

CRYSTAL VALERIAN 5,017 m³ LPG Carrier

23

☐ Contents ☐ By Builder ☒ By Ship Type

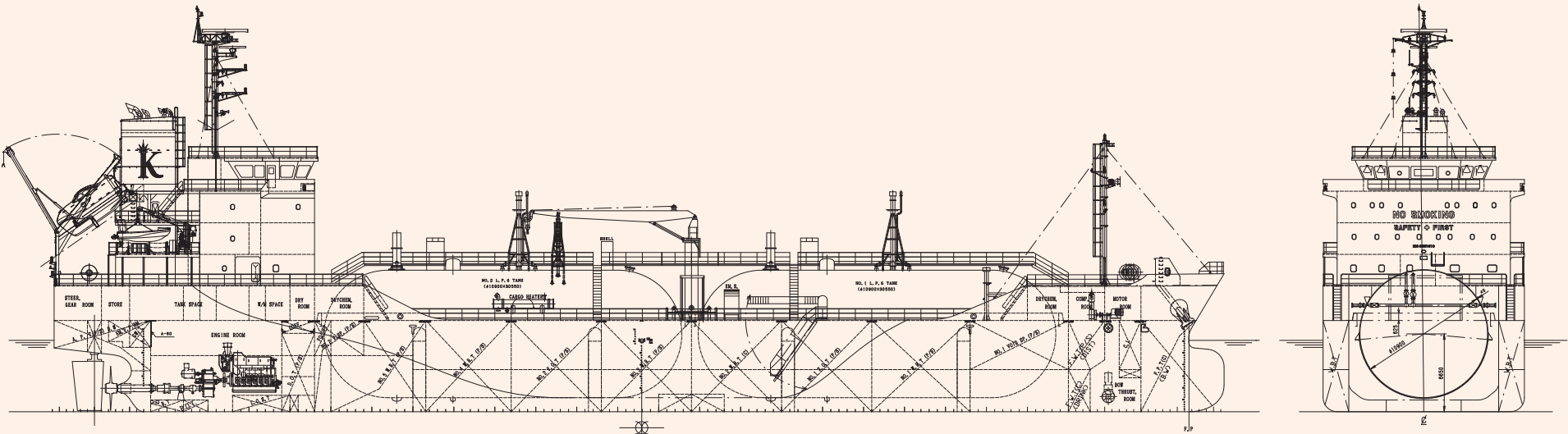


CRYSTAL VALERIAN 5,017 m³ LPG Carrier 23

This vessel is the 5,000cbm type LPG carrier with two cylindrical full-pressurized cargo tanks capable of loading liquefied petroleum gasses. The energy-saving hull form is designed to produce economic propulsion, furthermore fitted BV class regulation of CLEANSHIP and AUT-UMS. Main engine and generator engine is equipped with SCR system in order to comply the NOx regulations. This vessel adopts stern fins for the purpose of improving propulsion efficiency by arranging the water flow near the propeller. Controllable pitch propeller is installed as the propulsion system, and shaft generator is equipped for fuel consumption saving. Auxiliary boiler and exhaust gas economizer is also installed, and chiller unit is installed for using MGO.

PRINCIPAL PARTICULARS

Length (o.a.)	99.98 m	MCR (kw×rpm)	2,750 × 750
Length (b.p.)	93.50 m	NOR (kw×rpm)	2,338 × 710
Breadth (mld.)	17.20 m	Speed (max. trial)	15.54 knots
Depth (mld.)	7.80 m	(service)	13.20 knots
Draft (mld.)	6.10 m	Complement	20 persons
Gross tonnage	4,324	Classification	BV
Deadweight	4,920 t	Cargo pump	300 m³/h × 110 mic × 2 sets
Main engine	DAIHATSU 6DCM-32eL	Loading capacity	5,017 m³
		Builder	Sasaki Shipbuilding Co., Ltd.



