Thrustmaster of Texas, Inc. is based in Houston, Texas USA with offices in Rotterdam, Dubai, Singapore, Brazil, and India. As the world’s leading manufacturer of marine thrusters, Thrustmaster has maintained its reputation over the years by strictly adhering to its mission statement of both quality and customer service.

Thrustmaster is ISO 9001 certified by the ABS. Thrustmaster field service engineers and technicians provide worldwide support 24 hours a day. Thrustmaster maintains a large inventory of all essential spare parts in Houston, Texas, backed up by a computer controlled inventory system, ensuring same-day shipping of breakdown spares to any destination in the world.

Agent Locations: Argentina - Australia - Brazil - Canada - Colombia - Egypt - England - Greece - India - Korea - Mexico - New Zealand - Pakistan - Peru - South Africa - Taiwan - Turkey - Venezuela

**ABOUT THRUSTMASTER OF TEXAS, INC.**

The Portable Dynamic Positioning System is a Thrustmaster exclusive delivering dynamic positioning in a portable package to include 360° azimuth thrusters, HPU’s and Control Van.

Retractable Azimuth Thrusters with electric (shown) or hydraulic drives are available in a range from 74hp (55kW) to 3017hp (2250kW). Retractable thrusters can be retracted for high speed vessels and then extended upon arrival for Dynamic Positioning or used for emergency get home power.

Hydraulic Tunnel Thrusters up to 2000hp (1490kW) offer wider flexibility to the industry. Hydraulic thrusters as a whole allow the prime mover to be located anywhere on the vessel. The prime mover can be a diesel or electric motor driven.

Standard L-Drive Tunnel Thrusters range from 16in (406) to 84in (2134) diameter and 35hp (26kW) to 2000hp (1500kW) and can be built for aluminum or steel hulls. Electric motors and complete VFD assemblies can be provided and classified.

Underwater Demountable Azimuth L-Drive Thrusters for semi-submersible and large vessels available up to 10,750hp (8MW) for Dynamic Positioning.

Bottom Mount and Drop-in Azimuth Z-drive and L-drive configured thrusters range from 74hp (55kW) to 10,750hp (8MW). These powerful Z and L-drives use electric or diesel prime movers and are perfect for tractor tugs and work vessels needing power and control in all directions.

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**OTHER THRUSTMASTER PRODUCTS**

Contact your Thrustmaster agent for help in choosing the correct thruster for you.

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HPU consists of an industrial radiator-cooled diesel prime mover, a hydrostatic main hydraulic pump operating in a closed-loop system, providing omnidirectional thrust for the outdrive assembly through an arc of 90 or 180 degrees depending on the unit ordered. Hydraulic oil supply for the power tilt hydraulic cylinders and piston rods is contained of suitable alloys to prevent marine atmospheric corrosion. The cylinders are of sufficient volume and stroke to accommodate the hydraulic propeller depth adjustment mechanism if fitted. Routine servicing of the outdrive does not require disassembly of the unit.

The Thrustmaster Model OD Deck Mount units are configured with an integral full-skid mounting for an integrated diesel-hydraulic power unit (HPU) and can accommodate the hydraulic propeller depth adjustment option. The main pump for each thruster is a hydrostatic transmission, over-center, variable-displacement axial piston pump with an electric swashplate controller and operating in a closed-loop system, providing non-stepping, infinitely variable propeller speed control in both the forward and reverse directions without the use of a reversing gear or clutch. A fuel day tank is incorporated in the subbase of the engine mounting skid. The tank provides a fuel capacity of up to 12 hours of operation at full power.

The Model OD-series propulsion unit is provided with a hydraulic power tilt system capable of elevating the outboard drive assembly through an arc of 90 or 180 degrees depending on the unit ordered. Hydraulic oil supply for the power lift mechanism is supplied by a steering and tilt hydraulic pump. Power lift hydraulic cylinders and piston rods are constructed of suitable alloys to prevent marine atmospheric corrosion. The cylinders are of sufficient volume and stroke to provide the full 90 degree arc of the outboard drive while subjected to full propeller thrust loading. The hydraulic power lift system incorporates cross-port relief valves that allow the outdrive assembly to kick up in the event it encounters a subsurface obstruction or in the case of grounding. A diesel-hydraulic power unit (HPU) is provided. The HPU is typically integrated with the outdrive mounting skid. The HPU consists of an industrial radiator-cooled diesel prime mover, a hydrostatic main hydraulic pump operating in a closed-loop system, providing omnidirectional thrust for the outdrive assembly through an arc of 90 or 180 degrees depending on the unit ordered. Hydraulic oil supply for the power tilt hydraulic cylinders and piston rods is contained of suitable alloys to prevent marine atmospheric corrosion. The cylinders are of sufficient volume and stroke to accommodate the hydraulic propeller depth adjustment mechanism if fitted. Routine servicing of the outdrive does not require disassembly of the unit.

