## EXAMPLE VESSEL

IMO Number: 123456789

INSPECTED AT EXAMPLE PORT, ARAB EMIRATES
1 st MAY 2023


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## INSPECTION SUMMARY




The Example Vessel (ex. "Example Vessel 1"; "Example Vessel 2"; "Example Vessel 2") is a example DWT, example Gross Tonnage, example flagged, geared Feedermax Container vessel built to a good standard by example shipbuilding, in China under example class supervision. She was delivered on the 13th February 2009. The vessel is now Classed with example class.

A Condition Inspection of the vessel was conducted on the 1st May 2023 in example port, United Arab Emirates by Idwal under instruction from example company.

Good cooperation was provided by the ship's crew however, no access was possible to the ballast tanks due to terminal safety restrictions at the port of inspection. The vessel was alongside, discharging at the time of inspection.


VESSEL PARTICULARS

| Ship Name | Example Vessel |
| :--- | :--- |
| Previous Name | Example Vessel 1 |
| IMO Number | 123456789 |
| Port of Registry | Example Port |
| Ship Type | Containership |
| Flag | Example Flag |
| Classification Society | Example Class |
| Registered Owner | Example Owner |
| Technical Manager | Example Manager |
| Shipbuilder | Example |
| Delivery Date | Shipbuilder |
| Dead Weight | Example MT |
| Gross Tonnage | Example MT |
| Net Tonnage | Example MT |
| Length Overall | Example m |
| Breadth | Example m |
| Depth | Example m |
| Summer Draught | Example m |
| Lightweight | Example MT |

The vessel was found to be in a fair overall condition with an Idwal Grade below the average for vessels of a similar age, type and size with a several notable items found during the inspection. These are reported specifically in the notable items section of this report. Photos for the Notable Items are attached to this report.

The onboard management was found to be fair with the Safety Management system found to be implemented and the vessel generally maintained to only a fair standard. The vessel was found to provide a safe working environment.

Given the fair overall condition of the vessel, OPEX levels are likely to be up to $5 \%$ higher than for vessels of a similar age, type and size, until the notable items identified have been rectified.

Based on information provided by the vessel during the inspection, the Attained EEXI score was calculated to be between 20.38 and 21.64. This Attained EEXI score is above the required EEXI of 17.78, and therefore the vessel will require the installation of technologies to reduce the EEXI score. As per the EEXI Technical File provided, the M.E. will need to be limited to 12,800 kW which is approx. $67 \%$ of the vessel's original M.C.R. to meet forthcoming EEXI requirements which will need to be met by the first IAPP survey after the 01-Jan-2023; The forthcoming regulatory compliance has been graded as fair accordingly.

## KEY NOTABLE ITEMS

## Description



The vessel had four open Conditions of Class associated to the external hull areas, which will require repairs by the due date which is the $13-$ Nov-2023. There are five wasted pad eyes in way of the port side Bow Thruster protective grid which need to be renewed and the starboard side bow thruster protective grid is missing because the pad eyes are completely wasted. Furthermore, the bow thruster tunnel has been blanked as there are holes and local corrosion within the thruster tunnel. Excessive and substantially corroded areas were also reported in areas of the side and bottom shell plating as per the latest UTM report

The Bow Thruster is not operational with a Condition of Class in place.

Aux. Eng. No. 1 was not operational. After the last overhaul a number of parts were identified as needing replacement due to condition though the required spares were not available. A number of O-rings, a nozzle element, joint ring, cylinder head assembly, fuel injection pump assembly, transverse thrust piece, radial thrust piece and parallel pin have all been ordered.

The vessel was sailing under a short term international sewage pollution prevention certificate. The sewage treatment plant aft bulkhead had two localized holes which had been temporarily repaired by double plates reinforced by two. steel interposed supporting tube bars.

## Action / Timeline

## Estimated

Cost [USD]
To be repaired to Class satisfaction
\$50000+ by the due date which is the $13-$ Nov2023.

Bow Thruster to be repaired by the
\$20000-\$50000 due date which is the $13-$ Nov- 2023.

Items to be provided as soon as
\$5000 - \$20000 possible and repairs to be carried out.

Definitive repairs need to be carried
\$5000 - \$20000

The oils should be refreshed and retested as soon as possible. Oils with only a 'caution' warning are suitable for continued use.

Ensure the vessel has adequate spares as recommended by the ship manager Safety Management System (SMS).

To be investigated and repaired.
\$5000 - \$20000

To be maintained to arrest further
\$1000-\$5000 deterioration. Leakages to be arrested.

Performance of Air Handling Unit
\$1000-\$5000
and system to be improved.

To be treated to arrest further deterioration

Leakages to be arrested and cleaned and insulation lagging to be replaced were oil soaked.

To be repaired.
<\$1000

Condition to be improved and <\$1000 weather tight integrity to be verified.

This is recommended to be further investigated

Condition of flat racks to be closely monitored.

Positive.

Positive.

Please note, all costs are estimations only, based on industry averages, and may vary depending on locations and scopes of work. These costs are provided to assist the reader to consider the potential Capex or Opex impact of the related Notable Item and should not be used for budgeting purposes without further internal assessment of their accuracy.

## DECARBONISATION SUMMARY

The vessel was delivered to the market before the EEDI requirements, and therefore has no EEDI score assigned. Based on information provided by the vessel during the inspection, the Attained EEXI score was calculated to be between 20.38 and 21.64. This Attained EEXI score is above the required EEXI of 17.78, and therefore the vessel will require the installation of technologies to reduce the EEXI score. As per the EEXI Technical File provided, the M.E. will need to be limited to $12,800 \mathrm{~kW}$ which is approx. $67 \%$ of the vessel's original M.C.R. to meet forthcoming EEXI requirements which will need to be met by the first IAPP survey after the 01-Jan-2023; The forthcoming regulatory compliance has been graded as fair accordingly. For more information about technologies to reduce a vessel's EEXI, the creation of the EEXI technical file or operational measures to reduce a vessel's Attained CII, please contact your Idwal sales representative.

## EEXI

Required EEXI

### 17.91

$\mathrm{gCO}_{2} /$ t.nm

Attained EEDI/EEXI
20.38-21.64
$\mathrm{gCO}_{2} /$ t.nm

Vessel does not meet the EEDI/EEXI requirement and requires additional retrofitting of technologies

## GRADING DATA

## IDWAL <br> GRADE

The Idwal Grade® is an industry recognised measure of asset integrity. Using proprietary algorithms, the Idwal Grade is programmatically calculated from over 500 individual data points, captured during a rigorous and standardised inspection process. Our data-driven methodology ensures that our reports are consistent, accurate and free from bias.

## SUB GRADES

The methodology used to calculate the Idwal Grade® is also applied to the grading of the different vessel areas and categories. Two key areas are the overall vessel condition and vessel management:


## DESIGN AND CONSTRUCTION

The construction and design was found to be good overall, with the vessel built to IACS example standards and Rules in China, by
shipyard with the keel laid on the 05-June-2005. The vessel is a standard design (SDARI 2000), with 5 holds and 9 hatches covered by steel pontoon type non-sequential hatch covers. The machinery arrangement is conventional for a container vessel of this size and includes a slow speed two stroke direct reversing main engine coupled to a fixed pitched propeller via a single shaft, four (4) aux. engine generator sets and a single composite tube boiler with exhaust gas economizer. The single rudder is driven by a rotary-vain type steering gear actuator situated
in a separate compartment. The vessel has a $1,060 \mathrm{~kW}$ transverse bow thruster unit fitted. The vessel was built to FS Ice Class II standards. The vessel is provided with three cranes with SWL of 45 . The vessel holds a Class notation for In Water Surveys. No UTM report was made available for review. Apart from the equipment required by international rules and regulations, the bridge is also fitted with machinery space control system repeater panel and differential-gps and the engine room and machinery are fitted with incinerator sludge burning system, UMS capabilities and 2-stroke engine adaptive cylinder lubricators.

## HULL

The hull was seen to be in a poor overall condition, with the grading downgraded as a result of the vessel having four open Conditions of Class associated to the external hull areas, which will require repairs by the due date which is the 13-Nov-2023. There are five wasted pad eyes in way of the port side Bow Thruster protective grid which need to be renewed and the starboard side bow thruster protective grid is missing because the pad eyes are completely wasted. Furthermore, the bow thruster tunnel has been blanked as there are holes and local corrosion within the thruster tunnel. Excessive and substantially corroded areas were also reported in areas of the side and bottom shell plating as per the latest UTM report. At the time of inspection the visible hull shell plating was free of major structural defects, however, small sharp
indentations were observed in way of the starboard side hull abeam of no. 1 and 2 holds. The visible hull coatings had only minor scattered spots of scaling corrosion, covering up to approximately $1 \%$ of the visible surface area, with coating breakdown and corrosion restricted to across the bow were the anchors have chaffed across and in some localised areas of the vertical sides in way of fender abrasions. Hull markings were well painted and legible with minor marine fouling observed. The vessel's last out of water bottom survey was credited on the12-Jan-23, with the vessel's next bottom survey due by the 12-Jan-2026. The vessel's Condition of Class are due by the 13 -Nov-2023 and the Conditions for the hull will likely need the vessel to be out-of-water to carry out repairs.

