

pioneers of steerable propulsion

At Hydromaster we have over 60 years of experience in the design and manufacture of 360-degree steerable marine propulsion systems.



### **Hydromaster**

Originating during the 1930s, steerable thrusters were first operated on a grand scale to propel assault barges deployed in the Pacific, during D-Day installed on ferries to reach Normandy and later on pontoons to cross rivers in mainland Europe. In the early 1950s a license was issued to the UK, from which Hydromaster was born. The original Hydromaster, valued for its robust fully mechanical design, simplicity and durability, still works every day on hundreds of ferries, barges and pontoons worldwide. As well as maintaining the original design, we continue to build on this revolutionary technology by investing in innovative solutions and applying the latest insights and technologies. Our ultimate goal is to provide our clients with the best possible propulsion solutions.

# Markets & Applications

Hydromaster propulsion units are in operation worldwide propelling a wide variety of applications such as tugs, ferries, floating cranes, coastal vessels, inland river barges and specialised military craft.

Our customer base includes governments, armed forces, port, dock and harbour authorities, construction and industrial companies, shipyards and vessel builders. We strive to work closely together with our clients to work out the best solution for their specific application and environment.

From remote locations with no support facilities to the demanding environments of marine contractors and armed forces, Hydromasters work continuously transporting people and vehicles across rivers and lakes, effortlessly serving our clients to propel their business.







#### **Products**

Hydromaster 360-degree steerable thrusters are available as well mounted, deck mounted and through hull versions. In Z and L drive configurations with electric or hydraulic steering. The units can be driven by different power sources and supplied as a full propulsion package complete with diesel engine, electric or hydraulic drive systems. Hydromaster propulsion units are available in a power range of 50 to 600 kW and meet the requirements of all major classification societies.



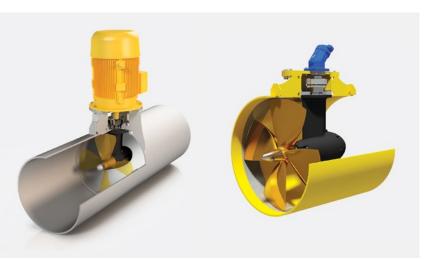
#### **Well Mounted**

In board installation, with the steerable thruster to be mounted from either top or bottom. Hydromaster can supply the full propulsion package including prime mover and intermediate shafting. As an option the thruster can be flexible mounted to reduce noise and vibration levels.



#### **Deck or Transom Mounted**

Fully self-contained outboard propulsion unit with a prime mover that can be either a diesel engine, electric motor or hydraulic pump motor combination. The vertical drive stem can be tilted for cleaning and maintenance with its length tailored to your vessel design. As an option the vertical drive stem can be depth adjustable to allow the units to operate in shallow draft conditions. Low noise and watertight canopies are also available.



#### **Tunnel Thrusters**

Transverse tunnel thrusters combined with electric, hydraulic or direct diesel drive. Either with steel or with aluminium tunnel construction.

