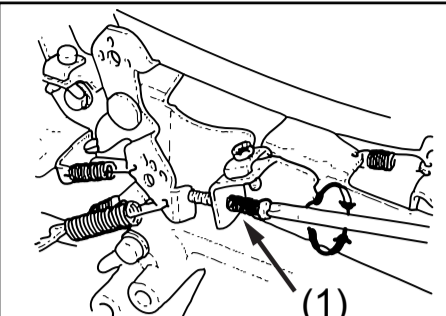


GOVERNOR

Start the engine and allow it to warm up to normal operating temperature.

1

MAXIMUM SPEED

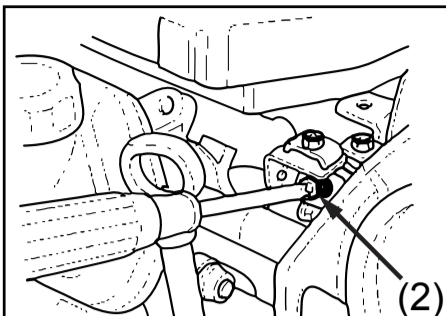


Turn the pan screw (1) of the control to obtain the specified maximum speed.

MAXIMUM SPEED

3,850 ± 150 min-1 (rpm)
3,150 ± 150 min-1 (rpm)
(GX630R QYD, VEP4, GX660R VXF types only)
3,200 ± 150 min-1 (rpm)
(GX630R VXD8, VXE1, GX660R VXE1, GX690R VXE types only)

IDLE SPEED



Turn the pan screw (2) of the control to obtain the specified idle speed.

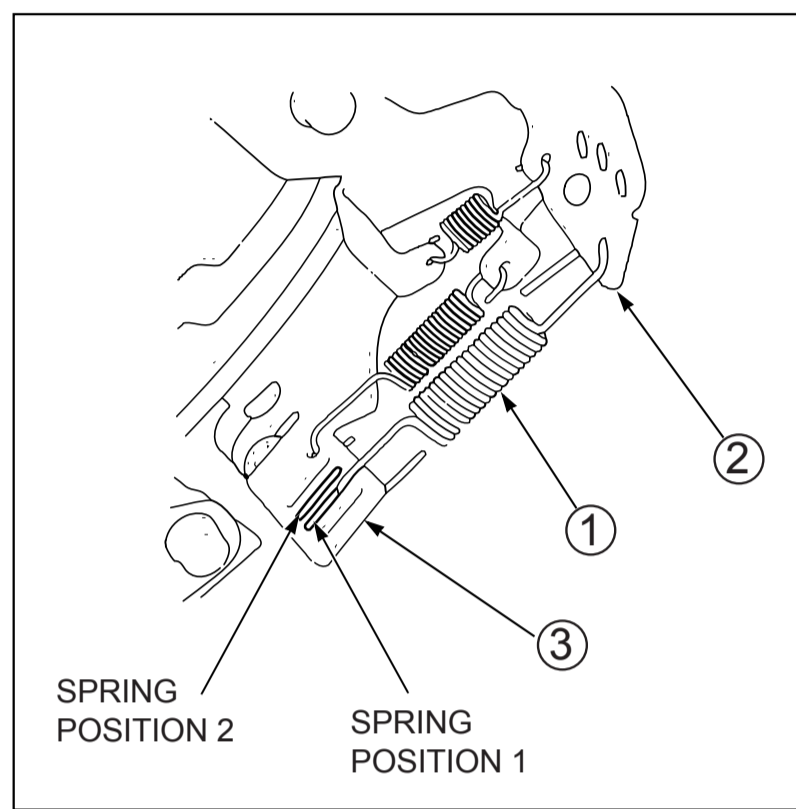
IDLE SPEED

1,400 ± 150 min-1 (rpm)

GOVERNOR SPRING INSTALLATION

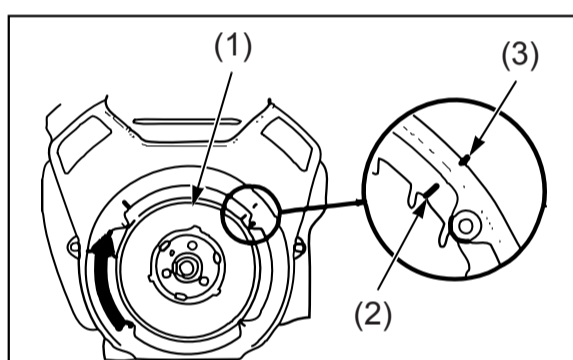
Hook the governor spring ① to the throttle lever ② of the control. Refer to the table below to confirm the governor spring position on the governor arm ③.

