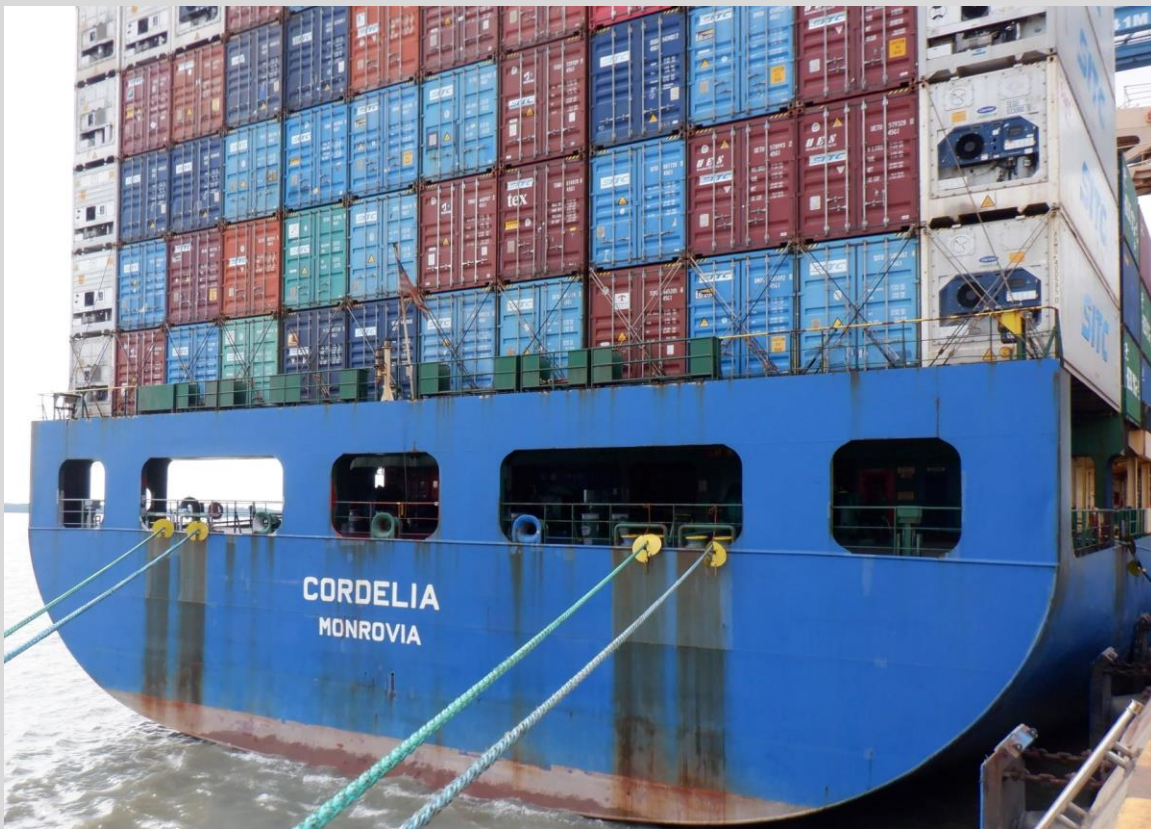




# SeaTec



## CORDELIA

14<sup>th</sup> Aug 2021 – Port Klang (Malaysia) – IMO No: 9253014

### Condition Inspection Report

Inspected at:	Port Klang (Malaysia)
Inspected by:	Ravi Ahluwalia
Inspected Date:	14 Aug 2021
Project Account:	SC5215

## Approvals

Author(s):	Ravi Ahluwalia	Date:	16 <sup>th</sup> Aug 2021
Approver(s):	Nilesh Saldanha	Date:	17 <sup>th</sup> Aug 2021

## Revision

Version:	01	Date:	17 <sup>th</sup> Aug 2021	Details:	Issue to client
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## Contents

<b>DEFINITIONS .....</b>	<b>3</b>
Inspection Limitations and Code of Conduct .....	3
Code of Conduct .....	3
Rating Definitions .....	4
<b>INSPECTION INFORMATION .....</b>	<b>5</b>
Vessel Particulars .....	5
Inspection Details.....	5
<b>EXECUTIVE SUMMARY .....</b>	<b>6</b>
Overall Condition.....	6
Defect List and Areas to note .....	8
<b>VESSEL ASSESSMENT .....</b>	<b>11</b>
Class and Certification .....	11
Safety Equipment.....	13
Machinery .....	15
Electrical .....	21
Hull and Outfitting.....	22
Cargo Systems and Deck Equipment.....	24
Accommodation & Bridge Equipment.....	28
Management and Crew.....	30
<b>VESSEL DETAILS.....</b>	<b>31</b>
Machinery Details.....	31
Cargo Details .....	31
Cargo Handling Details .....	32
Consumption.....	33
Documentation Inspected.....	34
Certificates and Documents Status .....	37

## Definitions

### Inspection Limitations and Code of Conduct

#### Inspections

SeaTec Terms and Conditions of Service apply (available on request).

Any report is issued solely to the person to whom it is addressed and under no circumstances is any part of it to be issued or made available to any other party.

Inspections are limited to those parts of the vessel, the machinery equipment or records (if made available) which were exposed, uncovered or readily accessible. SeaTec is unable to report on any other part of the vessel, her machinery or equipment and shall have no responsibilities whatsoever in such respect.

SeaTec are unable to report on the vessel's water tightness or integrity, the operational efficiency of its machinery or equipment, its suitability for any business or trade, or its stability characteristics.

SeaTec shall in no circumstances be liable for any indirect, consequential or economic losses arising from any surveys of vessels or other services.

The maximum liability for any loss arising from surveys or services shall be 10 times the fee payable therefor.

Relations between the parties shall be governed by English Law.

#### Code of Conduct

SeaTec will endeavour:

To represent our project credentials, qualifications, experience, and ability fairly, and accurately in all communications and advertisements.

To accept only engagements for which we are qualified.

To serve our clients with honesty, integrity, loyalty, competence and objectivity.

To disclose to our clients any situation that we believe might create a conflict of interest for our accepting or carrying out an assignment for a client.

To keep client information and records of client engagements confidential and use proprietary client information only with client permission.

To charge fees and expenses that are fair, reasonable and legitimate.

To keep informed of, understand and uphold relevant laws and regulations relating to the maritime industry and our consulting activities.



To comply with all copyright laws and use proprietary information or methodologies only with permission.

## Rating Definitions

Ratings	Hull	Machinery	Other Equipment and Systems	Overall Status
<b>1 – Very Good Condition</b>	<ul style="list-style-type: none"> <li>- No signs of wear and tear</li> <li>- No signs of structural defects</li> <li>- No signs of poor coating</li> <li>- No signs of corrosion</li> </ul> <p>No actions are required</p>	<ul style="list-style-type: none"> <li>- All systems and components were in good working condition</li> </ul> <p>-Very good documentation and maintenance is present</p> <p>No maintenance or repaired was required</p>	<ul style="list-style-type: none"> <li>-All other equipment and systems are in good working condition with no signs of wear and tear</li> </ul> <ul style="list-style-type: none"> <li>- No signs of corrosion, poor overall condition or structural defects on all other equipment and systems</li> <li>- Very good documentation and maintenance of all other equipment and systems</li> </ul> <p>No actions are required.</p>	<ul style="list-style-type: none"> <li>- Condition superior in all respects. Very well maintained.</li> </ul> <p>A condition of unimpaired original strength and/or efficiency; no maintenance or repair required.</p>
<b>2 – Good Condition</b>	<ul style="list-style-type: none"> <li>- Small signs of wear and tear</li> <li>- Slight structural defects</li> <li>- Coating and anodes are at least in good condition</li> <li>- Slight signs of corrosion</li> </ul> <p>No further actions are required</p>	<ul style="list-style-type: none"> <li>- Small deficiencies, in terms of leakages, insulation, corrosion and irregular readings, found on systems and components, but safe operation is not compromised.</li> <li>- Good maintenance and documentation.</li> </ul> <p>No immediate maintenance or repair is required.</p>	<ul style="list-style-type: none"> <li>- Small deficiencies found on other equipment and systems, but safety and operability is not affected</li> <li>- Small signs of tear and wear, corrosion or poor overall condition</li> </ul> <p>- Good maintenance and documentation</p> <p>No further actions, maintenance or repairs are required</p>	<ul style="list-style-type: none"> <li>- Average satisfactory condition. Well maintained.</li> </ul> <p>Deficiencies of a minor nature not requiring correction; a condition of wear and tear of such an extent as not to essentially affect original strength and/or efficiency.</p>
<b>3 – Fair Condition</b>	<ul style="list-style-type: none"> <li>- Signs of wear and tear are exist</li> <li>- Signs of structural defects exist</li> <li>- Coating is in poor condition, but supplemented by anodes in good condition</li> <li>- Visible signs of corrosion</li> </ul> <p>Operations and safety are not compromised, no immediate actions are required</p>	<ul style="list-style-type: none"> <li>- Deficiencies, in terms of leakages, insulation, corrosion and irregular readings exist on systems and components.</li> <li>- Maintenance and documentation in fair condition</li> </ul> <p>No immediate maintenance or repair is required, safety and operability are not compromised</p>	<ul style="list-style-type: none"> <li>- Deficiencies on other equipment and systems exist</li> <li>- Signs of wear and tear, corrosion and poor overall condition</li> <li>- Maintenance and documentation is of fair condition</li> </ul> <p>No immediate actions are required, safety and operability are not compromised</p>	<ul style="list-style-type: none"> <li>- Condition average.</li> </ul> <p>Condition of wear and tear of such an extent as to reduce strength and/or efficiency to a degree short of necessity for immediate corrective measures.</p>
<b>4 – Poor Condition</b>	<ul style="list-style-type: none"> <li>- Very visible signs of wear and tear</li> <li>- Very visible signs of structural defects</li> <li>- Very poor condition of coating and anodes</li> <li>- Big signs of corrosion</li> </ul> <p>Class Status might be affected significantly</p>	<ul style="list-style-type: none"> <li>- Big deficiencies, in terms of leakages, insulation, corrosion and irregular readings in systems and components</li> <li>- Poor maintenance and documentation</li> </ul> <p>Maintenance and repairs are required immediately, safety and operability might be affected.</p>	<ul style="list-style-type: none"> <li>- Big deficiencies in other equipment and systems</li> <li>- Very visible signs of wear and tear, corrosion and poor overall condition</li> <li>- Very poor maintenance and documentation</li> </ul> <p>Safety and operability might be compromised, maintenance and repairs are immediately required, Class Status might be affected</p>	<ul style="list-style-type: none"> <li>- Condition below average.</li> </ul> <p>Deficiencies requiring immediate corrective measures or those carrying a condition of class.</p>
<b>5 – Very Poor Condition</b>	<ul style="list-style-type: none"> <li>- Condition which could not be determined. Area unexamined.</li> </ul> <p>Explanation is required for clarification in the note.</p>	<ul style="list-style-type: none"> <li>- Condition which could not be determined. Area unexamined.</li> </ul> <p>Explanation is required for clarification in the note.</p>	<ul style="list-style-type: none"> <li>-Condition which could not be determined. Area unexamined.</li> </ul> <p>Explanation is required for clarification in the note.</p>	<ul style="list-style-type: none"> <li>-Condition which could not be determined due to vessel being laden, not gas free or tanks and spaces do not clean etc.</li> <li>- Item not inspected.</li> </ul> <p>Explanation is required for clarification in the note.</p>

