

# IDWAL



DESKTOP ANALYSIS  
REPORT

## EXAMPLE VESSEL

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IMO Number: 1234567  
14th November 2019



## PREAMBLE

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The data used for this analysis is from references below. The final evaluation should be used for guidance only. Confirmation of first-hand data, facts and condition should always be supported by inspecting at least a sample of vessels in each class, plus any sister ships that give any concern.

This desktop report is intended for the sole use of the recipient and its purpose is to offer a remote-evaluation of the asset(s), inclusive of several assumptions, and has been issued prior to the conclusions of any physical inspections having been considered. The results are objectively determined, and the depth of the findings is in all respects limited to the quantity and quality of the data-set provided.

All details are given in good faith, and without guarantee.

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### REFERENCES

1. Online Public Information: Managers and Shipyard Websites.
2. Subscription based Intelligence.
3. The Owner's production reports from Weeks 36, 43 and 44.
4. Owners newbuild specification and Maker's list

## SUMMARY

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The Example Vessel shall be a nominal 23,000 DWT, 1750 TEU, geared (2x 45T Cranes), cellular container ship with five cargo holds. It is at the completing stages of construction at Example Shipyard. The key reported dates are as follows as of 3rd November 2019:

- Keel Laid 22nd December 2018
- Launched 24th June 2019
- Sea trialled 10-13th October 2019
- Completion due 15th November 2019
- Contracted Delivery date 27th February 2020.

From above, one can see the ship is being built ahead of schedule and the dates show good timing of milestones, so as not to allow any corrosion to advance prior to surface treatment. The vessel has its hatchcovers, cranes and main machinery already fitted and appears mostly painted. Being a state-owned yard there are no concerns providing good supervision is carried out in terms of construction quality, which from the reports received, appears to be at an acceptable standard.

Commercially such ships can earn roughly 8,500 USD/day and have operating costs around minimum 5,200 USD/day. The ship has lower fuel consumption as the hull lines have been modified for lower speeds compared to similar newbuilding early 2000, along with a higher efficiency main engine. It has dangerous goods capacity and a high number of reefer sockets as additional benefits. It has no Ice Class nor any special Class feature beyond what would be normally expected for this vessel type. There is a bowthruster as would be expected but no shaft generator, instead Owners have opted four auxiliary engines.

In terms of regulatory compliance: it is being built with dual ECDIS, a ballast water treatment system with USCG approval (Maker Panasia was verified – model not) and all engines are NOx Tier II applicable for the build year. US VGP compliance is unclear if either the bowthruster or stern tube for the main propeller have Environmentally acceptable lubricants (EAL). There are no details of any scrubber fitted thus the 2020 Global sulphur cap shall be met by complaint fuel on the market.

Example Client, the nominated Owners, was founded in 1976 and has offices in Example City, Example City 2 and Example City 3. Its fleet consists of: 7 ultramax/supramaxes; 4 chemical tankers; one anchor handler; and most relevant - 60 container ships medium sized down to feedermax, plus one newbuilding sistership, Example Vessel 2 launched at the same yard.

## PARTICULARS

<b>Name</b>	Example Vessel
<b>IMO Number/Call sign</b>	1234567 / A1D2C3
<b>Vessel Type</b>	Container Ship
<b>Age/built/Shipbuilder</b>	Contracted delivery 27th February 2020/ Example Shipbuilder
<b>Flag/ Class</b>	LiMalta / Appears LR
<b>Registered Owners/Managers /Charterer</b>	Example Client/ Unknown
<b>Survey Status</b>	Due for completion 15th November 2019.
<b>Crew</b>	Space for 26 +6 Suez
<b>Ballast Water Treatment System</b>	Panasia specified.
<b>ECDIS</b>	Dual ECDIS
<b>Speed and Consumption (*)</b>	Designed for 18.5 Knots at 90% CSR 15% sea margin Calm seas Beaufort 0, consumption 38.7 T/D with calorific vale 42,707KJ/kg, specific main engine consumption 160.8 g/kwh range 13,000 nauti-cal miles.
<b>Dimensions</b>	LOA - 172.0 m / Beam 28.4 m draft 8.5m design.
<b>Tonnage</b>	23,000 DWT / GRT - 18,700 / Lightship - unknown
<b>Cargo Layout</b>	5 cargo holds, with hatches, 664 TEU in holds,1096 on deck total 1758 492 reefer sockets 2 MacGregor cargo cranes and Macgregor hatchcovers
<b>Machinery</b>	Main Engine - HMM Wartsila 6RT Flex 58T-E, 14,100 kW at 105 rpm. Auxiliary Engines - four Daihatsu, two 990kw and two 1290 kw 440 V 60 hz. All engines appear Tier II NOx. One oil fired and exhaust gas heated composite steam boiler, Kangrim 1800/1300 kg/h 7 bar. One Nakashima Bowthruster.

