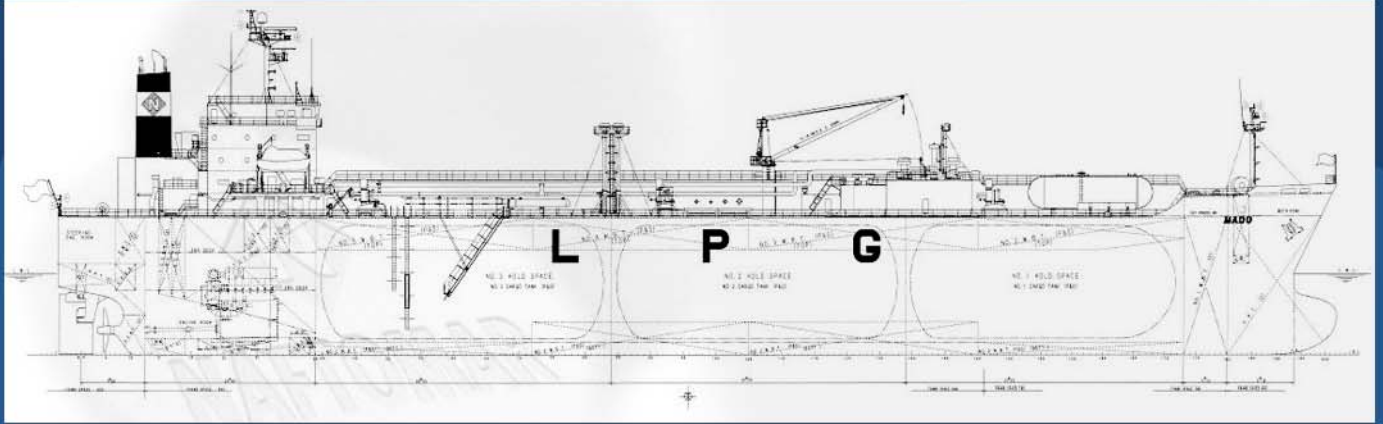




# NAFTOMAR



MADO

## GENERAL CHARACTERISTICS

Owners: CLEAN GAS SHIPPING & TRADING CO. S.A., PANAMA  
Built: JANUARY 2003, NAMURA SHIPBUILDING, IMARI, JAPAN  
Flag: PANAMANIAN  
Class: BV CLASS 1 \* I 3/3 LPG DEEP SEA, AUT-UMS/CCS.  
Call Sign: HOTT

GRT/NRT  
International: 16,770 / 5,031  
Suez: 18,036.80 / 15.919,48  
Panama: 56,829 / 14,035  
IMO: YES  
USCG: YES  
RINA: NO  
MOT: NO

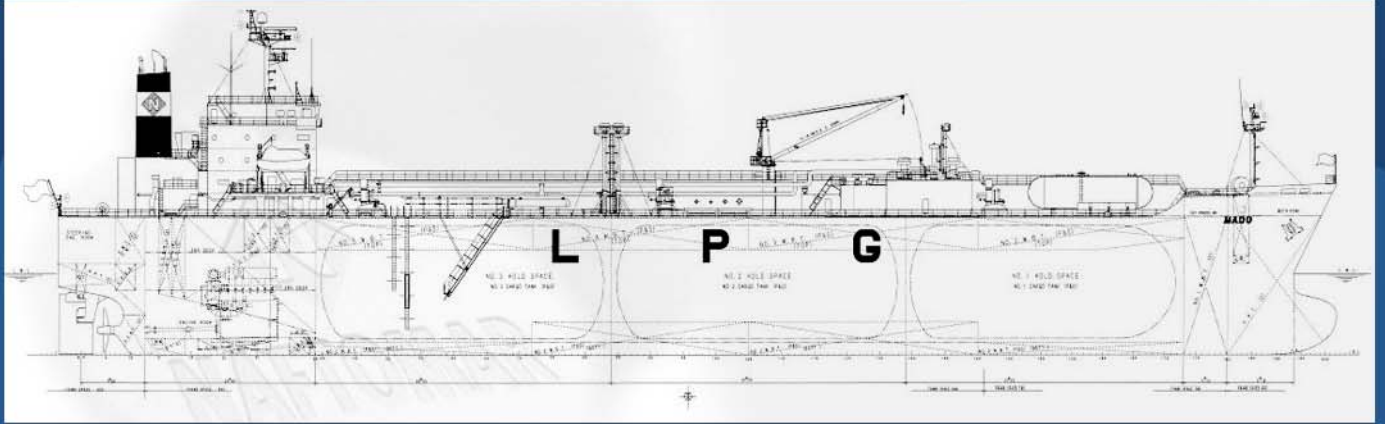
LOA: 156,03 m  
LBP: 148,00 m  
Breadth Moulded: 25,00 m  
Depth Moulded: 16,50 m  
DWT, Summer: 19,621 mtns  
Draft, Summer: 9.77 m  
Draft, Propane: 8.50 m  
Draft, Butane: 8.61 m  
Air Draft: 42.689 m