# Inspection Information

## Vessel Particulars

Vessel Information		Vessel Dimensions	
Vessel Name	CORDELIA	LOA (m)	222.1
Call Sign	A8TL8	LBP (m)	210
IMO Number	9253014	Breadth moulded (m)	30
Official Number	91837	Depth moulded (m)	16.8
Type	2824 TEU Class Container Carrier	Summer Draft (m)	12.02
Builder	Hyundai Mipo Dockyards Co. Ltd., Korea	Lightship (MT)	11891
Port of Registry	Monrovia	Summer Deadweight (MT)	39418
Registered Owner	2. Bluewater "CORDELIA" Schiffahrtsgesellschaft mbH & Co. KG	Gross Tonnage (International)	28596
Beneficial Owner	-	Net Tonnage (International)	14769
Vessel Management	Wilhelmsen Ahrenkiel Ship Management GmbH & Co. KG		
Flag	Liberia		
Date of Build	Aug 2003		
Class	DNV		
Full Class Notation	 100 A5 Container ship SOLAS-II-2, Reg.19 ERS IW RSD  MC AUT		

## Inspection Details

Inspection Type	Vessel Location	Port of Inspection	Date
Condition	At berth	Port Klang, Malaysia	13-14 Jul 2021
Vessel ETA	Vessel ETD	Boarding Time	Disembark Time
13 Aug 2021 pm	14 Aug 2021 pm	13/20:00LT	14/16:30LT
Cargo Types	Vessel Condition	Weather Condition	Time of Day
Containers	Loaded	Calm	Daytime
Crew cooperation	Other inspectors on-board		
Good	DNV and Radio Equipment Surveyors		
Spaces Available during Inspection			
Ballast Water Spaces:			
<b>BW Tanks:</b>	Only Fore peak tank available for inspection		
Cargo Spaces and Cofferdams:			
<b>Cargo Spaces:</b>	None – Vessel Loading and Discharging Containers		
<b>Cofferdams:</b>	-		

### Other 3<sup>rd</sup> Parties attending during our visit:

DNV Annual Surveyor – Annual surveys

Radio Equipment Annual Survey – 3<sup>rd</sup> party

## Executive Summary

A condition inspection of "CORDELIA" was carried out whilst berthed starboard side and loading/discharging containers at Port Klang (Malaysia) on 13<sup>th</sup> - 14<sup>th</sup> Aug 2021. The vessel is a container ship, built in 2003 by Hyundai Mipo Dockyards Co. Ltd., Korea. When carrying out the inspection, safety was the priority of the crew and appropriate procedures were followed throughout the inspection.

### Overall Condition

Vessel's condition as per 'SeaTec Inspections' rating is **Good to Fair** with an overall rating of **2.5 / 5**

- As per DNV Class status report dated 09<sup>th</sup> Aug 2021, vessel has full term DNV Class certificate, and all Class and Statutory certificates valid till 31 Aug 2023. Annual Class and Statutory surveys are valid till 30 Nov 2021 and OPP.A is due till 18 Oct 2021. DNV surveyor and approved 3<sup>rd</sup> party Radio surveyor was in attendance at Port Klang to conduct Class and Statutory Annual surveys.
- **One CC 25 Condition of Class is due till 30<sup>th</sup> Nov 2021** regarding Inspection of corroded Rudder Blade. No Statutory conditions imposed. Memoranda for Owners, related to Class (3 nos.) and Statutory (2 nos.) certificates are noted.
- **IHM certificate not available** and Asbestos containing materials certificate exemption granted till 15 Nov 2023. The Vessel is compliant with EU MRV and IMO DCS regulations. Stern tube seal converted from Aft 4BL to AIRGUARD seal OLS4A-P by Wartsila to meet VGP2013 requirements.
- The LSA/FFA equipment observed during the inspection appeared properly maintained and ready for use. No maintenance and service schedule were noted or reported as overdue.
- Machinery space appeared mostly in clean condition. Both Main engine turbochargers were overhauled in Jul 2021 and most **units Cylinder covers have been replaced with reconditioned spares.** Main engine cylinder Liners are not renewed since new build. The auxiliary engines reported in satisfactory working order. AE nos.1 and 2 overhauled in Aug 2018 and AE nos.3 and 4 in Dec 2019. All Liners on AE no.4 were renewed in Dec 2019. A number of overdue PMS jobs were noted. Composite Boiler Annual survey completed on 26<sup>th</sup> Jul 2021 at Busan, Korea.
- Main and auxiliary switchboards appeared well maintained and all electrical systems were noted in working condition. Megger test records were found satisfactory. Battery room was in good condition.
- Hull, as viewed from starboard side, found in fair condition. The **Boot top hull coating was found to be dull with rubbing and signs of spot corrosion marks** across the length of vessel. The **Vertical ship side (Blue) coating was found with scattered moderate corrosion areas and paint breakdown mainly around midship areas.** Marine growth was not visible. Windlass and mooring equipment and structures observed in fair condition with rust spots.
- The Main deck coating found in poor condition, evidence of some spot touch up sighted on aft mooring areas however, **considerable cosmetic maintenance required on deck surfaces, fittings and structures.** Structural condition of main deck plating, cargo holds and ballast tank hatches, vent heads, ballast pipes and appendages were found overall in a fair condition.
- Cargo holds, Hatches, Cell Guides, Lashing Bridges, Container Stools & Shoes, Ventilation ducts found in a Fair condition with moderate areas of corrosion. **Shipboard Cargo area upgrading and maintenance program is required.**
- **No BWTP is provided on board. The vessel has no USCG waiver for the BWTS plant.** BWMC is with D1 compliance. The vessel's IOPP renewal is de-harmonized and is valid till 31 Aug 2023.
- No Ballast tanks were inspected except forepeak tank. Ship staff provided photographs for all ballast tanks which were sighted and found in good to fair condition, with coating intact and minor spot corrosion and rust stains on hydraulic valve blocks, clamp fittings, ladders and plating edges.
- The accommodation, galley and domestic provisions store areas were found in good condition. All navigation and communication equipment on the bridge were reported to be operational. Two ECDIS units fitted on bridge with ENC updated on a regular basis.
- The vessel is manned by a total of 19 mixed nationality crew from Russia, Ukraine and Philippines. Ship's crew is conversant with management policies and procedures.
- Last PSC APAC inspection was carried out at Busan, Korea on 26 Jul 2021 with Nil deficiencies.



<b>Area</b>	<b>Area Average</b>	
Class and Certification	<b>2.5</b>	<b>Good to Fair</b>
Safety Equipment	<b>2</b>	<b>Good</b>
Machinery	<b>2.5</b>	<b>Good to Fair</b>
Electrical	<b>2</b>	<b>Good</b>
Hull and Outfitting	<b>2.5</b>	<b>Good to Fair</b>
Cargo Systems & Deck Equipment	<b>3</b>	<b>Fair</b>
Accommodation & Bridge Equipment	<b>2</b>	<b>Good</b>
Management & Crew	<b>2</b>	<b>Good</b>
<b>SeaTec Condition Assessment</b>	<b>2.5</b>	



## Defect List and Areas to note

ID	Details	Due Date / Recommendation	Approximate Cost (USD)
1	As per Condition of Class - CC25, based on IWS conducted on 18 May 2021: A sporadically corroded rudder blade plating with welding seams in way of rudder blade level F-F, to be re-surveyed and dealt with as necessary.	Re-Survey to hold within due date of 30 Nov 2021 to check condition. Extension can be granted, subject to condition findings.	NA
2	Open Memoranda related to Class certificate: <ul style="list-style-type: none"> <li>Indentations on side shell plates iwo HFO No.6F and 6A S side.</li> <li>Cavitation on Propeller tip areas as known.</li> </ul> Open Memoranda related to Statutory certificates: <ul style="list-style-type: none"> <li>Exemption granted on Asbestos containing materials (ACM) certificate</li> </ul>	Vessel to arrange for repair/close-up inspections of all known damage to Ship Side ballast tanks.  Vessel to arrange for IHM survey/certification and ACM certificate and Class to be notified. Memo valid till 15 Nov 2023.	NA
3	Ballast Water Treatment Plant is not provided on board. The vessel has no USCG waiver for the BWTS plant.	The vessel should plan to install a Class/USCG approved Ballast Water Treatment Plant onboard and comply with BWMC D2 regulation. The vessel's IOPP renewal is Re-harmonized and is due on 31 Aug 2023.	300,000
4	As per Tenaro inspection conducted on Main Engine Piston and Liners on 28 Jul 2020. The following condition summary: <ul style="list-style-type: none"> <li>The unit no.1 and 7 Piston rings replacement within 3-6 months.</li> <li>Liner wear monitoring on unit 6 and 7 required.</li> <li>The report noted unit no. 6 has higher deposits on cylinder cover.</li> </ul>	The vessel requires to inspect and monitor condition of Main engine major components for wear and replacements.  Spare Fuel injectors, Piston rings, Liners and Cylinder covers to order based on last condition checks in Jul 2020.  Note: All units have been replaced with reconditioned cylinder covers in the past, except for unit no.6.	NA
5	The Main Class and all Statutory annual surveys are in 'Due' status as per Class status report dated 09 <sup>th</sup> Aug 2021.	The Annual survey window is from 31 May 2021 to 30 Nov 2021. Evidence of DNV attendance noted in Port Klang.  Vessel to complete All the Annual surveys and update Certificates as necessary, within due dates.	NA
6	The Machinery spaces found with following issues: <ul style="list-style-type: none"> <li>Minor oil stains notably around Auxiliary engines, Purifier room, OWS, Bilges/Tank top areas.</li> <li>The FWG cooling inlet pipe was noticed to have fitted with doubler plate.</li> <li>Aux Boiler annual survey conducted recently, damaged lagging materials to replace.</li> <li>Bilge &amp; GS pump overboard valve seal found removed and hanging on side.</li> <li>Fish/Meat reefer room extra ice formations on expansion valves and piping.</li> <li>Steering gear compartment space stored with cargo equipment, damaged sea water pipes and valves etc.</li> <li>Fuel oil separator complete overhaul ongoing, to be made fully operational.</li> </ul>	General housekeeping and maintenance standards to improve in order to ensure engine room machinery spaces are safely maintained.	5,000