Model	Type	Spring position
GX630	All types	1
GX630R	Except QYD, VEP4, VXD8, VXE1, VXF	1
GX660	All types	2
GX660R	Except VXE1	1
GX690	All types	1
GX690R	Except VXE1	1
	VXE1	2



VALVE CLEARANCE

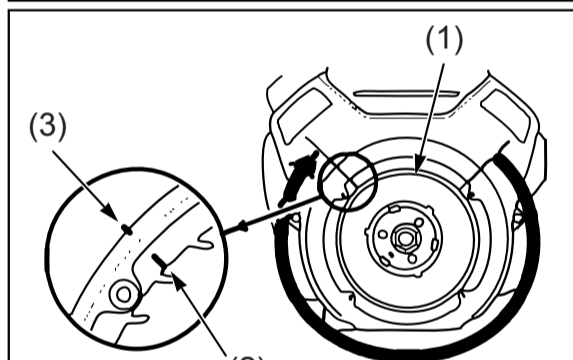
2



Set the piston of the No.1 cylinder at the top dead center of the cylinder compression stroke (both valves fully closed) by rotating the flywheel (1) clockwise slowly.

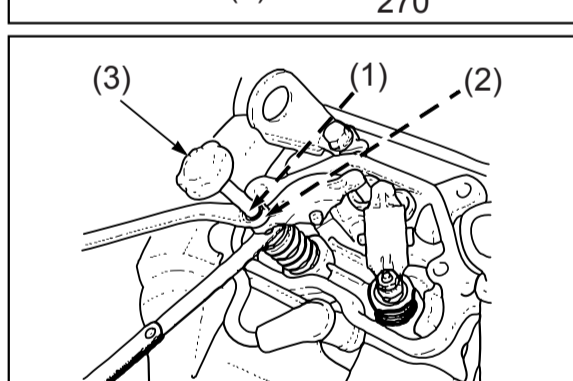
When the No.1 piston is at the top dead center of the compression stroke, the "T" mark (2) on the cooling fan will align with the right side alignment mark (3) on the fan cover.

If the exhaust valve is opened, rotate the flywheel and align the "T" mark on the cooling fan with the alignment mark on the fan cover again.



Set the piston of the No.2 cylinder at the top dead center of the cylinder compression stroke (both valves fully closed) by rotating the flywheel (1) 270 degrees clockwise slowly.

When the No.2 piston is at the top dead center of the compression stroke, the "T" mark (2) on the cooling fan will align with the left side alignment mark (3) on the fan cover.



Insert a thickness gauge between the valve rocker arm and valve stem to measure the valve clearance.

IN: 0.08 ± 0.02 mm EX: 0.10 ± 0.02 mm

If adjustment is necessary, proceed as follows.

