

# ENGINE EXPERTISE, CRANKSHAFT MACHINING AND LASER ALIGNMENT RESTORE GAS ENGINE TO SERVICE IN INDONESIA

## ONSITE CRANKSHAFT AND ENGINE BLOCK REPAIR WAUKESHA 12V-AT27GL SERIES

One of the major Oil & Gas companies in Indonesia approached Goltens to inspect and offer the solution for their troubled Waukesha 12V-AT27GL gas engine. A team consisting of a Diesel engineer and In-situ specialist was sent to site to evaluate the extent of damage and recommend the best repair solution to the customer.

Goltens' inspection of the engine found damage on one main journal and the corresponding bearing cap and recommended that the crankshaft be removed and machined to undersize to remove the damage. Goltens also recommended that the lower bearing cap be restored utilizing selective electroplating.

Upon customer acceptance of the repair proposal, Goltens quickly dispatched one of its diesel teams to disassemble the engine and complete the required repairs.

### ONSITE ENGINE AND CRANKSHAFT REPAIRS CONSISTED OF:

- Engine disassembly
- Relocation of engine block to safe area for repairs
- Removal of the crankshaft from engine block
- Check center line of main bearing bore by laser alignment
- Selective electroplating of main bearing pocket no #4 due to corrosion on the mating surface
- Grinding crankshaft main journal no. #4 to -1.0 mm undersize at Goltens' workshop
- Installation of the repaired crankshaft
- Engine reassembly and laser alignment
- Satisfactory operational testing and commissioning of the engine witnessed by customer

### RESULTS:

Goltens' team completed this complicated job within the timeframe agreed by customer complying with the strict HSE requirements of the Oil & Gas industry.

### PROJECT FACTS: GAS ENGINE REPAIRS

Engine type:	Waukesha 12V-AT 27 GL
Bore/Stroke:	275/300mm
Main Journal dia:	225.00 mm
C/P Journal dia:	195.00 mm
Location:	Jambi - Indonesia

Disassembly of engine for crankshaft removal



Crankshaft Inspection

Laser Alignment check of engine bore