7	<p>Electrical and lighting issues:</p> <ul style="list-style-type: none"> <li>• Megger - low insulation readings found on FWG fresh water discharge pump.</li> <li>• Fire station room fan motor has low insulation.</li> <li>• Funnel deck engine room light found not working.</li> <li>• Cargo hold fans No.1, 2 and 4, Duct keel supply fan, Reefer box units 4 and 7,</li> <li>• Light distribution box LD-3 and LD-4.</li> </ul>	<p>Vessel to Conduct fault findings and review electrical equipment maintenance program as per PMS and resolve low insulation issues noted.</p> <p>Motor rewinding/replacements as necessary.</p> <p>General housekeeping of electrical motors is required.</p>	20,000
8	<p>The Provisions Crane is sighted with damaged and corroded Cable roller guides, electric motors in poor visible condition and spot rust on structures.</p>	<p>Cosmetic maintenance and condition upgrade to conduct on the Provision crane.</p> <p>Damaged items to replace.</p>	5000
9	<p>The Lifeboats noted with following shortfalls:</p> <ul style="list-style-type: none"> <li>• Conning position view glasses needs cleaning.</li> <li>• Electrical charging plug fault repaired during inspection; weather protection covers to fit.</li> </ul>	<p>The Freefall Lifeboat requires close-up inspection and defect rectification</p>	2000
10	<p>The visible boot topping and vertical ship sides area noted with rubbing marks in way of the fender contact and scattered corrosion spots.</p> <p>Paint was detached in various areas across the length with moderate corrosion.</p>	<p>Vessel Hull painting to be conducted during forthcoming docking.</p> <p>Spot touch-up improvements to be made at suitable opportunity on ship side, if possible.</p>	NA
11	<p>Mooring ropes found with extra overlapped coil turns on warping drums and some with only 2 turns coiled. This may lead to crew injury and equipment damage. Remote control stands for Mooring winch (P&amp;S) found with corrosion around deck penetration and denso tape covered piping connectors.</p>	<p>Mooring safe and best practices to follow at all times.</p> <p>All mooring equipment maintenance to conduct as required.</p>	NA
12	<p>Fixed container posts with strong securing points appeared with significant corrosion coverage and paint blistering.</p>	<p>Cosmetic maintenance required.</p>	5000
13	<p>The Cargo holds were found with severe damage and corrosion areas in way of hold edges, few cell guides and attachments, cross decks plating, ventilations housing were noted with distortion and damage.</p>	<p>Major upgradations to be conducted in the cargo holds. Repairs and renewals as necessary.</p>	50,000
13	<p>Hatch covers sighted with undersides as poor with damaged/depressed packings and heavy rust on channels. Resting pads were worn, Cross joints areas were a bit deteriorated and Cleats were rusty.</p> <p>Hatch cover coamings sides, edges and sealing areas found with moderate corrosion.</p>	<p>Hatch cover rubber packing materials to replace as necessary. Wasted and worn sections of channels, pads, cleats louvers to be repaired/replaced.</p> <p>Coaming cosmetic maintenance required.</p>	35,000
14	<p>The Container shoes and fittings on hatch covers were observed to be rusted and need maintenance</p>	<p>Suggest a maintenance plan to be implemented by the crew for container shoes and lashing eyes on hatch covers.</p>	5000
15	<p>Main deck, on both sides from Cargo holds 1 to 6 and Cross decks found with widespread pitting and corrosion in many areas.</p> <p>Cross deck walkway plates, lashing storage bins and gratings on main deck found wasted and with heavy corrosion.</p> <p>Poop deck plates have isolated spot corrosion and hard scale.</p>	<p>Cosmetic maintenance on decks and piping and fittings required to be progressed.</p> <p>Adequate deck paint stocks to order.</p> <p>Comprehensive plan required to cover backlog of deck maintenance.</p>	40,000

16	<p>Maintenance and Housekeeping issues raised:</p> <ul style="list-style-type: none"> <li>• Monkey island antenna identity markings to paint.</li> <li>• Cable duct pipes for deck lighting sighted with moderate wastage.</li> <li>• Safety locker room found with randomly stored items, requires de-clutter.</li> <li>• Last Bitter end inspection date to be stencilled.</li> <li>• The Forecastle bilge system overboard discharge valves found without locks/seals and no pollution posters in vicinity.</li> <li>• Some Paint room drums to arrange onto racks.</li> <li>• Fwd. Mooring platform step plates wasted and damaged.</li> <li>• The undersides of bridge wings noted with scattered corrosion spots.</li> <li>• Funnel exhaust uptake pipes externally required some HT paint coatings.</li> <li>• Crew Laundry and changing room needs cleaning and housekeeping.</li> </ul>	<p>Ship staff to ensure cosmetic maintenance, housekeeping and cleanliness is maintained to ensure safety at work.</p> <p>Visual management to improve with proper stencilling and markings.</p>	5000
17	Few Overdue items on the Planned Maintenance system found, as per report dated 14 Aug 2021.	Ship staff to conduct maintenance as per PMS and complete any outstanding work.	NA
18	DMLC Part I / II original could not be sighted on board. No Crew Complaint box or suggestion box sighted on board as required by MLC.	MLC 2013 regulations to follow.	NA
19	The Fresh Water Generator Alfa Laval JWP-26-C100 installed onboard, is rated for 30 mt/day, however standard production rate is approx. 20 mt/day.	Ship staff to investigate and take actions to improve FWG production.	NA
20	The Gas oil report dated 19 Jun 2021, shows bunkered specification as DMAULS with 'Caution' notice due to lack of natural lubricity.	It is recommended, compensation by lubricating additives being added to the oil.	2000
21	The Bunker fuel oil analysis shows 'Warning' remarks mainly due to Low viscosity of fuel. The K Viscosity at 50°C was found only cSt 80.4 for RMG380VLS fuel specification.	Vessel to follow recommendations and special attention on transfer and injection temperatures.	2000
22	The Reefer container monitoring system by Stein Sohn, Vista Refrige panel in Cargo control room is reported not in operational condition.	The Reefer monitoring system to be restored to its full working condition.	NA
23	Ship's Drinking water is not maintained to required standards and Plastic mineral water bottles are in use onboard.	As per World Health Organization (WHO), Guide to Ship Sanitation, 3rd Edition, 2011/Guidelines for Drinking Water Quality, 2008 & EU Drinking Water Directive 98/83 EC, Ship staff to ensure that the potable water is fit for drinking. The FW to tanks should be sterilized and mineralized as per requirements. Periodical analysis of drinking water to be done.	5000
24	The Emergency generator Fuel flexi hose connectors were sighted with corrosion.	The hose condition to check closely for material deterioration and connectors to maintain rust free. Replace as necessary.	500

**Note:** Costs mentioned above are just rough estimates and it will be prudent to take appropriate quotes from workshops for relevant items in the above list before planning the budgets. Estimates for items that can be handled by onboard team only includes the material costs

# Vessel Assessment

## Class and Certification

Summary	2.5 Good to Fair	<p>Vessel has full term DNV Class certificate, and all Class and Statutory certificates valid till 31 Aug 2023.  <u>Annual Class and Statutory surveys are valid till 11 Nov 2021.</u></p> <p>One CoC is outstanding, Five Memoranda recorded, 3 items related to Class and 2 items related to Statutory certificates</p> <p>Vessel is Not equipped with Ballast Water Treatment System (BWTS).</p> <p><u>Vessel is compliant with EU MRV and IMO DCS regulations.</u></p> <p>The certificates reviewed were valid and without restrictions. Class records should be examined for incident and/or accident history of the vessel.</p>
		<p><b>Rating</b></p> <p><b>Notes</b></p>
<b>Documents</b>		
Outstanding Condition of Class	2.5	<p>One Conditions of Class was included in the Class status provided. As per CoC - CC25, based on IWS conducted on 18 May 2021:</p> <p>Within given due date 30 Nov 2021, a sporadically corroded rudder blade plating with <b>welding seams in way of rudder blade level F-F, to be re-surveyed</b> and dealt with as necessary.</p>
Due Class Survey	2	<p>Annual Class and Statutory surveys are due till 30 Nov 2021 and OPP.A is due till 18 Oct 2021.</p> <p>DNV surveyor and approved 3<sup>rd</sup> party Radio surveyor was in attendance at Port Klang to conduct Class and Statutory Annual surveys.</p>
Overdue Class Survey	2	No overdue Class surveys were noted.
Historical Condition of Class	2	One historical Conditions of Class has been reported in the Class Status Report.
Outstanding Memos	2.5	<p>Memoranda related to Class certificate:</p> <ul style="list-style-type: none"> <li><b>Indentations on side shell plates iwo HFO No.6F and 6A S side.</b></li> <li>Administrative surcharge Liberia.</li> <li><b>Cavitation on Propeller tips.</b></li> </ul> <p>Memoranda related to Statutory certificates:</p> <ul style="list-style-type: none"> <li>Exemption granted till 15 Nov 2023 on Asbestos containing materials (ACM) certificate.</li> <li>Re-coupling of the IOPP certificate as instructed by Liberia. In case of change of flag, the exemption shall be presented to and accepted by the new flag administration prior to flag change.</li> </ul>
Continuous Machinery Item due and overdue	2	No overdue or due items noted in CMS
IHM Survey	2.5	<b>The IHM Survey is not conducted.</b>

Continuous Hull Item due and overdue	2	Continuous Hull items were not recorded in the Class status report provided.
Others	2.5	Vessel is compliant with EU MRV and IMO DCS regulations. Vessel is Not equipped with Ballast Water Treatment System (BWTS).

<b>Summary</b>		In general, all the safety equipment appeared maintained and ready for use.
	<b>2 Good</b>	Fixed CO2 and Hyper mist systems are fitted for firefighting onboard.  Emergency fire pump was tested during the inspection and emergency generator weekly test records sighted.
		Both the lifeboats were lowered to embarkation deck and engines were tested by DNV surveyor. The Port side boat is designated rescue boat.
		<b>Rating</b> <span style="float: right;"><b>Notes</b></span>
<b>Lifesaving and Fire Protection</b>		
Fixed fire extinguishing system (CO2, foam etc.)	2	Engine room and cargo holds are provided with a NK CO2 fire extinguishing system. The system consists of 154 x 45 kgs CO2 cylinders, and 6 x 1kgs pilot cylinders placed in a section of the port side passageway.  Last Annual/Biennial shore service was carried out in Aug 2019. The CO2 space appeared clean and well maintained.  A Water mist system Novenco, 13 m3/h is fitted to cover Main and auxiliary engines, purifiers and boiler spaces. Last 5 yearly shore service was carried out in Aug 2018 and annual in Nov 2020.
Quick closing valves-Fan remote stops-Fire dampers/ flaps/ draft stops	2	The operation of the Quick Closing Valves was not tested, reported in working condition.
Emergency fire pump	2	The Emergency Fire Pump is fitted in the forward machinery compartment, located next to bow thruster.  The bilges were found in dry condition and the pump tested to 7 bar, vacuum pump worked and seals appeared in good condition, with no noticeable leaks.
Lifeboats/Rescue boats	2	The vessel is equipped with two, enclosed, davit-launched lifeboats Fassmer, located on the Port and Starboard of the accommodation block. Annual survey was ongoing by Solas Marine Sdn. Bhd. and lowering of boats witnessed by DNV surveyor.  The interior of the Port lifeboat, reportedly used as Rescue boat, was inspected and found well maintained.  No separate rescue boat is fitted.
Lifeboat davits and falls	2	Lifeboat davits Oriental Precision and Engineering, SHS-36-056PK, appeared overall in good condition, with some rust spots and streaks.  Hydraulic pipes and components were also seen as good. Last Davit wires renewed for Rescue boat in Aug 2018, while starboard davit in Oct 2017.

