

TWO MAN B&W 9L58/64 ENGINE OVERHAULS IN 18 DAYS FOR STAR CEMENT PLANT IN RAS AL-KHAIMAH

CRITICALLY DEPENDENT ON ITS OWN POWER GENERATION

Star Cement operates a Clinker plant in the emirate of Ras al-Khaimah in the UAE powered three MAN B&W 9L58/64 engines, the largest 4-stroke engine designed by MAN. These large 4-stroke engines are used in both stationary power and marine diesel electric propulsion applications and are in fact the same type of engines in operation on the Queen Elizabeth 2. As Star Cement is not connected to the power grid, the plant relies on the power supplied by these engines for its operations, so reliable operation and minimal plant downtime is an absolute must for them

Goltens has been supporting the maintenance on these engines for Star for the past 5 years. In preparation for a planned maintenance outage on 2 of these engines, Goltens Dubai carried out a full performance test and used this evaluation as the basis for the recommended overhaul work scope.

LARGE WORK SCOPE SHORT TIMEFRAME

As the power supplied by these engines is the lifeblood of the plant, minimizing downtime was critical and needed to be completed without fail during the maintenance window. The scope of the overhaul was significant and the time available was not.

The overhaul included:

- Reconditioning of all cylinder heads
- Reconditioning of all pistons including crown renewal as required
- Inspection of selected big end housings and bearings
- Opening, inspection and calibration of selected main bearings
- Deglazing and calibration of all cylinder liners
- Cleaning, inspection and calibration of the engines' turbochargers
- Inspection and cleaning of scavenge air coolers

PROJECT FACTS:

STAR CEMENT

Engine Make/Model:	MAN B&W 9L58/64
Customer Location:	Ras al-Khaimah, UAE
Power Output/Engine:	12.16 MW
Engines Overhauled :	2 of 3
Project Duration:	18 Days



Goltens technicians performing operational performance tests ahead of overhaul



Disassembly of one of the MAN B&W engines

THE RESULTS – WORK COMPLETION IN 18 DAYS:

After engine reassembly, the engines were operationally tested and run up according to Goltens' and the maker's procedures resulting in only minor adjustments and securing of leaks. The engines were both load tested to 9.0MW (90% of full load for the alternators) and kept at load until a full heat balance was achieved and Star was satisfied with the results.

CUSTOMER COMMENTS:

"Our whole business depends on the reliable operation of the 3 x 12.16 MW MAN engines at our power plant. Goltens is regularly engaged with us for the scheduled maintenance works as well as to attend any unforeseen breakdowns. Goltens' service is excellent and they have contributed a lot to the sustainable operation of our power plant. Their teams of technicians are highly qualified and committed and we trust their services all the time.

In addition to routine maintenance, they undertake periodic health check ups on our engines and we have found that all their suggestions are very useful to optimize our engine performance. Above all they are available to us 24 x 7 to attend any of our service requirements."

TVS. Chidambaram
Chief Operating Officer
Star Cement



Goltens' Diesel Technicians fastening the lifting yoke to remove a cylinder head from the engine



Goltens Diesel Technicians finalize work on one of the MAN B&W 9L58/64 engines at Star Cement