

METALOCK REPAIRS

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Repair of cylinder block Hitachi B&W

The STBD side of diesel generator (type Hitachi B&W) was destroyed in the area of third movement due to an operational failure (fig. 1).

The cylinder block was repaired on place through Metalock technology. For the repair purposes a new casting of the missing part of the wall was fabricated (fig. 2).



After preparation of the connecting surfaces (fig. 3), the new part will be built in the main block casing (fig. 4).



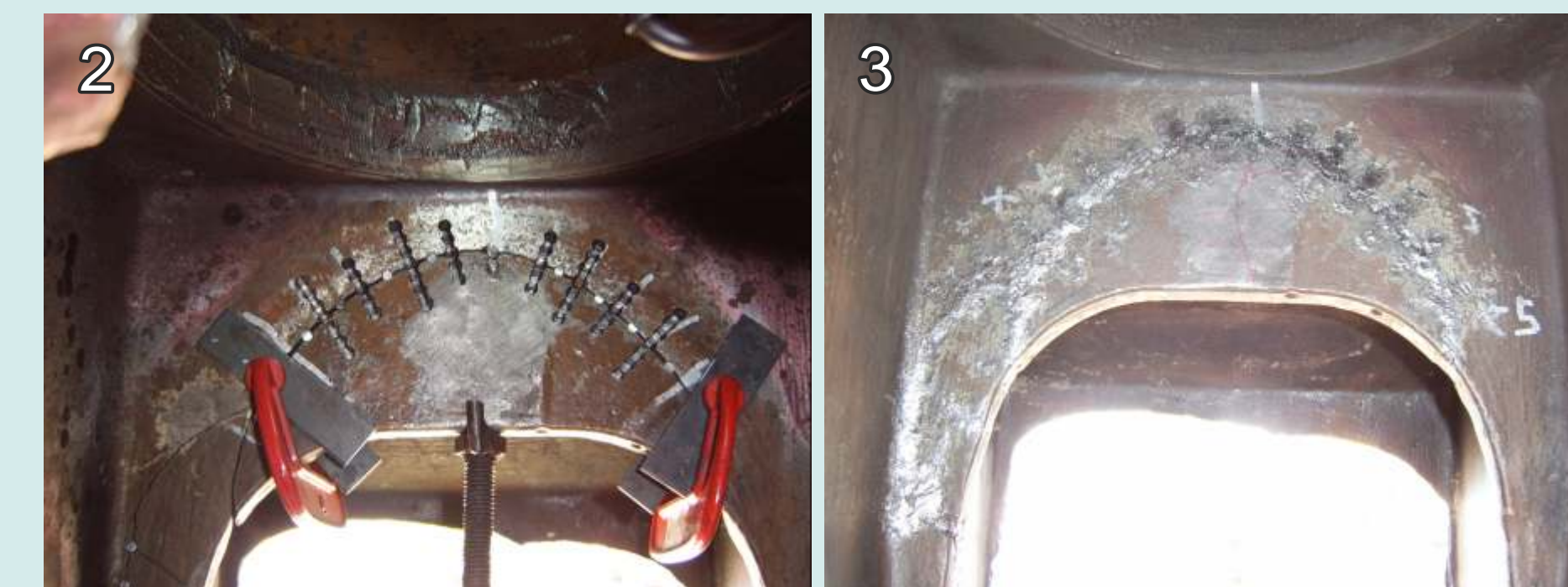
The completed Metalock repair before the final assembly of the generator

The repair was successfully fulfilled on time (fig. 5) and surveyed by authorized inspector. As a result of the used technology the diesel generator works with 100% of its capacity.

Repair of cylinder block on diesel generator "Sulzer 5AL25/30"

Diesel generator (type „Sulzer“ 5AL25/30) was seriously damaged due to torn bolt on connecting rod bearing of movement No3. As result from the break the inner frames and walls on the both sides were destroyed (fig. 1).

