An Introduction to Engineering and Construction of TMT Deepwater Drillship
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ABSTRACT
This paper provides an introduction to the TMT Deepwater Drillship which is the first standard drillship project of DSME (Daewoo Shipbuilding and Marine Engineering Co., LTD.). The scope of work of DSME is Engineering, Procurement, Construction and especially DSME has performed the engineering work from basic design to production design both of hull and topside by themselves. This project contains the DP-3(Dynamic positioning) system with 6 sets of main diesel engines and azimuth type thrusters. And the drilling depth of this drillship is around 40,000 ft with 12m operating draft in the Gulf of Mexico, West Africa and Brazil. In this paper, we will describe and present an introduction to engineering and construction stage of TMT Deepwater Drillship as follows;

KEY WORDS: TMT Drillship, Hull&Topside structure, Basic engineering, DLA&SFA, Detail engineering, Construction

INTRODUCTION
DSME already have an experience for the drillship project before TMT project. However, the previous project was not a DSME standard design. So, DSME invented the standard drillship with DP-3 system and the first project based on DSME standard design is TMT drillship. This paper contains the outline of engineering and construction stage for the TMT drillship especially hull & topside structure part only. During the basic engineering stage, DSME performed the initial scantling of structure by ABS Safe hull phase A & B. And then, it has been verified again by DLA & SFA. At the stage of detail engineering, so many items was clarified and updated according to the various vendor data based on basic engineering. For example, the crane pedestal, thruster foundation, helideck structure and so on was designed and verified more detail during the detail engineering stage. According to the result of basic and detail engineering, the production design and construction was also carried out by DSME.

PROJECT CHARACTERISTICS
- Drilling activity : single derrick
- Operating variable load : 20,000 MT
- Classification society : ABS
- Water Depth & Drilling Depth
  - Operating field : GoM, West Africa, Brazil
  - Drilling Depth: 40,000 ft
  - Water Depth: 10,000 ft
- Principal Dimensions & Draft
  - LOA: 238m
  - LBP: 230m
  - Breadth: 42m
  - Depth: 19m
  - Draught(operating): 12m
  - Draught(scantling): 13m
  - Draught(transit): 8.5m

The Fig.1 shows the overall view of TMT Drillship project.

Fig.1 Overall view of TMT Drillship