Ensure reliable engine performance onboard!

Cruise Vessels

Innovative engineering since 1962

CHRIS-MARINE®

Chris-Marine's offering to cruise ship owners and managers

Chris-Marine® offers ship owners and managers complete overhaul and maintenance solutions for the main and auxiliary diesel and gas-engines onboard their vessels, thereby enabling them to secure continuous engine operation by using one single global supplier. We are continuously developing new products, solutions and services to support ship owners and their crew keeping the engines of their vessels running smoothly and without costly break-downs.

- We design, develop, manufacture and market our equipment under three strong brands: Chris-Marine®, Obel-P® and LEMAG®.
- We offer six product portfolios to our customers: Monitoring, Cleaning, Grinding & Machining, Fuel System Maintenance, Power Packs, Accessories & Consumables.
- In addition, we provide Mobile Workshop Solutions as well as Machine Rental, Training, Service & Aftersales.

Our customers are mainly engine builders, ship owners, shipyards and workshops. Our mission is to provide them with state-of-the-art engine care solutions to optimize the running of their engines cost-efficiently and with minimum environmental impact.

Chris-Marine's presence in the Americas

In March 2020, Chris-Marine USA LLC opened up its doors for the first time, to cater for the needs of ship owners across the Americas. Since then, we have moved to even bigger premises to be able to better serve our customers by increasing spare parts inventory, machine repair capabilities, training and rental machines. Our central location in Pompano Beach, Florida, enables us to quickly reach our customer base across the continent.

Service, training, repair and rental

In addition to providing a wide range of machines and tools to our customers we offer numerous services and support.

- Onboard and workshop service support as well as rental machines.
- Machine inspection, refurbishment, calibration, and maintenance.
- Training (onboard or at our facility).

Super user help whenever you need it

Chris-Marine's Service & Aftersales teams are made up of highly knowledgeable and professional individuals whose mission is to keep your engines running safely, efficiently and sustainably around the clock and across the globe.

Our promise to our customers

Quality
We ensure end-results that fulfill the most recent process quality criteria.

Time
We make your business more efficient and competitive by using state-of-the-art know-how.

Documentation
We deliver first-class documentation at the end of a job.

Ship performance monitoring

Monitor and test the condition of your diesel and gas engines to ensure reliable engine performance and determine the optimum time for overhaul.

LEMAG®
ECI

Electronic Cylinder Pressure Indicator

LEMAG ECI improves engine uptime and lowers operating costs by allowing technicians to balance, fine tune and monitor main and auxiliary engines.

- Enables fine tuning of engine performance
- Lowers operating costs
- Designed to withstand harsh conditions
- Takes continuous engine readings
- Detects problems before downtime occurs
- Safe, innovative and precise crank angle sensor

LEMAG®
DI5 & DI5C

Electronic Crankshaft Deflection Indicator

A time-saving tool for checking crankshaft deflection.

- Safe and easy to use as there is no need to enter crank case to record readings
- Large measuring range
- Invar extension bars for minimum heat expansion
- Backlit display and rechargeable lithium ion batteries
- Complete set with transducer, cable, extension bars and case
- Optional ovality kit for measuring cylinder wear available

Superior engine parts cleaning

In order for an engine to work efficiently its various parts need to be thoroughly cleaned to remove scale, oil deposits and rust. Chris-Marine therefore offers a variety of washing solutions, like single stage aqua spray washers for overall cleaning of engine parts, as well as advanced ultrasonic cleaners that reach every orifice.

Ultrasonic efficiency for easy and thorough cleaning onboard

The Ultrasonic onboard cleaning tanks offer a customized solution to the onboard cleaning requirements of the marine industry. The patented frequency sweep maximizes the ultrasonic efficiency, and helps to reduce the cleaning time, thus saving both time and money as a result of the fast and efficient cleaning. The thoroughly cleaned engine parts perform better and last longer.

CHRIS-MARINE®
UCS SMALL

Ultrasonic Cleaning Systems

Our onboard range of ultrasonic washers is optimal for cleaning and protection of smaller engine parts like injector nozzles, lube oil filters and fuel pump parts. There are four versions available, with internal dimensions:

- UCS 60: 500 x 300 x 400 mm
- UCS 75: 600 x 500 x 250 mm
- UCS 90: 600 x 500 x 300 mm
- UCS 126: 700 x 600 x 300 mm

CHRIS-MARINE®
ULTRA RINSE

Ultrasonic Cleaning Chemicals

We offer a range of cleaning chemicals, designed specifically for ultrasonic cleaning, that enable rapid penetration and removal of deposits.

Cut downtime with the right maintenance equipment

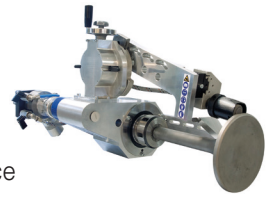
Grinding & Machining of cylinder heads

Grinding and machining of cylinder heads according to engine makers' specifications is very important as failure to maintain the condition of cylinder heads means jeopardizing engine performance. This could become a very costly affair. The good news is that there is a variety of machines available to make maintenance accurate and efficient.

