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## HIGH MANGANESE STEEL LNG FUEL TANKS FOR SHIPS

Recently, one of the most competitive solutions has been widely adopted as LNG fueled propulsion to meet the strict IMO regulations regarding the emission restriction of NO<sub>x</sub>, SO<sub>x</sub> and CO<sub>2</sub> for the commercial ships including very large crude oil tankers, ultra large containerships and etc. IMO type B/C tank has been selected for the LNG fuel tank type by industrial consensus. However, the existing cryogenic materials such as 9% nickel steel, aluminum, stainless steel and etc. had disadvantages in terms of productivity and strength as well as material price. Overcoming these, the new material of high-manganese steel had been developed by collaboration between POSCO and DSME, registered in the IGC/IGF code, and its commercial production started in the early 2021.

This paper introduces various engineering activities and challenges in the design and building of IMO Type B/C LNG fuel tank made of high manganese steel and briefly introduces the production process during LNG fuel tank construction.

Key Words: High manganese steel, IMO type B/C tank, LNG fuel tank

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