

4 x 17.000 cbm LPG/ Ethylene / Ammonia / VCM-Carriers “Gaschem Nordsee, Gaschem Pacific, Gaschem Adriatic, Gaschem Antarctic” for HARPAIN SHIPPING, 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 2PG

Length o.a.	154,90 m
Beam:	22,70 m
Draught (LPG):	8,10 m
Speed:	17,70 kn



Characteristics of gas plant:

Capacity:	17.000 m ³
Number of cargo tanks:	3 (bilobe type)
• Material:	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, 10”, 8” ANSI 300 lbs flanges 2 vapour lines, 6”, 6” ANSI 300 lbs flanges
Loading-/Unloading-rate:	1200 m ³ /h
• Deepwell pump:	6 x 200 m ³ /h/at 120 m LC
• Booster pump:	1 x 300 m ³ /h at 120 m LC
Cargo heating / vaporising equipment:	
• 1 indirect ethylene vaporiser	600 m ³ /h at 15°C sea water temp.
• 1 indirect thermal oil heated LPG-heater / vaporiser	60 t/h propane – 42°C to 0°C, vapour 2 t/h
• 1 direct sea water heated LPG-heater / vaporiser	100 t/h propane – 42°C to 0°C at 15°C sea water,

Reliquefaction system:

Cascade / direct cycle
 2 x refrigerant compressors (refrigerant R 404 A)
 4 x cargo compressors
 Stainless steel

Cargo piping system:

Nitrogen generation plant:

• Capacity: 1,200 Nm³/h at 0,5 vol. % O₂

Deck Tanks:

• Capacity: 2
 • Design Pressure / Temperature: 1 x 125 m³, 1 x 60 m³
 1 x 18 bar g/ -104°C, 1 x 18 bar g/-104°C