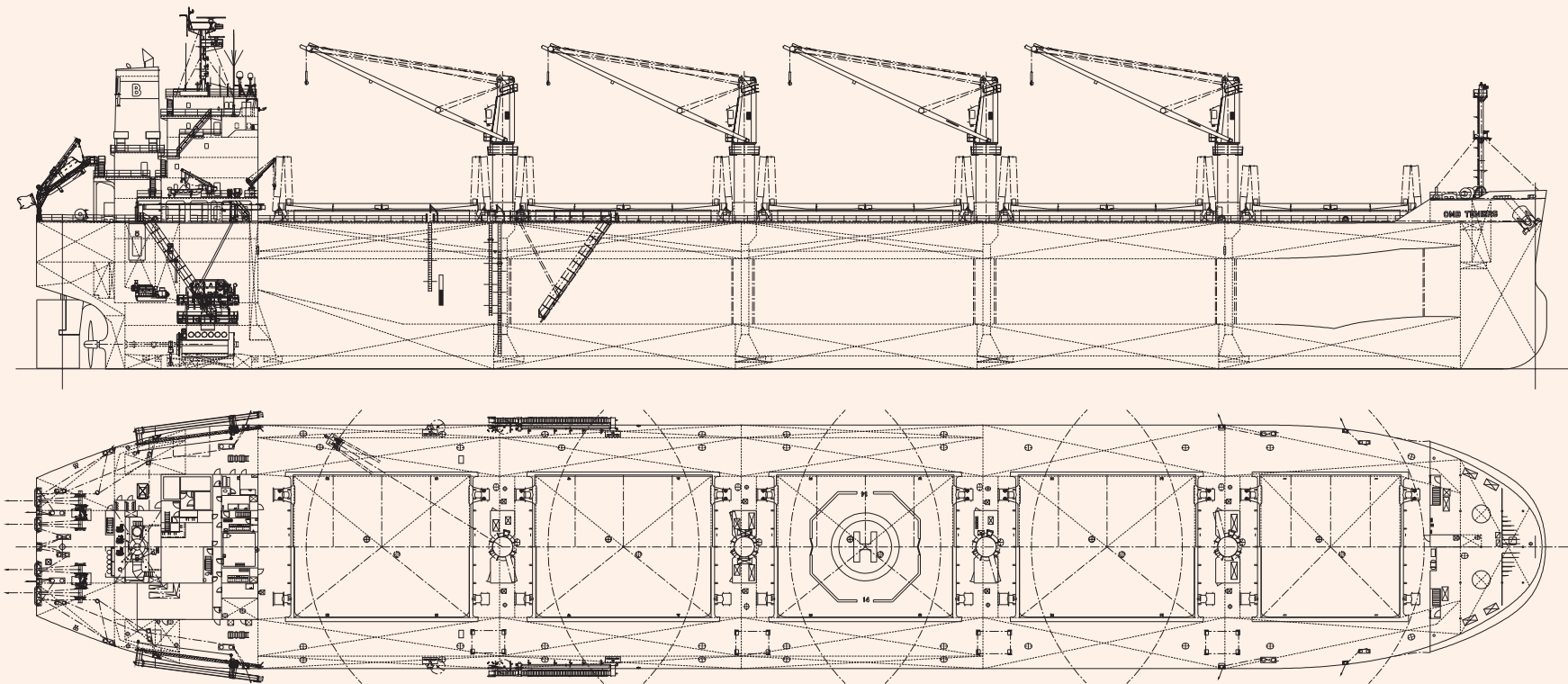


CMB TENIERS 63,611 DWT Bulk Carrier 60

☐ Contents ☐ By Builder ☒ By Ship Type



CMB TENIERS 63,611 DWT Bulk Carrier 60



PRINCIPAL PARTICULARS

Length (o.a.)	199.98 m	Main engine	HITACHI-MAN B&W 6S50ME-C9.6-HPSCR
Breadth (mld.)	32.24 m	MCR (kwxmin ⁻¹)	7,560 kW × 99.0 min ⁻¹
Depth (mld.)	19.30 m	Speed (service)	abt. 14.5 knots
Draft (ext.)	13.526 m (Summer draft)	Complement	25 Persons
Gross tonnage	36,177	Classification	NIPPON KAIJI KYOKAI (NK)
Deadweight	63,611 MT	Builder	Shin Kasado Dockyard Co., Ltd.

AMIS UNICORN 61,000 DWT Bulk Carrier 61

☐ Contents ☐ By Builder ☒ By Ship Type



AMIS UNICORN 61,000 DWT Bulk Carrier 61

Kawasaki Heavy Industries, Ltd. delivered the bulk carrier AMIS UNICORN, with a capacity of 61,000 DWT (HN: 1746), for Mercy Marine Line S.A.