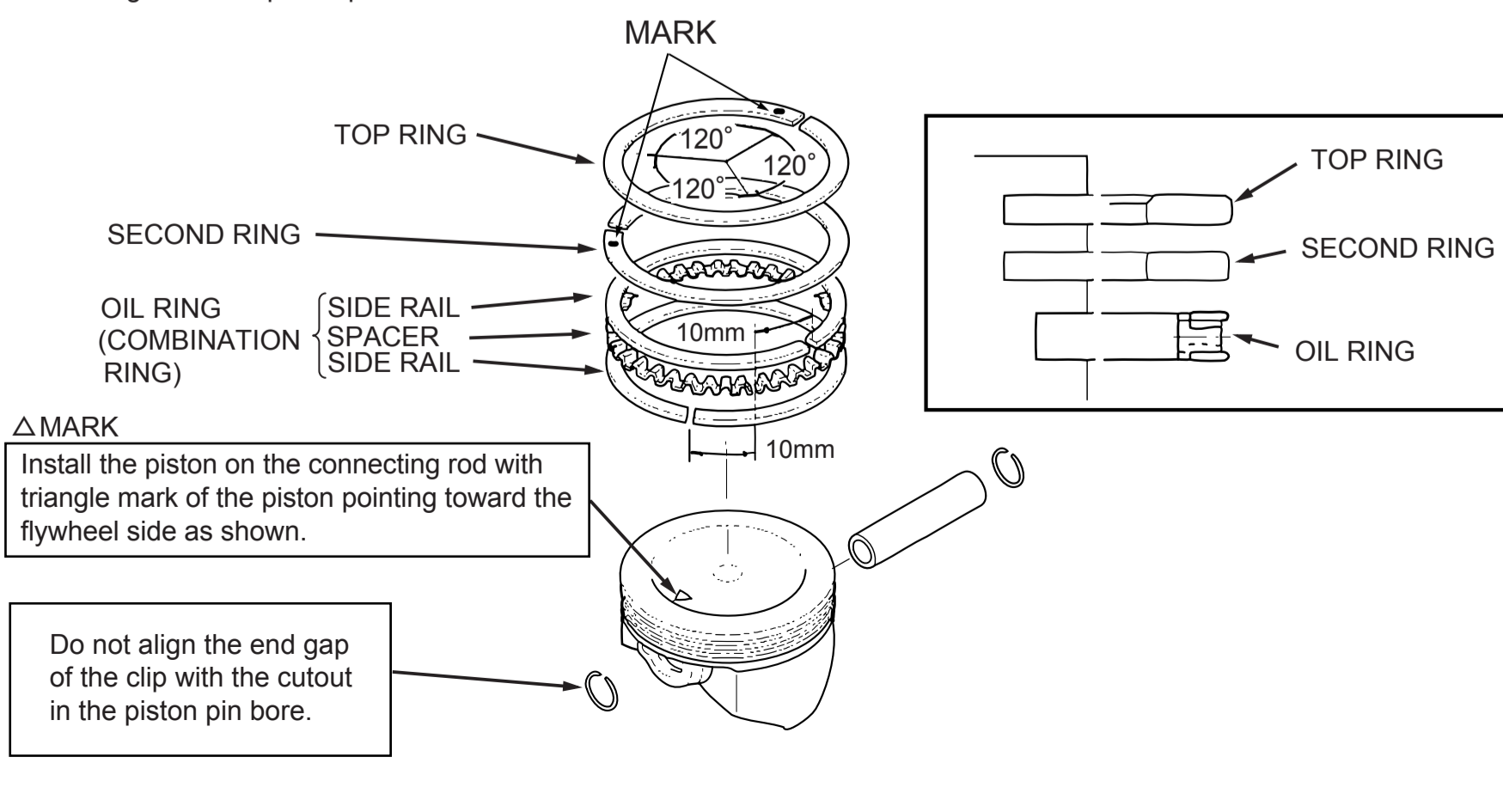
Hold the tappet adjusting screw (1) and loosen the tappet adjusting nut (2). Turn the tappet adjusting screw to obtain the specified clearance.

TOOL: Tappet adjusting wrench 3 mm (3) 07708-0030400

PISTON DISASSEMBLY/REASSEMBLY

3

Stagger the piston ring end gaps 120° apart. Do not align with the piston pin.



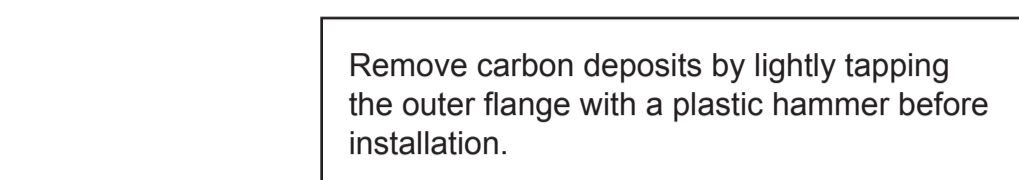
△ MARK

Install the piston on the connecting rod with triangle mark of the piston pointing toward the flywheel side as shown.

Do not align the end gap of the clip with the cutout in the piston pin bore.

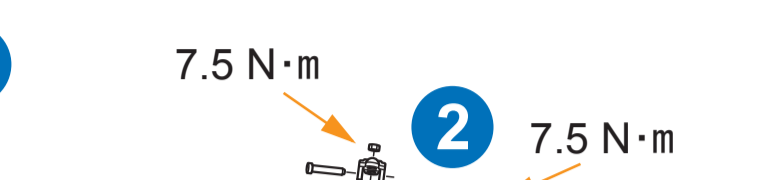
Gasoline is highly flammable and explosive. Check to see whether the fuel is not leaking from the fuel system parts.

1




Remove carbon deposits by lightly tapping the outer flange with a plastic hammer before installation.

