

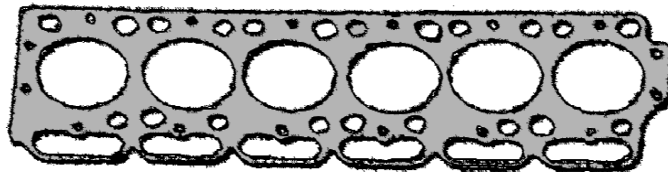
# Head Gaskets – “There She Blows !!” , but We Need to Ask Why ??

When we look at the job the head gasket does, it is important to understand that we shouldn't put sealers and paint and such on them that might inhibit their ability to perform their intended use.

Their purpose, of course, is to blow away a fairly inexpensive item rather than ruin an expensive cylinder block or head. The causes for these supposed failures can be many.

There are certain types of gaskets that do call for Copper Coat, or other coatings, to be applied and are certainly not asking you to go against recommended installation practices. However, if and when that head gasket that shouldn't have blown does, let's look at some of the factors that can cause this to happen.

First, liner height specifications should be checked closely in the event a liner needs a shim. Another aspect to consider is flatness and smoothness of the block and head surfaces. Small cracks that can sometimes go undetected during assembly can open up when the engine reaches operating temperature and create hard to diagnose gasket failures.



There is, of course, the obvious installation errors, where the gasket is installed backwards or upside down, that can occur to any of us when we get busy and don't pay close attention to the details of the job at hand. Excessive heat and/or cylinder combustion pressures, sometimes due to overfueling, can also be counted as possible causes.

Head bolts are another area that need to be looked at, especially on high hour tractors, for fatigue. Also, the more the block is decked, the more risk we run that the bolt holes might bottom out the bolts before full torque value is met. Speaking of head bolts, the torque pattern and method of tightening these bolts is critical and can sometimes be different than expected.

We should also bring up the fact that there are certain engines, due to their design, (i.e. a water jacket located close to the edge of the block), are harder to make seal than others.