



# GAS TAURUS: Very large gas carrier

Shipbuilder: ..... **Jiangnan Shipyard (Group) Co.Ltd.**  
 Vessel's name: ..... **Gas Taurus**  
 Hull No: ..... **H2535**  
 Owner/Operator: ..... **Southwest Maritime Limited**  
 Country: ..... **Hong Kong**  
 Designer: ..... **Jiangnan Shipyard (Group) Co.Ltd.**  
 Country: ..... **China**  
 Model test establishment used: ..... **Shanghai Ship & Shipping Research Institute**  
 Flag: ..... **Hong Kong**  
 IMO number: ..... **9710385**  
 Total number of sister ships already completed (excluding ship presented): ..... **None**  
 Total number of sister ships still on order: ..... **2**

With a 83,000m<sup>3</sup> capacity and four IMO Type A independent prismatic cargo tanks as the cargo containment system, *GAS TAURUS* is the first vessel of three very large fully refrigerated liquefied gas carriers (VLGCs) constructed by Jiangnan Shipyard for owner Southwest Maritime Limited. *Gas Taurus* is the first VLGC which is both independently designed and built by Jiangnan Shipyard (Group) Co., Ltd. while there are already eight VLGCs (delivered to Avance Gas) built by Jiangnan's sister yard to Jiangnan's design.

During the R&D process, Jiangnan's R&D Team identified and tackled more than 100 key issues, including the WPS of Lower Temperature Steel, the insulation spray, the fabrication of the supports, tank lifting, and accuracy control. Some 87 patent applications have been submitted.

With respect to the hull form development, computational fluid dynamics technology was used to carry out simulation, analysis and optimisation. Fuel consumption had been proven by sea trials to be 5-10% lower.

A 3D finite element model was built to complete the scantling check and vibration analysis in accordance with rule requirements with a fatigue life in the cargo area of 30 years.

During the construction, strict safety control measures were carried out and a slop bored stern tube (aft) was adopted to improve the load distribution of the aft bearing significantly.

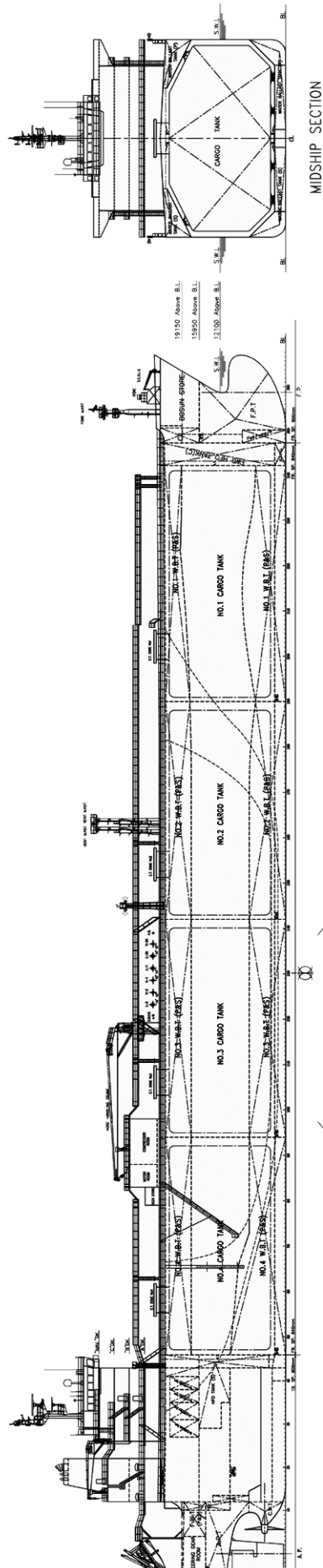
This advanced research and design philosophy together with the solid quality control makes *Gas Taurus* a significant very large gas carrier.

