

40000 DWT BULK CARRIER – POCKET PLAN

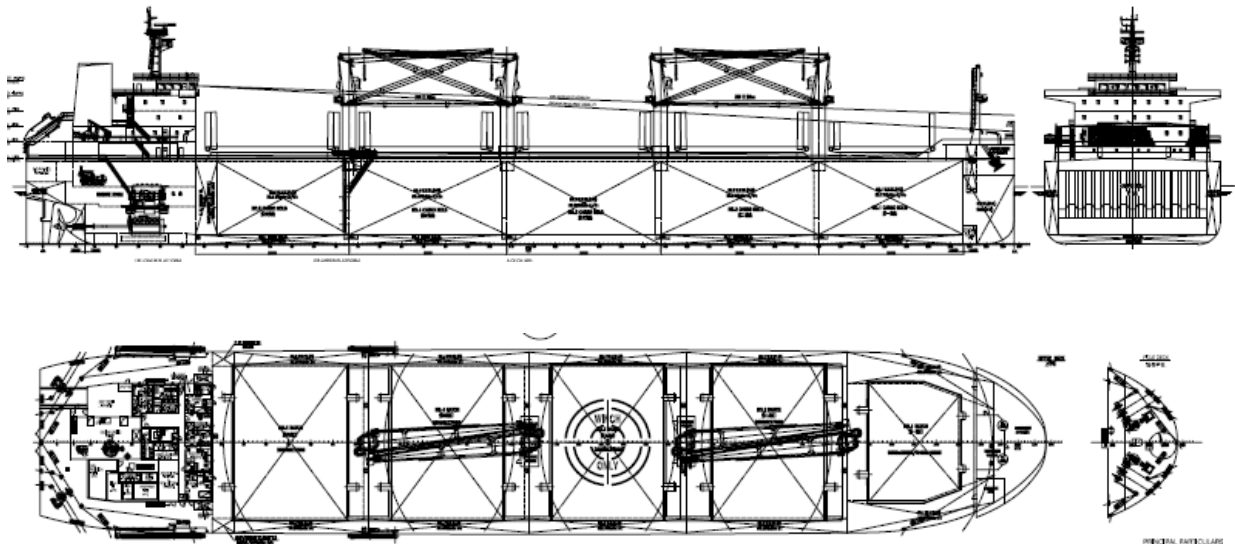
40,000 DWT worldwide service, 5 holds, with open hatch, box shaped hold nos. 2/3/4, multipurpose dry cargo, ice class 1C, eco-friendly, fuel efficient double skin bulk carrier, with service speed 13.70 knots fully loaded , equipped with electronic MAN 5S 50ME – B9.3 two stroke diesel engine with part load tuning for low load operations , exhaust gas economizers for diesel generators, electric winches, BWTS, cargo hold washing and 4 sets hydraulic level luffing cranes and hydraulically operated folding type hatch covers.



OWNER: INTERLINK MARITIME CORP., BERMUDA
BUILDER: HUATAI HEAVY IND. (NANTONG) CO., CHINA

SUPERVISION: SCHULTE MARINE CONCEPT LTD, HONG KONG

GENERAL ARRANGEMENT



OUTLINE PARTICULARS

● TYPE OF VESSEL

Single screw motor driven double skin bulk carrier, capable of carrying dry bulk and break bulk cargo, such as coal, bauxite, phosphates, iron ore, coke, grain including soya, soya bean meals, salt, sugar, fertilizers, steel products (sheet, rolls, coils, pipe), forest products in holds, bagged cargoes and cargoes of BC code

[Dangerous goods class:1.4S, 2.2, 2.3, 3.3, 4.1, 5.1, 6.1 (solids), 8 (solids), 9]

● FLAG AND HOME PORT OF VESSEL

Flag: Marshall Islands, Home Port: Majuro

● CLASSIFICATION

American Bureau of Shipping
ABS A1, Bulk Carrier, BC-A Holds 2 & 4 may be empty, ESP, AMS, ACCU, CSR, AB-CM.

