

Valve Stem Seal Usage on 2010-2016 Cummins ISX Engines

The AERA Technical Committee offers the following information regarding valve stem seal usage on 2010-2016 Cummins ISX engines. Three different seal types have been used in these engines brief history. Being aware of these seal differences and ordering the proper seal as removed will speed up the repair process.

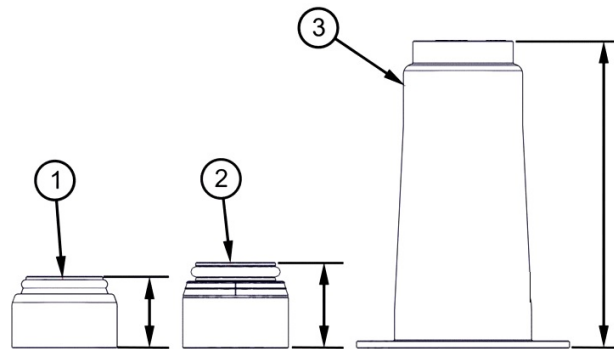


Figure 1. Valve Seal Visual Differences

A visual comparison of the three different valve seals is shown in Figure 1.

The seal marked number 1 is .505" (12.850 MM) from the bottom of the metal casing to the top of the rubber seal.

The seal marked number 2 is .561" (14.25 MM) from the bottom of the metal casing to the top of the rubber seal.

The seal marked number 3 is identifiable by an integrated valve spring guide and is much taller than the other two seals. Part #4356366.

It should also be noted that these seals are not reusable and must be discarded if removed for any reason. AERA machine shops have reported installing the tallest seal on engines that have been using oil to help resolve that condition.

Additional information from Cummins indicates engines starting with engine serial number 4309250 built on February 11, 2015 have only the newest seal, Part #4356366.

The previous two seals used will be discontinued upon current stock depletion. The reason for this change is: as a single component, the integrated design is retained securely by the valve spring to eliminate valve guide seal lifting. The valve stem seal design also lowers the oil metering rate which results in less oil passing through the valve guide seal.