Thrustmaster’s model OD Outboard Drive assemblies include the steering motor, drive and stem rotation mechanisms, outboard stem, hydraulic tilt cylinders, hydraulic motor, propeller, and the optional propeller depth adjustment mechanism if fitted. Routine servicing of the outdrive does not require disassembly of the unit.

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The Model OD-N propulsion unit is provided with a fixed-displacement, bi-directional, variable-speed hydraulic motor directly driving the propeller shaft. The hydraulic motor is installed inside the fabricated steel thruster housing. The propeller shaft is supported by large, oil-lubricated taper roller bearings. The motor is capable of complete direction reversal at full speed and torque in less than five (5) seconds. Propeller speed controlled non-stepping in both forward and reverse directions providing excellent performance equivalent to controllable pitch propellers. The hydraulic propeller drive provides superior low-speed maneuvering. The hydraulic motor’s ability to deliver almost full torque at stall ensures precise, lag-free control of maneuvering thrust.

Closed-loop system, auxiliary hydraulic pumps, hydraulic and engine cooling equipment, hydraulic reservoir, filters, hoses and piping, engine exhaust system and all other related parts and equipment.

Propeller Depth Adjustment Mechanism (Optional) - An optional propeller depth adjustment mechanism can be provided to vary the propeller depth for light and loaded draft conditions. Hydraulic oil supply for the mechanism is supplied by a steering and lift hydraulic pump. When the vessel is in shallow water, the propeller can be lifted above or even with the baseline; when in deep water, the propeller can be lowered below the baseline for maximum propulsive efficiency.

**THRUSTMER HYDRAULIC OUTBOARD**
35hp (26kW) - 300hp (225 kW) - Deck Mounted On Vessel
Integrated diesel-hydraulic hydrostatic stepless transmission
90° non-stop stepless steering
90° tilt-up or 180° Tilt-up models available
Nozzle or Open Wheel
Optional Lift Feature (with 90° Tilt-up Only)

**WORKMASTER HYDRAULIC OUTBOARD**
26 To 185 kW - Deck Mounted On Vessel
Integrated diesel-hydraulic hydrostatic stepless transmission
180° stepless steering
90° tilt-up only
Nozzle or Open Wheel
Optional Lift Available (for draft differences)

**TRANSOM MOUNT HYDRAULIC OUTBOARD**
26 To 375 kW - Weld Or Bolt To Stern
Remotely Mounted Separate Diesel Or Electric HPU (Skid or Containerized)
360° Stepless steering
90° Tilt-up
Nozzle Or Open Wheel
Optional Lift (For Draft Differences)

**MINI-SKID OUTBOARD THRUSTERS**
300hp (220kW) To 2000hp (1,500kW)
Outdrive Is Separate From The HPU
Fully Self Contained Fluid/Fuel With 24-Hour Day Tank
360° Steering
90° Tilt Up
Hydrostatic Stepless Transmissions
Internal Manual Control Panels
Custom Stem Lengths

You Will Find Thrustmaster Of Texas, Inc. Units All Over The World

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**FEATURES**

- **Cab-Over (Optional)**
  - Cab-Over feature allows operator protection in inclement weather. They can maneuver the vessel from a better position for safer operation and more precise control.
  - Steering, speed controls, and operating gauges are mounted on a sturdy steel dash.

- **Noise Baffle (Optional)**
  - Radiator noise is substantially attenuated with an insulated baffle that points down toward the deck.

- **Deck Mounted**
  - The standard configuration allows the fully integrated system to be mounted onto the deck using quick and easy right angle weld or bolt plates. The design also accommodates quick release options for more portable systems.

- **Stem Length**
  - Available in any length to meet your outboard application. The stem is entirely supported from the top swivel housing; requiring no intermediate support on the hull.

- **Open Propeller Or Nozzle**
  - Open propeller has anti-cavitation plate to reduce potential for vortex. Nozzle version (shown) uses Kaplan style propeller to increase thrust.

- **Steering**
  - Allows 360° smooth and continuous rotation; with angle indicator on the control panel. (180° on the WorkMaster)

- **Kick-Up / Tilt Feature**
  - Thruster kicks up reducing potential for damage when striking an underwater obstacle.
  - Available in 90° or 180° tilt, the power tilt feature allows for inspection, maintenance, or protection while docked.

- **Lift Feature (Optional-Not Shown)**
  - Adjust depth up and down for shallow water or normal operations.