## NOTABLE ITEMS

Description | Estimated |
| ---: |
| Cost |

Issue: The vessel had four open Conditions of Class associated to the external hull areas, which will require repairs by the due date which is the 13-Nov-2023. There are five wasted pad eyes in way of the port side Bow Thruster protective grid which need to be renewed and the starboard side bow thruster protective grid is missing because the pad eyes are completely wasted. Furthermore, the bow thruster tunnel has been blanked as there are holes and local corrosion within the thruster tunnel. Excessive and substantially corroded areas were also reported in areas of the side and bottom shell plating as per the latest UTM report

Corrective Action: To be repaired to Class satisfaction by the due date which is the 13-Nov-2023.

## MOORING DECKS

70The Mooring decks were seen to be in a fair to good condition overall with the decks found to be free of structural defects. Minor, localised scaling corrosion, covering up to approximately $10 \%$ of the mooring deck plating total surface area, was sighted with coating breakdown and corrosion mainly located over deck edges, weld seams and fitting foundations. Deck fittings were found to be in a fair condition with minor, occasionally moderate corrosion seen over fitting edges with some areas of wastage over fittings. Fairleads and mooring rollers free to turn when tested. All Hydraulic windlasses and winches were reported to be fully operational but were, however, not free of hydraulic leakage with minor instances of leaks observed from hydraulic pipeline unions. Mooring machinery was in generally fair condition with developing
corrosion seen over foundation, framing and fitting edges, including the brake bands and linkages and dog-clutches and linkages. The band brake linings were seen to have adequate remaining thickness. The visible sections of the anchor chains were in a good condition. Mooring ropes were in a fair condition, with localized surface abrasion seen over mooring lines. Mooring practices were seen to be fair, with lines held under tension on drum ends. Snap-back zone warnings were seen to be posted at the entrances to mooring areas as per the latest industry best practice. The Bosun's store was in a fair overall condition with some example of poor housekeeping and minor corrosion sighted. The bitter end release arrangements were seen to be clear and unobstructed and the emergency towing booklet seen to be available near to the Foc'sle.

## NOTABLE ITEMS

Estimated<br>Description

Issue: Mooring machinery was in fair condition with developing coating breakdown over framing and fitting edges. Some minor hydraulic leaks were seen from pipework unions.

Corrective Action: To be maintained to arrest further deterioration. Leakages to be arrested.

## WEATHER DECKS AND FITTINGS

80
The Weather Decks and Fittings were seen to be in good condition overall, with the decks found to be free of structural defects. Minor scaling and pitting corrosion, covering up to approximately 10\% of the main deck plating total surface area, was sighted. Deck fittings were found to be in a fair condition with minor
developing corrosion over fitting edges however, pipework and fittings were seen to be generally free of leakages. Some of the lights in way of the lashing bridges were damaged. The accommodation ladders and gangways were in a good overall condition, with no notable defects found, as were provisions lifting appliances.

## NOTABLE ITEMS

| Description | Estimated |
| :--- | :--- |
|  | Cost [USD] |

Issue: Some of the lights in way of the lashing bridges were damaged.
Corrective Action: To be repaired.

## BALLAST TANKS AND SYSTEMS

80Ballast tanks and systems were deemed to be in a good overall condition. No tanks could be entered. There were terminal safety restrictions which prevents entry into enclosed spaces during cargo operations. A small, limited sample of photographs from previous tank entries in Feb-23 were provided for review. The condition assessment of the tanks was very limited due to the limited sample of photographs of the tanks made available for review. From the photographs provided, it was seen that the ballast tanks were found to be generally free of significant structural defects and had only minor scattered, scaling corrosion, covering up to approximately $5 \%$ of the ballast tanks total surface area, with coating breakdown and corrosion mainly located at the edges of
openings, on some stiffener, bracket, stinger and plate edges, around some mouse holes and lightening holes, in way of some weld seams and around some reverse impact indentations. Some tank coating maintenance work looks to have been conducted recently. Ballast tank fittings such as ladders and pipework were seen to be in a good overall condition with Anodes seen to be depleted up to $20 \%$. Tanks were seen to have a minimal amount of mud/sediment accumulation but were free of any signs of staining from sewage or marine fouling. Ballast control systems such as valves and gauges were reported to be fully operational and all ballast pumps were in good working order and in good visual condition.

## ACCOMMODATION

80The accommodation areas were seen to be in a good condition overall with floor, wall coverings, upholstery and furniture found to be free from significant deterioration and defects. The accommodation flooring was observed to be stained in a few areas. The levels of housekeeping and cleanliness was found to be good with levels of hygiene also seen to be good in the sanitary facilities. The hospital was seen to be well equipped and ready for use with the drugs seen to be controlled and secured and with the associated drugs log kept up to date. The accommodation was found to be outfitted to an average quality. Reportedly, no recreational WiFi was available for the crew. Some additional recreational spaces and equipment were however available for the crew. The Air Handling Unit (AHU) was not maintaining a comfortable temperature at the time of inspection. There was insufficient performance to regulate the temperatures in the extreme
heat at the port of inspection (40-43 degrees C). Portable fans were in use around the accommodation. The galley equipment was deemed to be in a good overall condition with all equipment reportedly in good working order. The galley was found to be in a clean condition with the galley hoods also found to be kept clean. The vessel's walk-in cold rooms were found to be clean and hygienic with temperatures at the required levels. Provision room components were seen to be generally free of frosting and deterioration. The external superstructure was found to be free of structural defects and had only minor scattered, spots of scaling corrosion, covering up to approximately 5\% of the surface area, with coating breakdown and corrosion mainly located around the port hold, fittings and structural edges. The external superstructure fittings were seen to be in a good overall condition with all external accommodation doors in good working order and properly closing.

## NOTABLE ITEMS

Estimated
Description Cost

Issue: Insufficient performance from Air Handling System in the accommodation to regulate the temperatures in the extreme heat at the port of inspection (40-43 degrees C). Portable fans were in use around the accommodation.

Issue: Minor spot corrosion seen over accommodation superstructure and fittings with developing wastage over some fittings edges and port hole frames.
Corrective Action: To be treated to arrest further deterioration

## BRIDGE AND NAVIGATION EQUIPMENT

## 80

The Bridge and navigation equipment were found to be in a good condition overall with housekeeping found to be good and with all bridge equipment reported to be fully operational. The vessel's VDR was found to be free from any unanticipated alarms with collection instructions posted nearby and with the Bridge Navigation Watch Alarm System (BNWAS) reported to be fully operational. The vessel's primary means of navigation, as listed on form E of the safety equipment certificate is a dual ECDIS system which were found to be up to date. An in-date compass deviation card was seen to be posted near to the helm and the compass deviation log was well maintained and without any major deviations. The
vessel is licensed to cover GMDSS sea areas A1, A2, and A3 and had a valid shore-servicing agreement in place. The radio batteries were seen to be well maintained and in good condition and the EPIRB, SART and VHF handheld batteries were all in date as required. Berth to berth passage plans were seen on-board and were signed by all navigating officers with nautical publications provided in Paper and Electronic format. Master's standing and night orders were found to be signed by all navigating officers with the bridge log book correctly filled in and the GMDSS logbook also up to date and correctly filled in. The Monkey island was found to be in a good overall condition with the mast, aerials and antennas seen to be satisfactory and free of defects.

