

JP3
STEERING SYSTEMS



FBS
Feed Back Sensation by JP3

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JP3 Creates Feed Back Sensation for Hydraulic Steering Wheel

For the first time, a super yacht helmsman can enjoy the sensation of force feed back from the rudder while steering with a hydraulic system.

Up until now, a mechanical system was the best way to achieve helm sensation and rudder response. However, the two biggest restrictions for this set-up are 1) the number of turns lock to lock, and 2) the complicated (and often long) distances that cables must travel through bulkheads and super-structure.

The alternative is a hydraulic system, powerful with fewer turns and easier to install. Unfortunately, hydraulic systems cancel out helm sensation on the wheel and diminish the pleasure of steering these big sailing boats.

To overcome some of the limitations of these systems on large superyachts and react to the needs of the market, JP3 has developed a brand new steering system called the Feed Back Sensation (FBS). JP3 specializes in high end steering systems and supplies numerous superyacht shipyards with custom mechanical systems: gearboxes, quadrants, blocks and vectran lines. In fact, the entire fleet of Volvo 60s currently racing in the Volvo Ocean Race is using JP3's products.

The FBS combines a hydraulic system, and custom software development to create a steering systems that delivers the ultimate in control: a feed back sensation on the wheel.

Sensors measure rudder angle and load and send this information to a programmable logic controller (PLC). Instant analysis of this data then transfers an output command to a rotary hydraulic drive connected to the helm thereby creating the feed back sensation at the wheel. Transversely, the wheel information also goes through the PLC to activate rudder rams.

The FBS is totally adjustable through a touch screen display at the helm. Parameters such as rudder angle, wheel turn and FBS torque modify the wheel reaction, adapting to each helmsman's profile and specific weather conditions. The helmsman can increase or decrease sensation to ensure maximum comfort while sailing. Plus, it can be switched on "motoring mode" which cancels torque when maneuvering within a harbour. If autopilot is on, it will automatically have priority over the FBS system and a manual pump and clutch are in place in case of emergency.

FBS is not only available for all new builds of super yachts, but can be retro-fitted to existing yachts as well. Individual FBS components can also be supplied to match existing power packs and steering systems made by other manufacturers. There are no limitations to retrofit an existing system – only minimum power pack requirements are needed to ensure the best FBS performance.

While it was initially designed with sail boats in mind, the FBS is also ideal for motor yachts. With the feel of the wheel, drivers can anticipate waves and surface changes, making for a straighter course with more comfort and safety. But most importantly, a straighter course means better fuel efficiency – get there faster AND save money on fuel!

JP3 considers each vessel individually in conjunction with designers, project managers and yard specifications to develop a recommended system. As each system will be semi custom, pricing is available on request.

The JP3 network covers all the major international superyacht bases with dedicated agents in New Zealand, USA, Germany, Italy and Spain. Please visit www.jp3steering.com to watch the film introducing the company, then click on the FBS tab to learn more about the FBS system.

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