



Improved Cylinder Head Casting for 1997-2012 Cummins 15.0L ISX & QSX Engines

The AERA Technical Committee offers information on an improved cylinder head casting for 1997-2012 Cummins 15.0L ISX & QSX diesel engines. This new casting comes as the result of numerous heads cracking and leaking coolant and is described as a product improvement.

This Technical Service Bulletin introduces a new Signature/ISX/QSX15 cylinder head. The new cylinder head part numbers obsolete and supersede old part numbers as indicated in the table below. The new part numbers were introduced into engines built on March 23, 2006.

The new cylinder head has three new features:

1. Increased top deck thickness
2. Increased thickness of the wall above the exhaust ports
3. Introduction of gussets between the bolt boss and the guide boss.

Top deck cracks in the old cylinder head were occurring at the center cup plug on the spring deck allowing coolant to mix with the oil.

Exhaust port cracks in the old cylinder head were occurring at the guide boss area of the port allowing coolant to leak into the exhaust port and showing up as a loss of coolant.

Old and New Signature/ISX/QSX15 Cylinder Head Part Numbers

Part Description	Old Part Number	New Part Number
ISX Cylinder Head	3683986	4962732





It should also be noted that more recent versions of the ISX cylinder head offers additional versions of the cylinder head. Beginning in 2010 the ISX15 CM2250 and CM2350 has eliminated the injector camshaft due to the advent of the common rail fuel system in which the fuel is pressurized from a high pressure, multiple piston pump and transferred through tubing to a rail where fuel is stored under extremely high pressures up to 35,000 psi. The above part numbers apply only to those ISX/QSX engines that use two camshafts per cylinder head.