## ENGINE ROOM AND MACHINERY

60The Engine room and machinery were found to be in a fair overall condition, with numerous defects identified. Aux. Eng. No. 1 was not operational.
After the last overhaul a number of parts were identified as needing replacement due to their condition though the required spares were not available. A number of O-rings, a nozzle element, joint ring, cylinder head assembly, fuel injection pump assembly, transverse thrust piece, radial thrust piece and parallel pin have all been ordered. The Bow thruster was also not operational and was awaiting spares as per the open Conditions of Class. The F.W. Generator is working but the crew are investigating the low production rate. The crew suspects an issue with the ejector nozzle and intend on replacing or reconditioning the nozzle. The engine room was seen to be generally dirty with numerous leaks and traces of oil observed in many locations. During the inspection the Auxiliary Engines, purifiers, pumps and air compressors were seen running. Bilges and tank tops were generally seen to be dirty with noticeable traces of oil seen on the tank tops and in the bilges. Pipework was seen to be in good overall condition, free of leaks, temporary repairs and significant corrosion with some sections of pipework insulation lagging seen to be oil soaked and in need of replacement. Housekeeping was seen to be lacking with endemic oil leakages from numerous items. As per the inventory provided, the vessel was also lacking critical spares as recommended by the ship manager Safety Management System (SMS). A review of the latest lube oil analysis reports provided showed some areas of concern. The latest samples were dated Mar-2023. Critical alerts were issued for the samples from Crane 1, 2 and 3 slewing gearboxes (high calcium), Aux. Eng. 2 (high containments and viscosity), the Emergency Generator (high wear metals and containments) and the Stern Tube aft (high wear metals). Caution alerts were issued for the samples from the Remote Control Valves system (high viscosity) and the Main

Engine (high wear metals). The NOx Technical file was up to date and last updated on 23-Apr-23. The Main Engine was reported to be fully operational but was seen to be in a fair overall condition due to endemic, minor leakages from numerous components. A review of the latest Main Engine performance report provided showed no areas of concern. Main Engine overhaul schedule is subject to Condition Based Monitoring (CBM) and therefore no dedicated overhaul interval is provided and maintenance requirements are ascertained from performance reports and inspections. Propulsion systems, such as shafts and bearings were in good working order with no defects reported or sighted. The Bow Thruster was not operational with an open Condition of Class. The 4 Auxiliary Engines were generally operational, barring Aux. Eng. No. 1 which was out of service pending the delivery of spares. A review of the latest Auxiliary engines performance report provided showed some areas to note. The latest performance tests were conducted at less than $60 \%$ load. Performance tests need to be conducted at closer to full load to accurately asses the engines performances. The vessel's steam boiler was found to be fully operational and in good condition. The boiler safety valves were seen to be satisfactory and free of tampering. All Auxiliary equipment was found to be fully operational and in good condition barring the fresh water generator, which was in poor condition. The steering gear was seen in good working order, free of leakage with emergency steering instructions seen to be posted nearby. The machinery spaces are capable of being operated in Unmanned mode and the alarm and control system was seen to be free of any serious alarms. The vessel in on a short sailing schedule of less than 24 hrs and hence the engine room is being manned at all times. Electrical distribution systems including the main switchboard were in good working order and switchboard insulation readings were adequate.

## NOTABLE ITEMS

## Description

Estimated
Cost [USD]

Issue: The Bow Thruster is not operational with a Condition of Class in place.
Corrective Action: Bow Thruster to be repaired by the due date which is the 13-Nov-2023.
\$20000 - \$50000

Estimated
Description

Issue: Aux. Eng. No. 1 was not operational. After the last overhaul a number of parts were identified as needing replacement due to condition though the required spares were not available. A number of O -
rings, a nozzle element, joint ring, cylinder head assembly, fuel injection pump assembly, transverse
thrust piece, radial thrust piece and parallel pin have all been ordered.
Corrective Action: Items to be provided as soon as possible and repairs to be carried out.

Estimated
Cost
[USD]

Issue: The latest lube oil analysis reports were dated Mar-2023. Critical alerts were issued for the samples from Crane 1, 2 and 3 slewing gearboxes (high calcium), Aux. Eng. 2 (high containments and viscosity), the Emergency Generator (high wear metals and containments) and the Stern Tube aft (high wear metals). Caution alerts were issued for the samples from the Remote Control Valves system (high viscosity) and the Main Engine (high wear metals).

Corrective Action: The oils should be refreshed and re-tested as soon as possible. Oils with only a 'caution' warning are suitable for continued use.

## Estimated

Description

Issue: As per the inventory provided, the vessel was lacking some critical spares as recommended by the ship manager Safety Management System (SMS).

Corrective Action: Ensure the vessel has adequate spares as recommended by the ship manager

Issue: The F.W. Generator is working but the crew are investigating the low production rate. The crew suspects an issue with the ejector nozzle and intend on replacing or reconditioning the nozzle.

Corrective Action: To be investigated and repaired.

Issue: Endemic, minor oil leakages were seen throughout the E.R. from various components with some areas with oil soaked insulation laggings identified.

Corrective Action: Leakages to be arrested and cleaned and insulation lagging to be replaced were oil

Ref:
00/0000

## FIRE FIGHTING EQUIPMENT AND SYSTEMS

80Fire Fighting Equipment and Systems were found to be in a good condition. Servicing and inspections of firefighting equipment were all up to date as required. The fire detection and alarm system was found to be fully operational and was free of signs of tampering and alarms. The vessel is fitted with CO2 and Local Water Spray fixed firefighting in the engine room, CO2 for the cargo areas and Galley CO2 in the accommodation. Fixed firefighting systems were all reported to be in good working condition with operating instructions clearly posted. The main and emergency fire pumps were reportedly fully operational and both were found to be in a good condition, free of leakages. The fire main and ancillaries such as hydrants and valves were in good overall
condition, free of defects. Fire extinguishers were all in good condition and all portable equipment were positioned in accordance with the fire plan. Firefighting outfits and associated equipment were all in good condition with BA equipment found fully charged and ready for use. The emergency generator was tested during the inspection and found to be in good working order and in a good overall condition. Remote shutdown emergency devices such as quick closing valves, machinery stops and ventilation dampers were deemed to be in a good overall condition with no defective shut down equipment sighted. The fire doors were found to be in good condition, closing effectively and free from any unauthorised 'hold-open' arrangements.

## LIFESAVING APPLIANCES

80
Lifesaving appliances were seen to be in a good overall condition with all equipment regularly serviced and inspected as required. The vessel is fitted with a free-fall lifeboat, which was seen to be in good overall condition externally and internally. The lifeboat engine was tested during the inspection and found to be in good working order. The vessel's rescue boat was found to be in a good overall condition and ready for immediate use. The vessel is equipped with 3 life rafts, which were found to be in good condition with Hydrostatic Release Units (HRUs) in date and correctly rigged. Davits and lowering
arrangements were found to be in good condition overall with evidence of regular maintenance, servicing and inspection sighted and evident. Ancillary lifesaving equipment such as lifejackets, immersion suits and EEBD's etc. were found to be in good condition and ready for immediate use with man overboard smoke and light signals seen to be in date. Embarkation ladders were found to be in a good, well maintained condition with the pyrotechnics and line throwing apparatus found to be stored appropriately and within their expiry dates.

## SAFE WORKING ENVIRONMENT

80Safe working was deemed to be good overall with no unsafe practices observed during the inspection and the vessel presenting a generally safe working environment. Hazards were seen to be clearly marked and external walkways adequately coated with nonslip paint and free of trip hazards. Adequate PPE was seen to be worn by crew at all times and portable gas detection meters were provided and calibrated. Hazardous substances were seen to be generally safely managed with appropriate Material Safety Data Sheets provided. Risk Assessments (RA)
were seen to be up to date and satisfactory with enclosed space entry procedures followed and an effective Permit To Work (PTW) system in place. Main and emergency exits were clearly identified and unobstructed with all IMO signage seen to be satisfactory. Pilot ladders and boarding arrangements were seen to be in a good, safe condition. Regular drills were conducted on board with the last drill conducted on the 16-May-23, which was a Fire, Abandon ship and Oil Spill drill.

## POLLUTION CONTROL

60Pollution control was deemed to be fair overall. The vessel was sailing under a short term international sewage pollution prevention certificate. The sewage treatment plant aft bulkhead had two localized holes which had been temporarily repaired by double plates reinforced by two. steel interposed supporting tube bars. Definitive repairs need to be carried out by the 07 July 2023. The vessel holds a Class-approved Inventory of Hazardous Materials, which is required for entry into EU ports. The vessel's Oily Water Separator (OWS) was found to be fully operational and in good overall condition, with no obvious defects. The OWS was simulation tested during the inspection and the 15ppm Oil Content Meter (OCM) was seen to be calibrated. The bilge overboard was seen to be sealed and locked against unauthorised opening and the oily water treatment system as a whole was seen to be free from signs of tampering or unauthorised modification. The SOPEP locker or box was found to be well stocked with SOPEP equipment in good condition and an accurate list of equipment posted nearby. The Oil Record Book (ORB) was seen to be well-maintained
and up-to-date, with the last entry on the 21-May-23. The vessel is fitted with an IMO approved Ballast Water Treatment System (BWTS). No documentation was provided onboard to verify the BWTS USCG compliance. The BWTS was reported to be fully operational and in good overall condition. The vessel's ballast record book was seen to be up to date and correctly filled in. The vessel is fitted with an airseal on the stern tube and is therefore Vessel General Permit (VGP) compliant in this regard. The vessel's sewage treatment plant was found to be fully operational but was temporarily repaired. Garbage segregation was found to be good, with adequate, labelled containers and garbage seen to be well sorted and containers seen to be made of approved non-combustible materials. The Garbage Record Book (GRB) was seen to be well-maintained and up-to-date, with the last entry on the 22-May-23. The vessel's incinerator was found to be fully operational and in good overall condition, with no obvious defects. The vessel complies with IMO 2020 regulations by employing the use of Very Low Sulphur Fuels Oils (VLSFO) with a sulphur content of less than $0.5 \%$.

