



Hull Inspection Techniques & Strategy (HITS) Joint Industry Project

The Challenge

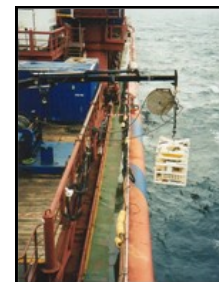
As understanding in the management of Floating Offshore Installations (FOIs) has grown across the offshore Oil & Gas industry, so too has an appreciation of the criticality of FOI hull structures.

Previously the hull was seen by many operators as merely the platform upon which the production and/or process equipment was located. The hull condition was considered as low risk by many, the product of a probability of failure that was considered low and a consequence that was not generally well understood, but considered not particularly significant. The hull had, after all, been designed and constructed to Classification Society Rules which stemmed from over 200 years of experience with ocean going vessels.

However, the philosophy in Class Rules is that the hull undergoes a robust five yearly cycle of surveys to confirm and assure its continued integrity. Part of that cycle includes drydocking the vessel. Unfortunately, as the industry is well aware, an FOI is not as easy to drydock as a trading ship and indeed when drydocking has proved necessary, the costs and production deferment has been significant. This has resulted in significant challenges to operators in managing the hull integrity of their floating installations.

Since, in many jurisdictions, Classification is not mandatory, some operators have chosen not to class their assets. Instead they extend the concepts from structural integrity management strategies of their fixed assets to cover their floating assets and have sought to develop techniques to inspect the submerged hull and the internal cargo and ballast tank structures themselves. However, the safety and financial implications of inspecting floating assets pose a number of technical challenges:

- Use of divers versus ROVs
- Confined space entry concerns with tank inspections
- Tank cleanliness for inspections
- Production impact
- Dealing with marine growth
- Subsea hull coating condition
- Seachests and shipside valves
- Rudders and propellers



Inspection techniques and the information obtained therefrom are key parameters in the assessment of structural integrity. But are these parameters well identified? What data is needed to assure hull integrity? What is the best way to obtain this data? Will the data gathered assure class and/or regulatory compliance?

The Solution

It is sensible that the industry collectively assess exactly what they wish to achieve from their hull integrity strategies and that these strategies can be translated into practical, effective and compliant hull integrity and inspection plans. This will be the basis of a Joint Industry Project (JIP) that will address the question of operator requirements and will include taking a broad input from Operators, Classification Societies, Regulators, Equipment Manufacturers and Inspection Contractors and thus develop clear guidance on hull structural integrity requirements and strategies.

A second phase of the JIP will focus on identifying and developing selected inspection methodologies and testing them in the field, resulting in recommendations and a cost benefit analysis for implementing an optimised hull structural integrity strategy.

To request more information on the JIP please contact
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