Features

- 1. The vessel has a flush deck with a forecastle and five holds that are designed for optimum transport of grains, coal, ores and steel products. Four 30-ton deck cranes are installed along the center in between the hatch covers to enable cargo loading and unloading in ports that lack cargo handling facilities.
- 2. The vessel employs various technologies to achieve maximum fuel economy, including an energy-saving, electronically-controlled main diesel engine, a bow designed to reduce wave resistance, high propulsive efficiency propellers, and the Kawasaki rudder bulb system with fins (RBS-F) and semi-duct system with contra fins (SDS-F),

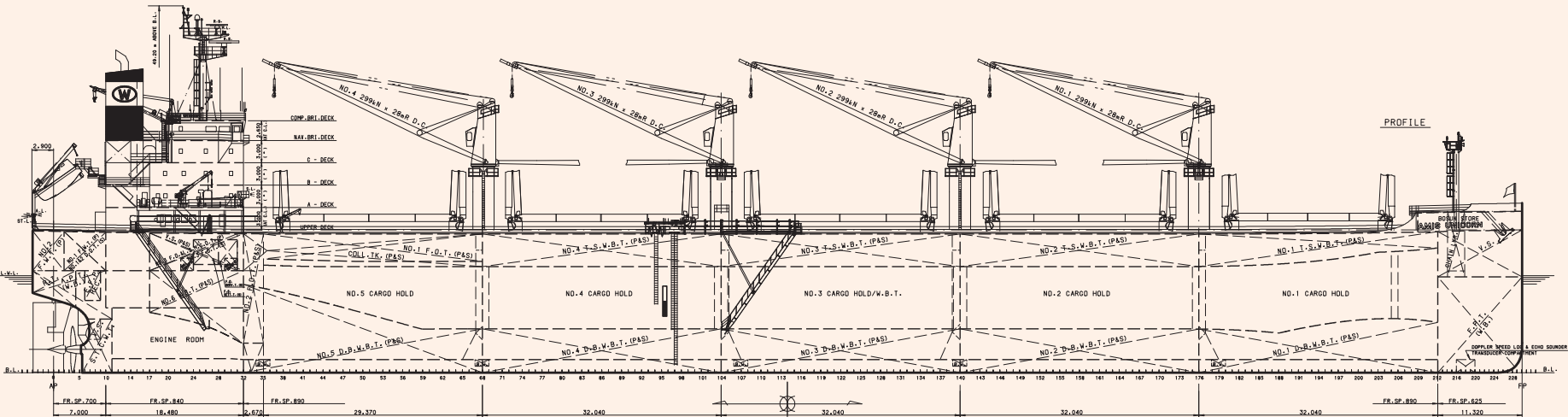
which all contribute to the vessel's enhanced propulsion performance.

3. The vessel incorporates various energy saving technologies, which reduce both fuel consumption and emission of carbon dioxide (CO₂), thereby complying with the EEDI* Phase 1 requirements.

* EEDI:Energy Efficiency Design Index . Compulsory international regulations requiring energy-efficiency compliance in newly built ships based on EEDI values, which specify CO₂ emissions in grams for transporting one ton of cargo for one mile. EEDI regulation values apply in increasingly strict phases based on the construction-contract conclusion date and finished-ship delivery date. By Phase 1, bulk carriers are required to achieve a 10% reduction in CO₂ emissions

PRINCIPAL PARTICULARS

Length (o.a.)	199.90 m	Main engine	MAN B&W 6S50ME-B9.5 diesel engine
Length (b.p.)	197.00 m	MCR (kw/rpm)8,130 kW at 108 rpm
Breadth (mld.)	32.24 m	Speed (service) Approx. 14.5 knots
Depth (mld.)	18.60 m	Complement 25 people
Draft (mld.)	13.00 m	ClassificationAmerican Bureau of Shipping (ABS)
Gross tonnage	34,657	Loading capacity (cargo hold volume) 77,539 m ³
Deadweight	61,175 t	Builder:Kawasaki Heavy Industries Ltd.



ROYAL ORION 61,000 DWT Bulk Carrier 62

☐ Contents ☐ By Builder ☒ By Ship Type



ROYAL ORION 61,000 DWT Bulk Carrier 62

Kawasaki Heavy Industries, Ltd. delivered the bulk carrier ROYAL ORION, with a capacity of 61,000 DWT (HN: 1747), for LEO OCEAN,S.A.