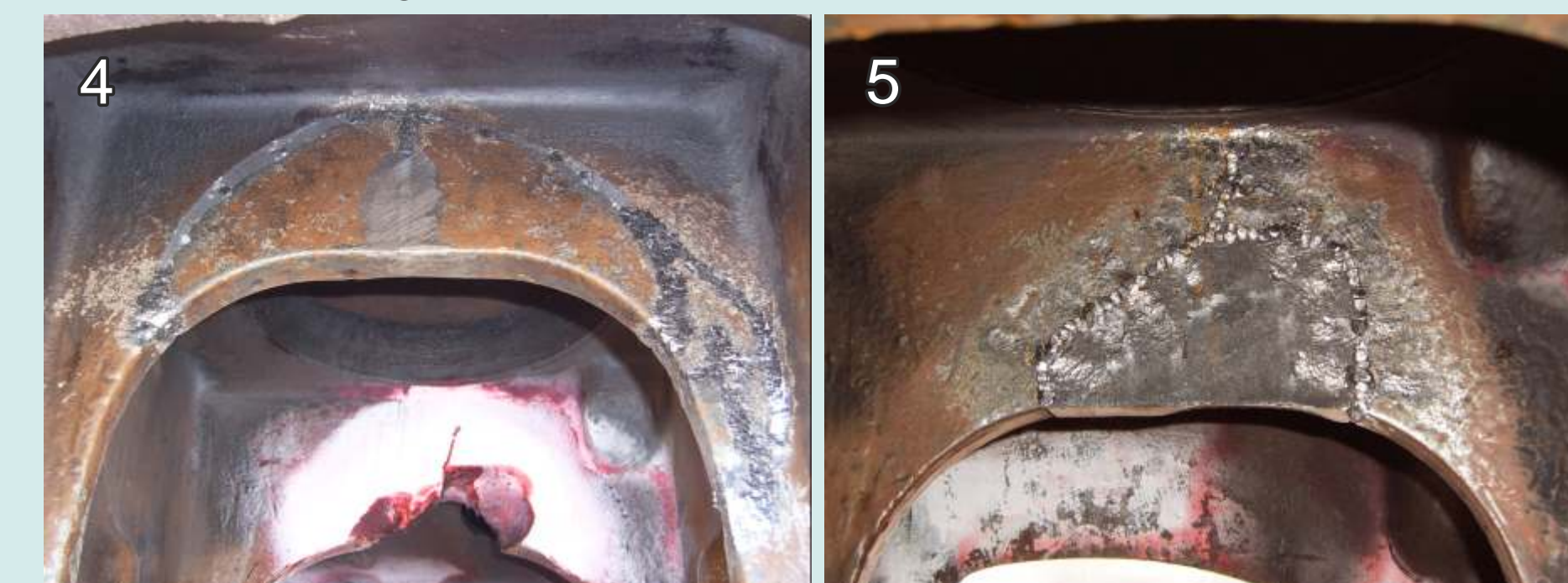
The block was repaired with METALOCK technology for cold repair (fig.2 ? fig.15). Due to this method the shipowner uses this generator in full capacity.