## NOTABLE ITEMS

Issue: The vessel was sailing under a short term international sewage pollution prevention certificate. The sewage treatment plant aft bulkhead had two localized holes which had been temporarily repaired by double plates reinforced by two. steel interposed supporting tube bars.

Corrective Action: Definitive repairs need to be carried out by the 07 July 2023.

Estimated
Description Cost [USD]

Issue: It was reported that an IMO approved Ballast Water Treatment System is installed with no documentation provided onboard to verify it's USCG compliance

Corrective Action: This is recommended to be further investigated
Description
Estimated
Cost [USD]

Issue: The Stern Tube was fitted with an air seal and is therefore VGP compliant in this regard.
Corrective Action: Positive.

## ONBOARD MANAGEMENT

60Onboard management was found to be fair overall with a backlog of maintenance in a number of areas onboard. The computer-based Safety Management System (SMS) was deemed to be functioning and well implemented in general, with Permits to Work (PTW), risk assessments and procedures understood and followed. Onboard management was found to deal with accidents, near misses and deficiencies in an effective manner and regular safety committee meetings were carried out on board. The vessel's MLC certificate was valid with records of hours of rest (ILO) correct and up to date and maximum work hours not regularly exceeded. The PMS system was found to be kept up to date with no critical overdue work orders. The Class-approved system-based Planned Maintenance System (PMS) was fully integrated with the SMS for ordering of spares and general vessel
management. The Port State Control (PSC) history was graded as good, as there have been no inspection in the past three years, with the last inspection reported in Oct2018. The vessel's flag is not targeted by any Memorandum of Understanding (MoU) or the USCG. Security access controls were deemed to be satisfactory with the vessel conforming to International Ship and Port Security (ISPS) standards. The Master and crew were prepared for the inspection and provided good cooperation with the majority of requested documents provided. The Classification and Certification grading has been downgraded to poor as a result of the 5 open Conditions at the time of inspection. The Crew Performance grading has been downgraded slightly, as there was a backlog of maintenance in some areas onboard.

## VESSEL CAPABILITIES AND CARGO SYSTEMS

.Vessel capabilities and cargo systems were deemed to be in a fair overall condition. The cargo holds were partially laden with containers at the time of inspection. Photographs of previous hold entries in Feb- 23 were provided for review. From the photographs provided, it was seen that the cargo hold structural members were found to be free of damage but had moderate scattered, scaling corrosion, covering up to approximately $15 \%$ of the surface area, with coating breakdown and corrosion mainly located over tank-tops and fittings.. Cell guides were free of damage and deformation. Moderate corrosion was seen of the guide contact surfaces and brackets. Cargo hold fittings such as ladders, handrail, ventilation ducts, light fixtures and pipe guards etc. were with moderate levels of corrosion observed on most fittings however all cargo monitoring systems were fully operational. The cargo holds were free of signs of water ingress both from internal and external sources. Mechanical ventilation systems were in good working order. The vessel is fitted with pontoon hatch covers. Hatch covers were found to be free of structural defects and had only minor scattered, pitting and spot corrosion, covering up to approximately $10 \%$ of the surface area, with coating breakdown and corrosion mainly located over the container landing areas. Hatch cover rubber seals and retaining channels were in fair overall condition with indentations observed in the hatch cover drainage lips. The weather tight packings for the hatch cover natural ventilation closures were in poor condition in way of a number of hatch covers. Hatch coamings were found to be free of structural defects and had only minor localised scaling corrosion, covering up to approximately $15 \%$ of the surface area, with coating breakdown and corrosion mainly located over the weld seems and table-tops. Compression bars/strips were seen to
be in good condition with hatch coaming drain channels free of corrosion, scaling and debris and the hatch coaming non-return valves clear and operational. Cargo securing fittings such as container sockets, pad-eyes and D-rings etc. were in fair condition. Cargo securing equipment was plentiful with inspection records maintained and securing equipment in good condition as observed. Stability calculations were seen to be carried out and the vessel holds a Document of Compliance (DOC) for the carriage of Dangerous Goods (DG). The vessel is equipped to carry 506 Reefer containers whose temperatures were effectively monitored. Reefer sockets were seen in good condition with switchboards free of low insulation or earth faults. The vessel uses it's own power for all Reefer containers, without the need for an additional auxiliary power unit. The vessel has 3 cargo lifting appliances, which were found to be in a fair overall condition. Reportedly, the cargo cranes are not regularly used. Lifting appliances were found to be generally free of significant structural defects and had only minor scattered, scaling corrosion, covering up to approximately $5 \%$ of the surface area, with coating breakdown and corrosion mainly located over the crane pedestal and jib edges. Wires were in good overall condition as were motors and hydraulic systems, which were free of defects and leaks. Lifting appliances components, such as sheaves, blocks and cylinders were seen to be in a good overall condition though control and operating positions were in fair condition due to the cabins being very dirty. Safety devices were seen to be fully operational. The slewing bearings were found to be in a good overall condition though no evidence of bearing rocking tests were provided for review. Lifting appliances were regularly examined by shore side technicians with maintenance records accurate and up-todate.

## Description

Estimated
Cost
[USD]

Issue: Weather tight packings for hatch cover natural ventilation closures were in poor condition in way of a number of hatch covers.

Corrective Action: Condition to be improved and weather tight integrity to be verified.

Estimated
Description
Cost
[USD]

Issue: Container securing equipment flat racks in fair condition with moderate corrosion and edge wastage.

Corrective Action: Condition of flat racks to be closely monitored.

## OPERATIONAL DATA

## Operational Data Condition

Does the vessel have an Exhaust Gas Cleaning System $\boldsymbol{x}$ No (EGCS)?

| Total High Sulphur Fuel Oil (HSFO) capacity: | $\mathrm{m}^{3}$ |
| :--- | :---: |
| Total Very and Ultra Low Sulphur Fuel Oil (VLSFO and <br> ULSFO) capacity: | $3,089 \mathrm{~m}^{3}$ |
| Total Marine Gas Oil (MGO) and Diesel Oil (DO) capacity: | $204 \mathrm{~m}^{3}$ |

What fuel type does the vessel run on for the majority of the time?

Light Fuel Oil (LFO)

Does the vessel have any energy efficiency technologies installed?

## Engines Table

|  | Main Engine 1 | Main Engine 2 | Aux Engine 1 | $\begin{gathered} \text { Aux } \\ \text { Engine } 2 \end{gathered}$ | $\begin{gathered} \text { Aux } \\ \text { Engine } 3 \end{gathered}$ | $\begin{gathered} \text { Aux } \\ \text { Engine } 4 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Designer | Example |  | Example | Example | Example | Example |
| Model |  |  | Example | Example | Example | Example |
| Mark/Series/Revision | 7 |  | 31,003 | 31,004 | 31,005 | 31,006 |
| Number of Cylinders | 8 |  | 9 | 9 | 9 | 9 |
| Speed (RPM) | 105 |  | 900 | 900 | 900 | 900 |
| Bore (mm) | 600 |  | 200 | 200 | 200 | 200 |
| Stroke (mm) | 2,400 |  | 300 | 300 | 300 | 300 |
| Specific Fuel Oil Consumption (SFOC) (g/kWhr) At 75\% load for ME and 50\% load for AEs, corrected to ISO conditions, as stated on Nox technical files | 170.4 |  | 205.4 | 205.4 | 205.4 | 205.4 |
| Nox Tier | 1 |  | 1 | 1 | 1 | 1 |
| Fuel Oil Consumption at full load (tonnes/day) | 81.0 |  | 4 | 4 | 4 | 4 |
| Cylinder Oil Consumption (litres/day) | 160 |  |  |  |  |  |
| System Oil Consumption (litres/day) | 60 |  | 30 | 30 | 30 | 30 |


| Major Overhaul Interval (Hours) |
| :--- |
| Running Hours since last overhaul (Hours) |


| Loaded Eco |
| :--- |
| Loaded Service |
| Ballast Eco |
| Ballast Service |

## Main Engine Maintenance

| Cylinder Heads |
| :--- |
| Pistons |
| Bearings |
| Cylinder Liners |

## Main Engine No. 1



| Class Surveys |  |
| :--- | ---: |
| Were all Class and Statutory certificates valid? |  |
| Is the vessel on the Extended Dry Docking (EDD) |  |
| program? |  |
| Is the vessel on the Enhanced Survey Program (ESP)? | $\boxed{x}$ No |
| Does the vessel have an In Water Survey Class  <br> notation?  <br> Is the vessel ice classed?  |  |


| Survey |
| :--- |
| Main / Special / Renewal |
| Intermediate |
| Annual |
| Bottom In Water |
| Bottom in dry dock |

What was the location of the last out-of-water docking?

