(*1) Yacht GALACTICA, Heesen Shipyard.

FAMON
HULL MONITORING SYSTEM

Hydrographic & Marine Consultants BV
AN INDEPENDENT ENGINEERING ORGANIZATION

TECHNICAL DATA SHEET
HULL MONITORING SYSTEM (FAMON)

The combination of HMC BV´s loading instrument CPC with a module for online strength measurement fatigue monitoring (FAMON)
HMC has developed a hull monitoring system for yachts, which will include a fatigue analysis module that will calculate the accumulated fatigue damage at stress points in the yacht's hull. This system will collect useful data on the vessel and monitor service life,
in the expectation that in the future the vessel will be able to advocate for reduced maintenance.

This will allow the customer to validate the behavior of the hull and the performance of the structure during sailing.

BENEFITS
SHIPOWNERS / CHARTER COMPANY

- Performance and design feasibility testing.
- Reducing hull repairs and supporting the implementation of ISM regulations at the same time.
- Hull monitoring gives to the shipyard assistance on the refiting during the dry dock.
- Warranty claim material support.
- Monitoring of intelligent and prudent handling by the crew.
- Decision support for safe and economical navigation.
- Increased knowledge will ensure the quality of the vessel's design.
- Safety and efficiency.
- Environmental protection.
- Drydock interval relaxation in case the vessel has a hull monitoring notation.

HMC BV
www.hmc.nl
Tel: +31 (0) 36 5464775 / e-mail: info@hmc.nl

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BENEFITS
SHIPYARD

- Performance and design feasibility testing.
- Data acquisition to optimize and support the retrofit business.
- Hull monitoring gives to the shipyard assistance on the refiting during the dry dock.
- Warranty recovery.
- Insurance: Hullmos is an on-board surveyor.
- Increased knowledge will ensure the quality of the vessel's design.
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- Environmental protection.
- Data acquisition to support new innovative designs.

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REAL TIME INFORMATION ON STRAIN, STRESS AND FATIGUE

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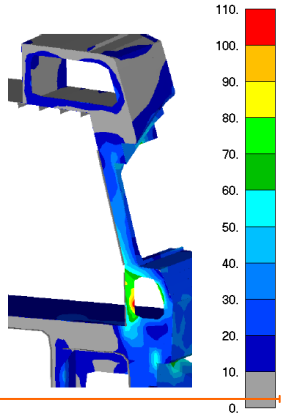
DEFINING THE STRESS POINTS
LOCATION POSITION OF THE OPTICAL OR ELECTRCAL SENSORS

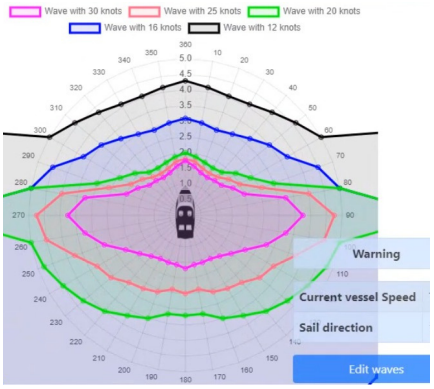


First, locations, where highest stresses are likely to occur, are determined using FEM simulations on the Finite Element Model of the client's vessel. These are the locations where measurements will be performed.
After post-processing, a fatigue damage figure is derived from the strain datasets.

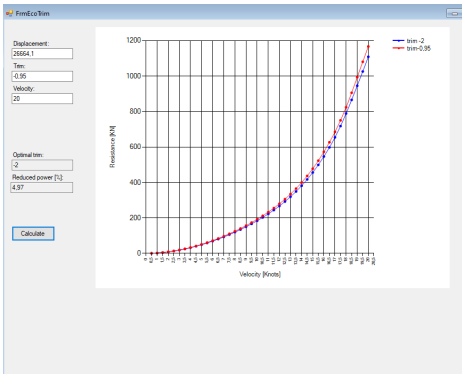
HMC BV SOLUTIONS
FOR THE ASSESSMENT OF SAFETY OF NAVIGATION

In combination with the Famon and the CPC 2.0, the Polar Diagram 3D provides real-time information about the weather conditions in which your vessel is sailing, giving the crew suggestions on course and speed. Knowing the stress that the vessel is having during sailing with FAMON in combination with the weather overview from the Polar diagram the captain can have a complete understanding of the vessels behavior during sailing.In addition, Ecotrim calculates the optimal trim for the speed and condition of the vessel for better power efficiency.

CPC 2.0
Loading computer system



POLAR DIAGRAM 3D
Computes typical parameters of the wave field around the vessel based on weather forecast providing course advice



ECO TRIM
Computes typical parameters of the wave field around the vessel based on weather forecast providing course advice

(*1) Reference: The Hullmos was installed on the Yacht GALACTICA - 2022, 80 mt., built by the company Heesen shipyard, for structural assesment of the hull during voyage and the Polar Diagram 3D with online connection with the weather forecast for voyage monitoring.

Reference: The mega Yacht Ecstasea built by the company Royal Van Lent Shipyard, has the HULLMOS monitoring system installed on board.

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