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PROBLEM:

There is a tendency for some Kawasaki three-cylinder models to smoke excessively from one exhaust pipe. On the S2, it is usually the right cylinder that is affected.

CAUSE:

This problem has been traced to faulty O-ring seating in the oil pump end cover. After installation, the two O-rings inside the cover shrink approximately .1 to .2mm in diameter. This shrinkage allows oil to seep around the seals and into the end cover chamber. From this point, the excess oil is pumped to the right cylinder, which is serviced by the end cover orifice, resulting in smoking and premature spark plug failure.

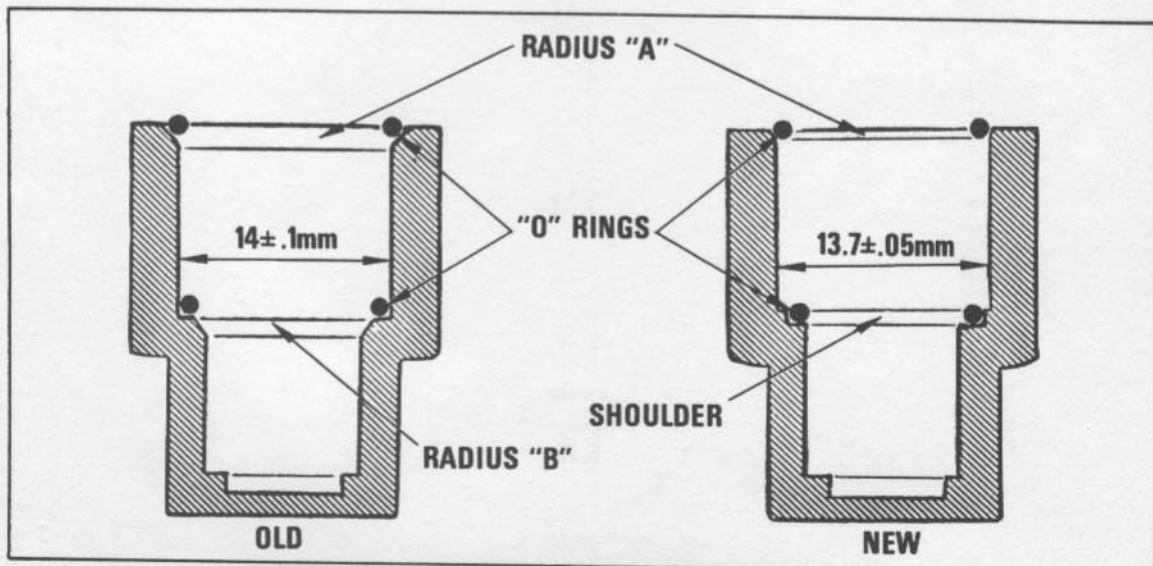
NOTE: *On some very early S2's the end cover chamber was connected to the center cylinder, rather than the right. On all later models ('72, '73) the end chamber is connected to the right cylinder.*

It should be noted that entirely different symptoms may indicate the same oil pump malfunction. An example of such a symptom would be right piston seizure. In this case, oil may be forced back into the main pump body through loose or defective O-rings. As a result, the right is starved for oil, and this situation will eventually lead to seizing.

CURE:

To remedy this problem, the oil pump end cover has been redesigned to stop oil seepage. The illustration below points out the differences between the old and new covers.

- A. Radius "A" has been decreased in depth to give the O-rings less "squish" space, making a tighter seal.
- B. Radius "B" has been eliminated altogether to improve the seal at that point.
- C. The internal diameter of the chamber has been decreased from $14 \pm .1\text{mm}$ to $13.7 \pm .05\text{mm}$ to compensate for O-ring shrinkage.
- D. A slight shoulder has been added to the base of the new chamber to further compress the O-ring.



Please see reverse side for additional information.

APPLICATION:

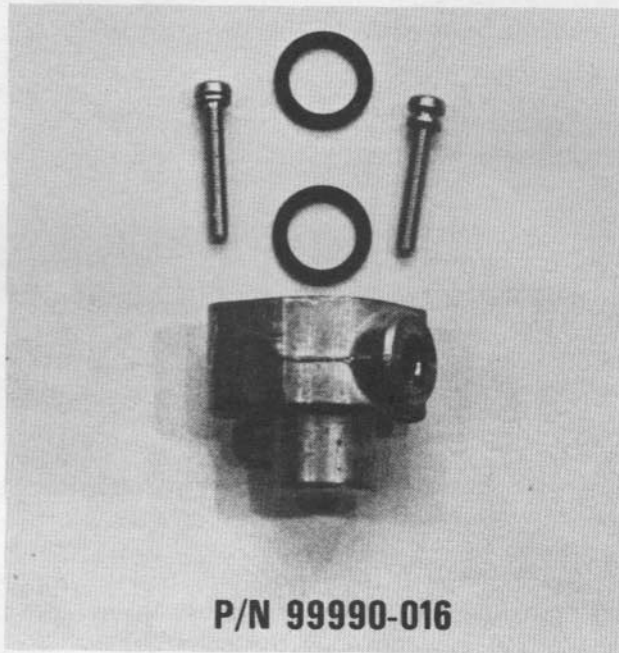
Modified oil pump end covers are presently being installed on all new S2's at the factory.

AVAILABILITY:

A conversion kit is now available from the parts department that will correct older model oil pumps. This kit consists of two mounting screws, two O-rings, and a new oil pump end cover. The part number for the Oil Pump Conversion Kit is 99990-016.

IMPORTANT:

Whenever an oil pump is disassembled for *any* reason, the O-rings must be replaced. The end cover O-rings are part number 16090-002.



P/N 99990-016

**THREE CYLINDER OIL PUMP
CONVERSION KIT**

WARRANTY INFORMATION:

This is a factory production change for routine product improvement. This bulletin is for notification of modification only, not for warranty authorization. ■