## TECHNICAL PARTICULARS

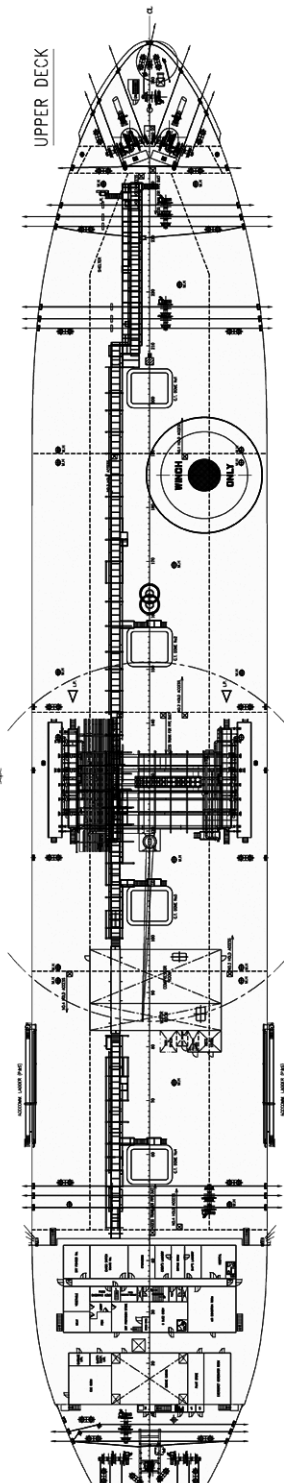
Length oa: ..... 226m  
 Length bp: ..... 215m  
 Breadth moulded: ..... 36.60m  
 Depth moulded  
 To main deck: ..... 22.20m  
 Draught  
 Scantling: ..... 12.10m  
 Design: ..... 11.40m  
 Gross: ..... 46,789gt  
 Displacement: ..... 73,415  
 Lightweight: ..... 19,649.6

Deadweight  
 Design: ..... 48,922.7dwt  
 Scantling: ..... 53,765.4dwt  
 Block co-efficient: ..... 0.750 / Ts=12.10  
 Speed, service (– %MCR output): ..... 17.25knots (90%SMCR)  
 Cargo capacity (m<sup>3</sup>)  
 Liquid volume: ..... 83,157m<sup>3</sup>  
 Bunkers (m<sup>3</sup>)  
 Heavy oil: ..... 2674m<sup>3</sup>  
 Diesel oil: ..... 373m<sup>3</sup>  
 Water ballast (m<sup>3</sup>): ..... 20,962m<sup>3</sup>  
 Daily fuel consumption (tonnes/day)  
 Main engine only: ..... about 54tonnes/day at SMCR  
 Auxiliaries: ..... about 5.45tonnes/day at 85% MCR of one engine  
 Classification society and notations: ..... LR  
 \*100A1 Liquefied Gas Carrier (Min.cargo temperature - 50°C, Maximum Vapour Pressure 0.25bar, Max. Specific Gravity 0.61), Ship type 2G and Independent Tanks  
 Type A, \*LMC, \*RMC (LG), UMS ECO(IHM), NAV1, ShipRight (SDA, FDA plus(30, WW), CM, ACS(B)), \*IWS, LI, with the descriptive notes "ShipRight (SCM, SERS), ETA  
 Main engine(s) x 1  
 Design: ..... MAN B&W  
 Model: ..... 6S60ME-C8.2  
 Manufacturer: ..... HHM  
 Type of fuel: ..... HFO up to 700cSt at 50°C and LSDO  
 Output of each engine: ..... SMCR: 1,2400 kW@92 rpm, CSR: ..... 11,160kW@88.8rpm  
 Propeller(s) x 1  
 Material: ..... Ni-Al-Bronze, Cu<sub>3</sub>  
 Designer/Manufacturer: ..... Zhenjiang Tongzhou Propeller Co., Ltd  
 Fixed/Controllable pitch: ..... Fixed pitch  
 Diameter: ..... 7.08m  
 Speed: ..... Same as main engine  
 Diesel-driven alternators x 3  
 Engine make/type: ..... CSSC Marine Power Co. Ltd/ 6L21/31  
 Type of fuel: ..... HFO up to 700cSt at 50°C and LSDO  
 Output/speed of each set: ..... 1,320kW / 900 rpm  
 Alternator make/type: ..... CMXD / HFC 5 632-84K  
 Output/speed of each set: ..... 1,250kW / 900rpm  
 Boilers x 2  
 Type: ..... Economiser water tube type and auxiliary boiler smoke tube type  
 Make: ..... Alfa Laval  
 Output, each boiler: ..... 1,100kg/h for EGE, 2,500kg/h for aux boiler  
 Cargo cranes/cargo gear x 1  
 Make: ..... TTS  
 Type: ..... GP735-15-28  
 Other cranes x 2  
 Make: ..... Zhenjiang Marine Auxiliary Machinery

