Report commissioned by:

Example client

Organisation:

Example company

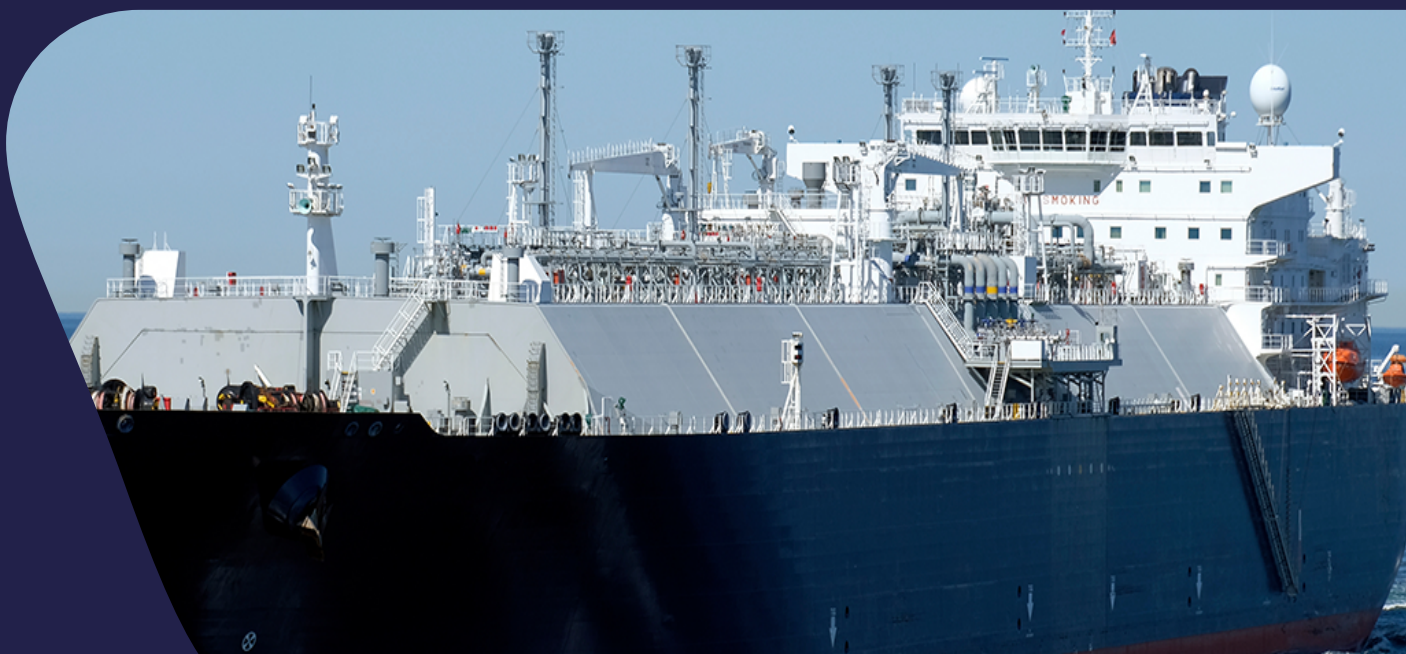
PRE-SALE REPORT

EXAMPLE LNG CARRIER

IMO Number: 123456789

INSPECTED AT EXAMPLE PORT, LITHUANIA

1st MAY 2023



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Pre-sale report reference:	0/0000
Report commissioned for:	Example client
Organisation:	Example company
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Time & date:	11:21 (UTC) on 1st May 2023

At Idwal, we are proud to run a carbon neutral business and provide the industry's first carbon neutral inspection service. Idwal has been carbon neutral since 2021 and has achieved PAS 2060 certification from Carbon Footprint Ltd.