SASANQUA 3,520 m³ LPG Carrier 24

☐ Contents ☐ By Builder ☒ By Ship Type



SASANQUA 3,520 m³ LPG Carrier 24

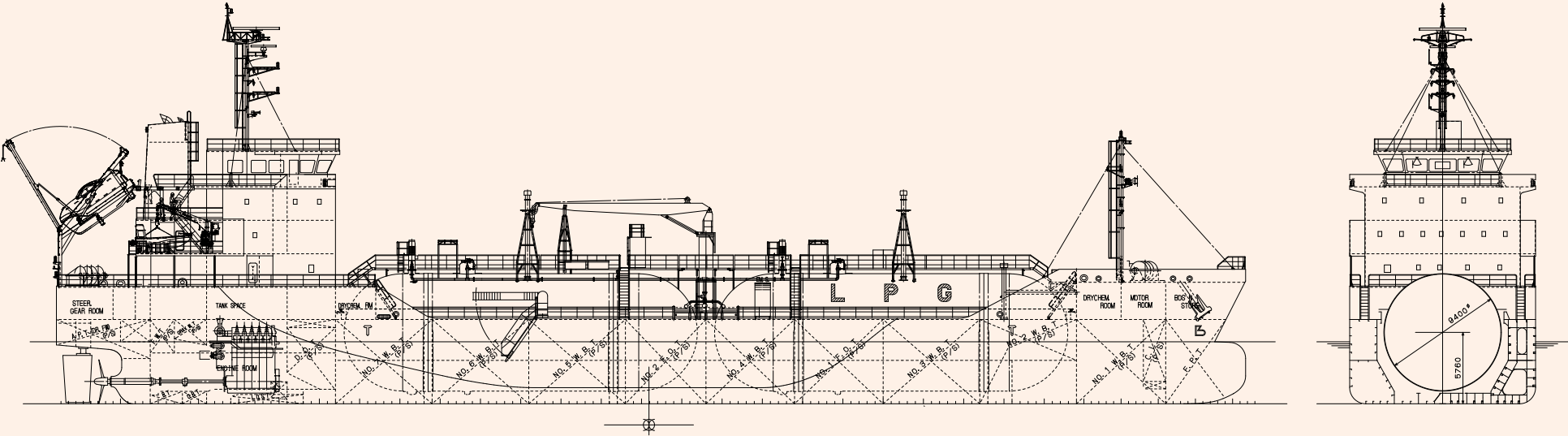
This vessel is designed as the 3,500cbm type LPG carrier with two cylindrical full-pressurized cargo tanks capable of loading 11 LPG cargo including VCM. Main engine is 2 stroke engine capable to keep service speed 12.5 kt and navigate about 12,000 seamiles.

For energy-saving measurement, a bulbous bow and stern fins are adopted for the hull form. Stern fins are installed to maintain a good flow into the propeller to improve propulsion efficiency and reduce fuel consumption.

In addition, the vessel has good stability and crew's comfortability is also considered. Vibration and noise are extremely low level in accommodation area, making it very comfortable to crew.

PRINCIPAL PARTICULARS

Length (o.a.)	95.99 m	MCR (kw×rpm)	2,200 × 178
Length (b.p.)	91.30 m	NOR (kw×rpm)	1,980 × 172
Breadth (mld.)	15.00 m	Speed (max. trial)	14.46 knots
Depth (mld.)	6.80 m	(service)	12.50 knots
Draft (mld.)	5.00 m	Complement	20 persons
Gross tonnage	3,216	Classification	BV
Deadweight	3,208 T	Cargo pump	300 m³/h × 115 m × 130 kW × 2 sets
Main engine	HITACHI-MAN B&W 5L35MC6.1	Loading capacity	3,520 m³
		Builder	Sasaki Shipbuilding Co., Ltd.



MORNING HOPE 5,016 m³ LPG Carrier 25

☐ Contents ☐ By Builder ☐ By Ship Type



MORNING HOPE 5,016 m³ LPG Carrier 25

This vessel is designed as the 5,000cbm type LPG carrier with two cylindrical full-pressurized cargo tanks capable of loading liquefied petroleum gasses. The energy-saving hull form is designed to produce economic propulsion. One stream line balanced hanging rudder (C type) is adopted and steering gear is of electro-hydraulic system, consisting of two rams, two cylinders with two hydraulic pump units.

