

An introduction to hull design practices for deepwater floating structures^(PDF)

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Title: An introduction to hull design practices for deepwater floating structures

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摘要:

The concepts of floating structure plays a very important role in deepwater projects; and the design of the floating structure is one of the most important tasks in the project. The importance of the floating structure in offshore projects can be demonstrated in the following several areas: the substantial dynamic structure responses due to wave loading and current loading; the limited motion requirements of risers in deep water; and the increasing difficulty of installation for different components of the system. Three major technical aspects have to be considered, i.e. the strength of structure, the fatigue resistance capacity of the system, and local and global stability of the structure. This paper reviews the current design practice of floating structures, evaluates the main tasks during the design and associated major technical requirements, and addresses the major technical challenges encountered during the design. As a close-out of the paper, the authors discuss some potential future developments in the design of floating structures.

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