rebuilding services

Welding Procedures certified by Lloyds Register

KIMI S.A.
TOTAL QUALITY SERVICE

rebuilding services

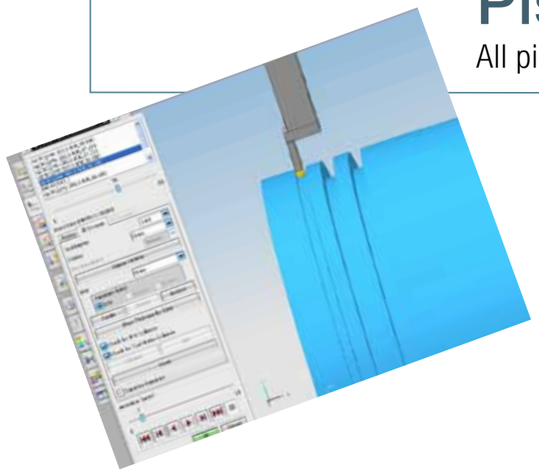
Rebuilding Department

KIMI SA operates one of the most modern rebuilding plants in Europe, equipped with automated machines, and running under the supervision of our metallurgical laboratory which is EN ISO/IEC 17025 accredited. All parts are rebuild to original dimensions and material specifications, using approved consumables and welding procedures approved by Lloyds Register of Shipping.

Products & Services

Full rebuilding services of vital engine components of any type, utilizing more than 20 years of experience, state of the art equipment and qualified personnel.

- Piston crowns
- Exhaust valve spindles
- Exhaust valve seats
- Piston rods
- Crosshead pins
- Cylinder covers



Piston Crowns

All piston crowns are fully rebuilt, by SAW -complete fill up of grooves, diameter and combustion face- and machined back to original dimensions using CNC vertical turning lathe guided by CAM software. The grooves are chrome plated according to OEM thickness requirements on both sides and are grinded to specified tolerances on our piston ring groove grinding machine, achieving 0.01mm maximum parallelism

Exhaust valve spindles

Exhaust valve spindles are remanufactured using automated synergic & pulsed MIG (Metal Inert Gas) machines. Rebuilding procedures include the building up and reprofiling of the combustion face, diameter and seat of the valve spindle to the original templates.

Materials used include nickel alloys, stainless steels, and hard facing alloys such as combalt based alloys (stellite).

Valve seats

Exhaust valve seats are remanufactured using the same procedures as for the exhaust valve spindles. Our service range includes all types of seats, such as standard type, reccess chamber type, hardened type and cooled or uncooled type.

