

HINTS AND TIPS ON — SERVICE —

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

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DANGER OF OIL STARVATION
AT THE CRANKCASE & CONNECTING ROD BEARINGS
ON THE
"A" MODEL TWINS - "C15" - "C15S" MODEL SINGLES

SUBJECT: OIL PRESSURE RELEASE VALVE.

The oil pressure release valve is located in the right side crankcase at the front of the engine. It is shown and referred to in BSA Service Sheets #202, 203, and 427 and in the "A" model and C15 model Instruction Manuals on Page 13 respectively.

This valve is interposed in the oil feed passage between the feed side of the oil pump and the connecting rod bearings. It is a ball and spring type of valve, pre-set to control the pressure in the oil supply system.

The connecting rod bearings require a constant oil pressure of a specific number of pounds per square inch to assure proper lubrication.

When there is too much oil pressure, an excessive amount of oil will be sprayed upon the cylinder walls and the result is excessive oil consumption.

When there is a low oil pressure, the result will be short bearing life and eventual bearing seizure and failure.

When there is no oil pressure, the result will be immediate bearing seizure and failure.

You can see that the oil pressure release valve plays a very important part in the oiling system and must be examined and serviced periodically.

WHAT CAUSES A LOW OIL PRESSURE?

1. A particle of foreign matter imbedded between the oil pressure release valve ball and the ball valve seat, preventing the ball valve from seating and holding the pressure.

2. A pressure release valve seat that was upset or not true, which allows oil to pass between the "ball valve" and the "ball valve seat."

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WHAT CAUSES NO OIL PRESSURE?

1. A "ball" or "ball valve spring" that was missing from the oil pressure release valve assembly.

HOW THESE CONDITIONS ARE BROUGHT ABOUT.I. CARELESSNESS:

- A. Dirt in the oil tank.
- B. Dirt in the engine.
- C. Dirt in the oil.

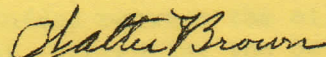
II. An oil pressure release valve seat that has been damaged at assembly or one that has been tampered with.

III. A "ball valve" and "ball valve spring" that was lost or left out at assembly or during the servicing of the machine or when cleaning the oil pressure release valve.

HOW TO PREVENT BEARING SEIZURES AND FAILURES.

1. Use good Oil == BSA OIL of the proper grade.
2. Change oil regularly. Oil change recommendations given on Pages 10 and 11 in the Instruction Manual on "A" models.
 - A. Clean tank and crankcase sump. Force air through the oil passages to make sure they are clean. Check and clean release valves -- examine valve seat. Read pages 12 and 13 in the Instruction Manual on "A" models.
 - B. Be extremely careful when you assemble the oil pressure release valve -- be sure the ball and spring are in place and that the ball is seating properly.

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