IN-SITU BORING

CYLINDER LINER LANDING SURFACE REPAIR SULZER 16ZAV40S

An Independent Power Producer (IPP) company operating in Makassar Sulawesi, Indonesia experienced cooling water leaks in one of their eight Sulzer 16ZA40S generators. As the company supplies power to the main power grid, downtime was a critical issue. Goltens immediately responded by dispatching an In-situ machining specialist and line boring tools along with a specialist Diesel Service Team to asses the root cause and determine the scope of repair work. Inspection determined that the cooling water leakage problems were caused by corrosion in the lower liner landing surfaces of eleven of the 16 cylinders.

To minimize the downtime at the plant, Goltens immediately began machining the 11 liner bores and fabricating ring inserts to restore the bores to original diameter. The pockets were bored, rings inserted and engine rebuilt and restored to operation.

REPAIRS CONSISTED OF:

- Dismantling of cylinder head, piston and connecting rod, cylinder liner and accessories to provide access for In-Situ Line Boring machinery
- In-situ machining of 11 liner landing surfaces
- Fabricating and installing the insert bush to restore the cylinder pockets
- Reassembly of all engine components, commissioning and operational testing

RESULTS:

Repairs were conducted 24 hours a day and completed in 6 days from start to finish with 2 teams of Goltens specialists.

As a result of this successful repair, the customer has engaged Goltens to complete these repairs on other generators within the plant. To date, Goltens has now successfully repaired more than 50 bores on all 8 engines in the powerhouse.

PROJECT FACTS:

Engine:	SULZER 16ZAV40S
Pocket Diameter (Pre-machining):	480 mm
Pocket Diameter (Post-machining):	490 mm
Pockets Machined:	11 of 16