

Wössner 4-stroke pistons and rings are engineered for high performance and reliability, using premium materials and manufacturing methods. In some applications the piston is designed for to utilize two piston rings only; one compression ring and the oil control ring, yet the ring set supplied includes three rings. This technical bulletin is provided to help understand how to identify the correct compression ring that will be used for your piston.



When assembling your piston and rings for your application, it is important to identify the correct compression ring, and install this ring correctly for proper engine operation. When in doubt, always pause and contact a qualified engine builder, or contact Wössner directly

In some ring sets, the top and second ring are the same axial height (thickness) and could easily be interchanged in the top or second ring groove. In these examples, it is critical to make certain that only the compression ring is installed. In some ring sets, the top and second ring are not the same axial height (thickness), so the incorrect ring may not install into the top ring groove.

IDENTIFYING THE TOP RING

Top compression rings are normally an alloy steel material and include a treatment to the ring face that may be a different coloring than the ring body. The ring will appear “shiny” next to the other rings. All compression rings will also have a marking on the ring that identifies which side of the ring should be installed to the top side.

The following Wössner ring types may be used as two-ring designs: **ADS, XSY, XSU, XKS, XDS, XAS, GNH, RIK, TPR**. Some top rings, such as the **TPR** type, will be marked with a “T” which indicates the top ring.



ALLOY STEEL TOP RING IS SHINY



“T” MARK INDICATES TOP RING

IDENTIFYING THE SECOND RING TO BE ELIMINATED

Second rings will have a cross section such as these examples and are not to be used in a two-ring piston design. All second ring types will also have a marking on the ring that identifies which side of the ring should be installed to the top side. These ring types will not have any face treatments or coatings, and the face of the ring will have some downward taper shape as per below:



TAPER FACE SECOND RING



REVERSE TORSIONAL SECOND RING



NAPIER SECOND RING

In addition to the ring shape as a way to identify the second ring, some rings such as the **TPR** type will be marked with a stamp that reads “2T” that indicates this as a second ring.