CHRIS-MARINE®
PVG

Valve spindle grinding machine

For grinding of valve spindles on 4-stroke medium and high speed diesel engines.



- Operating range 6–40 mm stem diameter
- Portable and easy to use for onsite machining
- Designed to be mounted horisontally or vertically for optimal performance
- Pneumatically driven

CHRIS-MARINE®
BSP30

Valve spindle grinding machine

For grinding of valve spindles on 4-stroke medium and high speed diesel engines.

- Operating range 6–50 mm stem diameter
- Up to 250 mm valve disc diameter
- Automatic grinding machine
- Electronically controlled angle settings
- Colour touch screen display
- Electrically driven
- Anti-vibration dampers

CHRIS-MARINE®
BSP2

Valve spindle grinding machine

For grinding of valve spindles on 4-stroke medium and high speed diesel engines.

- Operating range 6–50 mm stem diameter
- Up to 250 mm valve disc diameter
- Semi-automatic grinding machine
- Grinding angles set according to customer's requirement
- Colour touch screen display
- Electrically driven
- Anti-vibration dampers

CHRIS-MARINE®
VRL

Valve seat and recess lathe

Combined machine for in-situ machining of valve seats and seat recesses on 4-stroke medium speed diesel engines.

- Valve seats from 55 to 230 mm diameter
- Recesses from 74 to 200 mm diameter
- Machining angles set according to customer's requirement
- Stepless adjustable rotation speed
- Self-centering pilot spindle
- Machining horizontally, vertically and chamfering
- Pilot spindle with recess measurement slot for easy handling
- Automatic feed mechanism
- Diameter measuring tool
- Electrically driven
- Superior to grinding alternatives

CHRIS-MARINE®
VSL

Valve spindle grinding machine

Portable lathe for in-situ machining of valve seats on 4-stroke diesel engines.

- Valve seats from 50 to 230 mm diameter
- Machining angles set according to customer's requirement
- Stepless adjustable rotation speed
- Adjustable machining diameters
- Self-centering pilot spindle
- Pre-set angles
- Automatic feed mechanism
- Electrically driven
- Superior to grinding alternatives

Grinding and machining of cylinder liners

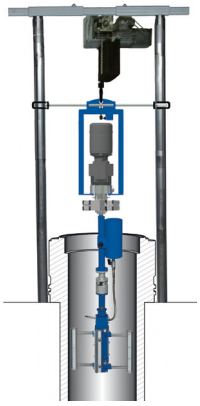
The honing process rectifies longitudinal and circumferential surface geometry, thus restoring the cylinder liner's oil retaining surface properties. Honing is vital to prolong the lifetime of cylinder liners and avoid running-in problems. If honing isn't performed regularly there is a risk that the maximum wear limit provided by the engine makers won't be reached before cylinder condition issues occur. Some common cylinder condition problems are broken piston rings and cylinder scuffing.

CHRIS-MARINE®
HONA

Automatic honing and deglazing machine

Fully automatic honing machine for restoration of medium speed engine cylinder liner geometry and surface structure. For workshop and in-situ use.

- For honing of liners 140–670 mm bore
- Adjustable stone pressure
- Removes scuffing marks and restores surface cross pattern
- Fully automatic operation
- Automatic stroke control
- Ability to specify exact cross pattern angle
- Cannot go beyond set turning points
- Speed and stroke length adjusted during operation
- Electrically driven



CHRIS-MARINE®
HONS

Honing and deglazing machine

Honing machine for restoration of medium speed engine cylinder liner geometry and surface structure. For workshop and in-situ use.

- For honing of liners 140–670 mm bore
- Rectifies the circular shape of the liner
- Removes scuffing marks and restores surface cross pattern
- Easily operated directly on the engine or in honing rig
- Variable hoisting speed
- Adjustable stone pressure
- Pneumatically driven

CHRIS-MARINE®
SRM

Surface roughness measuring tool

Tool for standard-complient roughness measurements

- Document roughness prior to, during and after honing
- To be used on any surface
- Easy to use
- Possible to separate drive unit from display unit for exible measurements
- Calibration standard included
- 2.4 inch colour graphic LCD screen
- Memory card and PC software for generation of reports included

Grinding & Machining of sealing surfaces

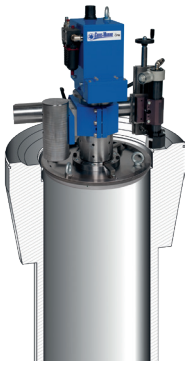
Grinding and machining of sealing surfaces according to engine makers' specifications is very important as failure to do so means jeopardizing engine performance. Lower engine performance and possible down-time is costly and should be avoided. Chris-Marine offers a range of machines to make sure the engine maker's specifications are met.

