

HINTS AND TIPS ON —SERVICE—

For **BSA** *and* **ARIEL** *Dealers*

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A50 - A65 MODELS

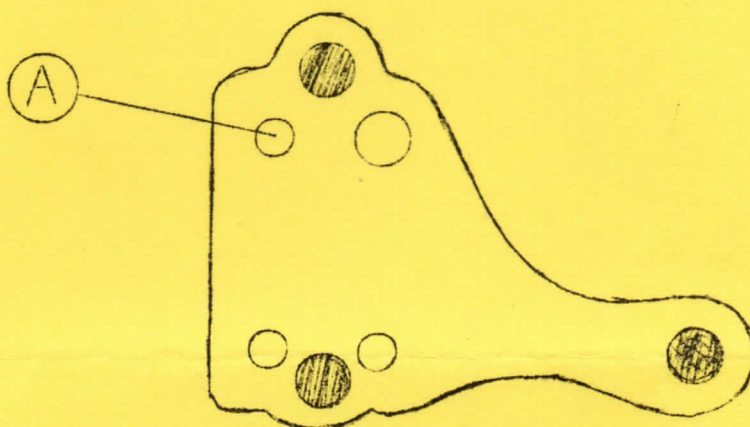
OIL FLOODING THE CRANKCASE WHEN THE ENGINE IS RUNNING

When the crankcase has an over-amount of oil in it, resulting in oil being pushed or blown out of the crankshaft breather or exhaust pipes, you have a condition called "wet-sumping". The reason for this is that the oil is not being returned to the tank. The following procedures can be applied to cure the problem:

1. Inspect the ball in the scavenger pipe by the following steps:
 - A. Remove the sump plate on the bottom of the engine.
 - B. Insert a piece of light wire into the end of the scavenge pipe to determine if the ball is free when pushed upward with a very light push of the wire. If the ball is free, then move on to the next procedure. This ball must be free. If not, push it and free it by upward pressure from a heavy wire.
2. Check the return lines for any possible restrictions.
 - A. Remove the oil return line which is the line directly under the oil tank. Make sure the line is not crimped, squashed, or twisted. Prove that it is clear by blowing air through it.
 - B. Check the internal line in the oil tank by blowing air into it. If the lines are free from restrictions, then move on to procedure three.
3. Check the oil pump as follows:
 - A. Before removing the oil pump, check to make sure the nuts securing the oil pump are tight.
 - B. If the oil pump is tight, remove it to see if the oil pump gasket is proper and that the oil pump turns freely and fits flat against the crankcase to prevent air leaks and loss of suction.

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- C. While the oil pump is off, blow air into the crankcase return passage hole. Below is a diagram of the crankcase flat to which the oil pump is fitted. The hole marked "A" in the diagram is the crankcase return passage.



If you check out each of the procedures carefully, your problem should be cured.

Now you are ready to re-assemble the parts that were removed from the engine.

Walter Brown
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