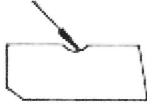


CORRECT COMPRESSION RING INSTALLATION

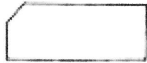
Back

Ring installation instructions are placed in every set of piston rings Hastings Manufacturing Company produces. These instructions should be read each time before the piston rings are installed on the pistons. Listed below are the general rules for the installation of various types of compression rings.

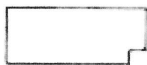
MARK



Rings having a "pip" mark or dot on the side of the ring must always be installed with the "pip" mark or dot towards the top of the piston.



Rings with a bevel on the inside diameter but no "pip" mark or dot must be installed with the bevel towards the top of the piston.



Rings with a groove in the outside diameter and no "pip" mark or dot must be installed with the groove toward the bottom of the piston.

* Rings having no dots, bevels, or grooves can be installed either way.

It is a good idea after installing all rings on the pistons to recheck each ring on each piston for correct installation.

To illustrate what can happen with just one ring installed upside down Hastings installed a new V-6 engine on a dynamometer in our engine test laboratory and ran the engine for 80 hours with all rings installed correctly.

Figure 1 shows the correct position of the reverse twist taper face compression ring.

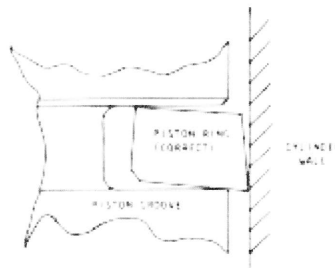


FIGURE 1

The engine's oil economy was 8076 miles per quart (M.P.Q.).

The engine's oil pan, one head, and one piston were removed and the second compression ring was turned over so the dot was facing the bottom of the piston. Figure 2 illustrates the incorrect position of the ring.

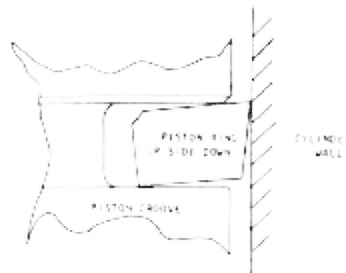


FIGURE 2

The engine was re-assembled and ran again for 80 hours on the same schedule as the prior test. This time the oil economy was 3802 M.P.Q. Figure 3 shows this graphically.

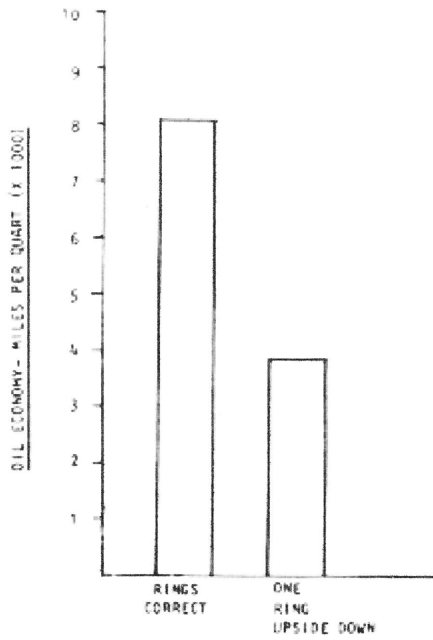


FIGURE 3

This represents a 53% decline on oil control with one ring of 6 incorrectly installed!

Figure 2 also contains the reason for the poor oil control. With the taper of the ring upside down, oil will be scraped up with each upward stroke to be left in the combustion chamber and burned on the power stroke.

It only takes a minute, check all rings on the piston for correct installation before installing the pistons.

(P62-65)

[Back to Top](#)