Is the vessels last dry dock report provided and attached?

Provide details of works done in last dry dock

Has the vessel remained with the same flag since build?

Please provide details of previous flags

Has the vessel remained with the same Class since build?

Please provide details of previous Class societies

Example shipyard
not provided.
$x$ No

Example flag
$x$ No

Example class

In total, how many of the following does the vessel have?: Conditions of Class, Recommendations of Class, Statutory Findings, Statutory Items, Conditions of Authority, Etc.


KWT0/2,023/J5,050-H4C

KWT0/2,023/J5,050-H5C

KWT0/2,023/J5,050-H6C
KWT0/2,023/J5,050-M5C

Bow Thruster tunnel blanked as per attached agreed drawing. A permanent repair of the holes and local corrosion in Bow Thruster tunnel to be done. The crew should inspect the area in regular intervals and the bilge level alarm should be tested and recorded once per week.

The 5 numbers of wasted padeyes from total number of 12 of the
Port side protective grid of the bow thruster tunnel to be renewed as per original design.

Excessive and Substantial corrosion areas of side and bottom shell plating as per attached UTM report Nr. NT 4,663/22 to be definitively repaired using approved materials by certified welders before limit date.

STBD protective grid of the bow thruster tunnel is lost, its padeyes are completely wasted. To be installed as originally designed.

Bow Thruster found out of order.
To be definitively repaired / replaced before limit date.

| Machinery | $13-$ |
| :---: | :---: |
| and | Nov- |
| Machinery <br> Spaces | 23 |

## Does the vessel have any Class Memos, Observations

 or Additional Requirements?The cost for the next out of water bottom survey or dry docking based on a far eastern shipyard and includes all survey and normal maintenance costs is approximately estimated at:

## DESIGN AND CONSTRUCTION

## Design and Construction Condition

Has the vessel been built to the standards and Rules

of an IACS-member Class Society?
Under what IACS Class society supervision was the

vessel built? \begin{tabular}{l}
Example Class <br>

| Did the vessel provide Ultrasonic Thickness |
| :--- |
| Measurement (UTM) reports? |

\end{tabular}

Hull \& Structure

## Bridge \& Communication

What features were seen on the bridge?

Engine Room \& Firefighting
$\square$ Incinerator sludge burning system
CSSC.LZ TEAMTEC NANJING LUZHOU MACHINE WORKS. TYPE: DG120C MAX CAP:180,000KCAL/HR SLUDGE:202 KG/HR SOLID WASTE:144,000 KCAL/HR

UMS Capabilities (regardless of Class notation)
2-Stroke Engine Adaptive Cylinder Oil Control e.g.
MAN B\&W Alpha Lubricator

## H U L L

## Hull Condition

What sections of the hull were inspected?
Was the vessel free of any major structural damage or
indentations?
Was the vessel free of any minor structural damage or
indentations?

Stbd side

What was the level of Hull coating breakdown and corrosion?

## Coating breakdown and corrosion was mainly located in the following areas:

The amount of surface area coating breakdown and corrosion was approximately:

Minor
across the bow were the anchors have chaffed across and in some localised areas of the vertical sides in way of fender abrasions.

1\%
small sharp indentations observed in way of the starboard side hull abeam of no. 1 and 2 holds.

Type of coating breakdown and corrosion:

What was the condition of the hull markings?
Well painted and clearly legible

What level of marine fouling was seen?
Minor

Were fenders installed on the hull?
$x$ No

## MOORING DECKS

## Mooring Decks Condition

Were the decks free of any structural damage or
 deformations?
What was the level of coating breakdown and corrosion
observed on the decks?
Coating breakdown and corrosion was mainly located in
the following areas:
The amount of surface area coating breakdown and
corrosion was approximately:
Type of coating breakdown and corrosion:
What was the general condition of the deck fittings?

## Please provide further details

Were fairleads and mooring rollers free to move when tested?

Were all mooring machinery reported to be fully operational?

What type of windlass(es) and winches were fitted?

Were the windlass(es) and winches seen to be free of hydraulic oil leaks?

Was the mooring machinery hydraulic pump unit (HPU) seen to be free from leaks?
minor, occasionally moderate corrosion over fittings edges with some areas of wastage over fittings edges.


Vessel:

What was the condition of the mooring machinery?

## Please provide further details

## Fair

corrosion seen over foundation, framing and fitting edges, including the brake bands and linkages and dog-clutches and linkages.

What amount of band brake lining was seen to be remaining?

## Moderate/Adequate

What condition were the visible sections of the anchor chains seen to be in?

What type of mooring lines did the vessel have?

What was the condition of the mooring ropes / wires?

## Please provide further details

Were safe mooring practices observed? i.e. no overlapping turns on split drum, chafing of lines or unsafe leading.

Was the last brake test seen to be stencilled on the mooring winches?

Date of last test
localized surface abrasion seen over mooring lines.
$\boldsymbol{x}$ No lines held under tension on drum ends.


What type of snap back warning signs/zones were posted?

Was the Bosun's / Foc'sle store available for inspection?

What was the condition of the bosun's store structure?
Structurally sound with no visible damage

What was the condition of the bosun's store coatings?

Were the bitter end release arrangements seen to be clear and unobstructed?

Was an 'emergency towing booklets/procedures' available near to the foc'sle?

## WEATHER DECKS AND FITTINGS

## Weather Decks and Fittings Condition

Were the decks free of any structural damage or
 deformations?
What was the level of coating breakdown and corrosion
observed on the decks?

| Coating breakdown and corrosion was mainly located in |
| :--- |
| the following areas: |
| The amount of surface area coating breakdown and |
| corrosion was approximately: |
| Type of coating breakdown and corrosion: | at random


| What was the general condition of the deck fittings e.g |
| :--- |
| handrails, brackets, vent heads, walkways, lighting etc.? |

## Please provide further details

minor developing corrosion over fitting edges.

Does the vessel have mooring winches fitted on the main deck?

Were deck equipment and pipework free of leakages?


> What was the condition of the accommodation ladders or gangways?

Was the vessel fitted with a provision lifting appliance(s)?

```
What was the condition of the provision lifting
appliance(s)?
```

Does the vessel carry any major spares on external
Good decks e.g. propeller blades, anchor etc.

## BALLAST TANKS AND SYSTEMS

## Ballast Tanks and Systems Condition

Were ballast tanks entered?

## Please provide further details

Were recent (last 12 months) ballast tank inspection photographs provided?

Were inspection reports or reports of the tanks condition provided?

Were the tanks free of any structural damage or indentations?
What was the level of Ballast Tank coating breakdown
and corrosion?
Coating breakdown and corrosion was mainly located in the following areas:

The amount of surface area coating breakdown and corrosion was approximately:

## Minor

at the edges of openings, on some stiffener, bracket, stingers and plate edges, around some mouse holes and lightening holes, in way of some weld seams and around some reverse impact indentations.

$$
5 \%
$$



Type of coating breakdown and corrosion:

Reason tanks were not entered: Port restrictions prevents entry into enclosed spaces.


Were the ballast tanks fitted with sacrificial anodes?

## Anode depletion: <br> 20\%

> How much mud/sediment was seen inside the ballast tanks?

## Please provide further details

Were the tanks seen to be free from any signs of staining from oil, sewage or marine fouling?

Were ballast tank manhole covers seen to be in good condition?

Were the remote ballast control systems fully
operational (e.g. valves, gauging etc)?
Were the ballast and/or anti-heeling pumps reportedYes to be fully operational?

What condition were the ballast and/or anti-heeling
pumps in? pumps in?

## ACCOMODATION

## Internal Accomodation Condition

Were accommodation spaces used for their assigned purposes?
What was the condition of the flooring and wall Fair
coverings?

## Please provide further details

Accommodation flooring observed to be stained in numerous areas.

| What was the condition of the upholstery and |
| :--- |
| furniture? |
| What were the general levels of housekeeping and <br> cleanliness? |
| What was the level of hygiene of the sanitary facilities? |

Was all laundry equipment in good working order? $\square$
Was the Hospital well equipped and ready for use?
Were the drugs found to be controlled and securedwith the associated drugs log kept up to date?

Insufficient performance to regulate the temperatures in the extreme heat at the port of inspection (40-43 degrees C). Portable fans were in use around the accommodation.

## What was the condition of the AHU?

## Galley Condition

What was the level of cleanliness in the Galley? Clean
Was all galley equipment operational?
What was the general condition of galley equipment? Good

Were the insides of Galley hoods clean?

## What type of cold provisions stores does the vessel have?

Were provisions stores well organised with no provisions stored directly on the deck?

Were provisions stores clean and hygienic?
Were provisions stores at the required temperatures?
Were provision stores temperatures recorded and records kept nearby?

Were provisions machinery, pipework and door seals free of frosting and deterioration?

Were lock-in alarms or handles in good working condition?

