

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

Project Data:

Shipyards:

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 m ³
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/m ³
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 m ³ /h
Deepwell pump	2 x 550 m ³ /h at 270 mLC
<u>BOG-handling & fuel gas system:</u>	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
<u>Cargo piping system:</u>	Stainless steel, AISI 316L
<u>Inertgas plant:</u>	
PSA type	Capacity: 750 Nm ³ at 99.5 vol. % N ₂
Membrane system	Capacity: 150 Nm ³ /h at 3 vol. % O ₂
Gas combustion unit: (by yard)	Capacity: 1,200 kg/h (by yard)