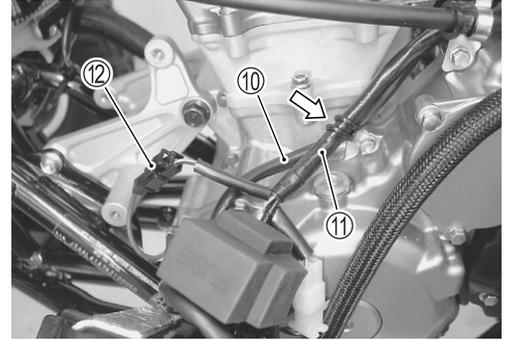
Engine oil expands and oil level increase when the engine oil is hot.

OIL FILTER REPLACEMENT

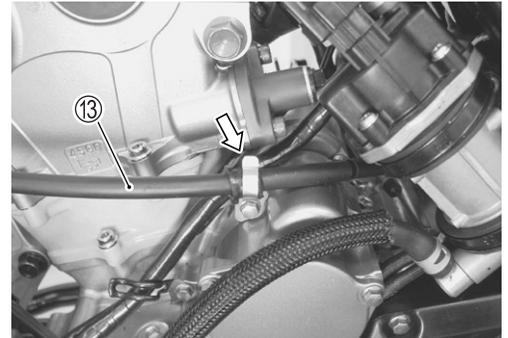
- Drain the engine oil as described in the engine oil replacement procedure.
- Remove the oil filter cap ① and oil filter ②.
- Replace the oil filter with a new one.



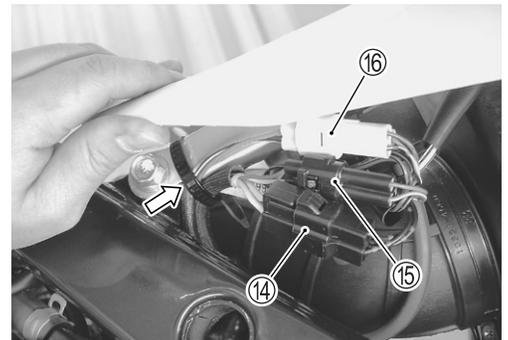
- Remove the starter motor lead wire ⑩ and wiring harness ⑪ from the clamp.
- Disconnect the ground lead wire coupler ⑫.



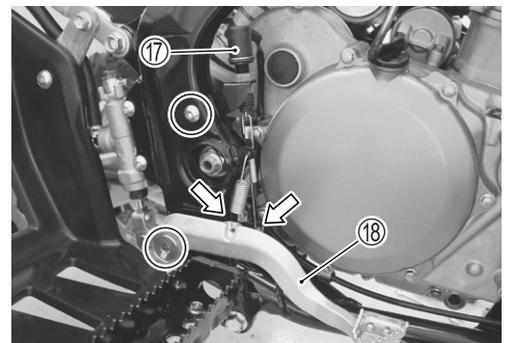
- Remove the parking brake cable ⑬ from the bracket.



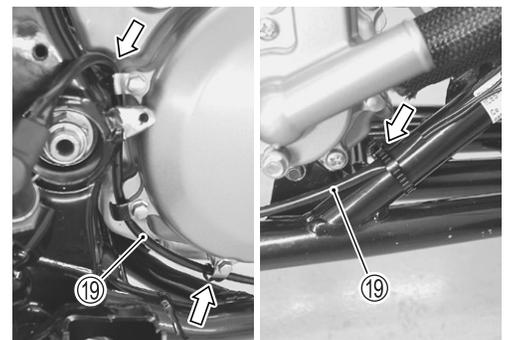
- Disconnect the generator startor coupler ⑭, CKP sensor ⑮ and gear position switch coupler ⑯.
- Remove the generator lead wire and gear position switch lead wire from the clamp.



- Remove the rear brake switch ⑰ and brake pedal ⑱.
(☞ 7-67)



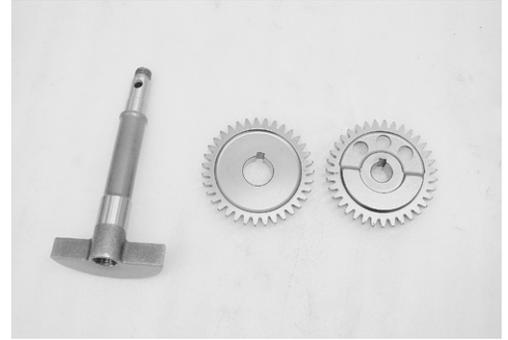
- Remove the rear brake switch wire ⑲ from the clamp.



