

## LSS CRANE LIFECYCLE SUPPORT SERVICES

## **HS OUIPMENT**





HS.Equipment is located in Gorinchem (NL) and offers lifecycle service support to all clients owning and operating cranes built by HS.Marine worldwide. Enabling clients to make use of the extensively available experience and HS.Equipment to take care of customer's concerns and to add value to reliable and safe crane operations. Reliability and safety are key.

HS.Equipment offers its clients a variety of lifecycle support services. The office in Gorinchem offers a conditioned storage with sufficient (spare) parts and a workshop with all necessary tools.

For onboard assistance a remote support is offered and a team of skilled and trained personnel is available to board the vessel, also certified to provide offshore service.

As a sister Company, HS.Equipment has full back-up support, priority and direct access to all HS.Marine resources as original equipment manufacturer.

HS.Equipment understands that its clients are having different requirements in terms of Lifecycle Support Services. Being involved in markets as Dredging, Tugs, Workboats, Offshore, Fishing, Fish Farming and Yacht Support, HS.Equipment acknowledges the need for different support levels.

The available lifecycle support services are defined as follows:

- Operational Support
- Survey & Inspection Support
- Maintenance Support
- Parts Support
- Training Support
- · Lifetime Support

Through these services, HS.Equipment provides its clients with a complete range of Support Services, supporting them during operational use of HS.Marine cranes, regardless of industry or location worldwide.

For any service request please contact service@hsequipment.net

## Operational Support

Emergency Support

> Remote Support

Technical & Engineering Support

On-Site Support

# Survey & Inspection Support

Visual Inspection

Periodic Survey, Reporting & Advice

> Remote Support

System Diagnostics

Technical & Engineering Support

### Maintenance Support

Maintenance Advice

Maintenance Execution

### Parts Support

Spare Parts Advice & Supply

> Stock Keeping

Repairs & Overhaul

### Training Support

Operator Training

Commissioning Training

Maintenance Training

Electrical Training

### Lifetime Support

Repair, Replacement & Refurbishment

Modification & Upgrade



### **OPERATIONAL SUPPORT**

#### **EMERGENCY SUPPORT**

If your HS.Marine crane has an issue you can't resolve on board and you require a direct assistance, we provide you with professional support via phone and/or email. You can find all contact details at hsequipment.net/service-assistance/ or hsmarine. net/service-assistance/.

For emergency, please call +31 183 82 03 98 (NL) or +39 375 25 48 19 (IT)

#### REMOTE SUPPORT

By occasion it can be more convenient for a crane operator to involve the assistance looking into the crane operation without being on board: a video connection via smartphone allows a more direct and fast support. Moreover, in case of cranes equipped with MSU, the operator can put the assistance in connection with the crane via Internet for diagnostic and parameters adjustment.

### **TECHNICAL & ENGINEERING SUPPORT**

For any technical question HS.Equipment provides all kind of support. Whether it concerns maintenance, repairs or any other request related to the HS.Marine cranes, advice and engineering support are always available.

For special operations, critical lifts or exceptional environmental conditions, it is possible to involve HS. Equipment into the project for assistance or support.

### **ON-SITE SUPPORT**

A team of skilled service engineers is available to provide on-site support to clients whether it concerns inspection, repair, maintenance, modification and training. With their expertise and availability of the original design data from the OEM, they will ensure that the crane is ready for continuation of safe and reliable operations.

### **Operational Support**

**Emergency** Support

> Remote Support

Technical & **Engineering Support** 

> On-Site Support

### Survey & **Inspection Support**

Visual Inspection

Periodic Survey, Reporting & Advice

> Remote Support

**System Diagnostics** 

Technical & **Engineering Support** 

### SURVEY & INSPECTION SUPPORT

#### VISUAL INSPECTION

Having a short port call and would you like your crane to be 'temperatured'? In order to have a fast diagnostics of the crane condition or in preparation of a periodic inspection, HS.Equipment provides quick visual inspections. A detailed report is supplied with all necessary recommendations, observations, supporting pictures and follow-up.

### PERIODIC SURVEY, REPORTING & ADVICE

Besides the detailed described ordinary and periodic maintenance activities as per the crane manual, it is recommended to involve HS. Equipment as OEM representative for a survey visit on yearly basis or prior to an extensive long term project.

Making use of their excellent skills and experience, HS.Equipment service engineers will inspect, measure and report all findings in a detailed report.

Given advices and recommendations about further steps will guide you in order to keep the same safety and reliability level of the crane during its lifecycle. Special attention during such inspections is given to:

- Factory O-measurement comparisons (marked stud bolt, eccentricity etc.).
- Wear testing (sheaves, rollers, bearings etc.).
- Condition monitoring (survey of rotating, electric and hydraulic parts).
- Functional testing (load testing, brake testing, emergency stop testing etc.).
- Maintenance testing (welds, mechanical stress analysis on stud bolts).