Features

- 1.ROYAL ORION is the first vessel (aside from LNG carriers) to be equipped with a ship operation management system called SOPass*1, which monitors and analyzes propulsion and fuel efficiencies, as well as main engine performance. While the vessel is sailing, SOPass remotely monitors and analyzes the data sent from the vessel at the onshore facility. This allows real-time checks of various performances, and thus contributes to reduction of life-cycle costs.
- 2.In order to satisfy new restrictions on SOx emissions*2 which is implemented by the International Maritime Organization (IMO) in this year **, the vessel includes a set of SOx scrubber*3 at the exhaust gas outlets of the main engine and the power generation engine. With this system, general fuel oil can be used continuously after the regulations are tightened, without the need of switching to low sulfur fuel oil.
- 3. The vessel incorporates various energy saving technologies, which reduce both fuel consumption and emission of carbon dioxide (CO2), thereby complying with the EEDI*4 Phase 1 requirements.
- 4. The vessel has a flush deck with a forecastle and five holds that are designed for optimum transport of grains, coal, ores and steel products and so on. Four deck cranes with 30 ton lifting capacity are installed along the center in between the hatch covers to enable cargo loading and unloading in ports that lack cargo handling facilities.
- 5. The vessel employs various technologies to achieve maxi-

mum fuel economy, including an energy-saving, electronically-controlled main diesel engine, a bow designed to reduce wave resistance, high propulsive efficiency propellers, and the Kawasaki Rudder Bulb System with Fins (RBS-F) and Semi-Duct System with contra Fins (SDS-F), which all contribute to the vessel's enhanced propulsion performance.

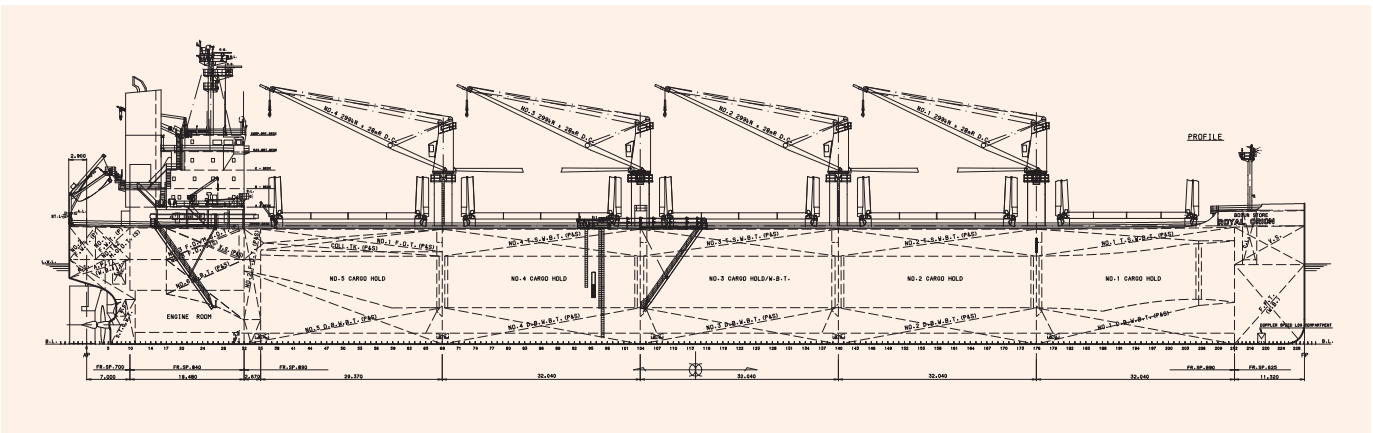
- *1 SOPass (Ship Operation and Performance analysis support system) is Kawasaki's proprietary system for real-time analysis of vessel performance, as well as for operational assistance.
- *2 SOx emission control: Currently, SOx emission restrictions in North American and European emission control areas (ECAs) limit sulfur

content in fuels to 0.1% or less. Starting on January 1, 2020, new regulations will require that ships operating in all other parts of the world achieve fuel sulfur content levels of 0.5% or less, or alternatively, use equipment to reduce SOx in exhaust gases to an equivalent level.

- *3 SOx scrubber: an exhaust gas cleaning system, which removes SOx (sulfur oxide).
- *4 EEDI:Energy Efficiency Design Index . Compulsory international regulations requiring energy-efficiency compliance in newly built ships based on EEDI values, which specify CO2 emissions in grams for transporting one ton of cargo for one mile. EEDI regulation values apply in increasingly strict phases based on the construction-contract conclusion date and finished-ship delivery date. By Phase 1, bulk carriers are required to achieve a 10% reduction in CO2 emissions.

PRINCIPAL PARTICULARS

Length (o.a.)	199.90 m	Main engine	MAN B&W 6S50ME-B9.5 diesel engine
Length (b.p.)	197.00 m	MCR (kw×rpm)	8,130 kW at 108 rpm
Breadth (mld.)	32.24 m	Speed (service)	Approx. 14.5 knots
Depth (mld.)	18.60 m	Complement	25 people
Draft (mld.)	13.00 m	Classification	Lloyd's Register of Shipping (LR)
Gross tonnage	34,793	Loading capacity (cargo hold volume)	77,539 m³
Deadweight	61,170 t	Builder:	Kawasaki Heavy Industries Ltd.