Addtl. Notations : BWE, BWT, GP, CRC(I), ENVIRO, GRAB 20, Ice Class 1C, RRDA, TCM, UWILD. **EEDI-Ph3**

● PRINCIPAL DIMENSIONS

Length O.A.	180.00 m
Length B.P.	177.00 m
Breadth Mld.	32.00 m
Depth Mld.	15.00 m
Designed Draft Mld.	9.50 m
Scantling Draft Mld.	10.75m
Air draft in full load cond.	~31.20m

● HOLD DIMENSIONS(*Footprint*) (Lx B)

No.1: 25.5 x 19.5/4.25 m Breadth tapered

No.2: 28.7 x 27.0 m

No.3: 26.3 x 27.0 m

No.4: 27.9 x 27.0 m

No.5: 28.0 x 4.5/25.0 m Breadth tapered

● HATCH SIZES

No.1 Hatch: 9.6/6.4 m (l) x 20.8/16.2 m (w)

No.2-5 Hatches: 20.0 m (l) x 27.0 m (w)

Dist. From WL to top of hatch coaming: 16.9 m

LOADING DIMENSIONS

Deadweight:

At designed draft	abt. 33,300 metric tons
At the scantling draft	abt. 40,000 metric tons
Gross Tonnage	abt. 25,546
Net Tonnage	abt. 13,675
Alternate hold loading	

Capacity:

Cargo hold (grain)	50,900 m ³
Cargo hold (bale)	49,400 m ³
Ballast water (incl. clean WBT)	16,500 m ³ *
Ballast water (excl clean WBT)	12,000 m ³
Heavy fuel oil	1,000 m ³
Diesel oil	60 m ³
LSMDO / MGO	300 m ³
Fresh water	200 m ³
Drinking water	50 m ³

* Ballast water (incl. clean WBT) for Heavy Ballast condition without any hold flooding.

● DESIGN CONDITION

Upper deck hatch cover :

Uniform Load 3.0 t/m²

Upper deck:

Outside line of opening 2.5 t/m²

Inside line of opening 2.5 t/m²

Tank Top:

Uniform Load 25 t/m²

Strengthened for forklift 10 T SWL

Steel Coil Loading:

Load 40 t (two tiers each of 20 t)

Length 1800 mm

Dunnage 3

Grab weight:

Un-laden grab weight 20T

Seats are provided on deck for SMAG Grab Type: MZGL 12000-6-B-S

● SPEED AND ENDURANCE

Service speed at CSR power of M/E (4575 kW, 75% CMCR) at scantling draft of 10.75 m, abt. 13.56 knots (or 14.00 knots at design draft), including 15% sea margin.

Endurance based on fuel oil consumption of 42,700 kJ/kg lower calorific value, service speed of 14.0 knots and main engine run at CSR with 15% S.M. to be abt. 18,000 N. mile.

Fuel Consumption (HFO 380 cst grade):

Main Engine:	abt.	21.0 t/day	@14.0 knots
	abt.	19.0 t/day	@13.5 knots
	abt.	16.5 t/day	@13.0 knots
	abt.	14.5 t/day	@12.5 knots
1 Elec. Gen:	abt.	2.5 t/day	@sea load of 460 kW
	abt.	4.5 t/day*	@port, cranes working
using MDO	abt.	2.0 t/day	@port, w/o cranes

● PROPULSION & AUX. MACHINERY

Main engine:

Make and model	MAN 5S 50ME-B9.3 – 1 set (IMO NOx Tier II compliant) Part load tuning, EGB
CMCR	6100 kW at 99.0 rpm
CSR (75% CMCR)	4575 kW at 89.9 rpm

Propeller: Four (4) blades, solid fixed pitch, aerofoil section keyless, nickel aluminium bronze casting

Electric generator:

Main D. Generator (HFO)	3 sets x abt. 700 kW each
Emergency DG (MGO)	1 set x abt. 120 kW

Boiler (Smoke tube type):

Oil fired section	1.5 t/hr
EGE for M/E	0.3t/hr
EGE for DGs	0.36t/hr

● CARGO HANDLING

Cargo gear:

Four (4) sets IHI single electro-hydraulic wire luffing type jib cranes with provision for grab handling.

Hoisting load	30 t
Hoisting speed	25 m/min
Working radius	About 4 m to 26 m
Outreach beyond half breadth, maximum	10 m
Luffing time	55 seconds
Slewing speed	1.0 rpm

Cargo hatch cover:

Steel folding type, weather tight double skin construction, hydraulically operated, grain and cement openings.
Pump unit 100% x 2 sets

Container carriage on Hatch Cover

Carriage of empty containers in 2-tier on top of hatch covers .
No. of 20TEU empty containers ' 165 nos. max.

Cargo hold ventilation:

Explosion proof exhaust fans at 6 air changes per hour.

