

# A JENBACHER CASE STUDY

Damaged Oil Gallery



Repair Of Bearing Caps ,Linear landings  
& Oil Gallery

## Background To The Repair

### Our customer

had a failure of a Jenbacher engine. The shaft had seized and broken the con rod and spun the shells in the block. A broken con rod damaged the lower liner areas and the oil gallery. Nicol & Andrew were called in to carry out a dimensional survey to establish the extent of damage and to recommend a repair procedure. etc

### Findings

The oil gallery had been crushed and cracked which would require an extensive repair. The lower liner land area had large areas of impact damage and would require boring oversize and sleeving. (see opposite). The caps were scored and closed in.

Damaged Lower Liner Landing



### Repair To Oil Gallery

We ground out the oil gallery to remove the damaged section. We then reamed the bore to give a good size and finish to allow the fitting of a thin wall tube. After manufacturing a thin wall tube in our workshops (allowing for a slight interference fit), we pressed it into position and secured it with Loctite adhesive. The surrounding area was then built up with liquid metal to match the existing profile.

Refurbished Jenbacher Cap



### Repair To Lower Liner Landing

We mounted a line boring machine (in this case a Climax BB5000) in the top liner landing using a special precision mount to allow us to reference the undamaged bore. We then bored the landing oversize and fitted a precision sleeve (grub screwed into position).

Repaired Landing & Oil Gallery



### Repair to Caps

The caps were welded, stress relieved, machined and re-bored back to standard size.

Visit our Crankshaft website  
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ISO 9001  
2015