Main Engine: MITSUI B&W 6550MC (MARK VI)  
Maximum Power: 8090 KW AT 120 R.P.M  
Fuel Grade: IFO 380 cst  
Consumption/day: 31.0 mtns  
Speed (Average): 16.50 knots  
Auxiliaries: Three YANMAR 6N21AL-SV  
Power: 880 kw  
Total Available: 2,640 kw  
Grade/Consumption: IFO 380 cst / 2.0 - 3.6 mtns  
Bunker Capacity: IFO 380: 1548 mt (98%)  
DIESEL: 190 mt (98%)  
MGO: 59 mt (98%)

Particulars herein believed to be correct but not guaranteed



# NAFTOMAR



## MADO

### CARGO PLANT AND HANDLING EQUIPMENT

MARVS:	5.5 bar.g (IMO) - 3.6 bar.g (USCG)
Min. Temperature:	minus 48°C
Max. Specific Gravity:	0.7 (Tank 1&3), 0.972 (Tank 2)
Max. Vacuum:	minus 25 bar.g
Cargo Pumps:	Six SVANEHOJ Deepwell pumps, 350 m <sup>3</sup> /hr at 120 mlc each
Cargo Compressors:	Three two-stage piston SULZER BURCKHARDT COMPRESSOR 2K160-ZQ, oil free, 1,962 m <sup>3</sup> /hr
Cargo Heater:	One using sea water, 290mt/hr (Sea Water +15°C)
Booster Pumps:	Two SVANEHOJ NMB 150C, horizontal centrifugal pump, 350 m <sup>3</sup> /hr at 120 mlc
Deck Tanks:	One 160 m <sup>3</sup>
Inert Gas Plant:	One SMIT GAS SYSTEMS, 2000 m <sup>3</sup> /hr 0.5% O <sub>2</sub> , CO <sub>2</sub> 14%
Cargo Vaporizer:	Yes
Bow Thruster:	N/A
Cargo Manifolds:	Liquid line 14" and 10" ASA 300 Vapour line 10" and 6" ASA 150

### INDICATIVE CAPACITIES OF CARGO TANKS

TANK No.	CBM 100% (m3)	S.G. T°C	BUTANE 0.605 minus 0.5°C	PROPANE 0.582 minus 42°C	BUTADIENE 0.653 minus 5°C	AMMONIA 0.682 minus 33.4°C
1	6,155.354		3,649.509	3,510.768	3,939.057	4,113.992
2	8,378.227		4,967.448	4,778.603	5,361.560	5,599.669
3	8,246.048		4,889.081	4,703.216	5,276.976	5,511.329
<b>TOTAL</b>	<b>22,779.624</b>		<b>13,506.038 mtns</b>	<b>12,992.587 mtns</b>	<b>14,577.593 mtns</b>	<b>15,224.990 mtns</b>

Particulars herein believed to be correct but not guaranteed