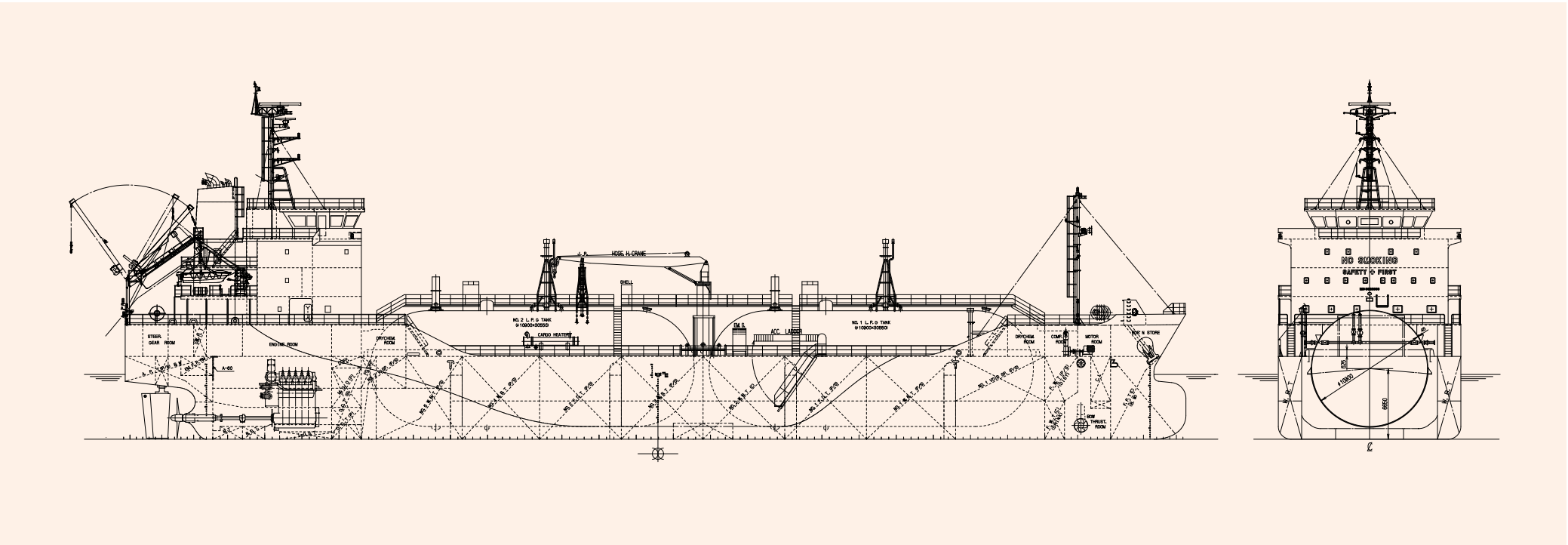
The engine room is divided into some compartments in order to reduce the noise and vibration. All cabins are made as private room.

The consideration is also given to reduction of environmen-

PRINCIPAL PARTICULARS

Length (o.a.)	99.98 m	MCR (kw×rpm)	2,750 × 178
Length (b.p.)	93.50 m	NOR (kw×rpm)	2,475 × 172
Breadth (mld.)	17.20 m	Speed (max. trial)	15.47 knots
Depth (mld.)	7.80 m	(service)	13.40 knots
Draft (mld.)	6.10 m	Complement	20 persons
Gross tonnage	4,301	Classification	NK
Deadweight	4,978 T	Cargo pump	300 m³/h × 110 mlc × 2 sets
Main engine	MAKITA-MITSUI-MAN B&W 5L35MC6	Loading capacity	5,016 m³
		Builder	Sasaki Shipbuilding Co., Ltd.

tal burden such as installation of ballast water treatment system.



TAIAN NO.2 2,489 DWT Product Carrier 29

☐ Contents ☐ By Builder ☒ By Ship Type



TAIAN NO.2 2,489 DWT Product Carrier 29

This vessel is a dirty product oil tanker having the cargo tanks divided into 10. Heating coil system with thermal oil is equipped in the cargo tanks, making the cargo keep around 65 degrees Celsius.

For our company, it is the second vessel classified (so-lo-classified) by China Register (CR), classification society in Taiwan, R.O.C.

