

Cylinder Head Cracks on John Deere 9.0 & 13.5L Diesel Engines

The AERA Technical Committee offers the following information on cylinder head cracks for John Deere 9.0 & 13.5L diesel engines. Previously, John Deere supplied similar information on their 10.5 & 12.5L diesel engines. These cracks are located in the bridge area of the cylinder head and are caused by thermal-mechanical stress for all engines.

The cylinder heads may show signs of cracking in the bridge area between the intake valve seat and/or exhaust valve seat. It is not uncommon for these cylinder heads to experience this cracking condition.

If the crack (A) shown in Figure 1 is visible but does not go beyond the valve seat, then the cylinder head is reusable. If the crack (2) shown in Figure 2 propagates beyond the valve seat insert, the cylinder head should be replaced according to John Deere.

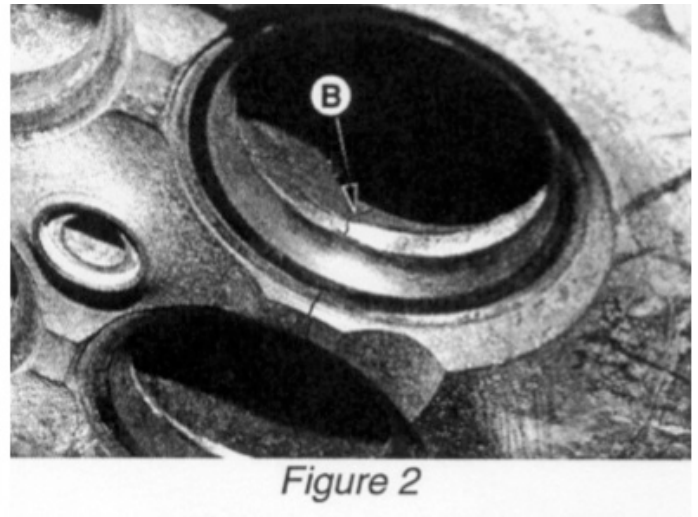
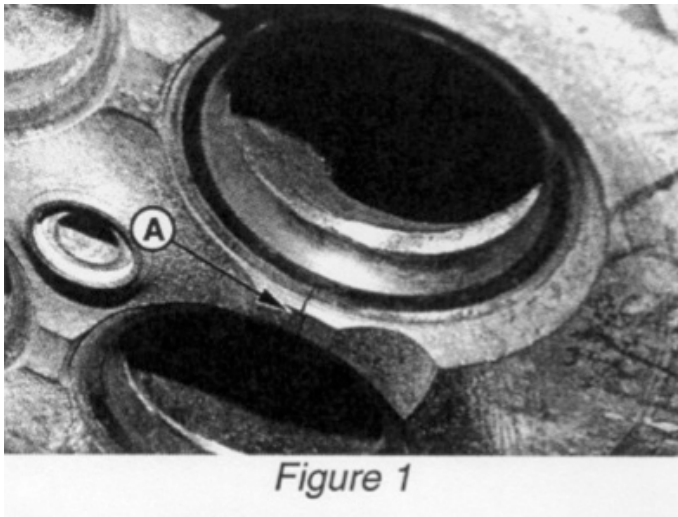


Figure 1. Crack "A" Acceptable to use "As is".
Figure 2. Crack "B" **Unacceptable** to Use.