



Press Release

Marine Propulsion Systems

Page 1/3, 01.10.2011

ZF Marine - Everything for the control and propulsion of pleasure craft

ZF Marine offers motor yachts and sailboats a broad range of systems and products to enable maximum choice and flexibility when configuring any type of propulsion solution.

For traditional shaftline propulsion, ZF Marine provides all the necessary components including transmission, propeller shaft, struts, bearings, rudders and rudder supports. These components are developed and produced using high quality materials and advanced technology in order to optimize efficiency and ensure the highest reliability and durability.

In the pod drive arena, the new **ZF POD** system range provides increased propulsion efficiency, easier boat maneuvering and reduced fuel consumption which also ensures less impact on the environment. The range covers various models for engines up to 1200 hp and motor yachts of up to 120 feet in length. In the event of striking underwater debris the ZF POD unit's aft-facing counter-rotating double propellers are protected by the front-facing torpedo and 'disposable' pod gear casing. For increased safety and to minimize damage the unit is designed to shear below the hull if coming in to contact with any substantial object. For the boatyard, ZF POD units offer total flexibility through their fitment to existing boat hulls in "tunnel" or "dead rise" configurations.

With the recently introduced **ZF Single POD Propulsion System** a boat with only a single **ZF POD 2500** drive unit can be configured; along with a **ZF BT** bow thruster and the **ZF SmartCommand** electronic control system. This innovative package provides unprecedented fuel efficiency and, until now, a level of control usually only expected with twin pod drive systems. The total solution is delivered with the **ZF JMS** joystick maneuvering system and all related functions including the electronic "iAnchor".

ZF POD 2500 Hybrid and ZF POD 2800 Hybrid solutions allow motor yachts with lengths up to 50 feet to maneuver silently and without any emissions through the use of an electric motor of up to 70 kW. These hybrid models operate with the same ZF propulsion systems line which matches to diesel engines of up to 1500 hp.

The new **ZF Bow Thruster** has been designed to run continuously for up to 30 minutes, providing increased propulsion efficiency of up to 20% while reducing noise considerably.

Marine Propulsion Systems
Communications

ZF Padova S.r.l.
35030 Caselle di Selvazzano
Italy



Press Release

Marine Propulsion Systems

Page 2/3, 01.10.2011

ZF Marine is a worldwide leader not only for propulsion systems, but also for electronic control systems for all types of vessels. The company's new control products underline the innovation of ZF in the marine market while delivering unprecedented driving experience.

Motor yachts can be equipped with the **ZF SteerCommand** electronic steering system which transmits feedback from the boat to the pilot in a way never experienced before. The servo-assisted and independent movement of the two rudders in a typical twin engine motor yacht provides unrivalled maneuverability, combining exceptional low speed responsiveness with high speed sensitivity. In addition, the automatic repositioning of the steering wheel to the center position guarantees highest comfort and increased safety.

ZF's **Joystick Maneuvering System (ZF JMS)** allows even large vessels using shaftline or pod drive propulsion systems to maneuver easily and intuitively. The **JMS** system is totally unique: determining the direction of the boat, correcting and controlling the action of the engines and the directional propellers to follow precisely the maneuvers given through the joystick. The **Hold Heading** function maintains the direction of the vessel while the **iAnchor** function automatically keeps the vessel in position against wind and current.

For sailboats, the **Sail Drive (ZF SD)** can be matched to engines of any brand and offers increased efficiency compared to traditional propeller shaftline systems as well as greatly enhanced maneuverability. In addition, there is more freedom for positioning the engine which allows more flexibility for the interior design as well as reduced vibration. Easily installed, the system can be integrated with the **ZF Joystick Maneuvering System (ZF JMS)**.

ZF

ZF is a leading worldwide automotive supplier for Driveline and Chassis Technology with 117 production companies in 26 countries. With its workforce of approximately 70,000 employees, ZF achieved sales of 12.9 billion euros in 2010. In order to continue to be successful with innovative products, ZF annually invests about five percent of its sales (2010: 646 million EUR) in Research and Development.

Marine Propulsion Systems
Communications

ZF Padova S.r.l.
35030 Caselle di Selvazzano
Italy



Press Release

Marine Propulsion Systems

Page 3/3, 01.10.2011

ZF Marine

The Business Unit “Marine Propulsion Systems” is a leader in the marine market. Coordinated through its headquarters at the location ZF Padova, Italy, ZF Marine has in the year 2010 a total of 14 plants located in Italy, Germany, The Netherlands, United Arabian Emirates, Turkey, USA, Brazil, China, Indonesia, Singapore, and Taiwan with 1,470 employees and sales of 247 million Euro.

ZF Marine supplies complete propulsion systems and components for all types of vessels - motor yachts, defense craft, high-speed ferries, workboats and commercial vessels, in a power range from 10 to 14,000 kW - to customers including major shipyards and engine manufacturers worldwide.

The product portfolio includes a comprehensive range of transmissions (reversing, non-reversing and hybrid), propellers (controllable and fixed pitch) together with associated shafts, seals and bearings, also POD-drive systems, steering systems and CANbus-compatible, electronic control systems, azimuth thrusters, tunnel thrusters, bow thrusters and sail drives.

www.zf.com/marine

PRESS CONTACT

Europe + RoW:

Thomas Jaffke, Marketing Manager ZF Marine

tel. : +39 049 8299 568; e-mail: thomas.jaffke@zf.com

USA, Canada, Central America:

Martin Meissner, Marketing Communication Manager USA

tel.: +1 (954) 441 4052; e-mail: martin.meissner@zf.com

Marine Propulsion Systems
Communications

ZF Padova S.r.l.
35030 Caselle di Selvazzano
Italy