BOSS™
Barke Optimised Steering System

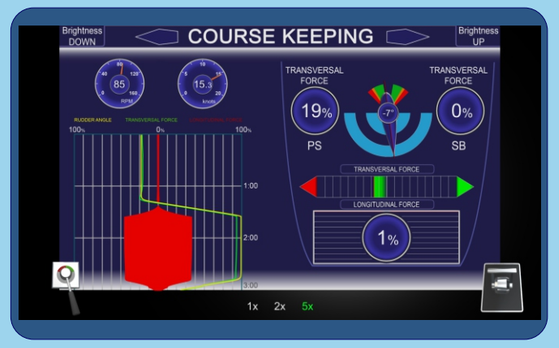
During 2014 the first two ships from a series of eight 6700 ceu PCTC vessels will be equipped with BOSS™ and Van der Velden® rudders.

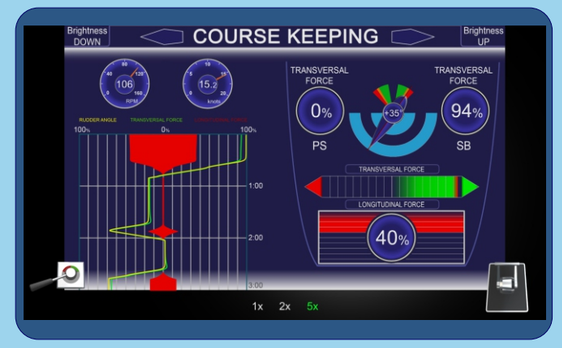
In 2013 two shipyards of CSSC group have secured an order for three ultra large container vessels of 16000 teu for long time charter of CMA CGM. The vessels will be equipped with BOSS™ and Van der Velden® rudders.

Van der Velden Marine Systems B.V.
Dorpsstraat 67a P.O. Box 2061 2930 AB Krimpen aan de Lek The Netherlands
T +31 (0)180 511577 marinesystems@vdvms.com www.vdvelden.com

MARINE SYSTEMS
VAN DER VELDEN®

BOSS™
Barke Optimised Steering System





Enhanced Performance by Rudder Force Measurement

- The rudder force generated for specific angles is not measured or displayed by any of the ship's navigation systems. In order to optimise manoeuvrability when steering manually or automatically, BOSS™ is able to calculate the rudder forces by measuring the bending of the rudder stock.

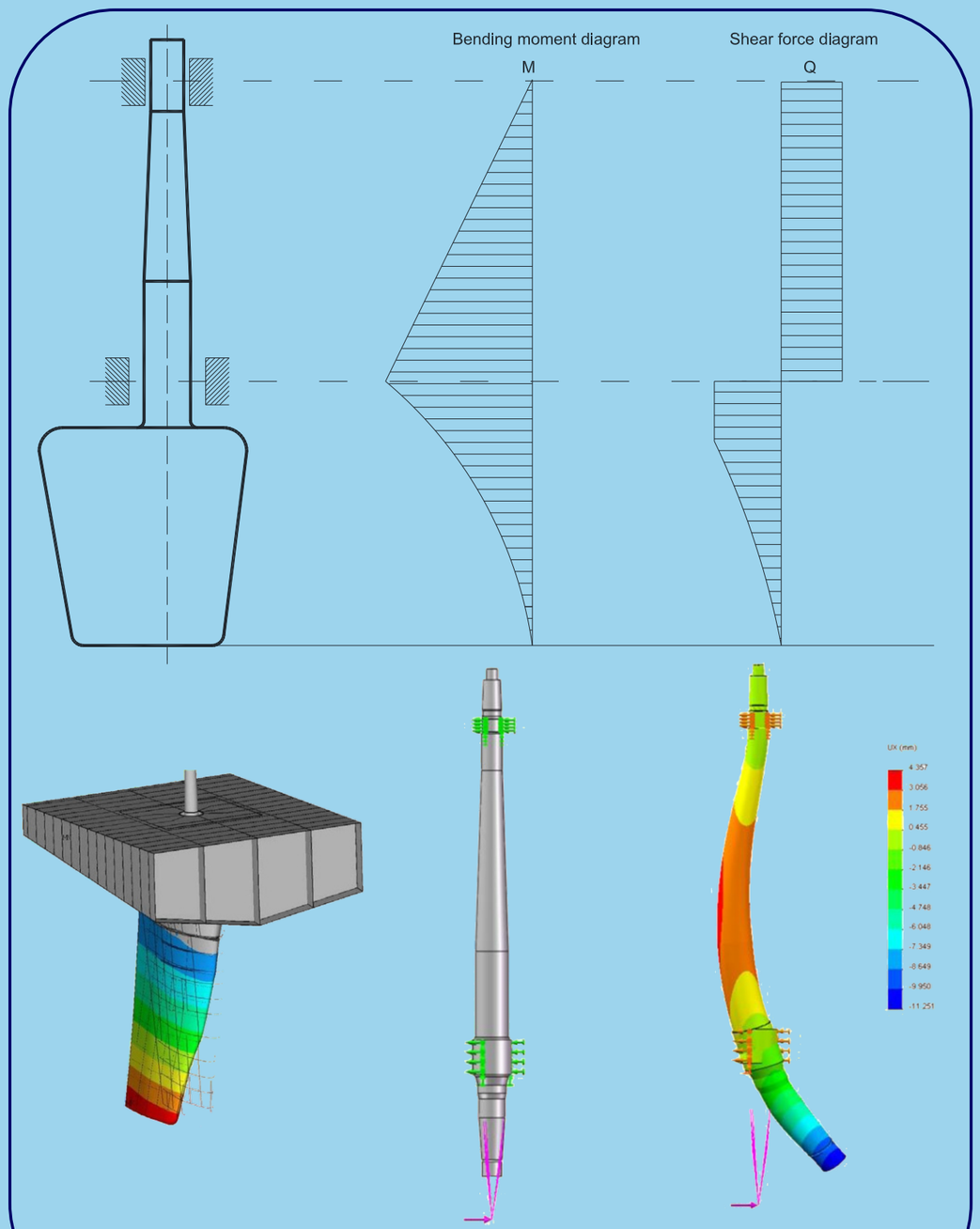
- The measured values are displayed on a touch panel on the bridge and can be transferred to the ship's navigation system.

- Reducing rudder movements, manoeuvrability is improved and sailing on Autopilot mode reduces the overshoots, shortening the travelled distance and so reducing fuel consumption.

BOSS™
Barke Optimised Steering System

MARINE SYSTEMS
VAN DER VELDEN®

FORCES ON BLADE AND STOCK IN SERVICE



RUDDER FORCE MEASUREMENT

By means of strain gauges BOSS™ is measuring the bending and torque of the stock and then calculates the transversal and longitudinal force of the rudder.

BOSS™ is currently certified by Bureau Veritas (BV) and Det Norske Veritas (DNV).

BOSS™ INSTALLATION

There are currently two options which can be chosen for delivery:

- BOSS™ mechanical preparation
- BOSS™ fully installed

Redundancy is ensured by a double set of 3D sensors on rudder stock.

BOSS™ COMPONENT LAYOUT