Engine Repair Tip for Installation of Piston & Ring Assemblies

The AERA Technical Committee offers the following information regarding the installation of piston & ring assemblies for modern day engines. Over time, piston ring packages have become more lightweight and thinner and thinner making installation more difficult.

When installing a piston into a cylinder, use a recently developed, tapered ring compressor sleeve for best results. An available aftermarket tool called a ring compressor sleeve will help to make the installation of pistons into engine block cylinders easier than using a conventional universal ring compressor. Many engine manufacturers including Ford, GM and FCA recommend using these sleeves whenever possible.

The following features should be looked for when selecting a ring compressor sleeve:

- Hard anodized and Teflon coated for low friction and prolonged wear resistance.
- Smooth radius that tapers down to the specific bore size.
- Sleeve should compress the piston rings smoothly and evenly.
- Select a size that is only slightly bigger than the diameter of the piston and not larger than the diameter of the cylinder bore.

Various aftermarket suppliers carry the ring compressor sleeves in a wide variety of sizes. If a ring compressor sleeve is unavailable in the size you need, a universal ring compressor will work. But, it is certainly more difficult to use and requires additional caution during use.