

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

**Project Data:** 2960

**Shipyard:**

STX, Korea

**Year of completion:** 2016

**Classification:** LR

**TGE’s scope:**

Cargo handling system with cargo tanks, LNG fuel gas system



**Vessel:**

6,800 m<sup>3</sup> 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:** 5,100 m<sup>3</sup>

**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<sup>3</sup>

**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<sup>3</sup>/h

Deepwell pump 2 x 550 m<sup>3</sup>/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 Nm<sup>3</sup> at 99.5 vol. % N<sub>2</sub>

Membrane system Capacity: 150 Nm<sup>3</sup>/h at 3 vol. % O<sub>2</sub>

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