#### REMOTE SUPPORT

During a third party inspection, HS.Equipment can be involved even without being on board: skilled service engineers are available from remote, reachable by phone and e-mail, even for a video connection allowing a support on real time.

#### SYSTEM DIAGNOSTICS

Most of our cranes are equipped with a Multifunction Service Unit (MSU). This is an inhouse developed black box recording all crane events (i.e. alarms, overload, warnings, working hours) and allowing the owner to monitor and download them (not in real time). The crane owner can send these data to HS.Equipment for analysis, in order to receive recommendations on operation improvements, crane use optimization, safety and reliability. For more information about the MSU, please visit our Youtube channel: VIDEO HS MARINE RELIABLE ELECTRONIC SOLUTIONS - YouTube

### **TECHNICAL & ENGINEERING SUPPORT**

For any technical question HS. Equipment provides all kind of support. Whether it concerns maintenance, repairs, new project application or any other request related to the HS.Marine cranes, advice and engineering support are always available. For special operations, critical lifts or exceptional environmental conditions, it is possible to involve HS. Equipment into the project for assistance or support.

### **MAINTENANCE SUPPORT**

#### **MAINTENANCE ADVICE**

Each HS.Marine crane is completed with its dedicated user's manual, containing all information about preventive maintenance. Timely performance of correct and necessary maintenance activities is important for safe and reliable crane operations.

By undertaking regular checks on the various components, you will keep your crane in excellent conditions during its lifecycle. This will assure a safe working environment for your crew and will extend the lifespan of your crane.

HS.Equipment is able to train your crew, so to improve the maintenance activities. After the logbooks have been checked and a tour has been made, the crew will be shown where and how to improve their maintenance activities, if any. All findings will be reported and supported by clear pictures of the observed improvements.

#### MAINTENANCE EXECUTION

HS.Equipment engineers can care about standard maintenance activities, if required by the crane owner. In addition, they are ready and trained to perform particular maintenance tasks, asking for more specialism or external support. Some examples are:

- Pre-tension checks of stud bolts.
- Measuring of wear on pinions, bushings, sliding pads, sheaves and wire ropes.
- Examination of oil and grease samples.

For these kind of maintenance tasks, HS.Equipment offers support on board until analysis of lab results.

### Maintenance Support

Maintenance Advice

Maintenance Execution

### Parts Support

Spare Parts Advice & Supply

> Stock Keeping

Repairs & Overhaul

### **PARTS SUPPORT**

### SPARE PARTS ADVICE & SUPPLY

Although all HS.Marine crane components are selected on a high quality standard with the aim of minimizing the operational costs, there is always a possibility that wear, damage or weather conditions leads to the need for replacement. To avoid unnecessary downtime it is recommended to have a certain amount of spare parts available (on board).

For each crane HS.Equipment can offer a dedicated list of selected spare parts split in the following formats:

- Long lead spares.
- Operational spares.
- $\bullet \ {\hbox{Consumable spares}}.$
- Tools.

#### STOCK KEEPING

HS.Equipment knows that in some circumstances timing for identification of a problem and for supply of necessary parts is critical.

HS.Equipment strives to have most of the common installed parts available from stock in order to respond quickly to a request. Radio controls, hydraulic filters, valves, seal kits, electronic switches and contactors, levers and mechanical parts are just an example of the parts available from the stock.

HS.Equipment, in strong combination with HS.Marine, is covering almost all part enquiries: the warehouse of HS.Marine premises in Italy contains a huge stock of other components as cylinders, gearboxes, slew bearings, motors or even complete winches.

#### **REPAIRS & OVERHAUL**

HS.Equipment is also able to repair or overhaul components (for example remote controls, cylinders or valves) when it is more convenient than replacing them. HS.Equipment offers such lifetime extension services, to ensure the correct quality standards with knowledge and technical details of the original installed equipment.



### TRAINING SUPPORT

HS.Marine cranes operations, supported by the user's manual, are easy to perform. Nevertheless, trained operators are able to reach the maximum performance without neglecting safety and reliability.

HS.Equipment offers a variety of practical and theoretical training, providing better understanding and comfortability to operate the crane.

#### **OPERATOR TRAINING**

The training can be performed on board or in HS.Marine facility in Italy. Subjects are:

- Recognize the crane parts and components
- · How to drive the crane safely
- · Reading of manual and load diagrams
- · Risk operation evaluation
- Emergency procedures
- Control functions associated with operations.
- Recognize the needs of maintenance or repair
- Limit of operations
- Crane performance

#### **COMMISSIONING TRAINING**

This training explains how to perform the crane commissioning after installation on board.

Subjects are:

- Proper installation review.
- · Hydraulic interface checking.
- Electrical interface checking.
- Functional crane checking.
- Load test and foundation inspection.

### · Safety device efficiency checking.

### MAINTENANCE TRAINING

To keep the crane in an optimal condition, it is necessary to carry out the various maintenance operations periodically as described in the crane user's manual. This training explains how to perform the tasks in the easiest and safest way.