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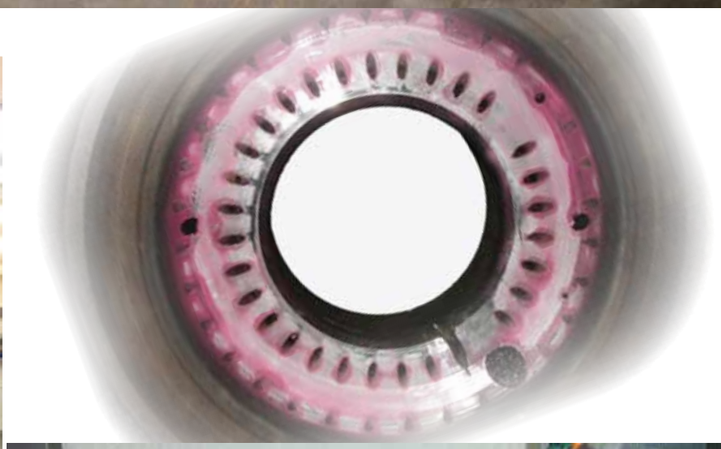
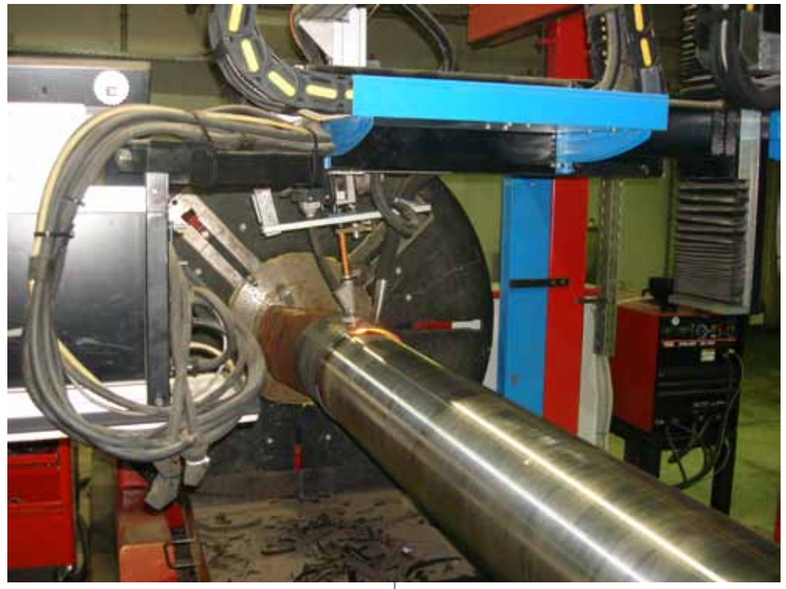
Cylinder covers

The standard rebuilding procedure for cylinder covers involves complete removal of the combustion surface including the cooling holes. With proper welding procedure, the combustion area is completely rebuilt and the cooling holes together with the injector pocket, the starting valve pocket, the safety valve pocket and the indicator valve pocket are re - established. A special layer can be applied around fuel injection nozzles upon request, in order to prolong and improve wear resistance.

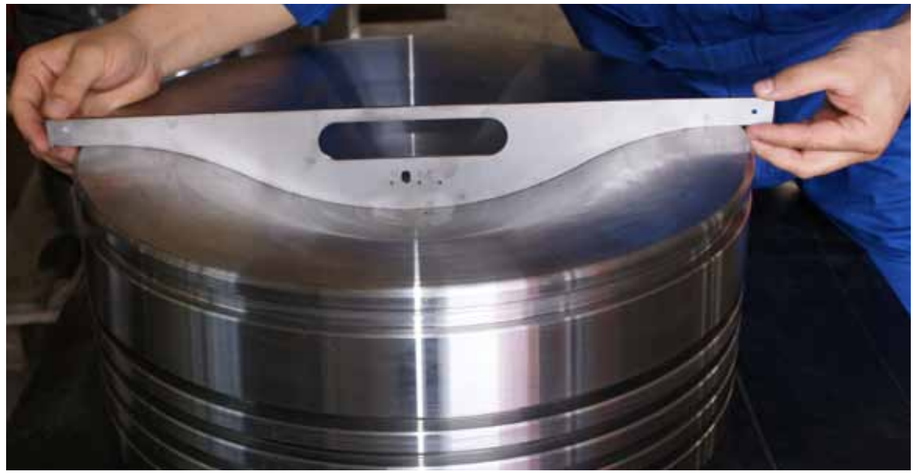




Piston Rods & Crosshead Pins

Due to innovative welding processes, piston rods and crosshead pins are restored to their original dimensions and tolerances. KIMI SA has developed a unique welding process which restores component surfaces to their standard dimensions, required mechanical properties -surface hardness- and surface finish roughness. Developments in materials and welding technology mean that this approach provides high wear resistance. Customers benefit from both shorter lead-times and improved service lifetimes.

