

Hercules

HYDRAULICS LTD



Hydraulic Propulsion Systems
including Drive Pods
Total Hydraulic Solutions and Services
Knowledge is our strength

Hydraulic Propulsion Systems

We believe we are the country's leading experts in this field of engineering.

Celebrating 10 years of providing hydraulic propulsion systems in 2014, we have an experienced team who will design a system to match your exact requirements, whether they be for an ocean going vessel, inland waterway use or a commercial work boat application. All our systems are fully tested so we obtain accurate and actual HP and torque figures; this enables the propeller supplier to provide the most efficient propeller for the application and one that suits the engines power torque curve.

If you require proportional control, electronic proportional control, remote control, a hydraulic system for a fixed speed engine, or a system that allows you to integrate other hydraulic equipment such as a thrusters into the same system please contact us.



Classic Wooden Vessels



Narrow Beam Canal Boats



Workboats 40HP to 90HP

Fish Farming



Tugs



Wide Beam Canal Boats

Yachts



Basic Hydraulic Propulsion System

A highly efficient (approx 18% losses), quality system with a life expectancy of up to 30 years.

We in build a boost filter arrangement, which allows the use of a small and compact oil tank arrangement. The boost unit also serves other purposes such as maintaining a positive pump suction pressure, which can be crucial when the ambient temperature is very low.

The hydraulic motor has inbuilt taper roller bearings on its output shaft which can with stand the full thrust of the propeller shaft in both directions. This removes the need to include a thrust bearing assembly on the propeller shaft if the hydraulic motor is going to be installed in a conventional manner.

There are a wide variety of ratios available, with the most commonly used being between the 2:1 and 3:1.

All the different drive motors can be specified to suit our Drive Pods.



Products from Hercules Hydraulics Drive Pods

Hercules Hydraulic Drive Pods are recognised to be amongst the best, if not the best, available anywhere in the world. They offer a simple and easy to install alternative to other forms of propulsion.

- No more expensive parts to purchase and organise – all you need is a Drive Pod
- No more leaking stern glands
- No more damp bilges
- No more condensation problems
- No more alignment problems
- No more maintenance problems – it's a sealed unit; no grease or oil required
- No more vibrational problems
- No more torsional problems
- No more installation problems
- No special tools required for installation
- No technical or engineering knowledge required for installation.
- No expensive, technical labour required for installation
- Takes only 30 minutes to install. Simply bolt it in, a DIY job
- Simply ask the boat builder to weld the tube in and you bolt the Drive Pod into it
- Allows you to position the engine where it best suits your needs
- The most cost effective method of overcoming common propulsion system problems
- No more leaks
- No more worries

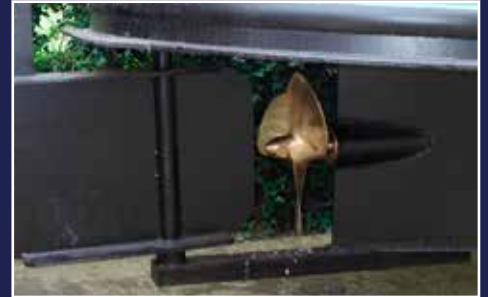
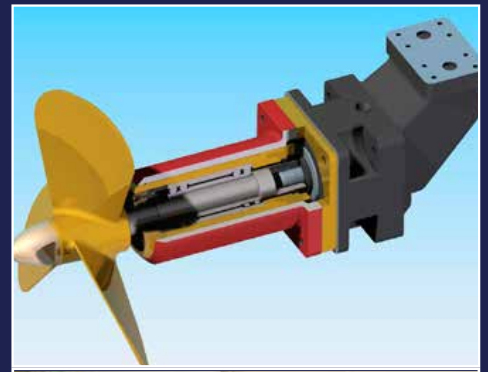
Outboard Hydraulically Powered Drive Leg

All the advantages of hydraulic propulsion in an outboard.

The Hercules Hydraulics HDL50 has been designed for continuous duty and to deliver power and torque just when and where it is needed.

Of stainless steel construction the outboard Drive Leg has a hydraulic cylinder for steering and may be tilted for use in shallow water or just to clean debris from the propeller. There is the option of a vertical slide function in place of the tilt mechanism.

Installation is simple and the HDL50 has been designed to offer all the advantages of hydraulic propulsion for workboats, particularly those with a need to operate in shallow water.



Total Hydraulic Drive for Narrowboats

In partnership with Beta Marine, we now offer a comprehensive range of engines to provide total and totally integrated hydraulic propulsion solutions for narrowboats.

BETA MARINE

www.herculeshydraulics.co.uk

Telephone 01803 666623

Why Choose Hydraulic Propulsion?

Hydraulic propulsion can be used in a range of different marine applications and offers many advantages:

- **Simple installation**

With most systems only flexible tubing is required to connect between the components, there are no alignment issues between the engine and the propeller shaft. Technical installation labour is vastly reduced to that of a conventional drive system.

- **Engine positioning**

Hydraulic propulsion systems allow you to position the engine any were you like within the vessel, thus allowing the boat designer to make the best use of the space available. This can be especially useful in the hire market.

- **Low maintenance**

Systems require less maintenance than comparable alternatives, which again can be particularly useful in the short let hire market, where the vessel may be in inexperienced hands.

- **Multiple drive systems**

If required two propellers can be driven from a single engine, this can improve manoeuvrability. A propeller is less efficient when going astern, hydraulics can compensate for this, thus allowing the same power to be used in both directions.

- **Ancillary drives & other hydraulic equipment**

Other hydraulic systems can be integrated into the propulsion system, thus reducing the need for extra PTO etc.



- **Maximized propeller efficiency**

Upon commissioning it is not unusual to find a propeller slightly over or under pitched. The hydraulic system can be slightly adjusted to compensate for this thus maximizing the vessel's performance.

- **Instant response**

Full ahead or full astern can be selected immediately with no delay.

- **Propeller protection**

In the event of propeller becoming fouled, no damage will be incurred to either the hydraulic system or engine due to a pre-set system pressure relief valve.

- **Alignment of propeller**

The flexibility of the hydraulic drive allows the boat designer to best position the angle of the propeller, thus allowing for the best boat trim being achieved, reduced noise level and improved service accessibility.

- **Less vibration, less noise**

If installed correctly a hydraulic propulsion system can be quieter and transmit less vibration than a conventional system.

- **Propeller thrust**

Full thrust can be taken directly onto the piston hydraulic motors taper roller bearings without the need for any additional bearing assemblies; we can also supply the system with a proportional control valve, which will give infinite propeller speed and torque control.

Knowledge is our Strength



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Hercules Hydraulics was established on expertise built through in-depth practical experience accumulated over many years of service to operators of vessels and industrial plant throughout the UK, Europe and Worldwide.

Our experienced team of hydraulic, pneumatic, electrical, electronic and construction engineers are able to provide a total hydraulic service, whilst back at base our design and manufacturing capabilities provide solutions to suit your requirements.

- System design, Supply, Installation & Commissioning
- On site fault diagnostics
- 24 hour Mobile Breakdown & Repair Service
- Insurance work, surveys and consultancy
- On site planned and preventative maintenance
- Mobile flushing rigs and contamination monitoring
- On site oil conditioning and analysis
- On site hose manufacture
- Accumulator testing and recharging
- Machining and fabrication
- Training – on-site or in-house

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