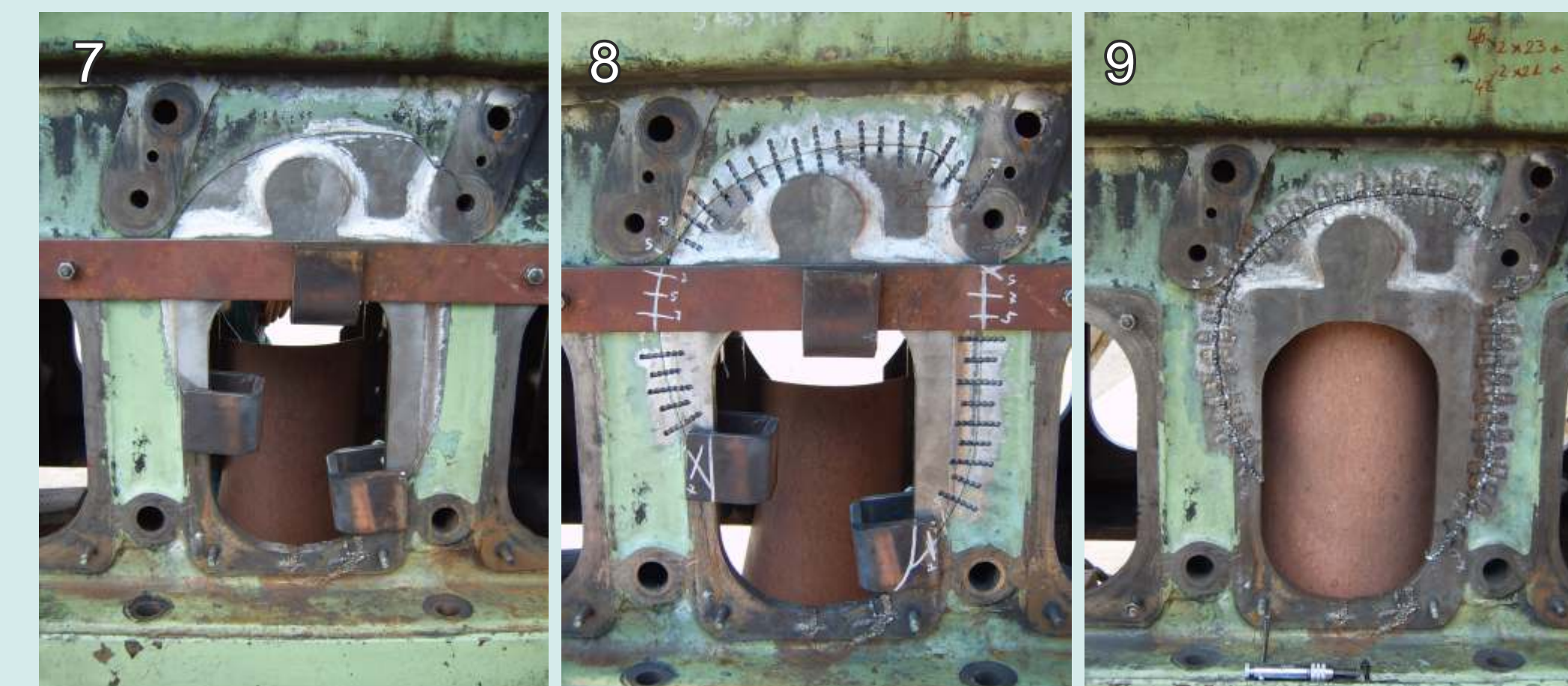
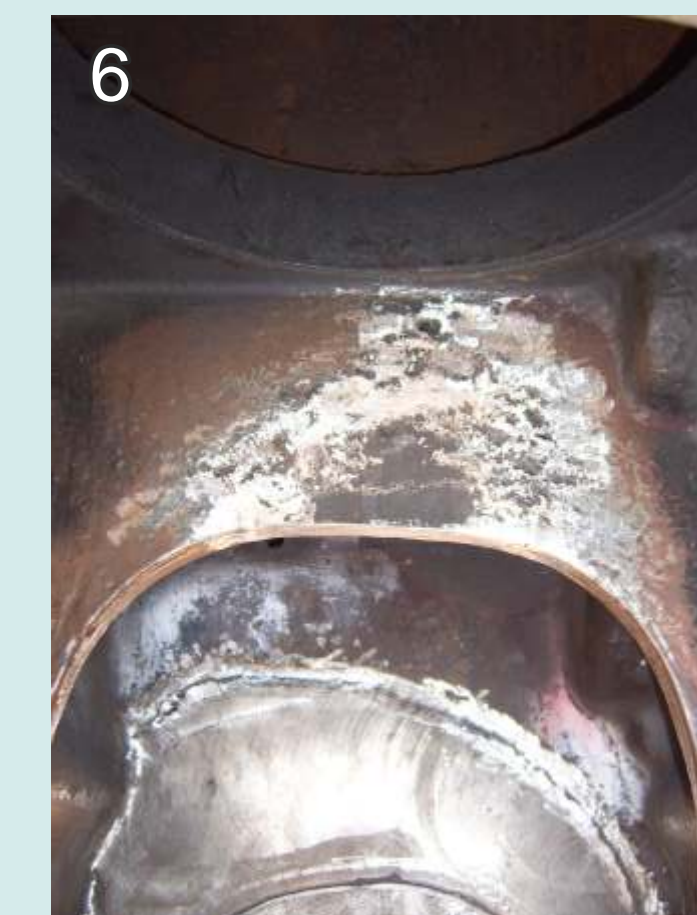
Cylinder block before repair

Moment from the repair works and restored inner right frame (fig.2, 3)

Crack test on the limited crack and moment from the repair process of inner left frame (fig.4, 5)