NORD AMAZON 64,499 DWT Bulk Carrier

63

☐ Contents ☐ By Builder ☒ By Ship Type



NORD AMAZON 64,499 DWT Bulk Carrier 63

Oshima Shipbuilding Co., Ltd. delivered NORD AMAZON, a 64,499-DWT bulk carrier, to DAMPSKIBSSELSKABET NORDEN A/S, in July 2020.

Features

- 1. This vessel has an optimized hull form for carrying grain, ore, coal, hot coil, sulphur, and cement, and large dead-weight(64,499 MT) with shallow draft(13.518 m).
- 2. This vessel has bilge gathering tank for storage of hold wash water, and gray water tank for storage of domestic wastewater.
- 3. Wide opening folding type hatch cover and four sets of high performance Jib cranes (30MT) are installed for

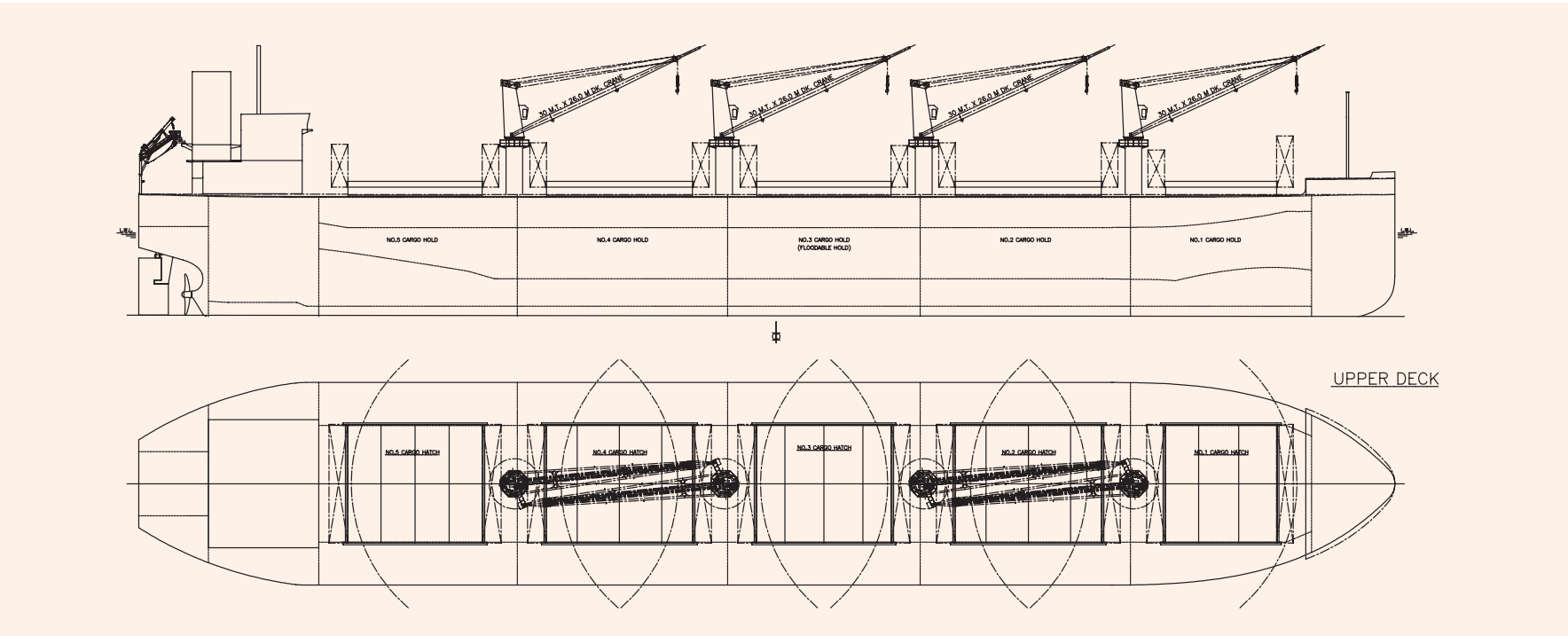
- efficient cargo handling.
- 4. Advanced Flipper Fins & Rudder Fin which improve propulsion efficiency are installed.

- 5. Special bow form, Seaworthy Bow improves speed performance in rough sea conditions as compared to ordinary bows.

PRINCIPAL PARTICULARS

Length (o.a.)	199.95 m
Breadth (mld.)	32.26 m
Depth (mld.)	19.28 m
Draft (mld.)	13.518 m
Gross tonnage	36256
Deadweight	64,499 MT

Main engine	MITSUI MAN B & W 6S50ME-C9.6
MCR (kw×rpm)	7,220 kw × 92.0 rpm
Speed (service)	13.80 knots
Complement	25
Classification	NK
Loading capacity (grain)	81,238 m³
Builder	Oshima Shipbuilding Co., Ltd.