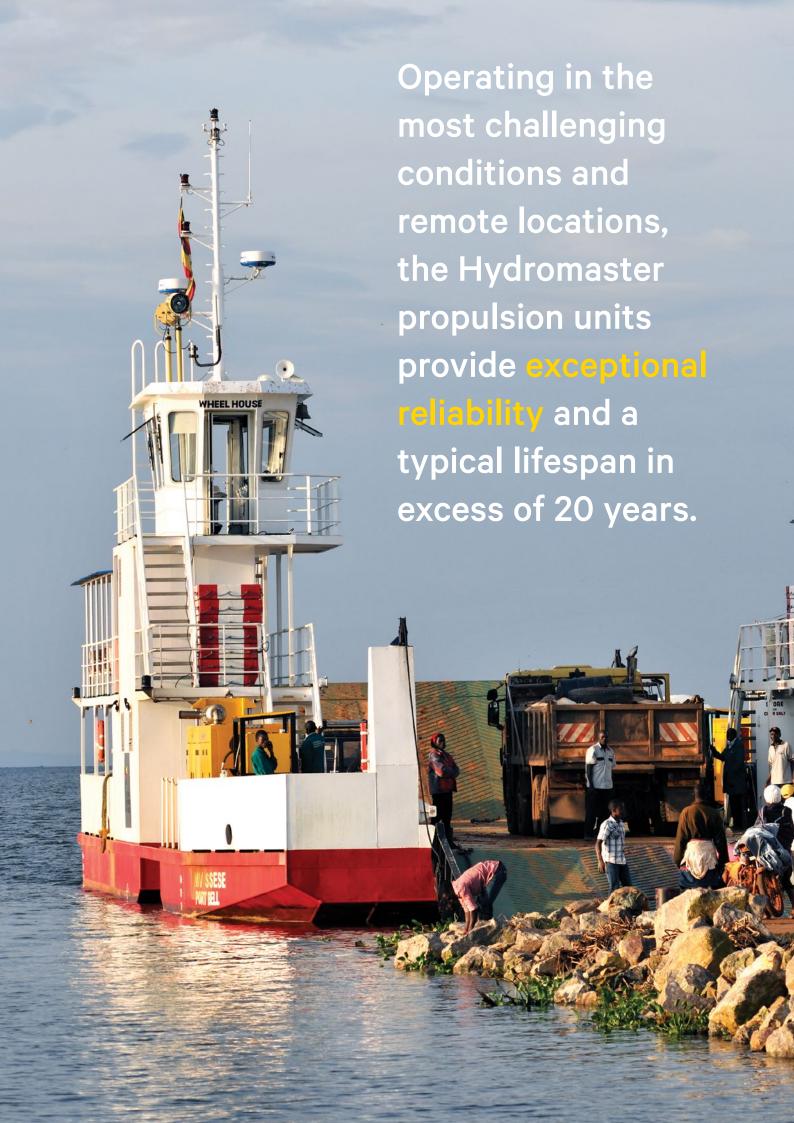
Our depth of knowledge and wealth of experience in this specialised area of marine engineering has propelled Hydromaster to become the preferred supplier of steerable propulsion units in the lower power ranges.

#### **Product Features**

All Hydromaster thrusters share the following key characteristics:

- ~ Continuous 360-degree steering providing optimal manoeuvrability and ease of operation
- ~ Proven gearbox designs using heavy duty gears and bearings, meeting all classification requirements
- ~ Tilting and/or depth adjustment
- ~ Robust propeller shaft seal system
- ~ Optimised gearbox reduction ratios with large propellers producing maximum thrust
- ~ Flexible stem lengths to fit any hull
- ~ Open or ducted Ni-Al-Bronze fixed pitch propeller





## **Control Systems**

We supply our thrusters with Non Follow Up and/or Follow Up controls. A modular system, processor controlled, with touch screen monitoring & alarms. Interfacing with external navigational systems such as autopilot or dynamic positioning systems.

If the application does not require such a level of sophistication, Hydromaster can supply a system which is as simple as possible, with a locally mounted steering wheel hydraulically power assisted with an automatic mechanical backup. This again emphasises our policy to provide the customer with what they need, using smart, cost effective designs and builds.







## **Electric Propulsion**

With increasing demands to accommodate worldwide environmental concerns, Hydromaster has already taken steps in achieving these standards by adapting this technology to meet both our customers and the environmental regulations.

Hydromaster is fully prepared for the new standard in clean propulsion technology, and features a line of Azimuth thrusters to meet specifications of diesel-electric, hybrid or full electric propelled ships.

Packages can be offered for thrusters in conjunction with electric motors, drives and associated control systems.

# **Testing**

The propulsion units are fully factory tested before shipment ensuring a trouble-free and easy installation.



# Quality

Hydromaster units are designed and built to a heavy duty specification using the highest grade materials and components in accordance with the latest ISO 9001 standard.



#### R&D

Using the latest software, calculation tools and technology enables us to provide our clients with the best available innovative solutions.



## Service

Hydromaster supports and services its products worldwide. Directly from the Netherlands, United Kingdom or from one of our many sales & service agents.





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