CHRIS-MARINE®
CPM

Surface grinding machine

For grinding of sealing surfaces between cylinder head and cylinder liner, and between cylinder liner and engine frame on medium bore diesel engines.

- Standard operating range 320-700 mm diameter
- Eliminates and prevents water and gas leakages
- Great savings from in-situ grinding and milling
- Easily operated by a single operator
- Optional milling equipment available
- Pneumatically driven



CHRIS-MARINE®
CPL

Surface grinding machine

For grinding of sealing surfaces between cylinder head and cylinder liner, and between cylinder liner and engine frame on medium bore diesel engines.

- Operating range 200–650 mm stem diameter
- Eliminates and prevents water and gas leakages
- For workshops onboard and ashore
- Easily operated
- Versatile optional milling equipment
- Pneumatically driven
- Electrically driven
- Anti-vibration dampers

CHRIS-MARINE®
PTL

Portable lathe

For in-situ machining of engine frame sealing surfaces on medium speed diesel engines.

- Operating range radially 300-700 mm
- Operating range axially down to 900 mm
- Stepless feed for vertical and horizontal movements
- Substantial savings thanks to high quality work in-situ
- Specific mounting adapters designed for individual engine types
- Restores all sealing surfaces in the engine frame
- Very robust precision machine
- Electrically driven

Fuel equipment with maximum performance

When a fuel injector performs less than optimal it can start opening at the wrong time as well as leak fuel before or after injection. This results in unnecessary fuel consumption and engine maintenance.

OBEL-P®
VPUD 1100-1

Fuel Injector Test Unit

The VPUD 1100 enables any engine crew member to evaluate and calibrate the state of the injectors that will power the vessel for the coming months.

- Ensures optimal fuel injector performance
- Helps to avoid unnecessary fuel consumption and particle emissions

OBEL-P®
IGT

Injector Grinding Tool

For reconditioning of fuel injector pipe sealing surfaces on medium speed engines.

- Portable with low weight
- Easily operated by one man
- Easily adapted to different engine types

OBEL-P®
HPU

Hydraulic Power Unit Series

Portable Hydraulic Power units for all hydraulic tools.

- Hydraulic pressure up to 3.500 bar at 7 bar air onlet pressure
- Flow rates up to 1.9 l/min
- Adjustable maximum outlet pressure for tool protection
- Back-up hand power optional
- Hoses and couplings available as an option.

Quality accessories & consumables for superior engine maintenance results

Selecting the right grinding wheels, honing stones, couplings and other accessories, is of high importance to engine maintenance results. Chris-Marine's accessories & consumables have therefore been carefully selected and tested to make sure they keep the very best standard.

CHRIS-MARINE®
ULTRA RINSE

Ultrasonic cleaning chemicals

We offer a range of cleaning chemicals, designed specifically for ultrasonic cleaning, that enable rapid penetration and removal of deposits.

- Concentrated powder products
- Highly effective even at low concentration mixtures with water
- Can be customized to the specific need of the customer
- Excellent wetting and penetration properties

CHRIS-MARINE®
HON LIQ

Honing liquid

To ensure a mooth and efficient honing process

- Water mixable honing fluid based on mineral oil
- Ensures shortest possible honing time
- Prevents residues from clogging the stones
- Provides corrosion resistance for cylinder liners
- Tested and approved by leading engine designers

CHRIS-MARINE®
GRINDING WHEELS

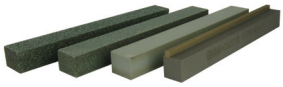
Grinding wheels

Choosing the right grinding wheels for a specific job is the key aspect for achieving superior grinding results. Chris-Marine's grinding wheels have been carefully selected, tested and proven for each type of metal alloy, surface finish and workload.

CHRIS-MARINE®
HONING STONES

Honing stones

Honing time and stone consumption increase with cylinder diameter and stroke length. It is therefore important to choose the right honing stones.
Diamond stones have superior endurance and remove material faster than ceramic stones. They are therefore suitable for coarse honing of large engines or highly worn smaller engines.
Ceramic stones provide superior oil retaining properties for the cylinder liner and are therefore mandatory when finishing the running surface structure.



CHRIS-MARINE®
TURNING BITS

Turning bits

Turning bits for our portable lathes are supplied in different shapes and qualities. Each type has been carefully tested to give the best result when it comes to performance, lifetime and surface roughness.

CHRIS-MARINE®
HOSES & COUPLINGS

Hoses & Couplings

Our hoses and couplings fulfill the requirements and specifications required by engine designers such as MAN Diesel & Wärtsilä.

CHRIS-MARINE®
DIAL GAUGE

Dial gauges

Instruments used to balance and align Chris-Marine machines and equipment.

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