ABILITY 64,000 DWT Bulk Carrier

64

☐ Contents ☐ By Builder ☒ By Ship Type



ABILITY 64,000 DWT Bulk Carrier 64

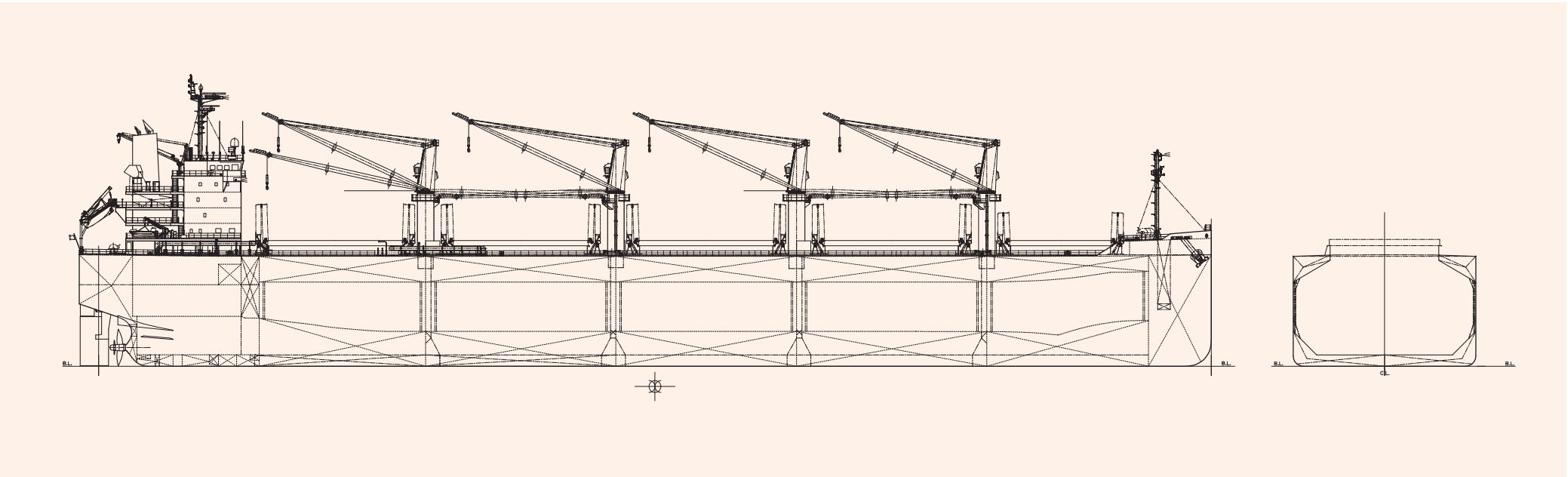
The 64,000-dwt type bulk carrier ABILITY was built at SHIN KURUSHIMA DOCKYARD CO., LTD. and delivered to the Panamanian Owner in July 2021.

Features

- 1. The vessel has five (5) cargo holds.
- 2. The upper deck hatch covers are folding type and operated by hydraulic cylinders.
- 3. The vessel has three (3) sets of 30.5-ton and one (1) set of 30.5/24-ton electro-hydraulic single deck cranes.

PRINCIPAL PARTICULARS

Length (o.a.)	199.92 m	MCR (kW×rpm)	7,390 kW x 101 rpm
Length (b.p.)	196.50 m	NOR (kW×rpm)	5,912 kW x about 93.5 rpm
Breadth (mld.)	32.26 m	Speed (service)	14.0 knots
Depth (mld.)	19.40 m	Complement	25 P
Draft (mld.)	11.30m	Classification	NK
Gross tonnage	36,757	Loading capacity (grain)	81,003 m³
Deadweight	64,253 t	(bale)	77,037 m³
Main engine	MITSUI-MAN B&W 6S50ME-C9.6-EGRBP	Builder	Shin Kurushima Dockyard Co., Ltd.



THERESA GRACE 64,000 DWT Bulk Carrier 65

☐ Contents ☐ By Builder ☐ By Ship Type



THERESA GRACE 64,000 DWT Bulk Carrier 65

Sanoyas Shipbuilding Corporation delivered the 63,916-DWT bulk Carrier “THERESA GRACE” in October 2019.