Restored inner frames

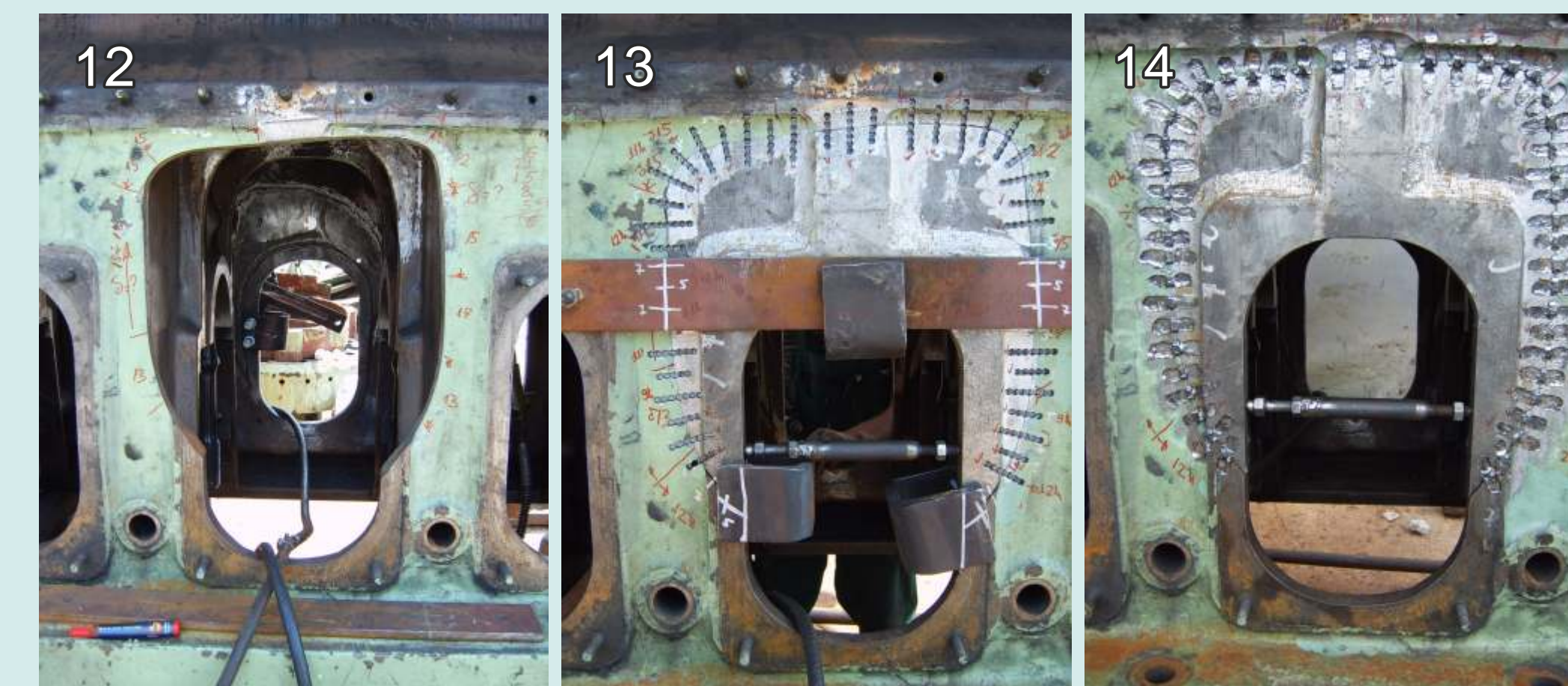


Repair of external left wall of cylinder block (fig.7, 8, 9)



Final repair works and completed METALOCK repair of external left wall (fig.10, 11)

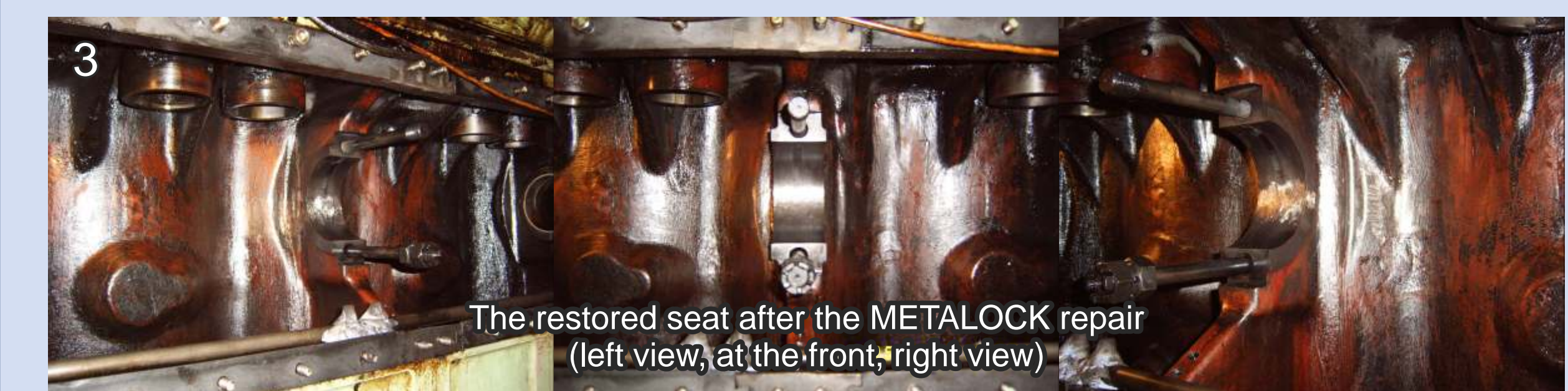
Preparation of external right wall for repair process and different stages from the repair (fig.12, 13, 14)