2



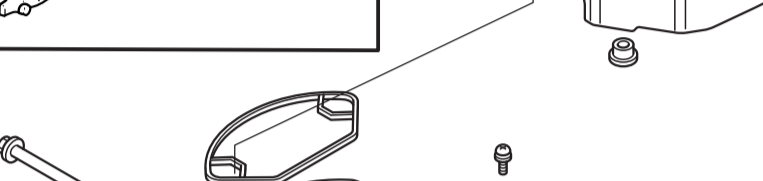
7.5 N·m

3



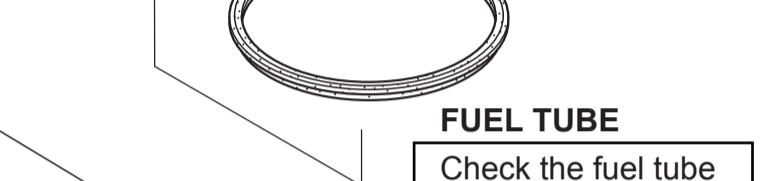
22 N·m

4




45 N·m

5



9 N·m

6



1 N·m

LIQUID GASKET

CYLINDER CRANKCASE COVER BREATHER COVER

ThreeBond 1207B or equivalent
• Assemble within 3 minutes after applying the liquid gasket.
• Wait for 30 minutes after assembly. Do not add oil or start the engine during this period.

ENGINE OIL

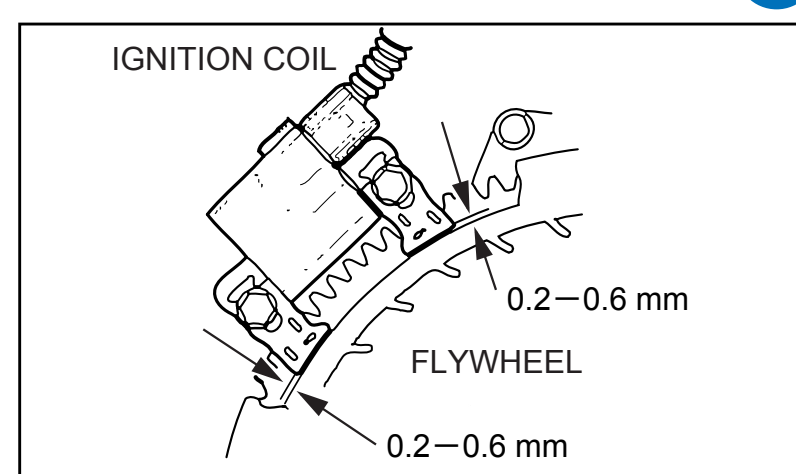
Engine oil capacity	Without oil filter replacement: 1.5 L With oil filter replacement: 1.7 L
Recommended oil	SAE 10W-30 API service classification SE or later

SPARK PLUG

Spark plug gap	0.7 - 0.8 mm (0.028 - 0.031 in)
Recommended Spark plug	NGK ZFR5F

IGNITION COIL AIR GAP

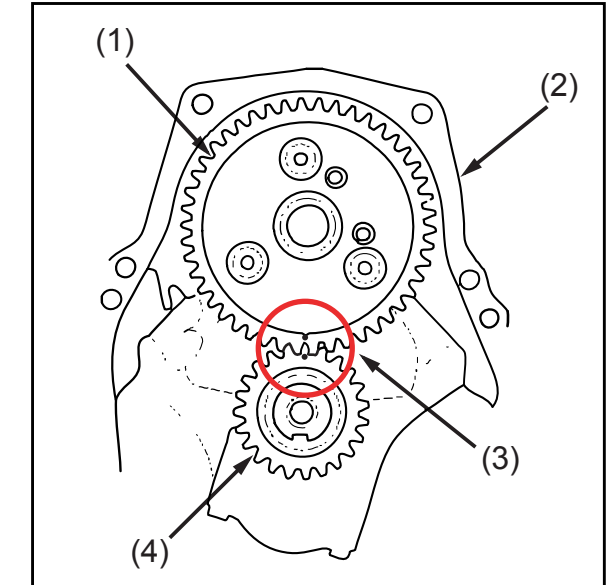
4



Adjust the ignition coil air gap equally at both side.

CAM SHAFT ASSEMBLY

5



Open the valve lifters in the crankcase.


Install the camshaft (1) to the crankcase (2) by aligning the punch marks (3) on the camshaft and the crankshaft (4) (marked on the timing gear).

CARBURETOR

CLEANING

Clean the carburetor body with non-flammable solvent. Clean thoroughly the following passages and ports with low compressed air.

MAIN JET



MAIN JET NUMBER:

GX630/GX630R: L side (No.1 cylinder) #102 R side (No.2 cylinder) #105
GX660/GX660R: #112
GX690/GX690R: #118

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