Features

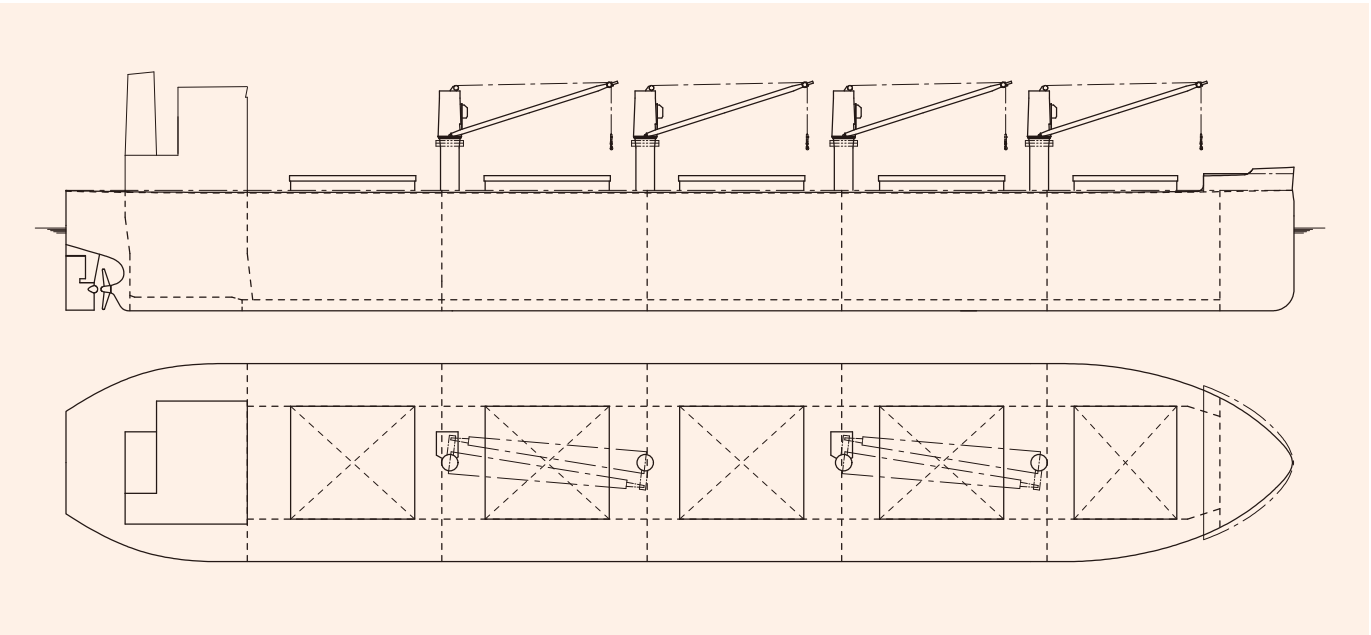
- 1. The vessel achieves large deadweight with Panamax beam and highest fuel efficiency under the limitation of the length less than 200 m.
- 2. Efficient energy consumption using Sanoyas energy-saving device called “STF” (Sanoyas-Tandem-Fin (patent) ; max. 6% energy saving) fixed on stern shell and highly efficient appendages on rudder, together with low-speed & long-stroke electronically controlled main engine and high-efficiency propeller, which also contribute to the reduction of CO₂ emission.
- 3. The vessel achieves in advance Phase II level of EEDI (Energy Efficiency Design Index, the grams CO₂ per ton nautical mile) regulation that shall apply to ships for which the building contract is placed on or after 1st January, 2020.
- 4. Considering eco-friendly features, various countermeasures such as main engine complied with NO_x emission Tier II limit for the prevention of air pollution, dedicated low sulfur fuel oil tank for operation in ECA (Emission Control Area) and Ballast Water Treatment System for the protection of marine environment, are incorporated. In addition, independent holding tanks for accommodation discharges, dirty hold bilge and rainwater on upper deck are arranged.
- 5. The vessel has five (5) cargo holds with hatch opening which is maximized to load various cargos such as grain, ore, coal and steel products. Four (4) 36-ton deck cranes

- are installed for handling cargo at ports where there are not any available loading and unloading facilities.
6. For improvement of the vessel’s maintenance, access trunks are arranged to make it possible to gain access

- from upper deck to double bottom even at laden condition.
7. SO_x scrubber for main engine and main generator engines as an alternative to low sulfur fuel to be installed.

PRINCIPAL PARTICULARS

Length (o.a.)	199.99 m	Main engine	MAN B&W 6G50ME-B9.3
Breadth (mld.)	32.24 m	Speed (service)	abt. 14.5 knots
Depth (mld.)	19.22 m	Classification	NK
Draft (mld.)	13.466 m	Handling gear	36 T × 26 mR × 4 sets
Gross tonnage	35,868	Loading capacity (grain)	81,240 m ³
Deadweight	63,916 MT	Builder	Sanoyas Shipbuilding Corporation



