

2 x 23,000 cbm LPG/NH₃-Carriers
“Almarona” & “Almejedah”
for QATAR SHIPPING Co., Qatar

Project Data:

Shipyard:

STX Shipbuilding Co.Ltd., Korea

Year of completion: 2003/2004

Classification: DNV

TGE’s scope:

EPCS-contract, gas handling system & cargo tanks, ship design development



Vessel:

23,000 m³ fully ref. LPG carrier, type 2G

Length o.a. 164.8 m
 Beam: 26.2 m
 Draught (LPG): 8.4 m
 Speed: 16.5 kn

Characteristics of gas plant:

Capacity:	23,000 m ³
Number of cargo tanks:	3 (prismatic, IMO type A)
Material of cargo tanks:	Low temperature carbon steel, NV2-4
Cargoes:	LPG/VCM/NH ₃
Design temperature / pressure:	-48°C / 0.25 bar g acc. to IMO at sea, 0.45 bar g at harbour conditions
Maximum cargo density:	972 kg/m ³ (partial filling)
Number of segregations:	2
Cargo manifolds:	2 liquid lines, 2 x 12” ANSI 300 lbs flanges 2 vapour lines, 2 x 8” ANSI 300 lbs flanges
Loading- / Unloadingrate:	2,100 m ³ /h, 2,100 m ³ /h
Deepwell pump	6 x 350 m ³ /h at 120 m LC
Booster pump	2 x 350 m ³ /h at 120 m LC
Number of cargo heater / vaporizer:	
1 direct sea-water heated type	Capacity heater: 350 m ³ /h com. Propane from -48°C to 0°C at +15°C sea-water temperature Capacity vaporiser: 2,100 Nm ³ /h com. Propane, cargo inlet temperature, -42°C at +15°C sea-water temperature

Reliquefaction system:

Direct cycle
3 x SULZER compressor

Cargo piping system:

Stainless steel, AISI 316L

Inertgas plant:

Combustion type generation	Capacity: 2,000 Nm ³ /h at 99.5 vol. % purity
Membrane type generation	Capacity: 100 Nm ³ /h