### **ELECTRICAL TRAINING**

This training is aimed to understand the working and faultfinding of the electrical system of the crane. Subjects treated are:

- Information on the remote and local display.
- How to use Emerald software.
- How to use the MSU itself (no need of any laptop).
- How to use the MSU as gateway to Diamond.
- How to use the Diamond software.
- Authorization levels and responsibility.
- How to download the history of the crane.
- · How to troubleshoot common problems.

## **Training Support Operator Training** Commissioning Training Maintenance Training **Electrical** Training





### LIFETIME SUPPORT

### REPAIR, REPLACEMENT & REFURBISHMENT

During the lifetime of a crane there is always a possibility that wear, damage or weather conditions leads to the need for large repair, replacement and refurbishment.

HS.Equipment is supporting such needs by offering a fast response after receipt of notification. An experienced engineer will board the vessel for diagnostics reporting, determination of the cause and preparation of a working plan, so to bring the crane back into safe and healthy conditions in the shortest possible time.

A different brand crane replacement is facilitated by HS.Equipment, with special attention to integration and improved operations.

Some examples of benefits due to a crane replacement:

- · Lifetime extension of the vessel.
- Optimizing operations.
- Increasing reliability.
- Reduction of total costs of ownership.

It is also possible to refurbish an HS.Marine crane which has reached its lifecycle. In preparation of a long term project, working in a remote area or for a lifetime extension of the vessel, clients may obtain for a complete refurbishment of their valued crane.

Some examples of works are:

- Dismantling of all components for sandblasting and repainting.
- NDT on critical welds.
- Reconditioning of gearboxes and motors.
- · Renewal of electrical equipment.
- Replacement of rigging (wire rope, sheaves etc.).
- Overhaul or replacement of cylinders.
- Replacement of slewing ring.
- · Overhaul of winch.
- Replacement of hoses, greasing system and valves.
- · Calibration of sensors.

All tasks are completely documented and supported by pictures. The refurbishment is finalized with a loadtest, if required.

#### **MODIFICATION & UPGRADE**

HS.Marine cranes are specially designed for the user's application and flexible at the same time. However, project or crew demands may change and have new requirements.

The HS.Marine design allows to modify or upgrade the crane so to fit the needs of the new application.

HS.Equipment is open to discuss the possibilities for responding to his requirements, translating into a technical proposal in coordination with HS.Marine and guiding the crane owner to the best solution.

### Lifetime Support

Repair, Replacement & Refurbishment

Modification & Upgrade



### **HS COUIPMENT**

#### HS.Equipment, established in 2013 to provide sales and service support for HS.MARINE cranes.

HS.Equipment B.V. is the exclusive support team of HS.MARINE Srl. The company is established in 2013 to provide sales and service support for HS.MARINE cranes in the Benelux and technical and commercial assistance to HS.MARINE cranes worldwide.

The company is strategically located in Gorinchem (NL), near the ports of Rotterdam and Antwerp as well as Amsterdam's airport Schiphol.

HS.Equipment has selected this strategic location in order to reach easily its costumers all over the world and not just the ones located in The Netherlands and Belgium.

HS.Equipment has a workshop complete with all necessary tools and skilled and trained personnel certified for offshore service.

Sales men are always ready to provide local commercial support by preparation of quotations and technical selections.

#### Efficiency and Quality of the central organization with Flexibility and Reactivity of the of the local team.

HS.Equipment has direct access to the central resources and has the authority to use them without lack of any authorization. Such a company structure optimizes the activities and the services provided to the market because it merges The Efficiency and the Quality of the central organization with the Flexibility and the Reactivity of the exclusive sales support team.

HS.Equipment can always rely on the support of the whole HS.MARINE Company, its stock and its suppliers.

### **HS** MARINE

HS.Marine has a wide range of fully foldable knuckle and telescopic boom cranes, for low deck space occupation and very compact recovering.

All model can be heavily customized versions according to the customers' special applications.

All cranes have been designed and built from the ground up for marine use and are successfully utilized in the most critical application demonstrating reliability.

HS.Marine cranes are designed and built to last.

Low and easy maintenance, reduced spare parts consumption, smaller crane down time and significantly longer time make HS.Marine the best value money can buy.

The marine environment demands equipment of the highest level of quality to ensure reliable and safe operations: HS.Marine cranes are able to satisfy these requirements.

Through experience, service commitment and global presence we provide the best cranes and lifecycle support.

#### **HS.MARINE THE QUALITY SOLUTION**

HS.Marine range include stiff boom, telescopic boom, knuckle boom and knuckle telescopic boom cranes.











FOLDABLE KNUCKLE KNUCKLE & TELESCOPIC

& TELESCOPIC

KNUCKLE BOOM

TELESCOPIC BOOM

STIFF BOOM



**HS O EQUIPMENT** 

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**HS** MARINE

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