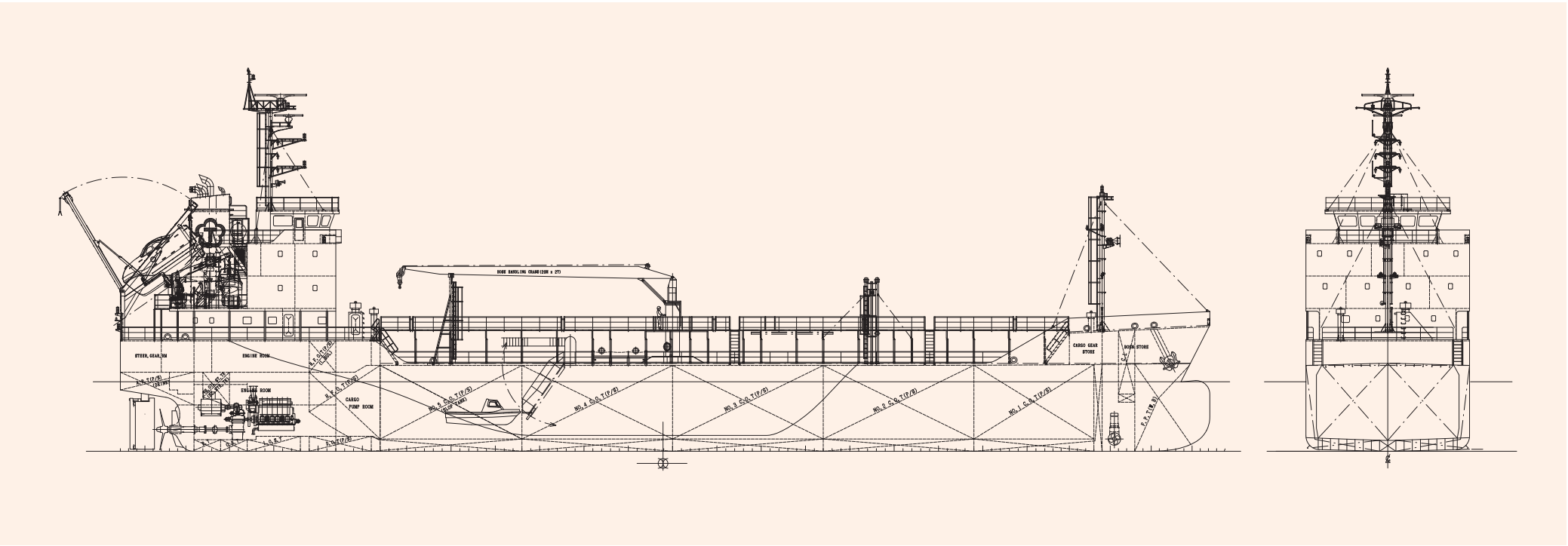
The hull form is designed to produce economic propulsion, which stern-fin is equipped in front of the propeller. In addition, flap-rudder is adopted to facilitate the piercing work.

The main engine with MCO of 1,471kW x 900rpm is adopted and the vessel maintains the navigation speed of 12.0kt.

PRINCIPAL PARTICULARS

Length (o.a.)	79.90 m	MCR (kw x rpm)	1,471 x 900
Length (b.p.)	76.00 m	NOR (kw x rpm)	1,250 x 853
Breadth (mld.)	12.00 m	Speed (max. trial)	12.90 knots
Depth (mld.)	6.30 m	(service)	12.00 knots
Draft (mld.)	5.10 m	Complement	17 persons
Gross tonnage	1,599	Classification	CR
Deadweight	2,489 T	Cargo pump	750 m³/h x 0.79 MPa x 331 kW x 2 sets
Main engine	DAIHATSU 6DEM-23L	Loading capacity	2,701 m³
		Builder	Sasaki Shipbuilding Co., Ltd.

In addition, a decelerating large-diameter propeller improves propulsion efficiency and reduces fuel consumption.



