

GUIDELINES FOR BLOW BY MEASUREMENT

Before measuring the blow-by, check the following:

- Engine oil level.
- Dipstick for proper calibration.

NOTE: If oil level is too high, it can cause a higher than normal blow-by pressure or excessive oil carryover.

Procedure:

1. Fit the suitable blow by measuring Instrument:

- Blow by meter / A TML released Blow by measurement kit.
- U tube manometer bearing part No. 2751 5890 1802 to the Breather tube open to atmosphere.

2. Start the engine to raise the coolant temperature. approx.80°C.

3. Accelerate the engine at full rpm.

4. Wait until both the air tanks completely filled up. Typical 6.9 and 8.1 bar of air pressure is the set point between starting & stopping of the air compressor pumping. This can be confirmed by hearing unloader valve operational sound. At this stage, there is no load on air compressor. Therefore, the blow-by value will be of Engine only.

5. Wait for the blow-by measurement to stabilize before taking a reading.

6. Take the reading (Idle to continuing full acceleration) and note down. This is the engine blow-by.

7. Typical acceptable Blow by values observed on a green engine to an engine in service range from 40 lpm to 80 lpm measured with a Blow by meter.

8. A manometer reading ≤ 200 mm of water column, measured with the TML released kit is acceptable for Engines in service.

9. A judicious and a well calibrated decision to be taken before Ascertaining a Blow By Issue, if any by confirming / checking the following:

- A healthy Turbocharger.
- A healthy Air Compressor.
- Crank case pressure, should be ≤ 20 mbar.
- Any HEOC issue (Ensure oil level in sump not higher than dipstick marking)
- A Borescopic examination for bore scoring issue.
- Engine cylinder Compression Pressure measurement.