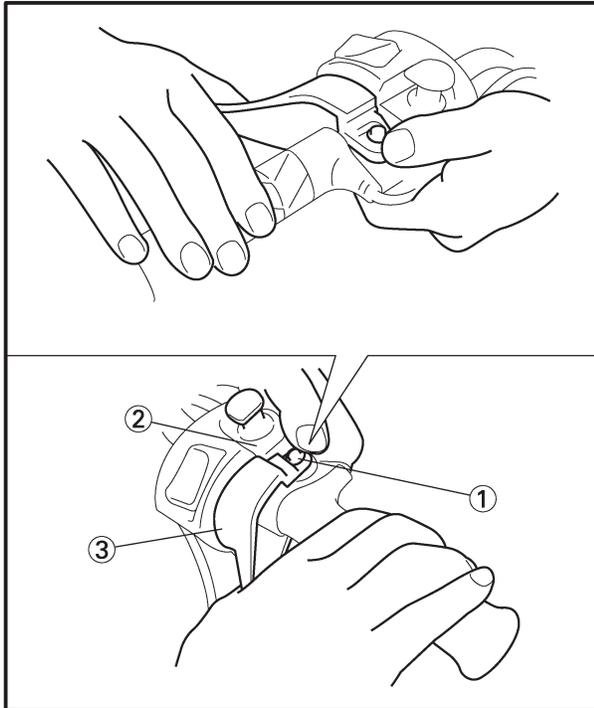


THROTTLE OVERRIDE SYSTEM (T.O.R.S.) CHECK

⚠ WARNING

When checking T.O.R.S.:

- Be sure the parking brake is applied.
- Be sure the throttle lever moves smoothly.
- Do not run the engine up to the clutch engagement speed. Otherwise, the machine could start moving forward unexpectedly, which could cause an accident.



1. Start the engine.
2. Hold the pivot point of the throttle lever away from the throttle switch by putting your thumb (above) and forefinger (below) between the throttle lever pivot ① and stop switch housing ②.

While holding as described above, press the throttle lever ③ gradually.

The T.O.R.S. will operate and the engine should run between 2,800 and 3,000 r/min.

⚠ WARNING

If the engine does not run between 2,800 and 3,000 r/min, stop the engine by turning the main switch to the “OFF” position and check the electrical system.

COMPRESSION PRESSURE MEASUREMENT

NOTE:

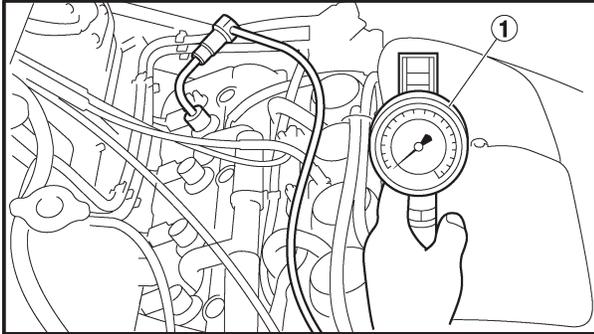
Insufficient compression pressure will result in a loss of performance.

1. Measure:
 - Valve clearance
Out of specification → Adjust.
Refer to “VALVE CLEARANCE ADJUSTMENT”.
2. Start the engine, warm it up for several minutes, and then turn it off.
3. Remove:
 - Spark plug



CAUTION:

Before removing the spark plugs, use compressed air to blow away any dirt accumulated in the spark plug wells to prevent it from falling into the cylinders.



4. Install:
- Compression gauge ①



Compression gauge set
90890-03081, YU-33223
Compression gauge adapter
90890-04136, YU-33223-3

5. Measure:
- Compression pressure
Above the maximum pressure → Inspect the cylinder head, valve surfaces, and piston crown for carbon deposits.
Below the minimum pressure → Squirt a few drops of oil into the affected cylinder and measure again.
Refer to the following table.

Compression pressure (with oil applied into cylinder)	
Reading	Diagnosis
Higher than without oil	Piston ring(-s) wear or damage → Repair.
Same as without oil	Piston, valves, cylinder head gasket or piston possibly defective → Repair. Compression pressure (at sea level)



Compression pressure (at sea level):
Standard:
1,450 kPa (14.5 kg/cm², 206 psi) at 400 r/min
Minimum:
1,260 kPa (12.6 kg/cm², 179 psi) at 400 r/min
Maximum:
1,620 kPa (16.2 kg/cm², 230 psi) at 400 r/min

Measurement steps:

- Turn the main switch to “ON”.
- With the throttle wide open, crank the engine until the reading on the compression gauge stabilizes.

⚠ WARNING

To prevent sparking, ground all spark plug leads before cranking the engine.

NOTE:

The difference in compression pressure between cylinders should not exceed 100 kPa (1 kg/cm², 14.2 psi)

6. Install:

- Spark plug



Spark plug:
13 Nm (1.3 m•kg, 9.4 ft•lb)

ENGINE OIL LEVEL INSPECTION

1. Inspect:

- Engine oil level

CAUTION:

Do not run the engine with too much or not enough oil in the oil tank. Oil could flow into the intake silencer and the engine could be damaged.

Inspection steps:

- Place the snowmobile on a level surface and apply the parking brake.
- Start the engine, warm it up for 10 ~ 15 minutes, and then turn off.
- Disconnect the oil level gauge coupler.

CAUTION:

Disconnect the oil level gauge coupler before removing the oil level gauge. Otherwise the lead can twist and become severed.

- Remove the oil level gauge, wipe it clean, insert it back into the filler hole (without screwing it in), and then remove it again to check the oil level.