Completed METALOCK repair of external right wall on third movement of cylinder block. (fig.15)

Repair of camshaft bearing seat of ME "MAK"

Due to a failure a crack appeared on the camshaft bearing seat No7 of ME "Mak" (fig.1). The crack was limited and restored using the Metalock method (fig.2).



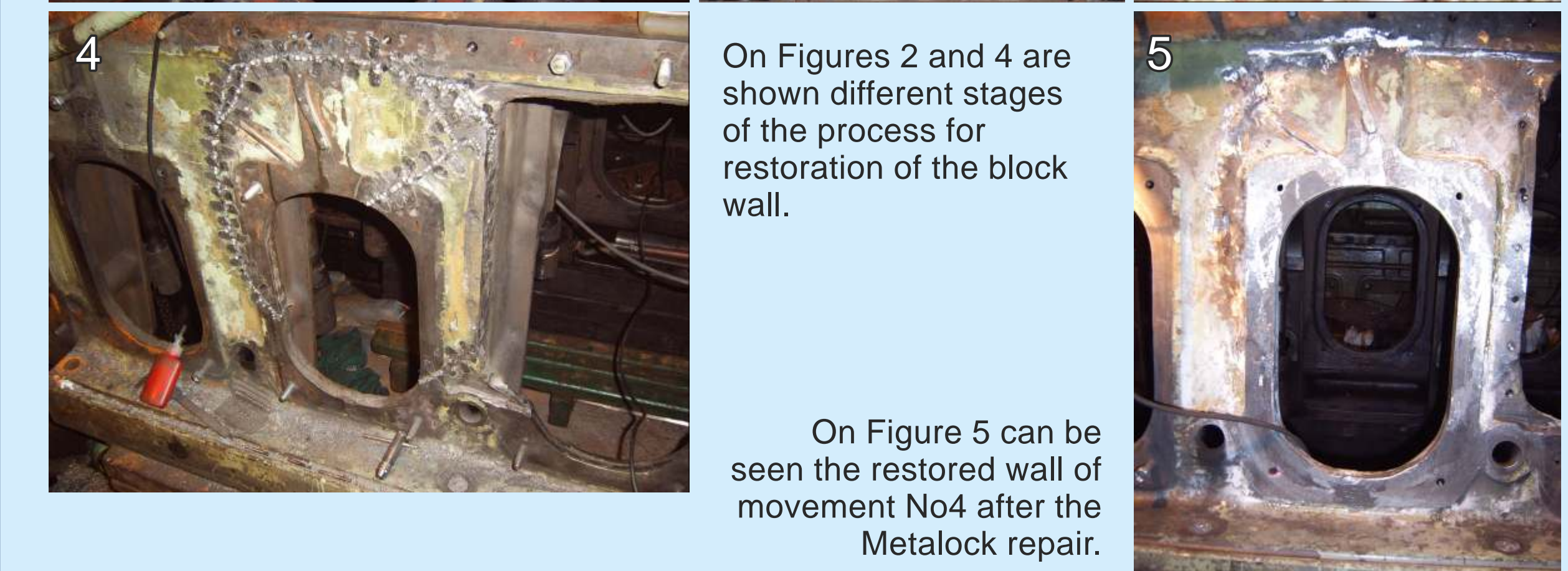
The repair was performed on site and in its completion (fig.3) was surveyed by authorized body, acting in this case as a third party.

Repair of cylinder block of diesel generator "Sulzer 5AL25/30"

After adjusting the broken parts the wall of the engine block was restored using the METALOCK method. The repair was performed on site.

STBD side of diesel generator (type "Sulzer" 5AL25/30) was destroyed in the area of movement No4 due to the operational failure (fig.1).

On figures 2 and 3 is seen the way through which the broken wall parts were fixed (outside and inside).



On Figures 2 and 4 are shown different stages of the process for restoration of the block wall.

On Figure 5 can be seen the restored wall of movement No4 after the Metalock repair.