## DESIGN AND CONDITION

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The vessel is a fuel-efficient container ship, geared, thus enabling self-discharge from two cranes 45T SWL on centre line, at 30m outreach enough to work all holds. There are five box-shaped cargo holds, one to three can take dangerous goods. All are double skinned with side passageways, side ballast tanks and double bottoms. The fuel tanks are fitted into the transverse spaces between cargo holds to minimise pollution risk from side-shell damage. Two side ballast tanks shall be allocated for heeling operations.

Container carriage possibilities are for mainly 20 and 40 footers, precisely ISO 1AA,1CC, 1AAA and 1EEE variants, on deck and in the holds. The hatchcovers are pontoon type, lift on/off from MacGregor. There is also a high number of electrical sockets for refrigerated container carriage. Dangerous goods can be carried in holds one to three.

The construction standards, surface preparation and painting are all as expected and good in the specification. Of note the ballast tanks have two 160-micron coats plus an extra stripe coat which is good. The cargo holds have two 125-micron coats which is average, as is the case for the deck and fittings.

The machinery choices are good, except that it would have been better to have a shaft generator at sea to reduce maintenance rather than have four auxiliary engines. All machinery appears from mostly well-known suppliers or licences. The propulsion consists of a fixed pitch propeller, direct driven via an oil lubricated stern tube from a camshaft less modern slow speed reversing NOx Tier II main engine.

Fire and safety systems are standard with: 26 person freefall lifeboat 2x15 person life rafts each side - starboard side davit-launches; a 6 person rescue boat; a 6 person forward life raft; CO2 as the fixed fire-fighting systems for all holds; and the engine room; water-mist for high risk engine room areas; and a comprehensive fire detection system.

The navigation and communications equipment were not tabled, likely all Japanese supply. Dual EC-DIS units shall be fitted.

There are no ozone-depleting gases. The ship has an oily water separator, an incinerator and sewage treatment plant, plus a sewage holding tank for greywater in port. The ship has an oil-lubricated stern tube, but the US VGP compliance status is not known nor of the Bow-thruster. It is unclear if Class has made an approved Inventory of hazardous materials. There is what looks like a fully USCG type approved ballast water treatment system. There are no scrubber units.

The accommodation is designed for 26 crew members and the limited photos shows a good standard. Naturally it must be compliant with all the MLC mandatory build requirements included for this construction year.

## CONSTRUCTION

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The ship is being build by the very well known Example Shipbuilder, a state owned group. This specific yard has built 85 ships, with 14 on order. There is one sister ship in service, one other launched and two with their keels laid.

## CLASSIFICATION

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The Vessel ´s was specified to have the following DNV-GL notations or LR equivalent (LR is in fact the Class).

+100A5 Container ship BWM(D2) DG, NAV, LC  
+MC AUT CM-PS EP-D

There is no Ice Class notation.

100A5 Container Ship means it has the applicable standards required for her keel laying date for a container ship.

MC AUT unmanned machinery allowance (UMS).  
BWM - Ballast Water Management Plan is approved. D2 means with ballast water treatment.  
DG - Dangerous Goods allowance  
LC - Lashing container strength safety  
CM-PS Condition Monitoring allowance for the propeller shaft

## CAPEX/OPEX PROJECTIONS

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### Dry Dockings

The first drydocking in 2025 would cost around 0.5 Million USD based upon Chinese yard prices.

### Ballast Water Treatment System (BWT) Retrofit

Panasia believed to be USCG compliant maker already fitted.

### Intermediate drydocking

None if the in-water survey notation is not omitted (unlikely).

### ECDIS

Dual ECDIS is being fitted.

### ECA Zone/Low Sulphur Fuel/Global 2020 Sulphur Cap

The vessel is not fitted with a scrubber, therefore compliance with the forthcoming global sulphur cap would be achieved, as it stands now, by entirely changing to compliant low sulphur fuel. Meantime there is enough capacity for trading into ECA zones for around 6 days.

### US EPA Vessel General Permit Compliance (VGP)

Unclear if the bowthruster or stern tube shall meet full compliance standards of using EAL.

### Projects/Upgrades

None noted.

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No OPEX data has been supplied.

## RECOMMENDATIONS

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### Item



Ideally it would be recommended to deliver the vessel with an EU Inventory of hazardous materials.



To confirm the Ballast Water treatment system is USCG type approved.



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An extra coat of paint on the delivery voyage on top of the hatchcovers, decks, tank tops of the cargo holds would life extend the vessel based upon the average paint specification on those areas and the ease of overcoating as opposed maintaining in 5 years with more effort.

### Action

Owners to confirm.

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Best carried out at construction rather than wait until December 2020 unless already carried out.

Comment only.