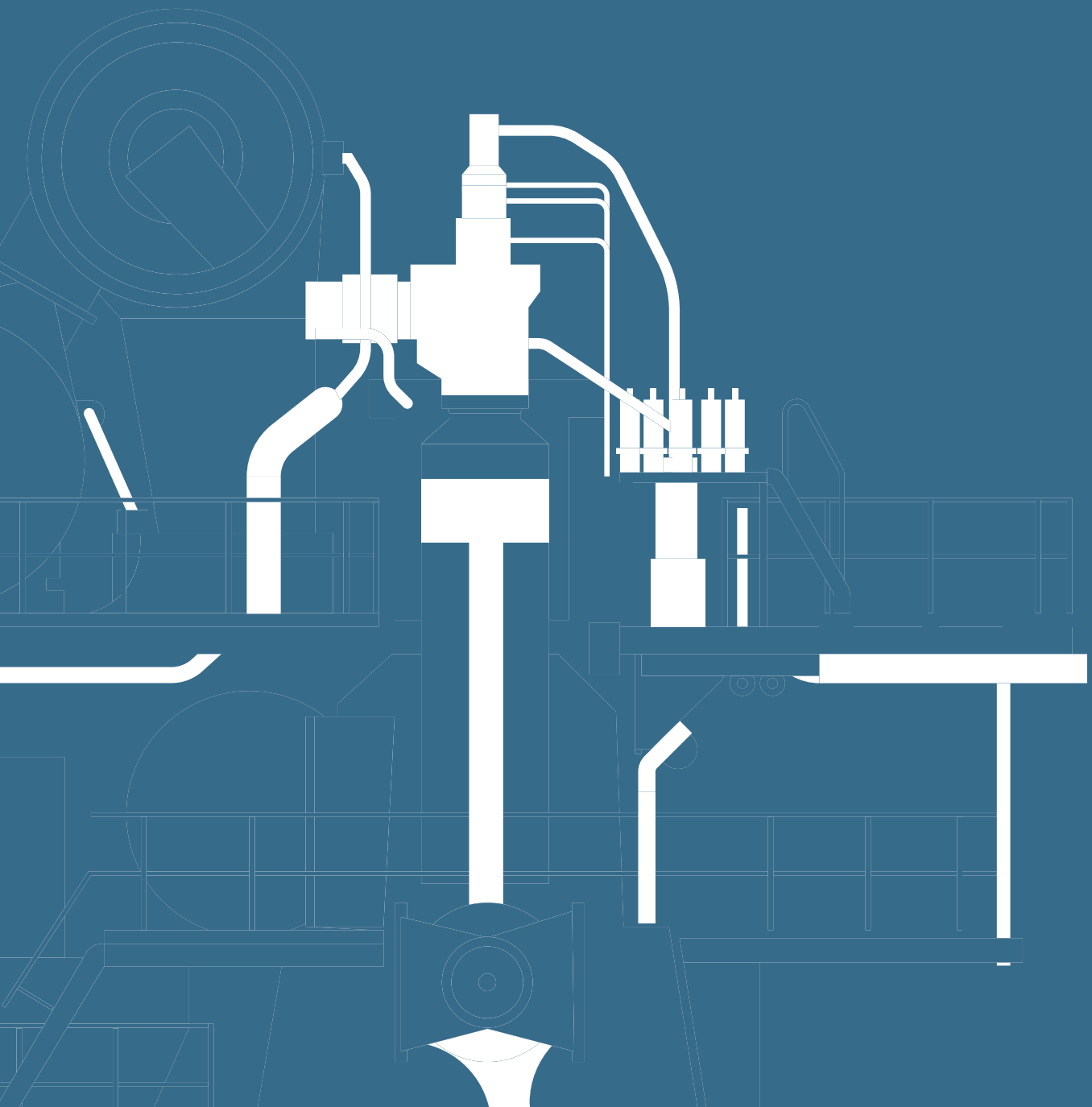
BWSC

Reconditioning Services

2-stroke engine components

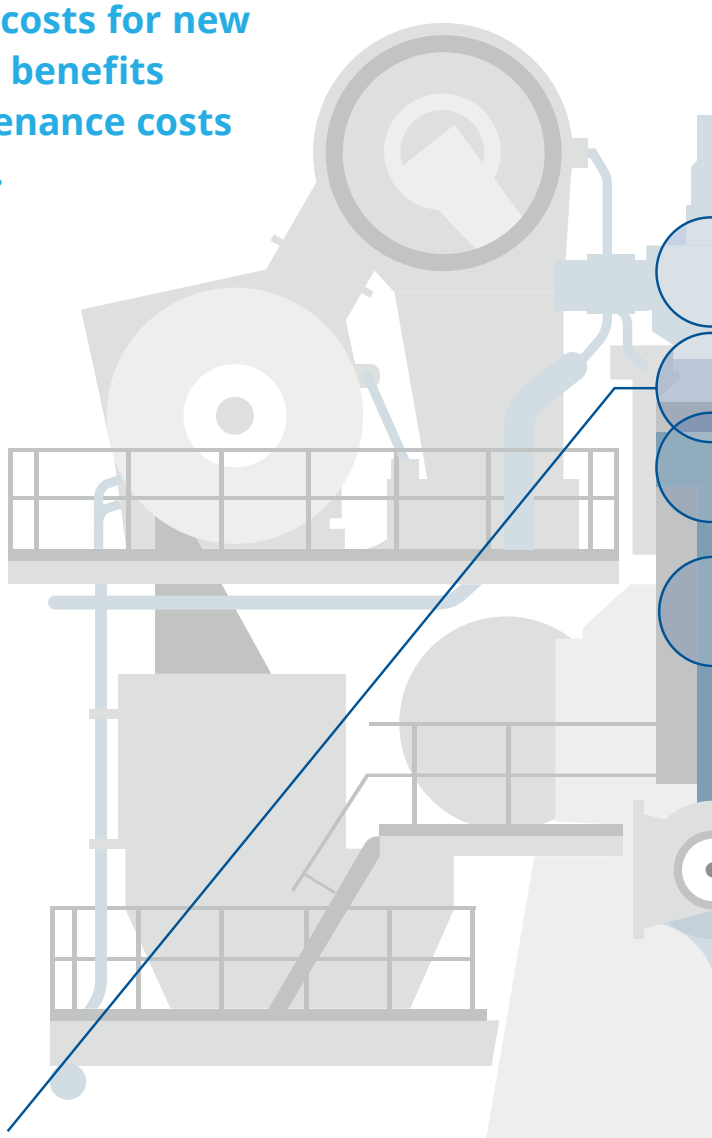


BWSC reconditioning services

Reconditioning is a viable option, which extends the lifetime of the engine components. It is also an economical choice, since reconditioning can be performed using only a fraction of the costs for new components. The increased service life benefits the environment and minimizes maintenance costs without compromising plant reliability.

BWSC undertakes the reconditioning of the main engine components including **Cylinder Covers**, **Exhaust Valve Spindles, Piston Crowns** and **Piston Rods** through:

- **Pre-inspection and condition assessment**
- **Reconditioning according to OEM procedures**
- **Reporting**



Benefits

Specific parts can be reconditioned several times, before reaching the end of their useful service life. Investing in reconditioning will make you save Time & Money:

Up to
60%
Cost savings while maintaining same durability for a full overhaul cycle (TBO).

From
2 Weeks
Turn-around time for reconditioning, while delivery time for new components can take months.

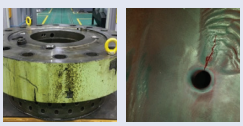
Cylinder covers

Cylinder covers are often seen to crack in the vicinity of the fuel injectors holes and the cooling water bores.

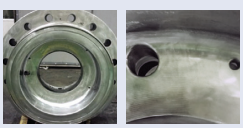
Reconditioning according to OEM procedures includes:

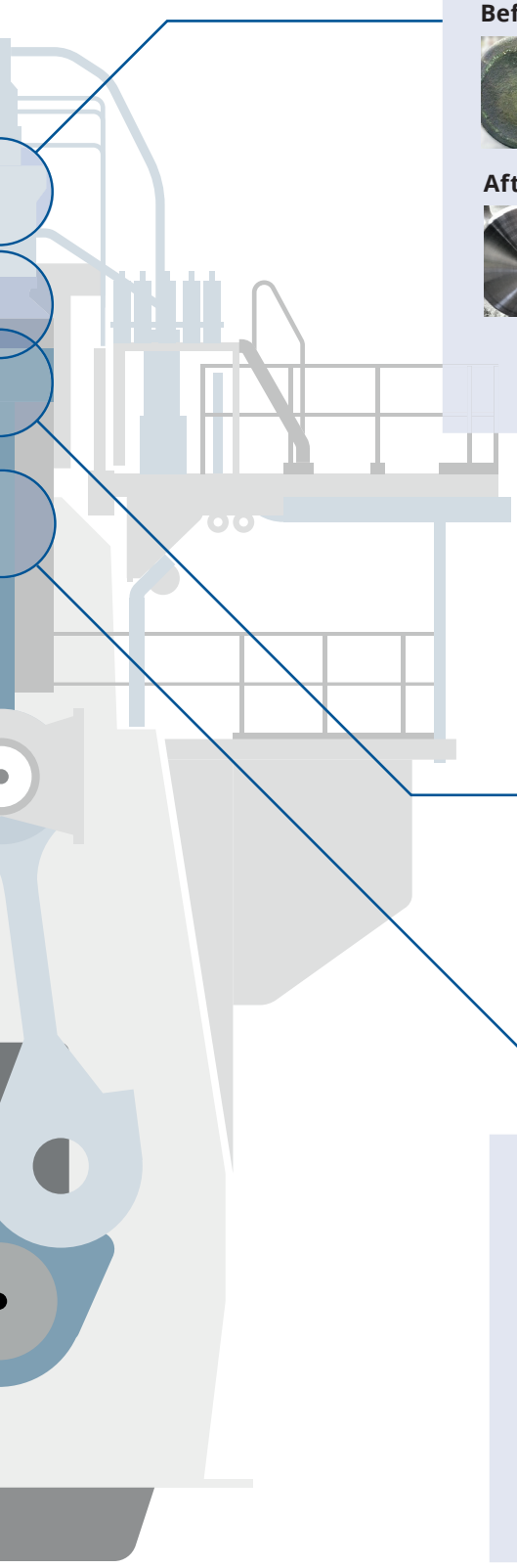
- **Heat treatment during any welding repairs**
- **Machining of cracked and damaged areas**
- **Welding and re-boring fuel valve holes up to standard size**
- **Welding and machining of contact surfaces**

Before



After





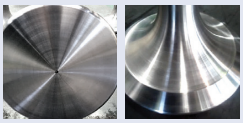
Exhaust Valve Spindles

Exhaust Valve Spindle stems will wear over time with a rate, depending on air quality and whether a Controlled Oil Level (COL) is installed or not.

Spindle seating will burn-down both on the sealing area against the valve seat as well as on the valve bottom part, which is exposed directly to the combustion chamber.

Before

After



Reconditioning could include:

High Velocity Oxygen Fuel (HVOF) coating on the valve stem

Inconel welding application and machining on the seating surface to restore the original geometry.

Rolling process on seating surface

Inconel welding application and machining on combustion surface

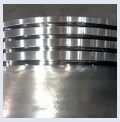
Final machining and inspection

Piston crowns

The main reason for piston crowns being scrapped is the excessive burn-away on the piston top as well as wear in the piston ring grooves.

Before

After



Reconditioning will extend the lifetime of the piston crown and includes:

Welding and machining of:

Piston Ring grooves

O-Ring contact surface

Topland surface

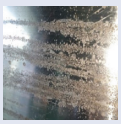
Piston rod contact surface

Chrome plating of ring grooves

Piston rods

Piston rods will deteriorate over time which can cause a higher lubrication oil consumption. Water contamination of the system oil will accelerate the wear.

Before



After

Reconditioning includes:

Pre-inspection including inspection report

Grinding of piston rod running surface

New undersize lamellas for the stuffing box would be included.

About BWSC

Headquartered near Copenhagen, Denmark, BWSC provides specialized consultancy, engineering, installation, operation and maintenance services at power plants and green energy facilities worldwide.

Forty years of experience with energy infrastructure, a diverse staff of seasoned experts, full technology independence and our big-picture approach make us uniquely able to help customers define their ambitions and reach them through expert design and continuous improvement of their facilities.

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