TENRYU MARU 749 GT Product Carrier 30

☐ Contents ☐ By Builder ☒ By Ship Type



TENRYU MARU 749 GT Product Carrier 30

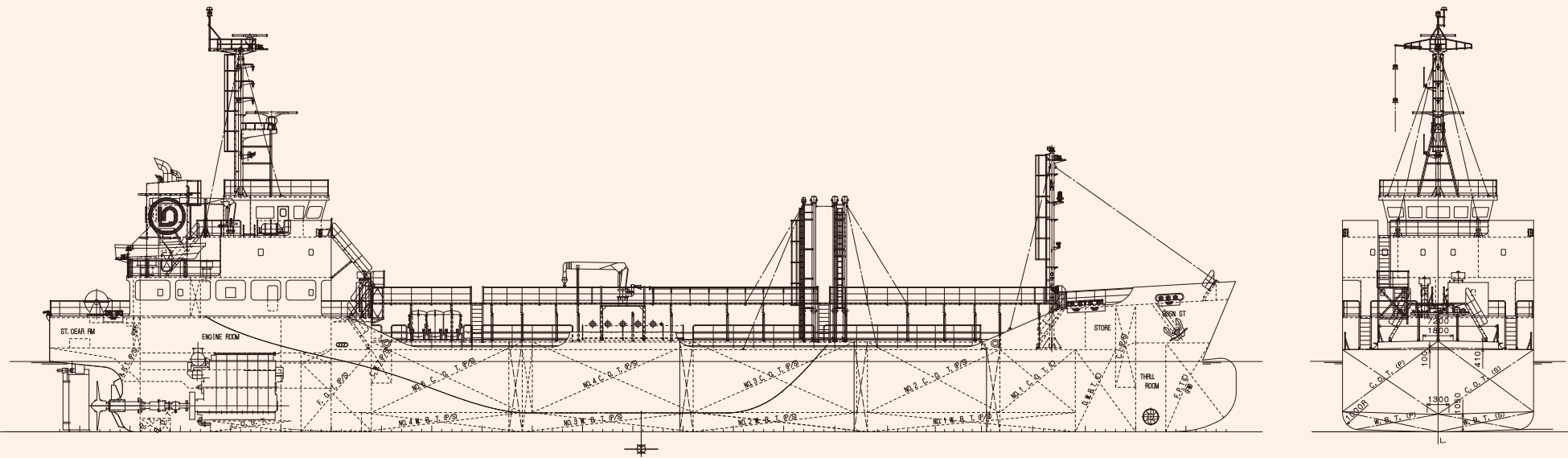
This vessel is a domestic clean product oil tanker, which is certified for navigation of greater coasting area (not international). This vessel has 4 stroke main engine capable to keep service speed 13.3 kt and navigate over 3,100 seamiles.

Electric-hydraulic type steering gear is available to steer up to 45 degrees. Controllable pitch propeller and C-type flap rudder is installed to improve maneuverability.

For energy-saving measure, a bulbous bow and stern fins are adopted for the hull form. Stern fins are installed to maintain a good flow into the propeller to improve propulsion efficiency and reduce fuel consumption.

PRINCIPAL PARTICULARS

Length (o.a.)	70.82 m	MCR (kw×rpm)	2,059 × 240
Length (b.p.)	67.00 m	NOR (kw×rpm)	1,750 × 227
Breadth (mld.)	11.40 m	Speed (max. trial)	14.23 knots
Depth (mld.)	4.90 m	(service)	13.30 knots
Draft (mld.)	4.19 m	Complement	9 persons
Gross tonnage	749 (Japanese Domestic)	Classification	JG
Deadweight	1,520 t	Cargo pump	150 m³/h × 80 mlc × 63 kW × 9 sets
Main engine	AKASAKA A38	Loading capacity	1,775 m³
		Builder	Sasaki Shipbuilding Co., Ltd.



