

H.CEGIELSKI-POZNAŃ S.A.

SERVICE AND ENGINE SPARE PARTS

A world-class builder of Diesel engines offers spare parts for Diesel engines, compressors and radial blowers, H.CEGIELSKI-POZNAŃ S.A. also provides professional engine services.

We provide our professional maintenance services worldwide.

For that purpose, a daughter company, H.Cegielski-SERVICE Sp. z o.o., was established in 1996, which, following the merger (August 2015) and transformation into the Service Department of H.CEGIELSKI-POZNAŃ S.A., operates maintenance and repair programmes for the main and auxiliary engines.

The organizationally separate Service Department operates swiftly and flexibly, providing continuous technical support, co-operation and technical consulting services.





H.CEGIELSKI-POZNAŃ S.A. guarantees professional service for Diesel engines and is known all around the world for Diesel engines spare parts of the longest lifetime and highest quality.

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2-STROKE ENGINES

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Day A

H.CEGIELSKI SERVICE



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SERVICES

H.CEGIELSKI-POZNAŃ was the world's top manufacturer of engines under MAN/B&W and Sulzer licenses since the 1950s.

Our teams work globally and offer a very wide range of services for different types of 2-stroke diesel engines in marine and stationary versions:

ENGINE INSPECTION

By customer request, we do engine supervisions and overhauls, related to the renewal of ship class or periodic overhauls of stationary engines installed in power plants.

TROUBLESHOOTING

We assist in solving any problems in the operation of engines and disaster recovery.

REGULATING AND TIMING

We offer regulation of engines with adjusting of cams and injection pumps timing concurrently with the verification of fuel engine equipment.

CYLINDER LUBRICATING

Modification of Alpha System – please also see the Pneumatic system / Control system section.

- Overhauls of different types of cylinder liners lubricating systems:
- MAN/B&W engines: Alpha and Hans Jensen
- Sulzer engines: VOGEL PC, CLU3 and CLU4

CYLINDER LINER INSPECTION

Based on visual inspection of the engine we assess quality of the cylinder liner, piston and piston rings. In our laboratory, we can evaluate structure of the cylinder liner and content of the hard phase according to the analysis of engine materials (Triafol print).

REALIGNMENT (LIFTING) OF ENGINES

We offer engine bedplate readjustment and realignment of the crankshaft without disconnecting of the shaft line. This applies in case limit values of crankshaft deflection are exceeded. Our technology significantly reduces the execution time, which makes it cheaper than the traditional method.

WE ALSO EXECUTE SERVICES ON OTHER ENGINE TYPES, UPON REQUEST.

ENGINE POWER LIMITATION SYSTEM (EPL)

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Year 2022 is another further chapter to open heading towards to meet the long-term emission targets in the maritime shipping business and to be focused on the engine power limitation to fulfill IMO's Energy Efficiency Ship Index (EEXI).

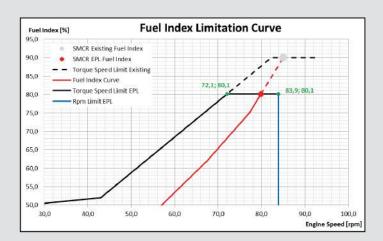
The Engine Power Limitation (EPL) is limitation of the main engines SMCR.

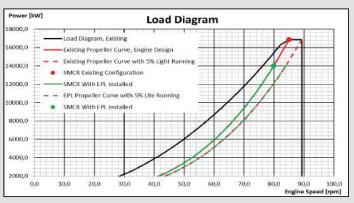
H.CEGIELSKI-POZNAŃ S.A. (HCP), introducing the service offers dedicated own EPL solution to all shipowners / technical managers of fleets equipped with Main Engines type:

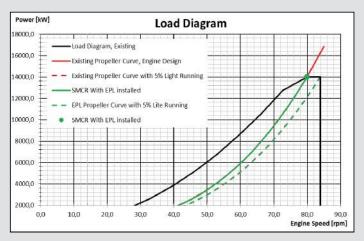
- ME/ME-B/C series
- RTA- / RT-Flex series

Workflow:

- Calculation report, creating of EEXI Technical File,
- Sending EEXI Technical File to the Ordering Party,
- Implementation on board by HCP SA service team,
- Performance verification,
- Final setting report for EEXI documentation.







