

The TRIUMPH Corporation

SERVICE BULLETIN

August 24, 1967 67/6

TO ALL EASTERN TRIUMPH DEALERS

SUBJECT: Wet-Sumping on "A", "B", & "C" Range Triumphs

Wet-sumping can occasionally be a problem on some Triumph motorcycles.

Symptoms of wet-sumping are:

1. Excessive oil emitting from crankcase breather tube and resulting high oil consumption.
2. Smoking exhaust.

To verify that a wet-sumping condition exists, run the engine until it is thoroughly warm. Within five minutes after engine shutoff drain the sump. Measure the amount of oil that drains out. An amount of oil over 100cc indicates a wet-sumping condition and corrective measures should be taken.

Possible causes of wet-sumping are:

1. Foreign material preventing ball check valve from seating in the scavenge side of oil pump (most common cause).
2. Poor check valve ball seat.
3. Air leak in crankcase oil scavenge pipe.
4. Air leak in oil pump to crankcase joint.
5. Porous crankcase casting.
6. Air leak at E4539 1/4 W plug bottom of engine ("B" Range) or at T1553 Phillips screw plug at bottom of engine ("A" Range).
7. Blockage in return oil line - could be caused by mis-aligned E3763 oil junction block gasket.
8. Oil pressure relief valve piston in full bypass position due to a stuck piston or broken or missing spring.
9. Restriction in oil tank vent pipe.

Scavenge Suction Test (for checking above causes #1 thru #6)

Obtain from any auto parts store a vacuum gauge calibrated in inches of mercury. Attach a length of standard Triumph oil line to it and proceed as follows:

1. Run engine until it is thoroughly warm.
2. Remove the oil sump cap and screen.
3. Connect hose from vacuum gauge to oil scavenge pipe.
4. Run engine at a fast idle - gauge should read a vacuum of 18-26 inches of mercury.
5. Stop engine and observe gauge. The needle should gradually - not immediately - drop to zero.

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If the Scavenge Suction Test is Satisfactory

1. Check oil pressure relief valve assembly and also check oil pressure (see #8).
2. Check the return system from the pump to the oil tank and also the tank vent (see #7 & #9).

To check for a blocked or restricted oil return to the tank: (see item #7)

1. On "B" & "C" Range oil tanks using a hand chuck and 7/64" and 15/64" drill bits, run the drill bits into the return tube and rocker feed tube (if fitted) at the bottom of the tank to see that both tubes are free from internal burrs and restrictions that can occur at their welded joints.

On "A" Range oil tanks use 7/64" and 5/32" drill bits to check these two tubes in the same manner for restrictions.

2. After doing the above, blow out the return oil line and the return tube in the oil tank with compressed air.

If the Above Test is Not Satisfactory

1. Remove oil pump - clean thoroughly and see that ball seats are concentric and free from pits or grooves. Re-assemble pump, tighten check valve caps securely and re-install pump with a new gasket.

To check for sump pickup tube leakage or case porosity, fill a good "pumper" type oil can (*) with solvent and squirt thru a folded rag into pickup tube. Back pressure should prevent pumping solvent out of the can in a few pumps. If the solvent can still be pumped with no evidence of substantial back pressure, obviously there is a leak in the pickup tube or crankcase scavenge oil passageways.

It is good insurance to check the oil pressure and scavenge suction on every new motorcycle at set-up and after all major overhauls.

See appropriate workshop manual for specifications and instructions for checking oil pressure.

* To be sure that your oil can is O.K. for this test, fill it with solvent and block the outlet tube. After one or two pumps the can should "liquid lock". If you can still pump the can, the pump mechanism is suffering from excessive blow-by and the can will not suffice for this test.

Very truly yours,

THE TRIUMPH CORPORATION



Service Manager

Rod Coates:bjh