



# TOTAL CONCEPT SOLUTIONS

**PETTER'S MARINE HYDRAULICS (PMH)** has since 1967 manufactured and delivered mechanical equipment to the off-shore, passenger transportation, fishing, shipping and aquaculture industries. From our main line of products we offer a wide range of thrusters, capstans and winches and other deck equipment, with both hydraulic and electric drive. We also supply vessel maneuvering systems such as the **MOTOR, PITCH AND THRUSTER CONTROL (MPTC)** system together with a dynamic positioning system: **KEEP POSITION (KP)**.

A very important part of equipping a vessel is not only to install the equipment needed, but also to make sure that everything onboard are optimized together in a manner of satisfaction. When investing a great amount of money in a vessel, it is of utter importance that the vessel is capable of performing the tasks it is intended to. Equipping a vessel requires experience, knowledge and competence, of which **PMH** claim to be one of the leading companies in Norway. In close cooperation with the customer, designer and ship builder, we provide the **TOTAL CONCEPT**.

A **PMH TOTAL CONCEPT VESSEL** is a vessel equipped to operate in demanding environments and tough conditions, providing **EXCELLENT** performance and high **RELIABILITY** in a **COST EFFICIENT** way.

## DOCUMENTATION

**PMH** provides the ship owner, designer and ship builder with complete documentation of all systems and equipment delivered by **PMH**. This documentation will be customized for each individual vessel and function as blueprints for the yard installing the equipment. Once commissioning has been completed, two sets of documentation of both electrics and hydraulics will be delivered to the ship owner for future service purposes. The documentation will also be stored in our archives

## ELECTRONICS AND AUTOMATION

A major part of our **TOTAL CONCEPT** solutions is the streamlining of the bridge layout, where the aim is to organize the working environment, making it pure and tidy. This is achieved by integrating several accompanying systems into one single control panel, from where the operator can manage and monitor every part of the systems. For

example, we integrate all handling of engine power, propeller pitch, rudder control, thruster control, clutching, PTO, hydraulic pumps, tank monitoring and so on, into the **MPTC** system. A single control panel and operator screen manages all these units individually and automatically, and it can be done from multiple operator stations: main bridge position, bridge wings or deck position. The real beauty is that each operator station only requires one single cable from the main technical cabinet, making the system very easy and cost efficient to install.

## HYDRAULICS AND MECHANICS

**PETTER'S MARINE HYDRAULICS** has a long tradition in designing, supplying and maintaining hydraulic systems. Our main focus in hydraulic system design is durability and reliability. In doing so, we aim to supply sufficient capacity, cooling, prevention of overload and redundancy. We also use mostly standard parts which are easily available in most warehouses for hydraulic equipment. One company delivering all hydraulics components assures the customer that the hydraulic systems will be designed with the sufficient hydraulic capacities to handle all equipment.

**PETTER'S MARINE HYDRAULICS** has skilled construction engineers that design mechanical equipment in regard to standards and regulations of class societies such as DNV GL, ABS, Lloyd's and BV.

## TECHNICAL SERVICE AND SUPPORT

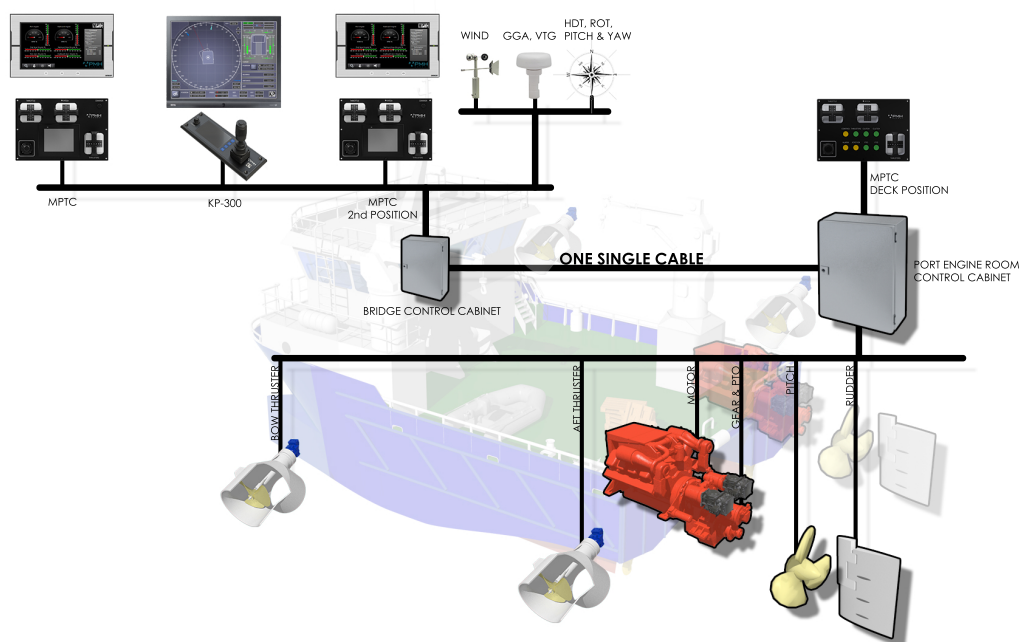
**PETTER'S MARINE HYDRAULICS** has an experienced team of engineers and technicians that provides on-site, technical support for our products, solutions and systems. We offer customers service contracts that assure that all **PMH** equipment is routinely serviced and maintained so it will function in accordance to expectations. This includes periodic service, follow-up on specific equipment and software updates for electronic systems. We also offer proactive service contracts that guarantee on-site support as soon as possible, 24 hour telephone support, remote access support (internet) and a warehouse stock guarantee for a selection of spare parts defined in the contract.