## External Areas Condition

Was the external Superstructure / Accommodation Block found to be free from damages?

Were accommodation external doors found to be in
good condition and providing an adequate seal?
$\sqrt{ }$ Yes

Good

Good
Walk-in stores / Cold rooms
$\square$
V Yes
Yes

```
What was the level of external accommodation
superstructure coating breakdown and corrosion?
Coating breakdown and corrosion was mainly located in
the following areas:
The amount of surface area coating breakdown and corrosion was approximately:
```

Type of coating breakdown and corrosion:

## Minor

port hold, fitting and structural edges with associated rust staining.

## 5\%

Good

## Crew Welfare

What is the average contract length for crew members?

| Officers: | 7 Months |
| :--- | :---: |
| Crew: | 9 Months |
| Was Wi-Fi provided on-board? | No |

Is access provided to catering facilities or food at all

What Public Recreation equipment did the crew have access to?

What was the quality of crew recreation facilities?

Are crew given time and resources to celebrate religious or cultural events (i.e. Christmas, Independence days etc.)?

What facilities were provided in crew cabins?


Does the crew have access to a bonded store?
Yes, well stocked

Are the crew given additional periods of rest throughout the working week (e.g Sunday off)?

## BRIDGE AND NAVIGATION EQUIPMENT

## General Condition

Was all the bridge equipment reported to be fully

operational?
Was the bridge found to be clean and well maintained
 Yes with good housekeeping?

Were all required bridge equipment annualYes performance tests (e.g. VDR and AIS) completed in the last 12 months?

Was the vessel fitted with a Voyage Data Recorder
 (VDR)?

## Type of VDR fitted:

VDR

Was the VDR seen to be free from any unanticipated
 alarms?

Were the VDR collection instructions posted andknown to the Master?

Was the vessels Bridge Navigation and Watch Alarm System (BNWAS) fully operational, and turned on when at sea?

## Navigation Condition

What was the vessels primary \& secondary means of
navigation as listed on Form E ?
Were the primary \& secondary means of navigation
found to be up to date?

Primary
Secondary

ECDIS
ECDIS

Were the primary \& secondary means of navigation found to be up to date?

## Latest update week

Does the vessel receive up to date weather information?

> What type of weather updating service does the vessel use?

Was an in-date compass deviation card posted near to the helm?

Was a compass deviation log kept, up to date and free of any major deviations?

Were azimuth rings (bearing diopters) found to be available on the bridge?

## Communication Condition

What GMDSS sea areas was the vessel licensed to cover?

Were the radio batteries seen to be in good condition?

Were the EPIRBs, SARTs and Emergency Hand Held VHF Batteries within their expiry dates?

Weather fax

| Battery expiry dates |  |
| :--- | :---: | :---: |
| EPIRBS | $01.07 .2,029$ |
| SARTs | $01.02 .2,025$ |
| VHF | $01.12 .2,024$ |

Was a valid GMDSS shore servicing certificate seen to be posted near to radio equipment?

## Documentation Condition

## Were berth to berth passage plans seen on-board?

Were passage plans signed by all navigating officers?

## What format were nautical publications provided in?

Were the Master's standing orders and night orders found to be signed by all navigating officers?

Was the bridge log book up to date and correctly filled in?

Was the GMDSS log book up-to-date and correctly filled in?

Date of last test
23.05.2,023

## External Condition

Was the Monkey Island found to be in good, well maintained condition?

Were the main mast, aerials and antennas seen to be in good condition and free from damage?

Were bridge wing manoeuvring controls fitted?
Were the bridge wing manoeuvring controls reported to be fully operational and free from signs of water ingress?

Were bridge wing engine speed and compass repeaters seen to be in good working condition?


## ENGINE ROOM AND MACHINERY

## General Condition

What equipment was seen running?

Was the engine room free of any significant defects, either reported by crew or observed?

| Auxiliary Engines | $\checkmark$ Purifiers |
| :---: | :---: |
| Pumps | Air compressors |
| Auxiliary Boiler | Refrigeration Compressor |

No

Aux. Eng No. 1 is out of order. After the last overhaul a number of parts were identified as needing replacement due to condition though the required spares were not available. A number of o-rings, a nozzle element, joint ring, cylinder head assembly. fuel injection pump assembly, transverse thrust piece, radial thrust piece and parallel pin have all been ordered. The Bow thruster was also not operational and awaiting spares as per the open Conditions of Class. The F.W. Generator is working but the crew are investigating the low production rate. The crew suspects an issue with the ejector nozzle and intend on replacing or reconditioning the nozzle.

## Please provide further details

Numerous leaks and traces of oil observed in many locations.

Were bilges and tank tops free of oil and water?

Was housekeeping to a good overall standard?

Was the vessel equipped with adequate critical spares as recommended by the ship manager Safety Management System (SMS)?

x No | noticeable traces of oil seen on the tank |
| :--- |
| tops and in the bilges. |

$\boldsymbol{x}$ No | endemic oil leakages from numerous |
| :--- |
| items. |

$\boldsymbol{x}$ as per the critical spares inventory
provided, the vessel was short of a
number of items listed as critical spares.

Were spares neatly stowed and correctly secured?
Were all sounding pipe self-closing devices in good working order and sounding pipes capped?

Were recent copies of lube oil analysis reportsYes provided for review?

Were any caution (amber) or action (red) alerts seen on the lube oil analysis reports?YesYes
latest samples dated Mar-2,023. Critical alerts issued for the samples from Crane 1, 2 and 3 slewing gearboxes (high calcium), Aux. Eng. 2 (high containments and viscosity), the Emergency Generator (high wear metals and containments) and the Stern Tube aft (high wear metals). Caution alerts were issued for the samples from the Remote Control Valves system (high viscosity) and the Main Engine (high wear metals).

Was the NOx Technical file kept up to date?

## Date of entry:

23-Apr-23

Were Chief Engineer Standing Orders clearly posted and signed by all engineers?

Were all machinery special tools provided and in good condition?


## Main Engine Condition

Was the main engine in good working condition?

Yes

## Fair

## Please provide further details

endemic, minor leakages from numerous components.

Were Main Engine performance reports provided for review?

Were the performance reports satisfactory?

Was there any overdue maintenance on the Main

Engine Turbochargers?

## Propulsion

What type of propulsion does the vessel have?
Were the Propulsion systems, including shafts,
machinery and electric motors, if relevant, in good Pitch Propeller (FPP)
working condition?
What type of thruster systems does the vessel have?
Was the thruster(s) in good working condition?
What condition did the thruster(s) appear to be in?

## Please provide further details

not operational and waiting spares to carry out repairs.

## Power Generation

How many Auxiliary Engines does the vessel have?

Were the auxiliary engines in good working condition? No | Aux. Eng. No. 1 out of service pending the |
| :--- |
| delivery of spares. |

| What condition did the Auxiliary Engines appear to be |
| :--- |
| in? |

Were Auxiliary Engines performance reports provided for review?

Were the performance reports satisfactory?
 Yes
$x$ No
latest performance tests conducted at less than 60\% load. Performance tests need to be conducted at closer to full load.

Vessel:
Ref:
Example
Vessel
Does the vessel have a shaft generator?
$x$ No
Does the vessel have a shaft motor (Power Take-In)?
$x$ No

## Auxiliary Machinery

Does the vessel have an Auxiliary Boiler?


What type of boiler is fitted?
Steam

Was the boiler in good working condition?


What condition did the Boiler appear to be in?
Good

Were boiler safety valves in satisfactory condition?

| Equipment | Fully operational? | Condition |
| :---: | :---: | :---: |
| Purifiers | Yes | Good |
| Pumps | Yes | Good |
| Coolers | Yes | Good |
| Air Compressors | Yes | Good |
| Fresh Water Generator | Yes | Poor |
| Filters | Yes | Good |
| Fans | Yes | Good |
| Refrigeration Systems | Yes | Good |

## Why was 'No', 'Fair' or 'Poor' selected above?

Was all engine room pipework free of leakages?
Was all pipework free of temporary repairs?
Was all pipework free of corrosion or soft patches?

The F.W. Generator is working but the crew are investigating the low production rate. The crew suspects an issue with the ejector nozzle and intend on replacing or reconditioning the nozzle.
$\square$
Yes
Yes

What condition was pipework lagging in?
Clean

Was the steering gear in good working condition? Yes

Was the steering gear free of leakages?
Was the emergency steering communication equipment and gyro repeater working as required?

Were emergency steering instructions posted nearby?Yes

## ECR and Electrical

Was the Engine Control Room clean and tidy?


Was the Engine Control and Alarm system free of any

serious alarms?
Does the vessel have an Unmanned Machinery Space
 (UMS) notation?

Does the machinery space operate in UMS mode?
Were all Electrical distribution systems in good working condition?

Were Main Switchboard Insulation readings Yes adequate?