REPAIR OF 2-STROKE FLYWHEEL

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DAMAGED FLYWHEEL REPAIRS

Replacement of whole flywheel is not required. We are able to repair flywheel by installing the new section, identical with the original one. Repair is possible "in situ" on board. Our staff is able to remove damage, and install new one within two-three days. Time depends on size of damage. Special insert is delivered on board in advance. For complete preparation for this repair only two weeks are required. Cost is dramatically low, with comparison to cost of flywheel replacement. Connection is solid, rigid and work normally as original teeth.





EIAPP PROCEDURE

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To carry out the EIAPP (Engine International Air Pollution Prevention) certification procedure, according to the legislation of MARPOL, some simplification of the already existing procedures is allowed.

H.CEGIELSKI-POZNAŃ S.A. has developed its own EIAPP certification method for engine produced in HCP between 1990-2000. This method does not require expensive NOx measurements and consists of three steps:

- HCP as the engine manufacturer identifies a suitable ENGINE GROUP covering the engine in question,
- to ensure the suitable NOx emission level HCP introduces necessary engine modification during service on board, 5 8
- HCP develops a Technical File and submits it to the Classification Society for acceptance.

СB Based on the above, the Classification Society issues an EIAPP Certificate. A simplified certification method may be conducted only by the respective engine manufacturer 54 or licensor. or licensor. Our procedure, as described above, is accepted by DNV and has been repeatedly used.

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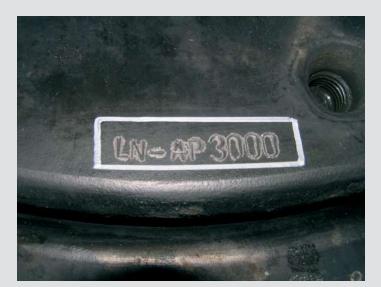
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STRUCTURAL REPAIRS

For many years HCP has specialized in repairs of cracks which occurred during the operation, in different elements of 2-stroke engine structure, regardless of the engine manufacturer. Such repairs guarantee trouble-free operation of the engine in the future. For each crack case there is an individual repair offer and specific technology. Technology is always

approved before the repair by the classification society supervising repairs on the vessel. The welding works on the

vessel are carried out by highly qualified welders certified by classification societies.





The repairs executed by HCP S.A. can be classified in three groups (including some examples of repairs carried out on board):

I. Welding repairs of engines bed plates. Fractures occur most frequently in the casted girders and in transversal plates welded to the girders.

II. Welding repairs of the A-frame.

Fractures are most common in the welds of ring hubs, fixing the camshaft drive wheels; in the middle of transverse plates; in metal plates of crosshead guide rails; in fuel pump supports.

III. Other structures in the engines.

These are cracks in the air receiver, exhaust gas receiver brackets, turbocharger brackets, etc.



4-STROKE ENGINES

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SERVICES

Our teams work globally and offer a very wide range of services for different types of 4-stroke diesel engines in marine and stationary versions:

OVERHAULING

We overhaul the engine according to the Planned Maintenance Programme

CYLINDER LINER HONING

We do cylinder liner honing:

- in situ by mobile honing machine,
- in our workshop by stationary honing machine.

CRANKSHAFT REPLACEMENT

We conduct inside engine measurements and crankshaft pins condition estimation. Also crankshaft replacement after sizing of bearings is possible.

CAMSHAFT

We carry out replacement of camshafts and bearing bushes.

CYLINDER BLOCK REPLACEMENT

We execute cylinder block replacement, also in case of breakdown - replacement together with overhaul and parts verification.

ENGINE ADJUSTMENT

We do overhauling and adjustment of fuel injection pumps as well as engine adjustment and testing on the load.

CYLINDER HEADS REPAIRS

We carry out cylinder heads repairs which may be executed both in situ or in our workshop:

- grinding of inlet and exhaust valves,
- replacement of inlet and exhaust valve seats,
- replacement of valve guides,
- water test.

CONNECTING RODS

We recondition big ends of connecting rod ovality and replace bearing bushes in small ends of connecting rods, finishing with crack tests of both serration and bolts of connecting rods.