With the **PETTER'S MARINE HYDRAULICS'** support contract, the customer is guaranteed help on a short notice, reducing break down periods and economic losses to a minimum.



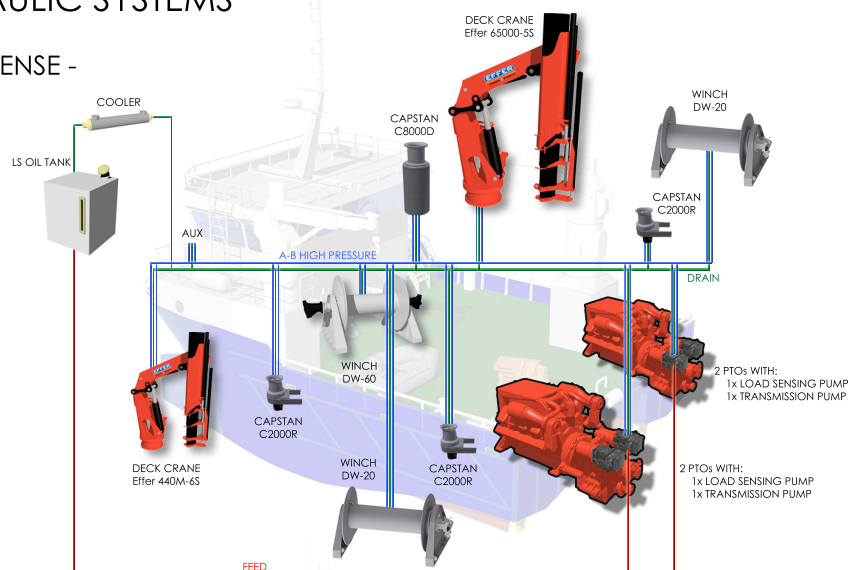
## ELECTRONIC SYSTEMS

### - VESSEL CONTROL -

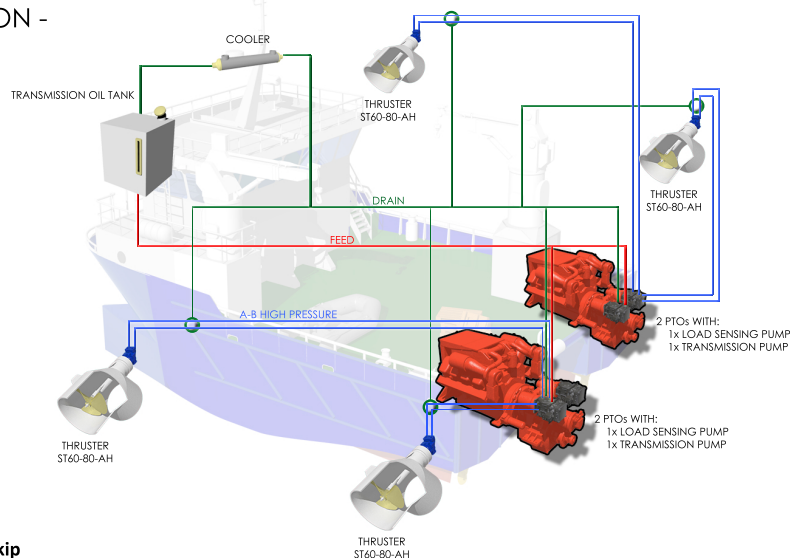


## HYDRAULIC SYSTEMS

### - LOAD SENSE -



### - TRANSMISSION -



PMH has produced and supplied robust, high quality solutions for maritime vessels for over 50 years.

Our customers know PMH products as stable and robust. Our employees are rich in know-how, solution-oriented, receptive and have a wide range of mechanical and technical skills. Equipment from PMH is supplied to customers within the offshore, personnel transportation, fishing, freight and aquaculture industries.

Our products include maneuvering systems, hydraulics, total concepts, thrusters, capstans, winches and safety equipment.



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