

6,500 cbm LNG Bunker-Vessel
“Cardissa”
for SHELL, United Kingdom

Project Data:

Shipyard:

STX, Korea

Year of completion: 2017

Classification: LR

TGE’s scope:

Cargo handling system with cargo tanks, LNG fuel gas system



Vessel:

6,800 m³ LNG bunker vessel

Length o.a. 119.90 m

Beam: 19.4 m

Draught (LNG): 5.8 m

Speed: 13.0 kn

Characteristics of gas plant:

Capacity: 6,500 m³

Number of cargo tanks: 2 (cylinder type)

Material of cargo tanks: 9% Ni steel

Cargoes: LNG

Design temperature / pressure: -170°C / 3.5 bar g

Maximum cargo density: 500 kg/m³

Number of segregations: 1

Cargo manifolds:
 1 liquid line, 1 x 10” DIN 150 lbs flange
 1 liquid branch, 1 x 10” DIN 150 lbs flange
 1 vapour line, 1 x 8” DIN 150 lbs flange

Elevated manifolds:
 1 liquid line, 1 x 16” DIN 150 lbs presentation flange
 1 vapour line, 1 x 16” DIN 150 lbs presentation flange

Bunker manifolds:
 1 liquid line, 1 x 10” DIN 150 lbs flange
 1 vapour line, 1 x 8” DIN 150 lbs flange

Loading- / Unloadingrate:
 1,100 m³/h
 Deepwell pump 2 x 550 m³/h at 270 mLC

BOG-handling & fuel gas system:
 2 x cargo compressors with intercoolers
 2 x aftercoolers
 2 x submerged fuel gas pumps
 1 x forcing vaporizer
 1 x fuel gas buffer tank
 1 x fuel gas metering system

Cargo piping system: Stainless steel, AISI 316L

Inertgas plant:

PSA type Capacity: 750 Nm³ at 99.5 vol. % N₂

Membrane system Capacity: 150 Nm³/h at 3 vol. % O₂

Gas combustion unit: (by yard) Capacity: 1,200 kg/h (by yard)