WE ALSO EXECUTE SERVICES ON OTHER ENGINE TYPES, UPON REQUEST.

STATIONARY AND MARINE ENGINES











CONTROL SYSTEM

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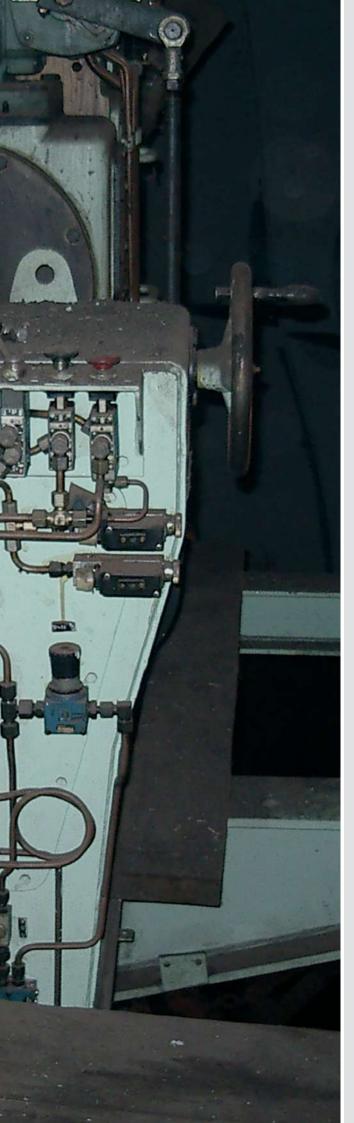
Automation and Company

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OVERHAULING OF VALVES AND OTHER PNEUMATIC EQUIPMENT OF DIESEL ENGINES

Our specialists conduct the overhauling of pneumatic components of remote control system on both vessels and stationary engines.

Among the other we overhaul:

- elements of reduction station,
- unit (30/7 bars),
- pneumatic logic unit,
- fuel pumps reversing system,
- emergency control unit valves on ME,
- pilot valves for starting valve and air distributor,
- starting air distributors,
- shut-off valve for starting air,
- slow turning valve,
- reversing valve,
- safety cut-out device,
- actuators of VIT system.

MODERNIZATION OF OLD TYPE CONTROL AND SAFETY SYSTEMS FOR MARINE & STATIONARY DIESEL ENGINES, AND THE MODERNIZATION OF THE ALARM SYSTEMS IN BOTH MARINE AND STATIONARY ENGINE ROOMS

We have experience in design of remote control, safety and alarm systems for Diesel engines both marine and stationary. We execute modernization of existing systems using Mitsubishi and Siemens PLC.





DEVELOPMENT OF NEW CONTROL SYSTEMS FOR STATIONARY APPLICATIONS

Basing on the experience in design of automation systems, HCP S.A. also develops and implements modern control systems for industry.

We use advanced technology to create our solutions.

MODERNIZATION OF THE CYLINDER LUBRICATION SYSTEM

HCP has a lot of experience in retrofitting of electronic lubrication systems (instead of mechanically controlled cylinder lubrication systems of 2-stroke Diesel engines).

We offer:

- cylinder liner modification,
- replacement of valves and assembling of new injections of cylinder oil and other, necessary parts,
- installation of switchboards and cables in their roads,
- preparation for operation,
- start-up and adjusting of the system.

SPARES

The main assortment delivered within this product group are elements of low- and mediumspeed Diesel engines, which have been produced since the 1950s. These engines have been used in hundreds of vessels and in stationary power plants.

For all of the above products, HCP delivers spare parts that are produced according to standards and under strict manufacturing supervision, which is a guarantee of their highest quality and compatibility with the element being replaced.

AMONG THE OTHER, WE SUPPLY:

- cylinder liners,
- cylinder heads,
- pump blocks, injectors, atomizers, plungers & barrells,
- water jackets,
- water and oil pumps,
- ∎ cams,
- safety and indicator valves,
- piston rings, piston crowns, piston skirts,
- bearings,
- spares for pneumatic systems,
- other.

We ensure the safety of your spares during transportation. We make every effort to use proper protection and packaging.