Were distribution and switchboard panels protected

## FIRE FIGHTING EQUIPMENT AND SYSTEMS

## Fire and Safety Appliances Condition

Was the vessel free of fire hazards?
$x$ No
numerous oil leaks within the E.R. with exposed hot spots due to damaged insulation.

Was all fire and safety equipment regularly serviced?Yes
Date of last service

Were all relevant Fire and Safety instructions correctly posted?

What was the vessels Fixed fire detection systems?

Was the fire detection system reportedly fully operational?

Was the fire detection system free of alarms or signs of tampering?

Engine Room


Cargo Holds
$x$ Flame

Smoke

Heat

Smoke \& Heat (Combined) (Combined)Yes

09-Dec-22


Vessel:

What is the vessels Fixed firefighting systems?

Engine Room

| $\checkmark$ | CO 2 |  | CO 2 | $x$ | Water Mist |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $x$ | Foam | $x$ | Deck Foam | V | Galley CO2 |
| V | Water Spray | x | Water Spray | x | Wet Chemical |
| $x$ | None | $x$ | None | $x$ | None |

Were all fixed fire fighting systems in good working condition?

Were clear operating instructions posted for the fixed firefighting systems?

Was the fixed firefighting system release protected against unauthorised operation?

Was the main fire pump working?
Was the emergency fire pump working?

$x$ No

condition and free of leakages?
What was the condition of the fire main and ancillaries
such as pipework hydrants and valves?

Does the vessel have a fire control station?

Were all portable equipment in place as per the fire plan?

Were all fire extinguishers in good condition?
Were the firefighting outfits and associated equipment in good condition?

Were the International Shore Connections on board?

Was the BA equipment fully charged in good condition?

Was the Emergency Generator tested during the $\checkmark$ Yes inspection?

Was the Emergency Generator in working order?
Were Emergency Generator Starting instructions
 Yes clearly posted?

```
What was the condition of the Emergency Generator?
```

Was the " 18 hour" fuel level marked on the emergency
 generator fuel tank?

Was the Quick Closing Valve system in good working order?

Were fire doors in good condition and effectively closing?

Were fire doors free of unauthorised "hold-open"
 arrangements?

Were all ventilation dampers remote closing positions well labelled and in good working order?

Were all remote machinery shutdown systems well


labelled and in good working order?

## LIFESAVING APPLIANCES

## Lifsaving Appliances Condition

Were all Lifesaving Appliances regularly serviced?

Were Lifeboat Engines able to be tested?


Were lifeboat engines in good working order?

```
    O
```

```
    O
```

What was the condition of the rescue boat? Good

How many life rafts does the vessel have?

What was the condition of the life rafts?
Good

Were Liferaft Hydrostatic Release Units (HRU) in date
and correctly rigged?

What was the condition of the Davits and lowering arrangements for the lifeboat(s), rescue boat and liferafts?

## What Date is the next Davit wire due for change?

Were legible launching/recovery instructions posted near to survival craft?

Was evidence of regular maintenance, service and inspection of the launching appliances sighted and evident?

## What was the date of the last abandon ship drill?

 $\sqrt{7}$ Yes

Were all lifejackets, immersion suits, EEBDs and other lifesaving ancillary equipment in good condition and ready for use?

Were Man Overboard Buoy (MOB) smoke and light signals in date?

Were the embarkation ladders in a good, well maintained condition?

Were pyrotechnics and line throwing apparatus available, stored in an appropriate container and within their expiry dates?

Good

## SAFE WORKING ENVIRONMENT

## Safe Working Environment Condition

Were any unsafe practices observed during the inspection?

Did the vessel provide a safe working environment?
Were all hazard markings clear?
$x$ No
$\square$

Were external walkways adequately coated with anti-
slip paint and free of trip hazards?
Are all hazardous substances including safely $\sqrt{\square}$ Yes managed and stored with relevant Material Safety Data Sheets (MSDS)?
Is Personal Protective Equipment (PPE) provided and $\quad \square$ Yes worn by crew?

Are 'Enclosed Space Entry' procedures implemented?
Is an effective Permit To Work (PTW) process
implemented?
Date of last PTW:

Is an effective Risk Assessment (RA) process in place?
Was evidence of the annual and 5-yearly inspections of both fixed and portable lifting equipment and appliances sighted?

Are main and emergency exits clearly identified and unobstructed?

Are sufficient portable oxygen and gas detection

## What is the working language of the vessel?

Are standing orders, procedures, instructions and manufacturers' manuals written in a language which can be understood by the crew?

Are all IMO signs correctly placed, and compliant with IMO requirements?

Is the vessel equipped with an approved SOLAS training manual?

Were the pilot ladders and boarding arrangements in a good, safe condition?

Are regular drills conducted on board?

Last drill date

Last drill type

English 7 Yes $\checkmark$ YesYes


16-May-23

Fire,Abandon ship and Oil Spill

## POLLUTION CONTROL

## General Condition

Was Pollution Control well implemented within the on board Safety Management System (SMS)?

```
Is the vessel free of pollution hazards?
```

Fair with few hazards

## Please provide further details

endemic minor oil leakages in the E.R.
Does the vessel have a Class approved Inventory of Hazardous Materials (IHM)?

The vessel holds a Class approved Inventory of Hazardous Material (IHM)

## Oil - Marpol Annex I

Is an Oily Water Separator (OWS) fitted?
Was the OWS reportedly operational?


What was the condition of the OWS?
Good

Was the OWS Tested?


Was the Bilge Overboard valve secured against Yes unauthorised opening with adequate signage and warnings posted?

Means of securing

and pipework free of any signs of tampering, bypass, or modifications?

Was the SOPEP locker or box well stocked?

Good

Was a list of SOPEP equipment posted and accurate?
Was the Oil Record Book (ORB) up to date and correctly filled in?

Date of last entry

## Category of last entry

Were previous bunkering checklists correctly filled out?

Date of last bunkering

Were bunker samples correctly stored?
Does the vessel have a Ballast Water Treatment System (BWTS) fitted?

14-May-23

## Ballast Water Treatment System

| Manufacturer: |
| :--- |
| Type: |

Example BWTS Manufacturer

UV
What regulation is listed on the Ballast Water
Management Certificate?
Type of BWTS approval:

Was the BWTS operational?
What was the condition of the BWTS?

Was the Ballast Record Book up to date and correctly filled in?

## Date of last entry

Is the Vessel General Permit (VGP) compliant?

D-2

IMO approval

## Good

23-May-23


Acceptable Lubricant

## Sewage - Marpol Annex IV

Was a Sewage Treatment Plant fitted? $\quad \square$ Yes
Was the Sewage Treatment Plant operational? $\quad \square$ Yes
What was the condition of the Sewage Treatment Good
Plant?

Does the vessel have a sewage holding tank?
Yes

What was the condition of the Sewage Holding Tank?
Good

## Garbage - Marpol Annex V

```
How was the condition of Garbage segregation? Good
```

Were Garbage containers of approved, non-
V/ Yes


Was the Garbage Record Book (GRB) up to date and correctly filled in?
Date of last entry 22-May-23
Category of last entry ..... $A-B-C$

## Air - Marpol Annex VI

How does the vessel comply with IMO 2,020
regulations?

Use of Very Low Sulphur Fuel Oils (VLSFO), MGO, DO etc.

Does the vessel use Ozone Depleting Substances
(ODS) as Refrigerant Gas?
Was an Incinerator fitted?
$x$ No


Was the Incinerator operational?


| What was the condition of the Incinerator? |  |
| :--- | :--- |
| Good <br> Does the vessel have an Emission Control Area (ECA) <br> change-over log?$\boldsymbol{x}$ Novessel has not operated in an ECA in <br> some time. |  |

## EEXI

Does the vessel have an EEDI score assigned at build? $\boldsymbol{x}$ No

> What fuel type does the vessel run on for the majority of the time?

Light Fuel Oil (LFO)

Does the vessel have any energy efficiency
technologies installed?

Main Engine(s)

| Specific Fuel Oil Consumption (SFOC) (g/kWhr): | 170.4 |
| :--- | :--- |

Auxiliary Engines
Specific Fuel Oil Consumption (SFOC) (g/kWhr):

Does the vessel have a shaft motor (Power Take-In)?

```
\(x\) No
```

What is the expiry date of the International Air Pollution Prevention (IAPP) certificate?

## ONBOARD MANAGEMENT

## Onboard Management Condition

Does the vessel have a functioning Safety


Management System (SMS)?
How was the SMS Implemented?
Were the officers familiar with, and allowed easy
access to, the SMS?
Was the SMS well implemented on board, with
Permits to Work, Risk Assessments and Safety
procedures understood and followed?
Is the SMS system regularly reviewed by the Master?
Date of last review

Does the vessel management deal with accidents, near-misses and deficiencies in an effective manner?