TESS64 AEROLINE 63,300 DWT Bulk Carrier

66

☐ Contents ☐ By Builder ☐ By Ship Type



TESS64 AEROLINE 63,300 DWT Bulk Carrier 66

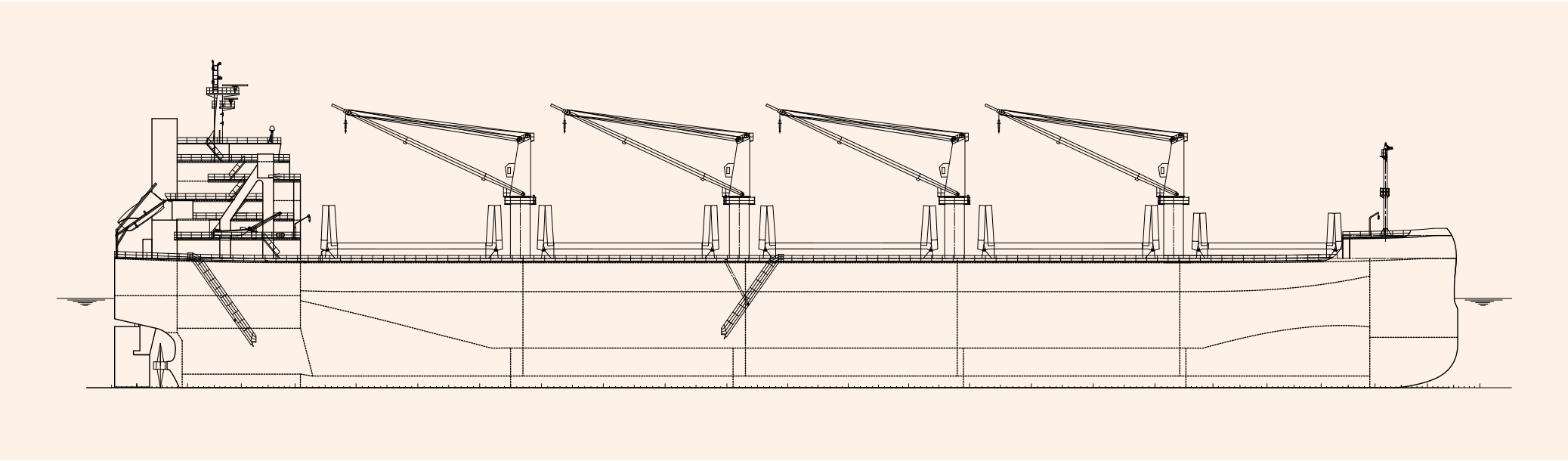
Features

- 1. Comply with EEDI Phase 3 regulations.
- 2. The unique hull form, which reduces resistance, is paired with our exclusive fuel-efficiency technologies to improve the ship's performance. This has improved fuel consumption per ton-mile by approximately 29%, compared to TESS58.
- 3. Equipped with the environmental technologies devices to prevent the air pollution from the NOx and SOx emissions and marine pollution from the oil spillages, etc.
- 4. The unique and exclusive AEROLINE technology for the reduction of wind resistance is applied to the bow and accommodation house to improve the fuel efficiency at actual sea performance.
- 5. Length extended to 200m while maintaining the breadth