Liferafts & launching facilities	2	<p>Two nos. Survitec life rafts, 25 persons and One no. life raft, 6 persons are fitted onboard and all found in good condition including HRU and cradles.</p> <p>Last inspection/replacement of the Life rafts was in Feb 2021.</p>
Emergency Generator	2.5	<p>The Emergency generator Sisu Diesel Inc, 634 DSBIG 165 kW and Alternator Newage International Ltd, UCM 274H2, 187.5 kVA / 150 kW was found in fair cosmetic condition.</p> <p>The Fuel flexi hose connectors were sighted with corrosion, which has to be checked / replaced.</p> <p>The Engine was not tested. The Generator starting methods are two sets of batteries and manual spring starter, reportedly working well.</p>
Others	2	<p>The SCBA compressor was not tested, last serviced date in Oct 2020.</p> <p>EEBD units noted around the accommodation were in good condition.</p>

<b>Summary</b>	<b>2.5 Good to Fair</b>	<p>The impression of the engine room was generally good to fair. All machinery appeared in satisfactory condition and leaks were not noted around equipment.</p> <p>The engine room and floor plates were properly painted and in clean condition. The bilges were mostly dry, with some dirt.</p> <p>Few major rescheduled jobs were reported in the PMS. Maintenance records for main and auxiliary engines were made available.</p> <p>Lube oil and fuel oil analysis reports were examined and found in order.</p>
	<b>Rating</b>	<b>Notes</b>

## Main Propulsion and Manoeuvring Systems

<b>Main Propulsion Engine</b>	<b>2.5</b>	<p>Main engine is one HYUNDAI-MAN B&amp;W 7K80MC-C, two stroke, direct reversible type with MCR of 34,300 BHP at 104 rpm and NCR 30,870 BHP at 100.4. Engine runs on VLSFO and LSMGO.</p> <p>Main engine total running hours were recorded as 102,032 as on 31 Jul 2021. <u>Records indicated that No unit cylinder liner has been renewed since new build.</u> The piston scheduled overhaul is set at 22,000 running hours.</p>																																						
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #008080; color: white;"> <th>Cylinder No.</th> <th>Last Overhaul Date</th> <th>Total Liners Hrs</th> <th>Maximum Liner wear in mm</th> <th>Running hours since last major overhaul</th> </tr> </thead> <tbody> <tr><td>1</td><td>16 Aug 2018</td><td>85440</td><td>0.51</td><td>16592</td></tr> <tr><td>2</td><td>04 Nov 2020</td><td>98154</td><td>1.35</td><td>3878</td></tr> <tr><td>3</td><td>16 Aug 2018</td><td>85440</td><td>1.03</td><td>16592</td></tr> <tr><td>4</td><td>14 Jan 2021</td><td>99274</td><td>1.13</td><td>2758</td></tr> <tr><td>5</td><td>23 Feb 2021</td><td>99815</td><td>1.13</td><td>2217</td></tr> <tr><td>6</td><td>01 Dec 2019</td><td>92567</td><td>1.80</td><td>9465</td></tr> <tr><td>7</td><td>14 Sep 2020</td><td>97344</td><td>2.50</td><td>4688</td></tr> </tbody> </table> <p>Tenaro camera based visual inspection was conducted on the Main Engine Pistons and Cylinder Liners on 28 Jul 2020. As per the report summary, <b>Cylinder units no.1 and 7 Piston rings replacement to be carried out within 3-6 months</b> and Cylinder Liner wear monitoring to be done on units 6 and 7. <b>The report also noted unit no. 6 has higher deposits on the cylinder cover.</b></p> <p>Note: All units have been replaced with reconditioned cylinder covers in the past, except for unit no.6.</p> <p>Both Main Engine turbochargers have been overhauled by maker technicians on 25 Jul 2021. Turbocharger Bearings and Oil pumps were renewed. Both Scavenge air coolers cleaned on 15 May 2020.</p> <p>Latest crankshaft deflection measurement in May 2021 made available on board, reported satisfactory.</p> <p>Engine Performance records on 03 Jul 2021 taken at 63.1% load condition; all parameters found within limits.</p>	Cylinder No.	Last Overhaul Date	Total Liners Hrs	Maximum Liner wear in mm	Running hours since last major overhaul	1	16 Aug 2018	85440	0.51	16592	2	04 Nov 2020	98154	1.35	3878	3	16 Aug 2018	85440	1.03	16592	4	14 Jan 2021	99274	1.13	2758	5	23 Feb 2021	99815	1.13	2217	6	01 Dec 2019	92567	1.80	9465	7	14 Sep 2020	97344
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		Externally the engine seen without any leaks. No major running problems were reported by staff.																																													
Waste Heat Recovery System (WHRS)		Not Fitted.																																													
Auxiliary Engines/Shaft Generator/Cargo Engine	2.5	<p>For electrical power, the vessel has 04 nos. HYUNDAI-MAN B&amp;W 8L28/32H, diesel engines of 1600 kW each, driving Hyundai electric alternators HFC5 636-14E-EB of capacity 1875 kVA/1500 kW 450V AC, 3 Phase, 60 Hz. Engines are operated on VLSFO and LSMGO.</p> <p>As per the records on 13 Aug 2021:</p> <table border="1"> <thead> <tr> <th>Auxiliary Engines</th> <th>Total hours</th> <th>Hours since last piston overhaul and dates</th> <th>Max liner wear in mm at last overhaul</th> </tr> </thead> <tbody> <tr> <td>No.1</td> <td>44234</td> <td>6669 (06 Aug 2018)</td> <td>0.06</td> </tr> <tr> <td>No.2</td> <td>47532</td> <td>10638 (06 Aug 2018)</td> <td>0.06</td> </tr> <tr> <td>No.3</td> <td>43439</td> <td>3381 (15 Nov 2019)</td> <td>0.11</td> </tr> <tr> <td>No.4</td> <td>43321</td> <td>5109 (03 Dec 2019)</td> <td>Renewed</td> </tr> </tbody> </table> <p>A single engine was reported as able to take full sea load. During cargo operations also one engine is normally run for the ballast system.</p> <p>Auxiliary Engine no.4 was seen in operation: the cylinders exhaust temperatures for all engines were noted between 340 - 370 °C with load of around 700 kW.</p> <p>Performance of auxiliary engines was sighted as follows:</p> <table border="1"> <thead> <tr> <th>Engine no.</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>Test date</td> <td>Jul 2021</td> <td>Jul 2021</td> <td>Jul 2021</td> <td>Jul 2021</td> </tr> <tr> <td>Load KW</td> <td>851</td> <td>891</td> <td>843</td> <td>840</td> </tr> <tr> <td>Exhaust temp, °C, Min/Max</td> <td>350/370</td> <td>350/400</td> <td>330/370</td> <td>340/370</td> </tr> <tr> <td>Peak Pressure, Min/Max</td> <td>76.2/82.7</td> <td>70.5/84.9</td> <td>79.2/84.7</td> <td>78.7/85.8</td> </tr> </tbody> </table> <p>Performance tests were carried out around max. sea load: 55% of the rated 1548 KW engine power.</p> <p>Crankshaft deflection records were made available for all auxiliary engines and found in normal condition.</p> <p>Externally the engines were seen in good to fair condition with <b>minor dirt and traces of leaks around fuel filters and governor area.</b></p>	Auxiliary Engines	Total hours	Hours since last piston overhaul and dates	Max liner wear in mm at last overhaul	No.1	44234	6669 (06 Aug 2018)	0.06	No.2	47532	10638 (06 Aug 2018)	0.06	No.3	43439	3381 (15 Nov 2019)	0.11	No.4	43321	5109 (03 Dec 2019)	Renewed	Engine no.	1	2	3	4	Test date	Jul 2021	Jul 2021	Jul 2021	Jul 2021	Load KW	851	891	843	840	Exhaust temp, °C, Min/Max	350/370	350/400	330/370	340/370	Peak Pressure, Min/Max	76.2/82.7	70.5/84.9	79.2/84.7	78.7/85.8
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Steering Gear / Stern Tube	2	The Steering Gear, Rolls-Royce Marine, type RV 2600-3, capacity 2 x 86 kW was found in good condition, kept clean and no leaks were noted.																																													
Is the Stern Tube oil in use EAL compliant?	2.5	The Stern Tube is with an oil lubrication system. The seal is converted from Aft 4BL to AIRGUARD seal OLS4A-P by Wartsila to meet VGP2013 requirements. The forward seal area was checked from engine room side and found in good to fair condition, with some wear.																																													

