











Spare parts of high quality for all 4 stroke engines and compressors on board









On a ship we can count at least 12.000 technical spare parts. Additionally, if we also consider the various engine generations, together with the number of potential engine builders then it becomes clear how difficult it may occasionally be to identify a specific spare part, to source it and to supply it.

Thanks to our long-lasting experience, logistic competence and our technical know-how we are able to offer to our clients spare parts that comply with all the technical requirements which are, nevertheless, economically priced.

## From the smallest rubber seal to the biggest propellers

#### About us

Wenzel Marine was founded in Cyprus during 1990. In 2002 we moved our headquarters to the Industrial Park of Stuhr-Brinkum (outside Bremen) and expanded rapidly. Presently in Germany after our 31 years of operation with a personnel of 35, we provide the following:

### Spare parts

Holding an extensive stock of parts for 4 stroke engines, our spares department can accurately 'fast-source' a huge variety of spares from German and European makers, as genuine, OEM and/or equivalent quality from trusted sources. (Always clearly marked in our offers)

Our Korean & Asian partners are chosen carefully and with proven value following years of co-operation. All spares and other goods are handled according to our DIN EN ISO 9001:2015 certified system for tracking and tracing. Goods and services are subject to our insurance contract (available on our website).









### Warehouse

Our warehouse with 4.500 m<sup>2</sup> of climate controlled space.

Small parts are stored in fully automatic storage lifts and Paternoster systems.

Larger spare parts such as cylinder heads and liners, turbocharger rotors or injection pumps are stored into moveable racks.

We are able to deliver 70 % of the parts suitable for MaK from stock.

- ) 3000 pallet spaces
- Forklifts up to 16 t
- > Suspension crane up to 10 t

### Workshop

Repairing and overhauling of cylinder heads for 4-stroke engines according to specifications of engine manufacturers. Class approval if required.

We are holding cylinder covers in stock for exchange basis, ready to go.

Exchange basis – report within 10 days on the condition of the received cylinder head and cost of overhauling (if possible) – Full report following repair.

### Repair teams / flying squads

- In combination with our Gdansk based Wenzel Marine Poland Sp. Z.o.o. we provide engineers for overhaul on board and/or site for any 4 stoke engine (12 engineers in total, 4 in Germany 8 in Poland)
- › Availability 24/7 around the year
- ) Spare parts supplied by Wenzel Marine GmbH & Co. KG Germany
- ) All services provided by our technicians are fully covered by our insurance

# Shipping involves not only the supply of spares but includes also service support, responsiveness and timing of delivery



### Quality department

- ) Quality check of incoming spare parts
- Material analysis (Spectrograph)
- ) Digital stereo microscopy
- 7 axis Hexagon AbsoluteArm 8520 used for quality checking, workshop and on board.





### Injection technology

#### To minimise operation costs

Overall the high quality of Wenzel Marine injection technology aims at minimising the costs related to fuel consumption and relevant spare parts. We supply injection technology from the nozzle element to the fuel pump on exchange basis. In this area we also cooperate with OEM suppliers.

### Valves

### The »heart« valves of the engine

Due to the ever-decreasing quality of the fuel, valve spindles are submitted to a particular load. Therefore we rely exclusively on products of the highest quality produced by renowned manufacturers. In the worst case scenario, engine operators trusting in unknown sources, risk a total loss.





### Bearings

### Tuned perfectly to suit your engine

The alloy makes the difference. The engine will only run smoothly when the alloy of the bearing shells matches perfectly with the engine type. In particular in case of medium speed 4 stroke engines with a cylinder power of above 900 kW the crankshaft bearings are submitted to a specific high static load. For this reason we rely exclusively on products of the highest OEM quality from the specialist manufacturers.

### Gaskets

### Exact fit, pressure resistant, reliable and at the right price

No better way to describe our offer in the area of sealing technology. We constantly have over 20.000 different seal rings in various cross sections, diameters and materials on stock.





### Compressor

### Compressor technology – a matter of pressure

So that your compressor never runs out of air we hold a number of spare parts and service kits from all standard models in our stock. Here too, quality is the key priority.

### Turbocharger

### To improve engine performance and power

In order to increase the lifetime of the expensive turbocharger we keep on stock spares and maintenance parts for any item from the nozzle ring up to the lube oil pump. Speak to us concerning the efficient running of your turbocharger.

Good to know: Wenzel Marine is an authorized dealer of KBB.





### Piston rings

### There are only a few 'industry standard' recognised manufactures of piston rings

At Wenzel Marine we relied on the products of only renowned manufacturers. We keep a large stock of piston rings for bores of 100 to 580 mm.

Besides large stock capacities you will find at Wenzel Marine a state of the art, computerised stock management system.

### Cylinder liners made in Germany

### Manufacturing cylinder liners to a high quality standard

Interacting with piston and piston rings they ensure that the engine reaches its nominal power and runs economically with regards to the lube oil. It is of utmost importance not only to compare prices but also the imperative level of quality.

Wenzel Marine combines highest demands with fair prices.

### Genuine Spare parts for:

> KBB Turbochargers (Kompressorenbau Bannewitz GmbH)

### Non Genuine/Alternative spare parts for:

- ) MaK (Maschinenbau Kiel GmbH) MaK Caterpillar Design
- ) J. P. Sauer & Sohn Piston and Screw Compressors (Alup)
- ) Engines: MAN B&W, Wartsila, Daihatsu, Yanmar, Deutz/MWM, Scania

### Made in Germany, please ask us

### Genuine/OEM/Non-Genuine spares:

Accoustics systemsKockum Sonic

1 Automation Autronica, Consilium/Salwico, Deckma, Kidde Graviner, Safetec, Schaller, Tyco

> Blower parts PICO, Rietschle, Becker, Gardner Denver, Elektro

 > Boilers/burners
 Weishaupt, Oilon, Saacke, Suntec

Communication systems IMCOS Telephones, Gitiesse

Compressor Bitzer, Bock, Danfoss, Hamworthy, Hatlapa, NK (Neuenhauser Kompressoren TDI), Sabroe, Sperre, Tanabe

Electrical equipment Sensors, Gauges, Manometers, Contactors and Switches, Controllers, Fire Detectors, Indicators, Switches (Level/Limit), Timers, Transmitters,

Thermometers, Circuit Breakers, Sockets, Cables & Wires

Electrical motors
 German makers replacement or identical, Leroy Somer

Filters Boll & Kirch, Moatti, MANN, Fleetquard, Donaldson, Filter candles, Elements, replacement Filters







Hydraulic & pneumatic partsBosch Rexroth (Aventics)

Plate heat exchangers
Alfa Laval, APV, Gea Ecoflex, Sondex, Swept

Pumps Allweiler, Bornemann, Desmi, Dickow, Grundfos, IMO, Kracht, Kral, Leistritz, Netzsch Pumps (Mono Pumps), Seepex

Purifiers
Alfa Laval, DVZ, RWO, Westfalia

Yalves Storm, Globe, Butterfly, Angle, Check, Gate valves

Water treatment plant Nirex / Alfa Laval, DVZ, Evac, Jowa, Serck Como, Sondex, Ueberall, Wedeco and suitable UV-lamps

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