Bilge and Ballast system:

Ring main with remote hydraulically operated valves & stripping eductor of 50 m³/ h.
Centralized control for ballast, bilge and stripping valves in ship office.

Ballast pump:

Electric motor driven centrifugal, bronze casting and phosphor bronze impeller, 700 m³/h x 0.30 MPa – 2 sets

Ballast Water Treatment Plant:

USCG approved BWT Plant, filtration and UV type, 700 m³/hr capacity – 2 sets

Cargo hold washing : Fitted

● ACCOMMODATION

European type – Vacuum Toilets and shower

Complement:	Captain class	2
	Senior Officer class	2
	Junior Officer class	6
	Rating class	13
	Owner, Pilot	2
	Total	25

Gymnasium fitted for 6 Suez Crew

Life saving equipment for persons 25

● AIR CONDITIONING SYSTEM

High velocity, single duct system

Design condition		
summer	outside	35°C, 70% rel. humidity (RH)
	inside	26°C, about 50% RH
winter	outside	-20°C
	inside	22°C, about 50% RH

● CORROSION PROTECTION

(PSPC COMPLIANCE FOR WBT)

Vertical & flat bottom	SPC antifouling paint, Tin Free, 60 month guarantee
Top side	Pure Epoxy/Polyurethane
Deck	Pure Epoxy/Polyurethane
Cargo holds	Pure Epoxy paint
Hatch covers	Pure Epoxy/Polyurethane
Superstructure	Pure Epoxy/Polyurethane
Ballast water tanks	Pure Epoxy paint 60 month guarantee Sacrificial anodes in WBT
External hull	Impressed current cathodic protection & anodes in stern

CHARACTERISTICS

The following major characteristics shall be applied:

•	Worldwide transportation including Panama and Suez Canals	•	IMO approved Ballast Water Treatment Plants to treat ballast water during ballasting and de-ballasting.
	Energy efficient design with projected EEDI reduction of around 25% from IMO norms.		Green Passport (IHM) implementation
•	Ice Class 1C	•	EU & CARB compliance- MGO burning facility for main engine, generators, boiler at Port.
•	Fuel efficient hull form	•	Adaptability of fuel system on board for main engine & generators to be able to burn HFO grade 700 cst
•	Good level of redundancy of critical equipment	•	Heavy fuel oil generators eliminating diesel oil consumption at sea
•	Five (5) Cargo holds all double skinned and corrugated bulkheads	•	Centralized fresh water cooling system in engine room
•	Four (4) wide open hatches (> 80% of beam) for easy spotting of cargoes	•	Citadel anti-piracy protection for crew.
•	Dangerous cargo carriage facility in holds	•	Independent shower and toilet units for officers and semi-private units for ratings
•	Flexibility of carrying various cargoes including:	•	Maintenance free refrigeration units for provision cabinets
•	- Dry bulk and break bulk such as grain, metal concentrates, coal, iron ore, bauxite, salt, sugar, cement in bags and scrap metal	•	CO2 fire extinguishing system for cargo holds
•	- General cargoes such as steel products, forest products, packaged freight and palletized cargo	•	Mechanical ventilation for Cargo Holds
•	- Long cargoes such as pipes, packaged lumber and deck cargoes	•	Exhaust gas recovery for heating from DG exhaust, even when the vessel is in port.
•	- 2-tier empty container carriage on deck -165 nos.	•	Part load tuning of main engine for fuel consumption optimization
•	Strengthened for heavy cargoes – cargo hold tank top is strengthened for grab handling and fork lift op.	•	Corrosion-prevention features: IMO PSPC compliance for water ballast tanks
•	Hold 2, 3 and 4 box-shaped with no hopper or wing tanks.	•	Interactive ergonomic Bridge design
•	"B" type freeboard – Drier decks in loaded condition	•	Equipped with V-Sat & FBB and full GMDSS application
•	Tank top strength – 25 t/m ²	•	Monorail 4 T capacity for provision & engine room parts handling.
•	Cargo hatch cover uniform load of 3.0 tons/m ²	•	Embodies anticipated future legislation requirements
•	Alternate loading in holds 1, 3 and 5	•	Designed and constructed for long reliable service and optimum life-cycle cost
•	Hold flooding not required in heavy ballast condition. It is possible to manage with WBT.	•	Vacuum toilet system for conservation of water
•	Pre-swirl duct and Hub vortex absorption fin for improved propeller efficiency.	•	Segregation for clean and dirty water ballast tanks
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