		<u>Stern tube oil in use is not EAL compliant</u> – CDX30 however VGP requirements are met.
Propeller / Propeller Boss Cap Fins (PBCF)	2.5	The Propeller is one Hyundai Heavy Industries, Keyless, FPP, right hand turn, 7200 mm, 41,124 kg, 5 blades, Ni-Al Bronze material was not visible due to vessel's draft.  The propeller tips are noted with cavitation and require attention as per Class Memo.
Thrusters	2	The vessel is equipped with one bow thruster is Brunvoll AS, FU-80-LTC-2000, dia. 2000 mm, output 1100 kW and electrical motor driven.  The Bow thruster and its compartment were found in good condition.
Shipside sea boxes, connections & valves	2	Superficially appeared in good to fair condition.
Machinery Compartments/ER Spaces	2	The impression of the engine room was generally good to fair. All machinery were reported in working condition. The engine room and spaces were properly painted.  The bilges were mostly dry, with some dirt.
Spare Parts and General Consumables Stores	2	As far as could be seen, the spare parts storing appeared in good order with one new spare liner and piston complete seen for the main engine.
Ventilation	2	Ventilation was noted to be adequate in machinery spaces.
Coating & Cathodic protection stores and equipment (MGPS/ICCP)	2	KC Ltd. ICCP system was reported operational.
<b>Steam Systems</b>		
Oil fired boilers and associated systems	2	Vessel is provided with one Kangrim Ind. Composite boiler MC23RSGY, design working pressure of 0.7 MPa and capacity of 3,000 kg/h and Exhaust boiler capacity 2,500 kg/h reportedly meets all seagoing needs.  During the inspection, the boiler was being fired in auto mode on LSMGO. The exterior aspect of the equipment was good to fair, with some stains.  Hot well was clear of any oil leaks.
Exhaust gas economisers and associated systems		NA
Steam heating coils and fittings	2	Overall appearance was satisfactory.
<b>Compressed Air Systems</b>		
Main and auxiliary starting air systems	2	Two nos. J.P. Sauer & Sohn, WP 271 L-100, capacity 49 kW reciprocating air compressors are fitted for main starting air system and are reported as working satisfactorily. The compressors appeared in good working order.
<b>Cooling Systems</b>		
Seawater cooling pumping systems	2.5	As far as could be seen, the piping above and below the floor plates appeared in good to fair condition.  No leaks or soft patches were noted; however, some damaged sea water main pipe sections were seen stored and replaced. As

		reported, due to age and wear of vessel, the sea water piping has to be replaced, as required.
Freshwater cooling pumping systems	2	Overall appearance was good.
Heat exchangers and coolers	2	Heat exchangers and coolers are of plate type and sighted as intact. Overall appearance was good to fair and no leaks noted.
Fresh water generator	3	One Fresh Water Generator, manufactured by Alfa Laval JWP-26-C100, capacity 30 mt/day. <b>Crew advised that standard production rate is approx. 20 mt/day.</b> Vessel FW consumption is 7 mt/day Exterior aspect was good to fair. <b>The Fresh water generator inlet sea water pipe is seen with patch/repair, replacement required in future as this could be a PSC Deficiency.</b>
Cooling Water Analysis	2	Last Water analysis report for Boilers and Main Engine HT/LT Cooling system dated 31 Jul 2021 by Wilhelmsen ships service, Waterproof program was sighted. All results were noted as Normal.  The Crew conduct onboard tests and chemicals are dosed accordingly.

## Lube Oil and Fuel Oil

Lube oil purifier plants	2	The vessel is equipped with GEA Westfalia Lube Oil Purifiers, one Main engine OSC-30-91-066, one AE purifier OSC-15-02-067 and one Sludge purifier ESC4-01-066.  The exterior of the purifiers was good to fair, with some external stains, and they were reported in satisfactory condition.
Fuel oil purifier plant	2.5	The vessel is equipped with two Fuel Oil Purifiers, GEA Westfalia, OSC-50-0135-066. <b>Complete overhaul of one Fuel oil purifier was sighted. All parts removed including the bottom bearings and spindle.</b>  The exterior of the purifiers was good to fair, with some external stains, and they were reported in satisfactory condition.
Lube Oil Analysis	2	The latest Tribocare lube oil analysis reports for Main and auxiliary machineries dated 28 Jul 2021 was sighted.  All Oil analysis results, found Normal, did not highlight any issues.
Fuel Oil Analysis	2.5	The Fuel Oil bunker sample taken on 18 Jul 2021 at Kowloon, HK was analyzed by Lloyds Register Fobas for grade RMG380 VLS 0.5% Sulphur and found the fuel as conforming and S=0.47%. However, the K Viscosity at 50°C was found only cSt 80.4. <b>Low viscosity fuel injection recommendations to follow.</b>  The MDO report dated 19 Jun 2021, shows bunkered specification as <b>DMAULS with 'Caution' notice due to lack of natural lubricity in Ultra low sulphur fuel.</b> The sulphur level found is 0.03 for DMAULS 0.1% S.  FO analysis is carried out following every bunkering operation, as reported.

## Exhaust Cleaning System and LSMGO

Exhaust Cleaning System (Scrubber)		Not fitted. VLSFO and LSMGO are in use.
LSMGO Tanks and LSMGO coolers for M/E, A/E and Aux. Boilers	2	<p>The FO storage tanks onboard the vessel are used for bunkering with VLSFO and piping modifications have been conducted.</p> <p>LSMGO is used for arrival/departure and port consumptions.</p> <p>Vessel is reportedly also fitted with two nos. coolers for LSMGO operation.</p>

## Ballast Water Systems

Ballast piping, valves, actuators & securing	2	Ballast valves are hydraulically operated from the onboard automation system. No issues were reported.
Ballast pumps, drives, foundations & fittings	2	<p>The vessel has two Shin Shin Machinery, DB300VID1 vertical centrifugal ballast pumps with capacity of 750 m<sup>3</sup>/h; and two fire / bilge &amp; general service pumps SVS 150 with capacity 210/170 m<sup>3</sup>/h, located in engine room.</p> <p>One eductor of 50 m<sup>3</sup>/hr is fitted for stripping. Aspect of the pumps was good, as far as visible.</p> <p>Heeling pump system from Frank Mohn Fusa As / Framo, 600 m<sup>3</sup>/h / RBP250-3JIS10F350V28/19 is fitted.</p>
Ballast level gauging & monitoring equipment	2	<p>Sounding is through the tanks monitoring system in the automation.</p> <p>Typical de-ballast time was not confirmed. Quantity of un-pumpable water was also not declared by the crew.</p>
Ballast Water Treatment System (BWTS)  Is the System fully functional without restrictions?	2.5	<p><b>Ballast Water Treatment Plant is not provided on board.</b> The vessel has no USCG waiver for the BWTS plant.</p> <p>The vessel should plan to install a Class/USCG approved Ballast Water Treatment Plant onboard and comply with BWMC D2 regulation.</p> <p>The vessel's IOPP renewal is de-harmonized and is due on 31 Aug 2023.</p>

## MARPOL Section – Waste Disposal and Monitoring

Oily water separator plant	2	<p>Oily water separator (OWS) is RWO Veolia, SKIT S, 5,0m<sup>3</sup>/h and it appeared in good condition. Report of OCM calibration was not sighted however, DNV Annual IOPP survey found in progress and testing of the OWS 15 ppm and 3-way valve operation was sighted.</p> <p>Overall visual condition found to be good.</p>
OWS System and associated piping	2	<p>The overboard line flanges and valve seals found intact.</p> <p>No evidence of any recent work/manipulation on overboard piping found.</p> <p>Warning pollution posters found displayed close to the overboard valve.</p>

Forecastle store bilge system	2.5	<p>The Forecastle bilge system overboard discharge valves found without locks/seals.</p> <p>No Warning pollution prevention notice was seen posted.</p>
Sewage plant	2	<p>The Sewage Treatment System is by Jonghap Machinery Co. Ltd., Korea, Biological Aerob 12 type II system, pump capacity of 2100 L/day and reported to be in good working condition. Exterior aspect was good to fair and aeration tubes were visibly clear.</p> <p>The plant including piping, compressor and pump found in satisfactory condition. The sewage overboard valve found with tag sealed and locked.</p>
Incinerator plant	2	<p>One Incinerator plant Kangrim Industries, KIN-70 SDA, 50 kg/h waste, 85 kg/hr sludge is fitted.</p> <p>The incinerator was inspected by DNV surveyor and operation tests conducted during the inspection, reportedly working normal.</p>
General waste disposal and monitoring (Garbage Management)	2	The Garbage management plan is available and Garbage Disposal Log records found in place.
IOPP Certificate and OCM Calibration	2	<p>IOPP type A renewal Certificate issued / valid: 01 Jul 2018 / 31 Aug 2023 – Re-Coupling as per MO19 dated 29 Dec 2020.</p> <p>OCM Inspection / Calibration date: Not available.</p>
Inspection of Duct Keel		Duct keel not inspected, only sighted from Engine room.
Daily Sounding log / ORB (Part I) (Last 3 completed pages to be checked)	2	ORB records sighted and found with tank transfer entries as per IOPP certificate. Date and quantities format and signatures found in place.
Deck Lockers/Storage Areas/Steering Gear Room	2.5	<p>During the inspection these spaces were checked for any unusual hoses and None found.</p> <p>The Steering space was stored with various items and require proper housekeeping.</p>
Type Approval Certificates	2	<p>Type approval certificate has been posted on:</p> <ul style="list-style-type: none"> <li>- Oily Water Separator</li> <li>- Sewage Treatment Plant</li> <li>- Incinerator</li> </ul>
Designated Garbage Storage Area	2	The designated Garbage area is found well maintained and proper segregation and marking of garbage bins are carried out.
Others	2	Marpol equipment annual survey was ongoing during the inspection, conducted by DNV surveyor.

## Electrical

<b>Summary</b>	<b>2 Good</b>	<p>Megger test records were checked and found in order; all electrical systems were noted in working condition.</p> <p>Main and auxiliary switchboards appeared well maintained. None of the electric motors were reported as due for overhaul.</p> <p>The battery room on deck was inspected and found properly maintained; however, no battery check logs were available on site.</p>
	<b>Rating</b>	<b>Notes</b>

### Electrical Generation and Distribution Systems

Motors, Stators, Alternators etc.	2.5	<p>The electric motors seen around the engine room and the rest of the vessel were in working order, some requiring additional cleaning due to external dirt and stains.</p> <p>Latest Megger test records, dated 21 Jun 2021, were checked and found satisfactory. Various electrical motors were found with Low insulation readings and notable were the Cargo hold fans No.1, 2 and 4, Duct keel supply fan, Reefer box units 4 and 7, Light distribution box LD-3 and LD-4.</p> <p>A battery room is fitted around the accommodation decks, it was inspected and found properly maintained.</p>
Main and Emergency Switchboards	2	<p>The main switchboard panel, located in the Engine Control Room, has a typical arrangement, with one panel for each Diesel Generator, one synchronizing panel and the 440 V and 220 V power panels for the various consumers.</p> <p>The emergency switchboard panel, located in the Emergency Generator Room, has a similar arrangement, with the 440 V and 220 V power panels for the various consumers.</p> <p>Main and emergency switchboard panels are manufactured under license by Hyundai.</p>

### Automation, Alarm and Protection Systems

ECR Monitoring and alarm system	2	<p>The ECR is of standard configuration, with the electrical Main Switchboard on one long side and a console on the opposite side.</p> <p>Kongsberg computer-based automation system is fitted with centralized alarm control panel and operational panel for the equipment.</p> <p>The alarm panel manufacturer is manufactured by Kongsberg, and power supply is 220 V and 24 V.</p> <p>Main engine manoeuvring control is manufactured by Norcontrol.</p>
Bridge monitoring and alarm systems	2	<p>A control console for the Kongsberg alarm system is installed on the bridge, as well as the manoeuvring console from Norcontrol for M/E remote bridge control.</p>

