



HMC presented a paper at the OMAE 2014

Press release: June 11th 2014

On June 8th 2014, HMC successfully presented a paper about Proposed rules for fatigue in offshore Transport Engineering.

The presented paper described the history of special transport and the impact on the development of rules to keep in pace with the technical developments to assure safe transport. Interviews with experts in the industry confirm the need for common rules for fatigue assessment in transport.

Various damages in transports of JU Rigs, modules and topsides were investigated and fatigue appeared to be the reason of the damages and the need to develop a standard tool for transport engineering is defined by the oil majors, transport contractors and marine warranty surveyors. Oil companies require that the fatigue damage during transports is less than 20% of the total design fatigue life and in concert with oil companies HMC developed a methodology to assess the fatigue in a realistic way. HMC measured that fatigue determined based on the design wave used for design and the maximum values of each of the RAO's in the 6 degrees of freedom acting at the same time result in values that are not realistic. HMC's existing fatigue-design methods can estimate fatigue lifetime. A 4D-Fatigue research program is defined to develop to better estimate fatigue lifetime of welded details subjected to multi-axial, non-proportional and variable-amplitude stresses. Sensitive, heavy and fatigue is a major issue in heavy transport and needs to be addressed in transport engineering

In HMC's presentation, we came to the following practice for fatigue assessment, at first perform you have to perform global analyses to assess the impact of fatigue. The importance is emphasized that design engineers must take into account forces on structures induced by ocean transport.

HMC advices to develop common rules for fatigue damage calculations and monitoring.

For a copy of HMC's paper or more information please contact our office at info@hmc.nl



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