

5,100 cbm LNG Bunker-Vessel
“Engie Zeebrugge”
for Gas4Sea(Engie,NYK,Mitsubishi)

Project Data: 2735

Shipyard:

Hanjin Heavy Industries & Construction,
Korea

Year of completion: 2017

Classification: BV

TGE’s scope:

Cargo handling system with cargo tanks, LNG
fuel gas system



Vessel:

5,100 m³ LNG bunker vessel
 Length o.a. 101,8 m
 Beam: 18,4 m
 Draught (LNG): 4,8 m
 Speed: 14,9 kn

Characteristics of gas plant:

Capacity: 5,100 m³
Number of cargo tanks: 2 (cylinder type)
Material of cargo tanks: 9% Ni steel
Cargoes: LNG
Design temperature / pressure: -163°C / 4.0 bar g
Maximum cargo density: 500 kg/m³
Number of segregations: 1
Cargo manifolds: 2 liquid lines, 2 x 8” ANSI 150 lbs flange
 1 vapour line, 6” ANSI 150 lbs flange
Bunker manifolds: 2 liquid lines, 2 x 8” ANSI 150 lbs flange
 1 vapour line, 6” ANSI 150 lbs flange

Loading rate 1,000 m³/h
Bunker rate 600 m³/h
 Deepwell pump 4 x 300m³/h at 200 mLC
BOG-handling & fuel gas system: 2 x cargo compressors with intercoolers
 2 x aftercoolers
 2 x submerged fuel gas pumps
 2 x forcing vaporizer
 2 x fuel gas buffer tank
 1 x fuel gas metering system
 Stainless steel, AISI 316L

Cargo piping system:
Inertgas plant:
 PSA type Capacity: 340 Nm³at 99.5 vol. % N₂
 Membrane system Capacity: 80 Nm³/h at 4 vol. % O₂

 Gas combustion unit: (by yard) Capacity: 800 kg/h
 Gas chromatograph