## Hull and Outfitting

<p><b>Summary</b></p>	<p><b>2.5 Good to Fair</b></p>	<p>The external Hull was noted, with scattered spots of coating damage, fender rubbing marks and rust stains.</p> <p>Main deck noted with hard rust areas requiring cosmetic attention and deck structure/outfitting's were seen with coating in poor condition with moderate corrosion.</p> <p>Deck fittings showed overall age, related wastage on edges but were structurally sound.</p> <p>Deck pipelines were observed with limited rust spots in way of the pipeline support areas, U-clamps, flanges and valves.</p>
<p><b>Rating</b></p>		<p><b>Notes</b></p>
<p><b>External Structures and Fittings</b></p>		
<p>External hull and underwater structure (Topsides, Vertical bottom, Flat bottom etc.)</p>	<p>2.5</p>	<p>The vessel was delivered in Aug 2003, and last dry-docked in Aug 2018 at Guangzhou GIS, as reported.</p> <p>Last In-water survey was held in May 2021 at Busan, FIS Korea by Pacific Ocean Marine Ind. Co. Ltd., a DNV approved diving company. As per report, overall condition of hull plating including random welds, bilge keels, sea suction chests; propeller, rudder and appendages were found in order (except the rudder blade and the propeller blades that the new CC and MO were issued).</p> <p>Hull Class anti-fouling records indicate that Silyl polymer hydrolysis antifouling paints UNY MARINE HS M, BLUE CS-643 and UMEGUARD SX HS RED-BROWN CS-511 were applied in the building shipyard.</p> <p>The Hull topside is coated in blue colour. As far as could be seen, the coating in way of the top side appeared with <b>scattered coating detached with some rust spots and streaks along drains.</b></p> <p>The visible boot topping area appeared overall with coating in fair condition with rubbing marks noted in way of the fender contact. <b>Paint was detached in various areas in way of outline of longitudinal frames. Moderate rust was seen in way of detachment areas with weeping rust marks.</b></p> <p>Structurally, the plating appeared in good condition. As far as could be seen, no pitting was noted. The weld seams appeared intact and overall, in good condition.</p> <p>No Marine growth was visible.</p>
<p>External deck structure (Forecastle, Poop deck etc.)</p>	<p>3</p>	<p><b>The main deck plates have scattered spot corrosion and hard scale on both sides from Cargo holds 1 to 6.</b> Evidence of deck maintenance and spot painting visible around aft Mooring area only.</p> <p>Structurally, the plates appeared in fair condition <b>with some active pitting, corrosion and erosion in various sections.</b> The weld seams appeared intact and no issues were noted. <b>Some rusting was noticeable at attachment of fittings to the deck.</b></p> <p><b>Cross decks were with widespread corrosion in many areas.</b> Aft Poop decks were in fair coating condition while the forward raised mooring deck coating required attention.</p>

		Overall, there is a backlog of deck maintenance noted and comprehensive plan required to upgrade deck and associated fittings visual condition.
Deck Pipelines and Electrical Cable Conduit	2.5	Deck pipelines were observed with limited rust spots in way of the pipeline support areas, U-clamps, flanges and valves.  Electrical lines and distribution boxes were seen in fair condition overall with cable duct pipes for deck lighting sighted with moderate wastage and corrosion.  Hydraulic lines had Denso tape on many junctions, thus condition of these connections may require attention.
External accommodation structure incl. monkey island	2.5	Superstructure is coated in buff color and externally appeared in fair coating condition however, scattered corrosion spots on the undersides of bridge wings noted.  The plating around the accommodation block external is seen in fair condition. All decks are coated in green color and the coating is maintained.  Monkey island and its plating was in a good condition and painted grey. All antennae stenciling for identification required to be marked however, MF/HF Antennae was marked for hazardous zone.  Bridge wings are not provided with anti-slip matting.
External deck housings structure	2	All the decks appeared with coating intact and in good to fair condition with some fading noted. Vessel has no open bridge wings.
External Funnel Structure and Logo	2.5	Funnel was in a good to fair coating condition, with some stains. The funnel exhaust uptake pipes externally required some HT paint coatings as rust prevention.
External ladders, bulwarks & railings structure External vent pipes, vent heads and save-alls structure	2.5	As far as could be ascertained, the closed fairleads, bollards, rollers, bits, etc. appeared overall in a good condition and free to move. Few rust spots and corrosion areas were noted in way of these fittings.  Deck fittings were observed overall in good to fair condition. Air vents and gratings on deck had various areas with premature corrosion and partial wastage.  Lighting fixtures generally appeared in good to fair condition, with some exceptions requiring maintenance.
Container fittings	2.5	Fixed posts are provided on deck for the container shoes. These container posts with strong securing points appeared with moderate corrosion coverage and cosmetic maintenance required.  Shoes and fittings on hatch cover where accessible were found with some wear and rust.
Rudder(s)	2.5	Rudder was not visible during inspection however CoC on rudder plate inspection is open.
Propeller(s) (spare sighted only)	2.5	Propeller was not visible during inspection however Class Memo on propeller blades requiring attention.



## Cargo Systems and Deck Equipment

Summary	3 Fair	<p>Cargo holds were only minimally visible, due to the presence of cargo inside, but were generally found in fair condition. Hold cross decks, ladders, railings, ventilation ducts, coating was found with scattered corrosion spots.</p> <p>Hatch covers tops and bottom were observed in good to fair condition. Hatch coamings were seen overall in poor condition, with limited exceptions.</p> <p>Cargo hold edges were seen with damage, some wastage and corrosion.</p> <p>Mooring equipment was observed in good to fair condition, with some wear on brake and rope drums as well as on mooring structures.</p> <p>Ballast tanks, as sighted from ship staff provided photos, were found in good to fair condition, with no significant damage and coating overall intact, with some rust spots. Tank fittings were also in good to fair condition, with few exceptions.</p>
		<p><b>Rating</b></p> <p><b>Notes</b></p>
<b>Cargo Systems</b>		
Hatch Covers	3	<p>Cargo compartment is divided into six holds and all are located forward of the accommodation superstructure. These holds have 11 hatch arrangement Each hatch has three side by side Lift off MacGregor hatch cover panels.</p> <p>The hatch covers tops and bottom were observed in fair condition, with some corrosion areas and spots. Rubber packings randomly sighted were intact, <b>packing channels found with moderate corrosion and wastage on edges.</b></p> <p>Hatch coaming plating and structures were seen in overall fair condition. Coaming fittings, landing pads, securing cleats, lights, pipes, etc. <b>appeared with moderate corrosion and minor damaged areas noted.</b></p> <p>Containers are also stacked on Aft deck with fixed posts provided for container shoes. These <b>container posts with strong securing points appeared with significant corrosion coverage</b> and cosmetic maintenance required.</p> <p>Shoes and fittings on hatch cover where accessible were found with <b>some wastage wear and rust.</b></p> <p>No information on recent ultrasonic testing of the hatch covers was available.</p>
Catwalks	2.5	<p>Catwalks are provided between hatches depending on the configuration. Catwalks / Lashing bridges are provided between hatches.</p> <p>Inspected <b>catwalks and noted moderate / scattered corrosion but assorted sections were wasted, damaged and need renewals.</b></p> <p><b>Catwalk plating and gratings were significantly rusted</b> and with rust patches on top.</p>
Cargo holds	3.5	<p>Cargo holds no.1 to 6, loaded with containers, were partially inspected internally and access was limited, which prevented the sight of many areas.</p> <p>Coating was mostly intact on bulkheads, sides, tank top and pontoons, with limited corrosion spots. <b>Severe damage and corrosion area was noted in</b></p>

		<p>way of hold edges and few cell guides were noted with distortion. The cell guide supports were in a corroded condition. The damaged and distorted sections will require repair/renewals.</p> <p>Fixed stacking cones on tank tops were mostly in poor condition and would require renewal. Tank top plating was found in fair condition requiring some upgrading.</p> <p>As sighted from ship staff provided photos, the Hold cross decks, ladders, railings, ventilation ducts, coating was found with scattered corrosion spots. Pipelines inside holds were in fair condition. Various pipe penetrations look good. Bilge wells showed rust but intact.</p> <p>Container lashings on deck by means of semiautomatic twist-locks, mid-locks and turnbuckles found in good condition with adequate inventory sighted.</p> <p>Cargo hold access hatch cover lids were observed with some wear, but overall sound.</p>
Container Capacity	2	The vessel is designed to carry containers in holds, and on top of hatch covers distributed as 1798 TEU on deck and 1026 TEU on holds and 319 reefer sockets are provided for reefer containers.
Reefer Carriage	2	<p>Plugs: 534 units with 440 V x 60 Hz x 3 phase are available.</p> <p>The vessel is fitted with reefer plugs located towards the sides and inside the holds.</p> <p>The remote reefer container monitoring system is not operational.</p> <p>Plug fittings were generally seen as intact and protective covers in place.</p>
Ventilation	2.5	<p>There is exhaust/ventilation system provided for each container hold. All cargo holds have electrical exhaust fans, ensuring adequate air change per hour basis empty hold.</p> <p>Ventilator louvers/structure in cross decks were significantly corroded mainly towards deck penetrations and will need urgent upgrading.</p>
Cargo spaces bilges and fittings	3	<p>Cargo holds bilge alarms, water ingress alarms and bilge pumping system were not checked, however they were reported as working satisfactorily.</p> <p><u>Fire Prevention</u></p> <p>Cargo holds are fitted with CO2 fixed fire protection system with four inlets and provided with fire/smoke detection system.</p> <p><u>Lashings</u></p> <p>Vessel has a good inventory of container lashing equipment. A lashing gear equipment inventory is available with the vessel. Presently, vessel is using steel rods for container lashing. The lashing material and twist locks meant to be stored in racks on either side of the main deck however, found significantly wasted. Spare twist locks and steel rods are stored forward in the fore peak stores and some boxes in steering gear compartment.</p>
Lifting Gear/Deck Cranes/Provision Cranes/Grabs/Log Gears (If fitted with cranes)	2.5	<p>The ship is provided with one no. gantry Provisions Crane, manufactured by Dong Nam Enterprise Co. Ltd., SWL 6.3T, of Electric type, with two nos. lifting hooks for Port and Stbd.</p> <p>The crane motors were seen to have dull external condition and the cable rollers and supports were in damaged and corroded condition. Wires and sheaves appeared well greased.</p>

		The crane was reported to be in working condition.
Ship's Office/Ballast Control Room	2.5	<p>The cargo control room and ship's deck office are located on top deck and are equipped with various equipment for cargo control.</p> <p>The loading control software is installed on the same computer as the stability software. A Pleiger Fareast panel for the ballast pumps and remote valve operations is fitted and AWS 5000 tank L/G soundings display is available.</p> <p>An automatic anti-heeling control panel by Framo is fitted. The Safetec gas leakage detection system and water ingress alarm panel are fitted.</p> <p>A Stein Sohn, Vista Refrige panel is fitted as part of <b>Reefer container monitoring system. Vessel reported that it is not in operational condition.</b></p> <p>The Cargo holds Ventilation fans starter panel is fitted in the Control room. <b>The panel was found switched off and none of the ventilation fans found working during the inspection.</b> The Ch. Officer reported that fans are in working condition.</p>

## Anchoring and Mooring Systems

Windlasses and Mooring Winches	3	<p>Anchor and mooring winches are hydraulically operated, the remote operation station <b>pipng found with denso tapes and internal fittings condition not known. The stand structures are found with corrosion.</b></p> <p>Windlass and mooring equipment were reported as operational by crew and were observed in good to fair condition. <b>The ladder step plates around the forward winch appeared in wasted and damaged condition,</b> require replacements.</p>
Anchors and chains	2	<p>Vessel is fitted with two anchors, partially observed from the berth and appeared sound, although rusty.</p> <p>Anchor chains were rusty and presented superficial scale but did not appear to have significant thickness diminution. The latest anchor chain calibration records were not provided.</p>
Mooring ropes and wires	2.5	<p>Mooring ropes were in use for berthing at discharging terminal and in general they appeared in satisfactory condition. There are a few spare ropes on board. The latest mooring rope condition check records were not sighted.</p> <p><b>The Forward mooring station had some warping drums with 6-7 turns overlapping and some split drums with only 2 turns.</b></p>
Fairleads, Bollards, Chocks, Rollers etc.	2	As far as could be ascertained, the closed fairleads, bollards, rollers, bits, etc. appeared overall in good to fair condition and free to move, with some superficial rust spots.
Emergency towing arrangements	2	No issues noted.