Are regular safety committee and managementmeetings carried out on board?

Does the vessel have a valid MLC certificate?
Were Hours of Rest (ILO) records correct and up to
 date?
Last updated

Are hours of maximum permissible work regularly exceeded?

Is an effective Planned Maintenance System (PMS)
implemented and kept up to date?
What type of Planned Maintenance System (PMS) does
the vessel have? the vessel have?

## Name of PMS

Was the PMS a fully integrated type system? (i.e. has integration with the SMS, spares ordering and is accessible by shore side management)

Were there any critical overdue PMS work orders?

Class-approved system

Example PMS
$\square$
Yes

Port State Control (PSC) inspection history


Do the Master and Chief Engineer have an effective hand over procedures?

Are random or specific drug and alcohol testing carried out?
Tests Carried out by

Were the Master and crew prepared for the

What level of cooperation was provided by the crew and Master?

Good

Majority of documents provided

Well managed

## VESSEL CAPABILITIES AND CARGO SYSTEMS - CONTAINERSHIPS

Vessel Capabilities and Cargo Systems - Containerships Condition

| Cargo hold | Capacity in hold (TEU) | Capacity on deck (TEU) | Total (TEU) |
| :---: | :---: | :---: | :---: |
| Cargo Hold No. 1 | 146 | 126 | 272 |
| Cargo Hold No. 2 | 202 | 220 | 422 |
| Cargo Hold No. 3 | 232 | 231 | 463 |
| Cargo Hold No. 4 | 224 | 240 | 464 |
| Cargo Hold No. 5 | 88 | 138 | 226 |
| Cargo Hold No. 6 |  |  | 0 |
| Cargo Hold No. 7 |  |  | 0 |
| Cargo Hold No. 8 |  |  | 0 |
| Cargo Hold No. 9 |  |  | 0 |
| Additional Deck Stowage |  | 58 | 58 |
| Total | 892 | 1,013 | 1,905 |
| How many cargo holds does the vessel have? |  | 5 |  |

Were the cargo holds able to be entered and inspected?

Were recent vessel cargo hold inspection photographs provided?

Were recent inspection reports provided?
Were cargo holds structural members found to be free from damage (e.g. side plating, tank top and framing)?

Were the cargo hold fittings such as ladders, hand rails, and ventilation ducting found to be free from damage and deterioration?

Were the cell guides free from any significant damage or significant deformation?
What was the level of coating breakdown and corrosion
observed in the Cargo Holds?
Coating breakdown and corrosion was mainly located in
the following areas:
The amount of surface area coating breakdown and
corrosion was approximately:

Type of coating breakdown and corrosion:

Were all cargo monitoring systems (e.g. bilge alarms, smoke detection systems etc.) fully operational and regularly tested?

Were the cargo holds free from signs of significant water ingress?

Were the cargo holds free from signs of previous and/or current internal leaks? (e.g. from manholes, adjacent tanks, pipework and fittings etc.)

Cargo operations in progress.

15-Feb-23
$x$ No

$x$ No
moderate levels of corrosion observed on most fittings.

## Moderate

tank-top and fittings.

15\%


Mechanical

Were cargo hold ventilation systems in good working order?

Were the cross-deck areas seen to be free fromYes waving of the deck plates or any signs of torsional deformation?

Is the fixed firefighting system in cargo spaces in

## Hatch Covers

| What type of hatch covers are fitted? | Pontoon |
| :--- | :---: |
| What was the make and model of the Hatch covers? | IHI |
| Make and Model: | 16 |
| Maximum weight of the heaviest pontoon (tons): | 10 |

Were the hatch cover found to be free from structural damage?

| What was the level of coating breakdown and corrosion <br> observed on the hatch covers? |
| :--- |
| Coating breakdown and corrosion was mainly located in <br> the following areas: |
| The amount of surface area coating breakdown and <br> corrosion was approximately: |
| Type of coating breakdown and corrosion: |

```
What was the condition of hatch cover securing
arrangements?
```


## Please provide further details

> What was the condition of the hatch cover landing pads?
moderate corrosion on securing arrangements.

## Fair

## Please provide further details

## Hatch Coamings

Were the hatch coamings found to be free from structural damage?
What was the level of coating breakdown and corrosion
observed on the hatch coamings?
Coating breakdown and corrosion was mainly located in
the following areas:
The amount of surface area coating breakdown and
corrosion was approximately:
Type of coating breakdown and corrosion:
Were the compression bars/strips seen to be in good
condition?
Were the hatch coaming drain channels seen to be
free from corrosion, scaling or debris?
Were hatch coaming non-return valves found to be
clear and fully operational?

## Cargo Securing

```
What was the condition of fixed cargo securing fittings,
such as container sockets, pad-eyes, D-rings and fixed
stacking cones, etc.?
```

Please provide further details
Moderately corroded

Was there an up to date Cargo Securing Equipment inventory?

Were there any shortfalls of cargo securing devices?

Were cargo securing device inspection records correctly maintained?
What was the condition of Cargo Securing Equipment? Good

Was there an approved Cargo Loading Manual on board?

Was there an approved stability booklet on board?
Did the vessel use a Class-approved computer based loading/stability software?

Were previous and current stability calculations seen to be carried out?

Does the vessel have a Document of Compliance (DOC) for the carriage of dangerous goods?

Are procedures for safe lashing and securing of containers being incorporated in the ship's SMS?

Are appropriate securing points being used for cargo securing?

## Reefer Containers

Is the vessel equipped to carry Reefer containers?

Reefer Capacity


## What condition were reefer electrical sockets in?

Was the reefer switchboard free of any low insulation or earth faults?

Was the vessel's own electrical supply sufficient for all reefer containers, without the use of an additional
Power Unit (package generator)?

Is there an effective system for monitoring reefer container temperatures?

## CARGO LIFTING APPLIANCES

## Cargo Lifting Appliances Condition

| Crane | Safe Working Load (SWL) (t) | Reach (m) | Date of last wire change |
| :---: | :---: | :---: | :---: |
| 1 | 45 | 26 | 12-Dec-22 |
| 2 | 45 | 26 | 12-Dec-22 |
| 3 | 45 | 26 | 12-Dec-22 |
| How many Cargo Lifting Appliances does the vessel have? |  | 3 |  |

What type of cargo lifting appliances are fitted?

Were the cargo lifting appliances seen in operation?
Were all cargo lifting appliances fully operational?
Were the cargo lifting appliances found to be free from structural damage?

$$
\begin{aligned}
& \text { What level of coating breakdown and corrosion was } \\
& \text { seen on the cargo lifting appliances? } \\
& \text { Coating breakdown and corrosion was mainly located in } \\
& \text { the following areas: } \\
& \text { The amount of surface area coating breakdown and } \\
& \text { corrosion was approximately: }
\end{aligned}
$$

Type of coating breakdown and corrosion:
Scaling
$x$
No


LIEBHERR; Type CBB


```
In what condition were the wires for the cargo lifting
appliances?
```

```
In what condition were the cargo lifting appliances
motors and hydraulic systems?
```

```
In what condition were the cargo lifting appliances
slewing bearings?
```

Was slewing bearing wear monitored or rocking tests conducted and recorded?

Were all safety features and equipment (e.g. limit switches) fitted on the cargo lifting appliances fully operational?

```
In what condition were the cargo lifting appliances
control and operating positions, including their
operator cabs if fitted?
```


## Please provide further details

Were cargo lifting appliances regularly examined by appropriately qualified shore side technician?

Were cargo lifting appliances angle indicators free to move?

Was the Safe Working Load (SWL) clearly marked on control cabins were very dirty. the cargo lifting appliances?

```
What condition were the cargo lifting appliances
components such as sheaves, blocks and cylinders in?
```

Were cargo lifting appliances maintenance records accurate and up to date?

## CUSTOMER SPECIFIC REQUIREMENTS

| SCOPE | RESULTS/REMARKS |
| :--- | :--- |
| Please complete and return this report along with the main inspection report templates. <br> In case you have any questions or would like to discuss the customer requirements, please do get in touch with a member of our <br> Technical team. | pay special attention and if possible, to make <br> separate small note on the condition of <br> following with some pictures: |
| CO2 line condition | Well maintained. |
| Hydraulic Line condition | Well maintained and observed to be leak free. Some minor leakages <br> were seen from the pipework around the mooring machinary. |
| Fire Line condition | Well maintained and marked throughout. |
| Electric cable trays/supports etc on deck condition | In good condition. |
| Brake lining conditions | Adequate brake linings observed on all winches. |

## IDWAL



Piping in ER if temp repaired and general condition Some insulation lagging was oil soaked and needed renewing.

Ladders around hatch covers, Closing Cleats
Fair with moderate corrosuion condition etc

Pilot Gangway and accommodation Ladder conditionunderneath pedestals/pipe supports etc

Good with some moderate corrosion over some appendages.

