

4 x 17,000 cbm LPG/Ethylene/Ammonia/VCM-Carriers
“Gaschem Nordsee”, “Gaschem Pacific”, “Gaschem Adriatic” & “Gaschem Antarctic”
for HARPAIN REEDEREI GmbH & Co. KG, Germany

Project Data:

Shipyard:

Meyer Werft GmbH, Germany

Year of completion: 2009-2010

Classification: DNV

TGE’s scope:

EPCS-contract, gas handling system

Vessel:

17,000 m³ semi ref. LPG carrier, type 2G

Length o.a. 154.9 m

Beam: 22.7 m

Draught (LPG): 8.1 m

Speed: 17.7 kn



Characteristics of gas plant:

Capacity:	17,000 m ³
Number of cargo tanks:	3 (bilobe type)
Material of cargo tanks:	5% Ni Steel
Cargoes:	LPG/Ethylene/Ammonia/VCM
Design temperature / pressure:	-104°C / 4.5 bar g acc. to IMO at sea
Maximum cargo density:	972 kg/m ³
Number of segregations:	2
Cargo manifolds:	2 liquid lines, 1 x 10”, 1 x 8” ANSI 300 lbs flanges 2 vapour lines, 2 x 6” ANSI 300 lbs flanges
Loading- / Unloadingrate:	1,200 m ³ /h
Deepwell pump	6 x 200 m ³ /h at 120 m LC
Booster pump	2 x 300 m ³ /h at 120 m LC
Number of cargo heater / vaporizer:	
1 indirect ethylene vaporiser	Capacity: 600 m ³ /h at 15°C sea water temp.
1 indirect thermal oil heated LPG-heater / vaporiser	Capacity: 60 t/h Propane -42°C to 0°C, vapour 2 t/h
1 direct sea water heated LPG-heater / vaporiser	Capacity: 100 t/h Propane -42°C to 0°C at 15°C sea water

Reliquefaction system:

Cascade / direct cycle
 2 x refrigerant compressors (refrigerant R404A)
 4 x cargo compressors

Cargo piping system:

Stainless steel

Nitrogen generation plant:

Pressure swing adsorption

Deck Tank:

Design Pressure / Temperature: Capacity: 1 x 125 m³, 1 x 60 m³
 1 x 18 bar g / -104°C, 1 x 18 bar g / -48°C