- **Closed-loop system, auxiliary hydraulic pumps, hydraulic and engine cooling equipment, hydraulic reservoir, filters, hoses and piping, engine exhaust system and all other related parts and equipment.**

**STYLES**

- **THRUSTMASTER HYDRAULIC OUTBOARD**
  - 35hp (26kW) - 300hp (225 kW) - Deck Mounted On Vessel
  - Integrated diesel-hydraulic hydrostatic stepless transmission
  - 90° non-stop stepless steering
  - 90° tilt-up or 180° Tilt-up models available
  - Nozzle or Open Wheel
  - Optional Lift Feature (with 90° Tilt-up Only)

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  - 180° stepless steering
  - 90° tilt-up only
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- **MINI-SKID OUTBOARD THRUSTERS**
  - 300hp (220kW) To 2000hp (1,500kW)
  - Outdrive Is Separate From The HPU
  - Fully Self Contained Fluid/Fuel With 24-Hour Day Tank
  - 360° Steering
  - 90° Tilt Up
  - Hydrostatic Stepless Transmissions
  - Internal Manual Control Panels
  - Custom Stem Lengths
Worlds Largest Hydraulic Thrusters

Thrustmaster produces the world’s largest deck mounted hydraulic thrusters to be used for propulsion or dynamic positioning. Capable of propelling off-shore drill rigs and ships these units are also used in dynamic positioning systems for up to DP-3 class vessels.

The Mini-Skid style (shown right) had two thrusters mounted onto porches that were custom built at Thrustmaster in Texas and shipped to the rig for fitting. The HPU’s were mounted on deck and connections are made with pipe or flexible hose. Two units are used to propel this offshore rig between drill sites where other options are not feasible.

As stated each thruster comes with its own self-contained diesel hydraulic power unit (HPU). The HPU produces the hydraulic power to drive the propeller, provide steering, and operate the swing-up functions of the thruster. The HPU is a fully enclosed design for outdoor installation. Alarm systems, fire suppression, shut down, noise abatement, and control panels can also be be customized to meet customer needs.

Durable Hydraulic Thrusters

These Thrustmaster Outboards (shown right and below) where built for the British Ministry of Defense. The units are mounted directly onto the deck of modular barges and with a quick check of the fluids and filling of the fuel tank the thrusters are ready to go. The engine is radiator cooled eliminating the need for external piping and water pumps that often clog with debris from battlefield conditions.

A variable speed hydraulic motor in the foot of the thruster directly drives the propeller. It is a podded hydraulic sealed motor eliminating the need for the right-angle gear transmissions and drive shafts used on conventional thrusters. Relief valves in the system allow the motor to immediately stop in the event the propeller encounters an obstruction, thereby reducing the potential for damage.

As shown on this model, if the propeller becomes tangled with rope or fishing line the thruster can be tilted up 180 degrees and the operator can then clear the prop quickly and safely.

Options

Thrustmaster Hydraulic Propulsion Units take into consideration the harsh environment of heavy construction projects and the rigid demands of military units.

Recognizing that each customer has different needs Thrustmaster engineers are ready to design options ranging from customer specified engines to platforms that fit your specific vessel. Items such as nozzle shapes and sizes that match one operators desire for speed while another requiring more thrust are common.

Ease Of Installation

Installation of thrusters and HPU’s is accomplished dock side by the use of cranes or hoists. The equipment is modular and can be transported by truck, plane, or barge to even the most remote locations. Installation and mobilization can be accomplished in as little as a few days.

If required a Thrustmaster service technician can oversee mobilization of the system. The service technician supervises installation, commissioning, start-up, and dock trials. Once the system is calibrated at the dock, a brief sea trial is required to test and fine-tune the system.

Simplicity

The hydrostatic transmission is a smoother, more reliable alternative to mechanical transmissions and is the driving force behind Thrustmaster’s hydraulic propulsion systems.

In the hydrostatic system there are no gears, drive shafts, clutches or other complicated parts. The engine operates at a constant speed and there is no need to slow the engine in order to reverse. The propeller goes from full forward to full reverse and back again with full power available right at the source. Additionally, if full thrust is needed in the opposing direction the 360º style thrusters can be turned 180º within seconds.

Full engine speed means that full power is always available for immediate acceleration. In addition to eliminating the energy loss of gear transmissions these hydraulic drives also reduce engine noise. Thrustmaster’s smoothly operating transmission separates and dampens engine and propeller vibrations. The hydraulic drive also offers greater design freedom. No longer must the engine be near the outdrive. Weight distribution can now be optimized for any vessel design.

Flexibility In Design

Every vessel has unique design requirements. The decks footprint requirements, freeboard, head-logs, draft, and even control locations are major issues related to the effectiveness of the propulsion system. Thrustmaster can build-to-order to meet these challenges.

From concerns such as turning the HPU sideways, to providing a custom mounting for the lower unit, Thrustmaster engineers will work with you to deliver what your specific application needs.