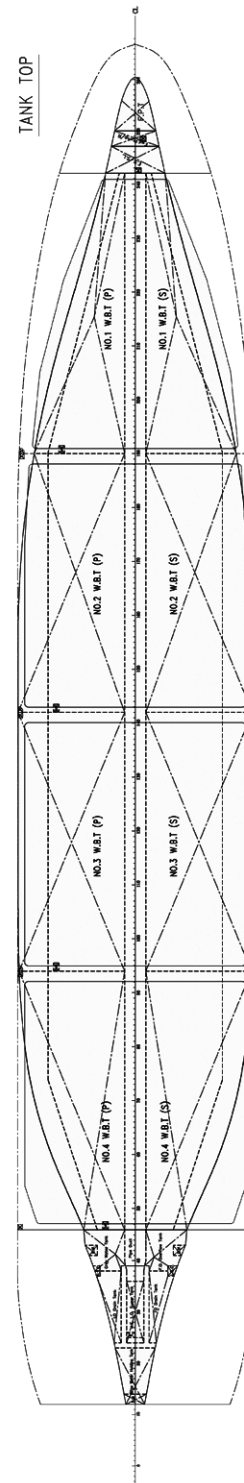
Type: ..... HDC2-17, HDC4-14  
 Tasks: ..... Provision, E/R Parts Embarkation  
 Mooring equipment x 9  
 Make: ..... Wuhan Marine Machinery  
 Type: ..... Electro-hydraulic  
 Special lifesaving equipment free-fall lifeboat  
 Number of each and capacity: . One, 30 Persons  
 Make: ..... NPT  
 Type: ..... NPT67FF  
 Hatch covers  
 Design: ..... Jiangnan Shipyard (Group) Co., Ltd.  
 Manufacturer: . Shanghai Jiangnan Lupu Industry Co., Ltd.  
 Type (upper deck/other decks): ..... CB/ T3728-1995  
 Cargo tanks x 4  
 Grades of cargo carried: ..... 2  
 Product range: ..... n-Butane, i-Butane, Mixture of n-Butane and i-Butane, Commercial propane, Mix of propane and butane, Propylene, Butylene, Butadiene, Dimethyl Ether (DME)  
 Coated tanks – make and type of coating: ..... Jotun-Zhong Yuan (Qingdao) Co. Ltd. Epoxy type  
 Stainless steel – structure/piping: ..... Piping  
 Cargo pumps x 8  
 Number: ..... 8  
 Type: ..... Electric Motor Driven Deepwell Pump  
 Make: ..... Wärtsilä Svanehoj A/S  
 Stainless steel: ..... Yes  
 Capacity (each): ..... 600m<sup>3</sup>/h  
 Cargo control system  
 Make: ..... Kongsberg  
 Ballast control system  
 Make: ..... Kongsberg  
 Complement  
 Officers: ..... 11  
 Crew: ..... 11  
 Suez/Repair Crew: ..... 6  
 Bridge control system  
 Make: ..... TERASAKI  
 Is bridge fitted for one-man operation? ..... Yes, LR  
 Class notation 'NAV1' is assigned to the project.  
 Fire detection system  
 Make: ..... Consilium  
 Type: ..... Salvico Cargo  
 Fire extinguishing systems  
 Cargo holds: .....  
 Make/Type: .... Wilhelmsen/Dry chemical powder  
 Engine room:  
 Make/Type: ..... Wilhelmsen/CO<sub>2</sub>  
 Local water mist system  
 Make/Type: ..... Seaplus  
 Water firefighting Make/Type: ..... China National Shipbuilding  
 Equipments & Materials (East China) Co. Ltd  
 Cabins: ..... Portable extinguisher  
 Make/Type: ..... China National Shipbuilding  
 Equipments & Materials (East China) Co. Ltd. Water fire fighting Make/Type: ..... China National Shipbuilding Equipments & Materials (East China) Co. Ltd  
 Public spaces: ..... Portable extinguisher  
 Make/Type: ..... China National Shipbuilding Equipments & Materials (East China) Co. Ltd  
 Water fire fighting Make/Type: ..... China National Shipbuilding Equipments & Materials (East China) Co. Ltd  
 Radars x 2  
 Make: ..... JRC  
 Model(s): ..... S-BAND & X-BAND  
 Integrated bridge system: ..... No  
 Waste disposal plant  
 Incinerator  
 Make: ..... Atlas  
 Model: ..... ATLAS 800 SL WS P  
 Waste compactor  
 Make: ..... Loipart  
 Model: ..... TT100  
 Sewage plant  
 Make: ..... EVAC  
 Model: ..... EVAC MBR 24 C



MIDSHIP SECTION

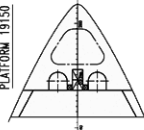


UPPER DECK

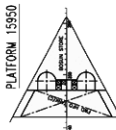


TANK TOP

PLATFORM 19150



PLATFORM 15550



PLATFORM 8000