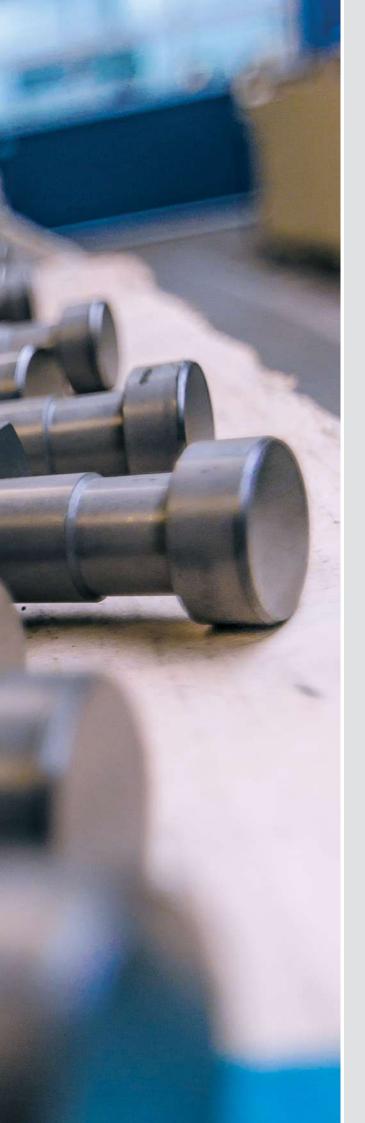






Fuel injection pump block (2-stroke engine) during drilling process

SPARES





Benefits resulting from using high quality HCP spare parts:

- significantly longer lifetime of equipment,
- highest quality guarantee, manufacturer guarantee,
- complete and confident conformance of parts with design assumptions, both in material and form,
- confidence that your spare part is compatible with the element being replaced,
- delivery of parts with attached required certificates issued by such entities as: DNV, BV and others, according to customer request,
- cost savings connected with excessively frequent replacement of parts,
- technical assistance in selection of parts and solving operational problems.

CYLINDER LINERS FOR 2-STROKE DIESEL ENGINES

SOOL



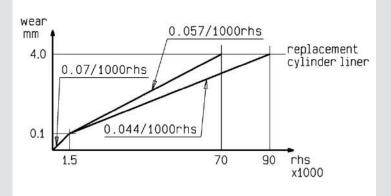
H.CEGIELSKI-POZNAŃ S.A. manufactures the world's highest quality CYLINDER LINERS for 2-STROKE ENGINES.

Cylinder liners have a specially improved structure with respect to licensing requirements; the structure, together with the machining and deep honing allows for the use of at least 70,000 hrs, and there are cases of operation even up to 90,000 hrs. Moreover, the structure of the cylinder liner surface is prepared in such a way that the liners in tough environments are resistant to scuffing. Sulzer/ Wärtsilä licensed cylinder liner castings are being made in mould casting technology.

An example of the surface structure after deep honing (Sulzer/Wärtsilä licenses cylinder liners) shows very uniform distribution of all components of the structure (in particular the hard phase) in cylinder liner base material.

It is worth underlining that there is zero ferrite composition (in the majority of the cylinder liners), which is very important in terms of resistance to cylinder liner scuffing.

The presented diagram below shows the speed of the unit wear of our (HCP/Sulzer) cylinder liners.





INTEGRATED MANAGEMENT SYSTEM

H.CEGIELSKI-POZNAŃ S.A. has an Integrated Management System covering all key areas of the company's operations:

- ISO 9001 Quality Management System,
- ISO 14001 Environmental Management System,
- Occupational Health and Safety Management System ISO 45001,
- ISO 50001 Energy Management System.

The implementation of the Integrated Management System began with the company obtaining the ISO 9001 quality management system certificate in June 1995.

Since 2000, the company has been certified by: Environmental Management System and OHS Management System. In 2021, we have extended the certification to include an Energy Management System. IMS supervisory units are DNV and TUV NORD.

As part of the supervision and monitoring of the Integrated Management System, improvement activities are undertaken. A cyclical assessment of the implemented processes is being carried out, in order to ensure optimal support for the company's operations and meet the customer's expectations.

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H.CEGIELSKI-POZNAŃ S.A. also has industry certificates: EN 1090-1, PN- EN ISO 3834-2, PN-EN 15085-2, DIN 2303.













CONTACT SERVICES

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