rebuilding servicing



Quality Control

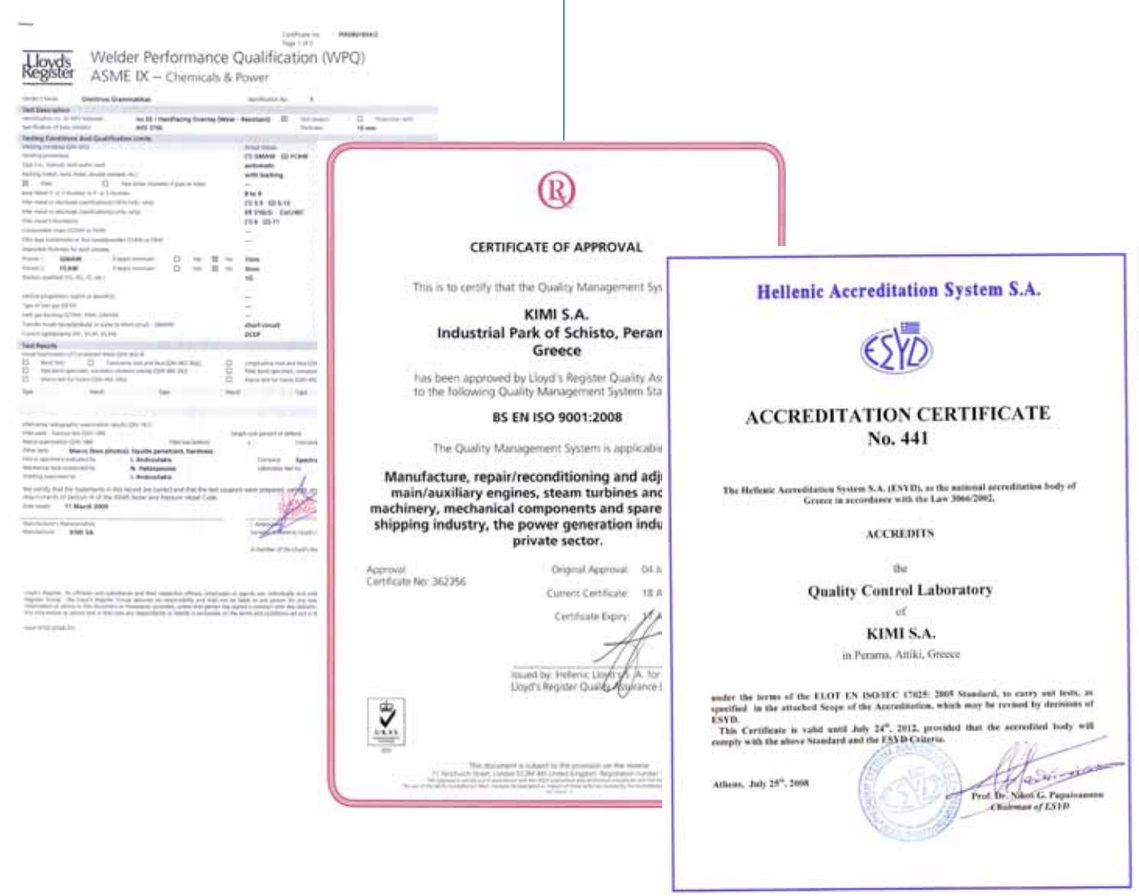
All components are subjected to rigorous preliminary and final inspections, and the results, visuals and measuring, are recorded and reported to the customer.

Our approved engineers of the quality control department inspect every single step of the rebuilding process by appropriate means, thus ensuring absolute control of indivifual operations and high quality result / product.

Quality Assurance

Our welding procedures are approved, from Lloyds Register of Shipping. All stages of rebuilding processes are strictly controlled by our certified Quality Control Laboratory personnel, who performs destructive and non destructive inspections such as:

- X-Rays
- Hardness measurements
- Chemical analysis checks
- Surface roughness checks
- Ultrasonic checks
- Magnaflux tests
- Plating thickness checks
- Metallographic analysis
- Crack depth measurements
- Dye checks



Deutscher Akkreditierungs Rat

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