Oil Consumption on 2004-2008 John Deere 4.5 & 6.8L TIER 3 Diesel Engines

The AERA Technical Committee offers the following information regarding oil consumption on 2004-2008 John Deere 4.5 & 6.8L TIER 3 diesel engines. Oil leakage may also be observed where the exhaust manifold contacts the cylinder head.

Apparently, after an undetermined amount of hours of operation, the original valve stem seals may become ineffective in metering the desired amount of oil to the valve guides. If this condition exists white or blue smoke may be visible and is most noticeable at idle to part throttle. EGR high temperature codes may also exist because of a partially plugged cooler or a sticking EGR valve.

It has been determined using the previous design TIER 2 seal, Part # RE519115 that the likelihood of oil consumption will not reappear. The previous seal is a more “positive” design and does a better job metering oil.

Aftermarket suppliers have been offering the TIER 2 seal and will continue to consider this a product upgrade for TIER 3 engines.

Figure 1. RE519115