TAI HONG 499 GT Product Carrier 31

☐ Contents ☐ By Builder ☒ By Ship Type



TAI HONG 499 GT Product Carrier 31

☐ Contents
 ☐ By Builder
 ☐ By Ship Type

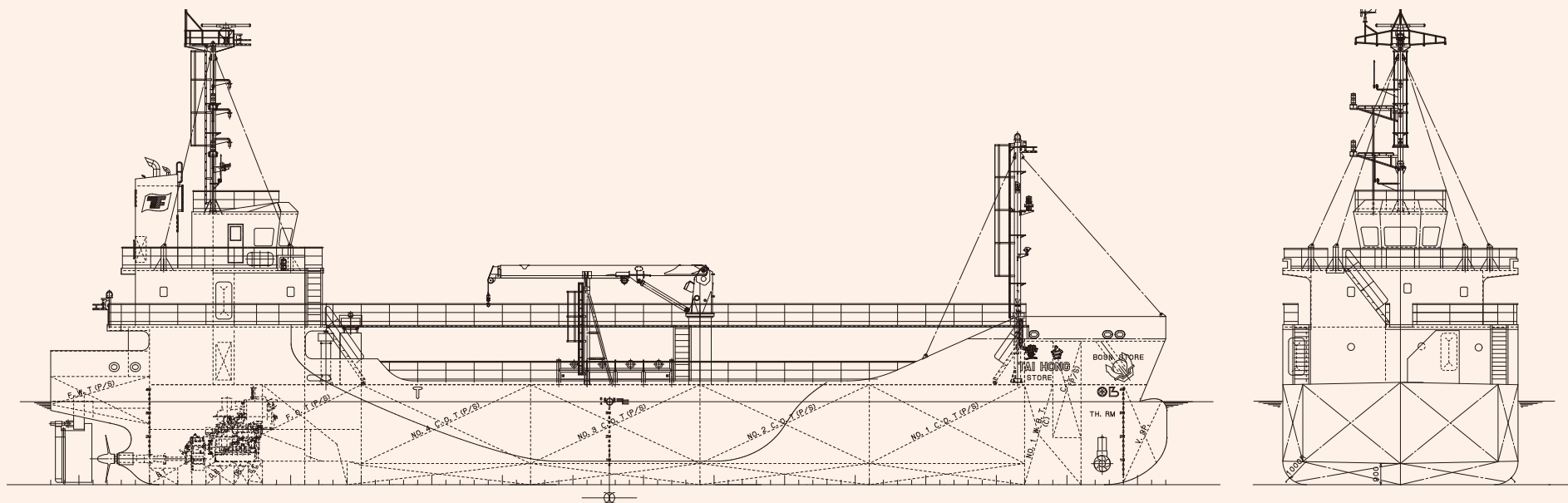
This vessel is a product oil tanker designed for especially bunkering, that carries HSHFO, LSHFO, MGO and LSMGO as intended cargo. The cargo tank is divided into 8. Hose handling crane has a large operating range and a lifting radius of 18 meters.

This vessel is registered under flag of ROC and is available to cruising area of Taiwan (30 nautical miles limited).

This vessel has 4 stroke main engine capable to keep service speed 10.0 kt and navigate over 2,500 seamiles. C-type flap rudder is adopted to improve maneuverability.

PRINCIPAL PARTICULARS

Length (o.a.)	47.15 m	NOR (kw×rpm)	637 × 1,279
Length (b.p.)	45.10 m	Speed (max. trial)	10.77 knots
Breadth (mld.)	10.00 m	(service)	10.00 knots
Depth (mld.)	4.25 m	Complement	7 persons
Draft (mld.)	3.55 m	Classification	CR
Gross tonnage	495	Cargo pump	300 m³/h × 0.7 MPa × 159 kW × 1 set, 200 m³/h × 0.7 MPa × 113 kW × 1 set
Deadweight	744 t	Loading capacity	725 m³
Main engine	YANMAR 6EY-17W	Builder	Sasaki Shipbuilding Co., Ltd.
MCR (kw×rpm)	749 × 1,350		



SINAR MAUMERE 3,986 DWT Chemical Carrier 32

☐ Contents ☐ By Builder ☐ By Ship Type



SINAR MAUMERE 3,986 DWT Chemical Carrier 32

This vessel is a tanker carrying product oils and dangerous chemicals with a flash point below 60 degrees Celsius in bulk.

The cargo tank is divided into 10, and a total volume of 4501cbm is secured. The structural material of the cargo tank is NSSC-2120 stainless steel manufactured by Nippon Steel Corporation, into which most of the dangerous chemicals can be loaded.

In addition to securing loading capacity, consideration is also given to improved fuel economy and facilitated piercing work such as equipment of the stern-fin and flap rudder.

The mess room is used as a saloon, making it a place for communication and restoration of them.

PRINCIPAL PARTICULARS

Length (o.a.)	95.32 m	MCR (kw×rpm)	1,618 × 300
Length (b.p.)	90.00 m	NOR (kw×rpm)	1,375 × 294
Breadth (mld.)	14.60 m	Speed (max. trial)	13.07 knots
Depth (mld.)	7.20 m	(service)	12.00 knots
Draft (mld.)	5.73 m	Complement	16 persons
Gross tonnage	2,943	Classification	BV
Deadweight	3,986 T	Cargo pump	360 m³/h × 0.79 MPa × 165 kW × 2 sets
Main engine	AKASAKA AX33BFD	Loading capacity	4,501 m³
		Builder	Sasaki Shipbuilding Co., Ltd.

The main engine with MCO of 1618kWx310rpm is adopted and the vessel maintains the navigation speed of 12.0kt. In addition, a decelerating large-diameter propeller is adopted to improve propulsion efficiency and reduce fuel

consumption. The central fresh water cooling system is adopted to various equipment in order to reduce the sea water pipe system.

