

4 x 35,000 cbm LEG/LPG/Ammonia-Carriers

*“Navigator Aurora”, “Navigator Eclipse”, “Navigator Nova” & “Navigator Prominence”
for NAVIGATOR GAS, United Kingdom*

Project Data:

Shipyard:

Jiangnan Shipyard Group Co., Ltd., China

Year of completion: 2016

Classification: DNV-GL

TGE’s scope:

LNG fuel gas tanks, high pressure fuel gas system for MAN ME-GI dual fuel main engine and low pressure fuel gas system for 4-stroke dual fuel auxiliary engines



Vessel:

35,000 m³ semi ref. LEG carrier, type 2G
 Length o.a. 179.89 m
 Beam: 29.6 m
 Draught (LPG): 11 m

Characteristics of gas plant:

Capacity:	35,000 m ³
Number of cargo tanks:	3 (bilobe type)
Material of cargo tanks:	5% Ni Steel
Cargoes:	LEG/LPG/VCM/Ammonia
Design temperature / pressure:	-104°C / 4.16 bar g acc. to IMO at sea
Maximum cargo density:	690 kg/m ³
Number of segregations:	2
Cargo manifolds:	2 liquid lines, 1 x 14", 1 x 10" ANSI 300 lbs flanges 2 vapour lines, 1 x 10", 1 x 6" ANSI 150 lbs flanges
Loading- / Unloadingrate:	4,000 m ³ /h / 3,300 m ³ /h
Deepwell pump	6 x 550 m ³ /h at 120 m LC
Booster pump	2 x 550 m ³ /h at 120 m LC
Number of cargo heater / vaporizer:	
	Capacity: 1 x 550 m ³ /h Propane from -42°C to 0°C at 15°C sea-water temperature
	Capacity: 1 x 3,300 m ³ /h Propane from -42°C to 0°C at 15°C sea-water temperature
1 ethylene vaporizer	Capacity: 3,300 m ³ /h Ethylene from -104°C at 15°C sea-water temperature
1 purge condenser	Shell & tube for LPG & Ethylene
1 refrigerant recovery unit	With portable storage tank for gas freeing of cascade cycles
Reliquefaction system:	Cascade / direct cycle
	2 x refrigerant compressors (refrigerant Propylene)
	3 x cargo compressors
	Stainless steel, AISI 316L
Cargo piping system:	
Inertgas plant:	
PSA type	Capacity: 1,500 Nm ³ at 99.5 vol. % N ₂
Deck Tank:	Capacity: 1 x 200 m ³
Design Pressure / Temperature	18 bar g/-104°C