## Ballast Water Tanks and Deck Spaces

Ballast tanks (Forepeak tanks, Double bottom tanks, Topside tanks and Aft peak tanks)	2.5	<p>All ballast tanks are reportedly epoxy coated. Class rating for ballast tank coating was not available.</p> <p>The Fore peak was opened and ventilated by ship's crew and inspected. The fore peak was largely clean with no mud deposits. Sighted areas of the tank were generally seen with coating in intact condition with limited coating losses and corrosion spots. Deterioration was mainly around spots of stringer, edges of openings, ladder steps and some internals. The Collision bulkhead was sound.</p>
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		<p>As per ship staff provided photos of all ballast tanks the gratings, supports, stiffener edges, openings, clamp U-bolts inside ballast tanks appeared with rust spots. Ladders were seen with limited rust. Pipelines appeared in good to fair condition and sound. The undersides of the manhole cover of the inspected ballast tanks were observed with some rust.</p> <p>No zinc anodes were noted in ballast tanks.</p>
Chain Lockers		Not inspected
Bosun Store	2.5	The bosun store, located below the accommodation block, was inspected and found poorly maintained, housekeeping required.
Bow/Stern thruster rooms	2	Bow thruster compartment was seen in good condition, maintained clean and well lit.
Bunker stations	2	Bunkering stations were observed in good to fair condition, with some wear.
Any areas not Inspected.	2.5	<p>Cargo Holds bottom sections were not accessible and visible due to loaded cargo.</p> <p>Ballast tanks were not inspected due to frequent container loading/discharging operations.</p>

## Accommodation & Bridge Equipment

<b>Summary</b>	<b>2 Good</b>	<p>The accommodation was found in good condition. Cabins are fitted with standard furniture and provided with showers and toilets. Flush system was noted in working condition.</p> <p>Separate messrooms with lounge are provided for ratings and officers. Alleyways are properly maintained. Galley and reefer rooms were found well maintained.</p> <p><u>Class Annual survey of all Radio equipment was ongoing during the inspection.</u></p> <p>All navigation and communication equipment were reported as operational. Two independent ECDIS sets are provided and ECDIS is the primary means of navigation. Gyro compass is fitted and reportedly working satisfactorily. Bridge M/E control is in use.</p> <p>Deck logbook was briefly checked and found satisfactory.</p>

**Rating**
**Notes**

### Navigation and Communications Systems (Bridge)

Navigation equipment operation and servicing (i.e. ECDIS, ARPA, gyro compass etc.)	2	<p>All bridge navigation and communication equipment were reported to be in good operating condition.</p> <p>X-band and S-band Radar Magnetrons were last renewed in Mar and Jun 2020.</p> <p>Vessel has dual ECDIS and the primary means of navigation is ECDIS. Gyro compass, speed log, GPS units were visually inspected and seemed in good working order. No alarm or error messages were noted. The VDR and BNWAS are fitted and reported as operational.</p> <p>A copy of the Bridge Equipment list with details of radar sets, BNWAS, ECDIS, VDR, etc. was provided.</p>
Communications equipment operation and servicing (i.e. MF/VHF radio, Sat phone, GMDSS etc.)	2	<p>Communication equipment on the bridge was generally seen in good condition. No obvious problems were noted.</p> <p>GMDSS records were found well maintained.</p> <p>Deck officers confirmed that all equipment is in good working order.</p>

### Office and Administration Systems

Shipboard office furnishings	2	Furniture and upholstery were noticed in good condition, with limited wear.
Computers/ Computers hardware and software/Photographic equipment	2	The computer network on board the vessel was reported as being operational, with the PMS and the common folders available on all the PC's onboard.
General stationary/Instruction books and training materials	2	The instruction book racks were found to be well stocked.

### Accommodation Services and Systems

Ventilation & air conditioning systems	2	<p>One Sabroe SMC 106S, 53,2 kW air conditioning compressor with Hi-Pres AHU plant is fitted. Refrigerant in use is R404A.</p> <p>The plant was in operation during the inspection and comfort temperatures were maintained. The blower room required some housekeeping due to unrelated boxes storage.</p>
Provision refrigeration plant, spaces & fittings	2.5	A York Refrigeration, BFO 3, 2,5 kW refrigerant plant is fitted, with two compressors. Refrigerant in use is R404A.

		<p>Adequate space for dry provisions and refrigerated rooms are provided.</p> <p>There is a refrigerated dry provision store and three refrigerated chambers with adequate temperatures maintained, accessible from a common lobby.</p> <p>The cold room evaporator coils and expansion valves were found with excessive icing formations. Defrost cycles and gas leak checks to conduct.</p>
Domestic & potable water systems	2.5	<p>Domestic water systems were found in good condition.</p> <p>Ship's Drinking water is not taken by Crew and Plastic mineral water bottles are in use onboard. FW tank, UV sterilizer unit, purification and mineralizer system to check.</p>
Officers and Crew mess rooms	2	<p>Two separate mess rooms for officers and crew are fitted. Comfort standards were good. Furniture showed limited wear.</p>
Galley equipment	2	<p>An adequately equipped galley is provided on the vessel and it was found clean and properly maintained.</p>
Cabins furnishing & fittings	2	<p>The accommodation is provided for 25 Crew + 1 Owner + 6 Suez crew. All areas were found in satisfactory condition, with limited wear. Toilets and showers are provided in all cabins.</p>
Hospital, Medical Supplies and Equipment		<p>Hospital was found in neat and well-equipped condition.</p>
Toilets and Sanitary Systems	2	<p>Toilets are working properly. Fresh water is used for sanitary system.</p>
Laundry equipment	2.5	<p>Laundry equipment was found in fair condition, Housekeeping and general cleaning required in laundry room.</p>
Recreational equipment	2	<p>A gymnasium is provided in the accommodation block. Exercise equipment were provided for crew use.</p>
Gangways incl. pilot and Accommodation ladders	2	<p>Two accommodation ladders are located on the port and starboard sides around midship, facing aft. The aspect of the two ladders was good to fair, and they were correctly marked.</p> <p>The operation is by means of electric motors. The starboard side accommodation ladder in service and found in working condition.</p>
Crew Elevators		<p>No elevator is provided.</p>
Other		



## Management and Crew

<b>Summary</b>	<b>2 Good</b>	<p>The crew consists of 19 persons of Russia, Ukraine and Filipino nationalities. The Master is from Ukraine.</p> <p>The onboard management was found to be good overall. The Port State Control (PSC) history of the vessel was found to be good.</p> <p>Ship's crew appeared conversant with management policies and procedures.</p>
	<b>Rating</b>	<b>Notes</b>
<b>Management and Crew</b>		
Audits, Safety, ISPS, ISM, MLC	2	Audit reports were not provided /checked. Master mentioned that there was no observations or non-conformities due.
Port State / Flag State Inspections	2	<p>Last PSC APAC inspection was carried out at Busan, Korea on 26 Jul 2021 with Nil deficiencies.</p> <p>No information on last flag state inspection was provided.</p>

## Vessel Details

### Machinery Details

<b>Main Propulsion Engines</b>	<b>Number and Type:</b>	1 X Two stroke diesel Engine
	<b>Maker:</b>	Hyundai Heavy Industries
	<b>Model:</b>	Hyundai MAN B&W - 7K80MC-C, Mk6
	<b>Performance:</b>	MCR of 34,300 BHP at 104 rpm and NCR 30,870 BHP at 100.4 rpm.
	<b>Fuel Specification:</b>	H.F.O. 380 cSt / 50°C
<b>Auxiliary Electrical Power Generation</b>	<b>Number and Type:</b>	04 nos. HYUNDAI-MAN B&W
	<b>Model:</b>	8L28/32H
	<b>Rated Power:</b>	4 x 1600 kW x 720rpm
	<b>Alternators and Capacity:</b>	HFC5 636-14E-EB, 1875 kVA/1500 kW 450V AC, 3 Ph, 60 Hz
	<b>Fuel Specification:</b>	H.F.O. 380 cSt / 50°C
<b>Emergency Electrical Generating Power</b>	<b>Number and Type:</b>	1 X Sisu Diesel Generator
	<b>Model:</b>	645 DSBIG + UCM 274 H
	<b>Rated Power:</b>	200 KW
	<b>Alternators and Capacity:</b>	170 KW @ 1800 rpm
	<b>Fuel Specification:</b>	LSMGO
<b>Propeller(s)</b>	<b>Number and Type:</b>	1 x Keyless, FPP, Right-handed, 5 Blades
	<b>Maker:</b>	Hyundai Heavy industries
	<b>Diameter:</b>	7200mm
	<b>Pitch:</b>	Fixed Pitch 7377mm
	<b>Material:</b>	Ni-Al Bronze
<b>Bow / Stern Thruster(s) / Stabilisers</b>	<b>Number and Type:</b>	1 x Bow thruster
	<b>Model:</b>	Brunvoll AS
	<b>Rated Power:</b>	FU-80-LTC-2000
	<b>Propeller:</b>	1100kW @ 1755 rpm
	<b>Thrust:</b>	Diameter 2000 mm
		-

### Cargo Details

<b>Hatch Covers</b>	<b>Number:</b>	11 Hatches for 6 Cargo Holds, 2 Aft Deck stacks.
	<b>Type and Operation:</b>	Lift away hatch covers
	<b>Arrangement:</b>	3 Panel each hatch
	<b>Mechanism:</b>	Manually lifted
<b>Cargo Spaces</b>	<b>Cargo Hold No. 1:</b>	1322.4m <sup>3</sup>
	<b>Cargo Hold No. 2:</b>	6364.2m <sup>3</sup>
	<b>Cargo Hold No. 3:</b>	10617.9m <sup>3</sup>
	<b>Cargo Hold No. 4:</b>	11812.0m <sup>3</sup>