PRINCIPAL PARTICULARS

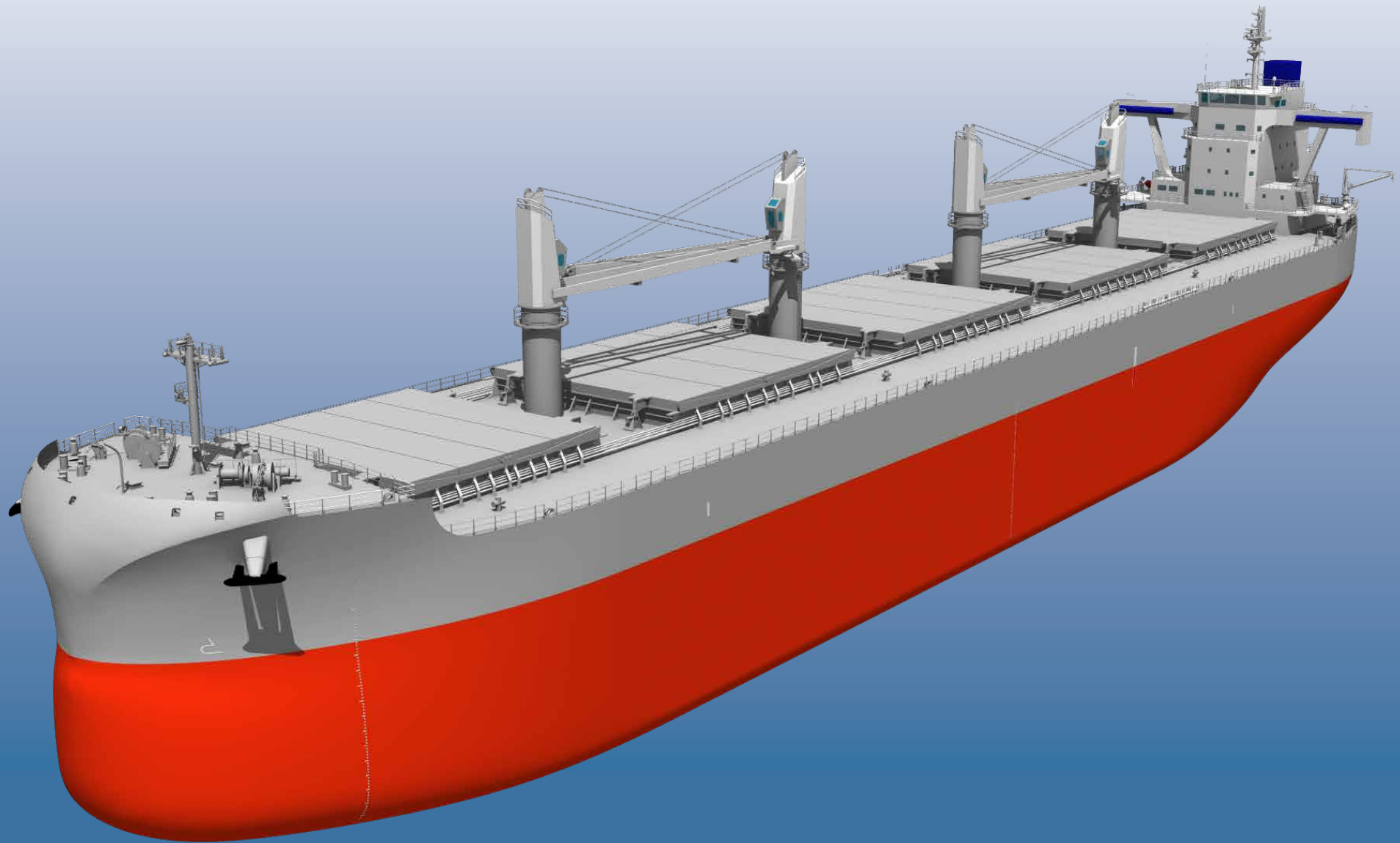
Length (o.a.)	200 m	Gross tonnage	36,000
Breadth (mld.)	32.26 m	Deadweight	63,300 mt
Depth (mld.)	18.6 m	Loading capacity	79,000 m³
Draft (mld.)	13.3 m	Builder	Tsuneishi Shipbuilding Co., Ltd.

- to pass through the Panama Canal.
- 6. Keeping the low air draft and the depth 18.6m to ensure the ship's versatility.
- 7. Excellent trading flexibility for carrying the three major bulk cargoes of iron ore, grains, and coal, as well as hot coils.
- 8. Achieve a deadweight of over 63,000 MT with the shallowest draft in its category.
- 9. With a cargo capacity of 79,000m³, it is capable of transporting large volumes of low-density cargo, such as grains, etc.
- 10. The original interior concept NEXT STYLE, utilizing exquisite design and indirect lighting, provides the crew with relaxation and comfort.



TESS66 AEROLINE 66,200 DWT Bulk Carrier 67

☐ Contents ☐ By Builder ☒ By Ship Type



TESS66 AEROLINE 66,200 DWT Bulk Carrier 67

Features

- 1. Comply with EEDI Phase 3 regulations.
- 2. The unique and exclusive AEROLINE technology for the reduction of wind resistance is applied to the bow and accommodation house to improve the fuel efficiency at actual sea performance.
- 3. Equipped with the environmental technology devices to prevent the air pollution from the NOx and SOx emissions and marine pollution from the oil spillages, etc.
- 4. The improved hull design allows for better fuel efficiency during both shallow and full draft operations.
- 5. Versatility retained with the same length as TESS64, the breadth to pass through the Panama Canal.
- 6. The depth of 19.15m, and a suppressed air draft all lend

PRINCIPAL PARTICULARS

Length (o.a.)	200 m	Gross tonnage	36,900
Breadth (mld.)	32.25 m	Deadweight	66,200 mt
Depth (mld.)	19.15 m	Loading capacity	81,500 m³
Draft (mld.)	13.8 m	Builder	Tsuneishi Shipbuilding Co., Ltd.

- to the operational flexibility.
- 7. Excellent trading flexibility for carrying the three major bulk cargoes of iron ore, grains, and coal, as well as hot coils.
- 8. The largest class deadweight capacity of Ultramax category, beyond 66,000 MT.
- 9. With hull design improvements and vessel weight reduction, loading capability has been enhanced.
- 10. Cargo capacity is 81,500m³, the largest in the Ultramax category.
- 11. The original interior concept NEXT STYLE, utilizing exquisite design and indirect lighting, provides the crew with relaxation and comfort.