BALANCER SHAFT AND BALANCER DRIVEN AND DRIVE GEAR

INSPECTION

Inspect the balancer shaft and balancer driven and drive gear for wear or damage. If any defects are found, replace the defective part.



STARTER CLUTCH

INSPECTION

Install the starter driven gear onto the starter clutch and turn the starter driven gear by hand to inspect the starter clutch for a smooth movement. The gear turns one direction only. If a large resistance is felt to rotation, inspect the starter clutch for damage or inspect the starter clutch contacting surface of the starter driven gear for wear or damage.

If they are found to be damaged, replace them with new ones.



DISASSEMBLY

- Hold the rotor using the special tool and remove the bolts.

 **09930-44520: Rotor holder**



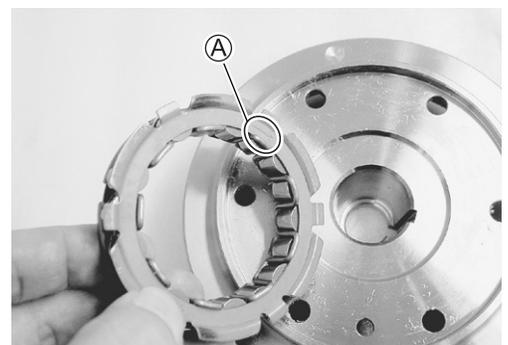
REASSEMBLY

- Install the starter clutch in the proper direction as shown.

NOTE:

When installing the starter clutch onto the rotor, make sure that the arrow mark (A) in the bearing faces to the rotor.

- Apply engine oil to the starter clutch.



- Apply a small quantity of THREAD LOCK SUPER "1322" to the starter clutch bolt.

 **99000-32110: THREAD LOCK SUPER "1322"**
(or equivalent thread lock)



DRIVE TRAIN + DRIVE CHAIN

Unit: mm (in) Except ratio

ITEM		STANDARD	LIMIT
Primary reduction ratio		2.851 (77/27)	—
Final reduction ratio		2.571 (36/14)	—
Gear ratios	Low	2.076 (27/13)	—
	2nd	1.647 (28/17)	—
	3rd	1.333 (28/21)	—
	4th	1.095 (23/21)	—
	Top	0.913 (21/23)	—
Shift fork to groove clearance		0.1 – 0.3 (0.004 – 0.012)	0.5 (0.020)
Shift fork groove width	No.1, No.2 & No.3	4.8 – 4.9 (0.189 – 0.193)	—
Shift fork thickness	No.1, No.2 & No.3	4.8 – 4.9 (0.189 – 0.193)	—
Drive chain	Type	RK 520SMOZ10S	—
	Links	96	—
	20-pitch length	—	319.4 (12.57)
Drive chain slack		45 – 55 (1.8 – 2.2)	—
Gearshift lever height		5 – 10 (0.2 – 0.4)	—

THERMOSTAT + RADIATOR + FAN + COOLANT

ITEM	STANDARD/SPECIFICATION		NOTE
Thermostat valve opening temperature	Approx. 76.5 °C (169.7 °F)		—
Thermostat valve lift	4.5 mm (0.18 in) and over at 90 °C (194 °F)		—
ECT sensor resistance	20 °C (68 °F)	Approx. 2.6 kΩ	—
	50 °C (122 °F)	Approx. 0.772 kΩ	—
	80 °C (176 °F)	Approx. 0.279 kΩ	—
	110 °C (230 °F)	Approx. 0.118 kΩ	—
Radiator cap valve opening pressure	108 – 137 kPa (1.08 – 1.37 kgf/cm ² , 15.4 – 19.5 psi)		—
Cooling fan operating temperature	OFF → ON	Approx. 98 °C (208 °F)	—
	ON → OFF	Approx. 93 °C (199 °F)	—
Engine coolant type	Use an antifreeze/coolant compatible with aluminum radiator, mixed with distilled water only, at the ratio of 50:50.		—
Engine coolant including reserve	Approx. 1 400 ml (1.5 – 1.2 US/lmp qt)		—