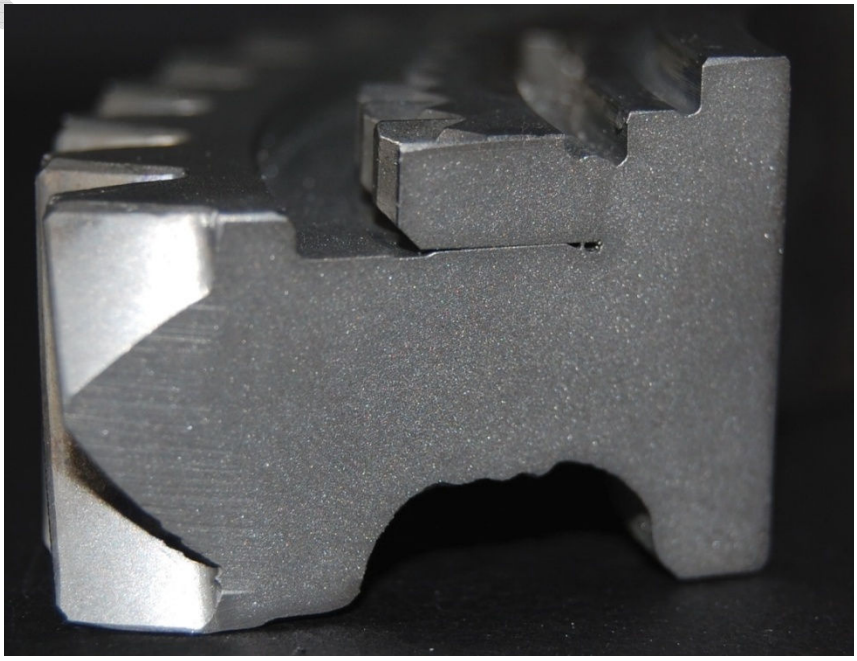
TECHNICAL BUILD DETAIL 996.1.4

Electron Beam Welding

The electron beam welding process produces the most accurate, deep penetrating, and smallest heat affected zones of any welding process. This process is performed in a vacuum and uses a particle accelerator to fire electrons into the area to be welded. Because of the high momentum of the electron it is able to penetrate deep into the material and fuse materials without the addition of filler material. The pictures below show a top view of the finished weld and a section view of the same weld. From this cut away we can see that the weld bead extends the full depth of the dog ring down to the small fillet cut by the factory in the gear. Additionally, we can see that the width of the weld at the top surface is minimal, indicating a very small heat effected zone.



Gbox uses electron beam welding exclusively to repair dog ring damage in all Porsche transmissions including 996, 997, GT2, GT3, and sequential dog boxes.

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