<b>Cargo Hold No. 5:</b>	11812.0m <sup>3</sup>
<b>Cargo Hold No. 6:</b>	10866.0m <sup>3</sup>
<b>Strengthened for heavy cargo hold number(s):</b>	-

## Cargo Handling Details

<b>Cargo Handling Equipment</b>	<b>Number, Type &amp; Rating:</b>	NA
	<b>Cargo Pumps rated capacity:</b>	NA
	<b>Maximum loading rate/Simultaneous run:</b>	NA
<b>Cargo Control Room</b>	<b>Location:</b>	A Deck
	<b>Loading Computer:</b>	Yes
	<b>Systems and Controls</b>	Remote level monitoring and valve control system

## Consumption

### Fuel

#### Main Engine

##### Fuel Used: VLSFO, LSMGO

Laden Voyage at 80 rpm, average speed of 17.0 kts:	47.0	MT / day
Ballast Voyage at 90 rpm, average speed of 19.0 kts: (*Manoeuvring carried out on heavy fuel oil)	64.0	MT / day

#### Oil Fired Auxiliary Boiler

##### Fuel Used: VLSFO, LSMGO

In port:	2.4	MT / day
At sea for ER:	0.0	MT / day
Cargo Heating:	N/A	MT / day

#### Auxiliary Engine

##### Fuel Used: VLSFO, LSMGO

At sea with <b>one</b> engine	4.5	MT / day
In port idle	4.0	MT / day
In port discharging with <b>one</b> engine	4.5	MT / day
In port loading with <b>one</b> engine	4.5	MT / day

### Lubricating Oil

Main engine crankcase lube oil consumption	80	litres / day
Main engine cylinder lube oil consumption	300	litres / day
Auxiliary Engine crankcase	35	litres / day / engine

### Fresh Water

Design capacity of the freshwater generator	30	MT / day
Daily generation of fresh water at sea	20	MT / day
Domestic Fresh water consumption * (Sanitary water system is on fresh water)	7	MT / day

### Electric Load

At sea <b>one</b> generator	800	kW
In port idle <b>one</b> generator	650	kW
In port, discharging with <b>one</b> engine	750	kW
In port, loading with <b>one</b> engine	750	kW
Maximum load borne by each generator	1500	kW
Rated capacity of alternators	1500	kW

### Voyage Performance

From Abstract and Logbook of last 4 months averages.

Voyage Description	M/E (RPM)	Load MCR (%)	M/E Consumption (MT/ day IFO)	Speed	AE Consumption (MT/day IFO)
Laden	80	50	48	16.8	4.5
Ballast	No Info	-	-	-	-

## Documentation Inspected

### Documentation requested from Master:

Documents	Received	Notes
<b>a) Certificates</b>		
List of certificates (usually maintained as Excel file showing expiry dates)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Latest Class survey status	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Intl Tonnage certificate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Intl Load Line Certificate + Exemption if any	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Continuous Synopsis record (if there is change of Owner/ Manager/Flag or Class)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
International Anti Fouling System Certificate + Record of Anti-Fouling System	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Intl Air Pollution Certificate + Supplement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Intl Energy Efficiency Certificate + Supplement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Safety Construction Certificate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Safety Equipment Certificate + Supplement Form E + Exemptions	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Safety Radio Certificate with Supplement Form R	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Certificate of Class	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Certificate of Registry	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Radio Station License	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Document of Compliance (ISM)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Safety Management Certificate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Maritime Labour Certificate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Intl Ship security certificate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
IOPP Certificate + Supplement Form B	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Intl Sewage pollution prevention certificate + Approved Rate of discharge (untreated sewage)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Intl Ballast Water Management Certificate/ Statement of Compliance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Inventory of Hazardous Materials + Asbestos Free declaration	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Any dispensation issued by Flag State	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Any interim or short-term certificates	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Any USCG waiver for Ballast water treatment system	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Statement of compliance for LSMGO usage with list of dedicated LSMGO tanks/ evidence of conversion or modification of tanks or piping for LSMGO.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
LSA / FFA Equipment - Last Service Certificates and list of expiry dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Lifeboat release gear modification statement (if applicable)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

### Plans:

General arrangement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Capacity Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Mid-ship plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Pumping plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

### Other documents/ info:

Ship's particulars (usual one given to authorities, pilot, agent etc)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Crew List (Arrival)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
List of last 10 ports	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
List of last cargoes	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
List of CCR equipment (Tank level gauging system, Loadcom, Valve control system, Maker and type)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Mooring Wires / Ropes List	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

List of navigational equipment with details of ECDIS, BNWAS and VDR etc.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Approximate time required to de-ballast including stripping	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Quantity of unpumpable ballast	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Past ballast tank inspection pictures/ reports	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Last Class Hull Executive Summary Report and ESP File	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Last Ultrasonic Thickness Gauging report, any areas of substantial corrosion.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Past Class records (as applicable)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Delivery yard painting schedule.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Last Dry Dock work list / report	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Last anchor chain calibration records	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Last In-water survey report (if later than last DD)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Last PSC and Flag State inspection reports	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Last USCG/ AMSA report	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Deck logbook	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Garbage logbook	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Ballast water handling log	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	

### Approval/ cover pages of:

Stability Booklet	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Damage control booklet	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Loading Instrument/computer- Intact or damaged stability approved	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
SEEMP	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
SOPEP / SMPEP	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Ballast Water Management Manual	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Garbage management plan	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Emergency towing booklet	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Ship Structure Access Manual	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Emergency towing procedure	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Coating technical file	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	

### Documentation requested from Chief Engineer:

Documents	Received	Notes
<b>a) Reports/Records</b>		
Particulars of machinery in engine room (list and brief details) – from shipyard	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Particulars of machinery on deck – mooring winches, power packs, thruster (make and type), deck cranes, etc. – from shipyard	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Any retrofitted major equipment since delivery	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Guarantee Claims list (if within 6 months of delivery)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Main and Auxiliary engines running hours of components (especially liners, pistons and turbochargers)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Main and Auxiliary engines deflection and bearing clearance report.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Main and Auxiliary engines performance report	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Main and Aux engine Piston or Liner overhaul/De-Carb Report for all units.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Turbo/ Shaft generator running hours/ last overhaul records	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Log abstract showing fuel oil/lube oil consumptions for Main Engine, Aux Engine and Boiler.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Lube Oil chart for machinery.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Lube Oil analysis reports for main and auxiliary machineries	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Last FO analysis report (HSFO or LSMGO)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Last MDO analysis report	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Last Megger Test Readings.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Last cooling water test records for boilers and main / auxiliary engine systems	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Monthly Maintenance reports for last two months	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
List of overdue jobs from Planned Maintenance System	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
LSMGO, LSFO and Low TBN Cylinder Oil tank capacities and location	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Dry dock specs for upcoming dry dock (if DD due within next 6 months)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Fresh water analysis report (under MLC)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
HMI setting for Alpha lubricator if fitted.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
List of major spare parts for main engine, auxiliary engines and other auxiliaries / deck machinery on-board and ashore for repairs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Rocking tests of cranes-last report	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Grease analysis of cranes-last report	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Ballast, fire pumps and eductor details	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Ballast water treatment system details, last sensor calibration	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

**Other documents/ info:**

Any chillers or coolers fitted for LSMGO operation	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is vessel fitted with means of evaporation from sludge tanks, any entry in ORB	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Sewage holding tank if any	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Stern seal –make and type; Lubricating oil is EAL	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Bow thruster – if CPP type; Lubricating oil is EAL (NON-EAL OIL USED)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Propeller – if CPP; Lubricating oil is EAL	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

**Other logbooks/records:**

Engine logbook	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Oil Record Book	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Ozone depleting substances record book	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Fuel oil record book	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Environmental seal record	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
FO consumption reporting as per EU MRV and IMO DCS (as applicable)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Bunker Delivery note (last)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
EEDI technical file	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
NOX Files for M/E and A/E's	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Sea trial /speed trial report	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

## Certificates and Documents Status

### Certificates Status

Certificate	Issued	Expires	Notes
Class	15 Aug 2018	31 Aug 2023	
Safety Construction	28 Dec 2020	31 Aug 2023	
Safety Equipment	18 Apr 2019	31 Aug 2023	
Safety Radio	15 Aug 2018	31 Aug 2023	
International Load Line	15 Aug 2018	31 Aug 2023	
IOPP	04 Dec 2020	31 Aug 2023	Re-Coupled
ISPP	15 Aug 2018	31 Aug 2023	
IAPP	28 Jun 2020	31 Aug 2023	
DOC	19 Mar 2021	26 Mar 2025	
SMC	07 Jul 2021	15 Oct 2024	
ISSC	07 Jul 2021	15 Oct 2024	
Antifouling	15 Aug 2018	NA	
Fitness Certificate	NA	NA	
Ballast Water	15 Aug 2018	31 Aug 2023	

### Classification Status

Survey type	Last	Next	Notes
Special Survey	15 Aug 2018	31 Aug 2023	
Intermediate Survey	09 Aug 2020	30 Nov 2026	
Annual Survey	09 Aug 2020	30 Nov 2021	Held on 14 Jul 2021
Aux Boiler Survey	26 Jul 2021	31 Aug 2023	
Docking Survey, UWILD	18 May 2021	31 Aug 2023	
No. 1 Prop. Shaft Survey	15 Aug 2018	29 Jun 2023	

### Condition of Class/Overdue Items/Memos to Owners

#### Conditions of Class: (give particulars of all COCs recently cleared or due)

No. CC 25	Issued Date	Issued at	Due date
Within given due date, a sporadically corroded rudder blade plating with welding seams in way of rudder blade level F-F, to be re-surveyed and dealt with as necessary. Further postponement may be granted if no negative development is observed by re-inspection during annual survey.	18 May 2021	FIS Korea	30 Nov 2021

#### Overdue Items (CSM):

No.	Issued Date	Issued at
Not reflected in Survey status		

#### Memo to Owners:

No.	Issued Date	Issued at
<b>RELATED TO CLASS CERTIFICATES</b>		
<b>MO14</b> Indent on side shell plates about 50mm depth at Fr. 59 iwo HFO No.6F S side and at Fr. 56 iwo HFO No.6A S side.	15 Aug 2018	Guangzhou FIS
<b>MO17</b> Administrative surcharge Liberia: A surcharge fee per any statutory short or full-term certificate issued or endorsed will be invoiced by DNV to the vessel's manager on behalf of the Liberian Flag Administration.	25 Nov 2020	Hovik
<b>MO20</b> During a bottom survey afloat, a cavitation on all propeller blades end tip area was found outside 0.8R, max.5mm deep. with extent as follows; (a) Blade A : W65mm x L900mm (b) Blade B : W50mm x L700mm	18 May 2021	FIS Korea