Carbon Neutral Organisation PAS 2060

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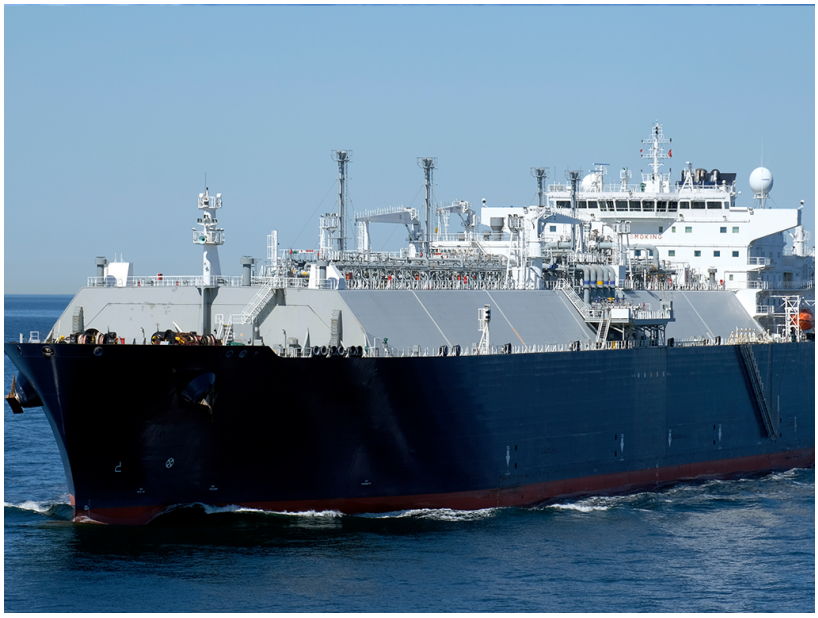
INSPECTION SUMMARY



Example port, Lithuania

01 Jun 2023

Status: Standing by

9.5 Hours Aboard

Majority of documents provided

The Example Vessel is a example DWT, example Gross Tonnage, example flagged, LNG carrier vessel built to a good to very good standard by example shipyard, in People's Republic Of China under example class supervision (the vessel is still Classed with example class), and the vessel was delivered on 01-Feb-21.

A Pre-Sale Inspection of the vessel was conducted on the 1st May 2023 in example port, Lithuania by Idwal under instruction from example company.

Good cooperation was provided by the ship's crew with access provided to 2 of the ballast tanks, but the cargo tanks were not able to be inspected due to the cargo tanks having been loaded with cargo, and the vessel was alongside, standing by at the time of inspection.

The vessel was found to be in good overall condition with an Idwal Grade at the average for vessels of a similar age, type and size, but with a few notable items found during the inspection; these are reported specifically in the notable items section of this report.

88 IDWAL GRADE

VESSEL PARTICULARS

Ship Name	Example Vessel
Previous Name	Example Vessel 1
IMO Number	123456789
Port of Registry	Example Port
Ship Type	LNG Carrier
Flag	Example Flag
Classification Society	Example Class
Registered Owner	Example Owner
Technical Manager	Example Manager
Shipbuilder	Example Shipbuilder
Delivery Date	01/01/2008
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 onboard management was found to be good with the Safety Management system found to be well implemented, and the vessel was generally in a good condition. The vessel was found to provide a safe working environment and the Port State Control (PSC) history was found to be fair to good with 5 deficiencies and 0 detentions in the 2 inspections conducted in the past three years.

Given the good condition of the vessel it is estimated that the OPEX levels are likely to be as per industry norms for vessels of a similar age, type and size.

The vessel was delivered to market in January 2022 with an Energy Efficiency Design Index (EEDI) score of 22.44, within the regulatory requirements at the time, and this EEDI score is therefore the vessel's current Attained EEXI score. As observed from the provided IEE certificate and supplement, the type of propulsion system is reportedly exempt in accordance with regulation 19.3.

KEY NOTABLE ITEMS

	Description	Action / Timeline	Estimated Cost [USD]
✖	No evidence was provided that the vessel uses Environmentally Acceptable Lubricants (EALs) or an air seal and therefore, the vessel's oil-to-water interfaces could not be confirmed as being USA VGP compliant in this regard.	For information.	$0
✖	Neither of the cargo tanks were able to be inspected due to them being fully loaded with cargo at the time of the inspection, and no photographs of previous inspections conducted by crew were provided. Therefore, no condition assessment of the cargo tanks was able to be made at the time of this review.	For information.	$0
✖	BOG Compressor No.1 was reported to have been out of order due to ABB VFD BOG Compressor No.1 control panel monitor was reportedly out of order. It was reported that a spare was on order, and it was reported that no. 2 BOG compressor was operational.	To carry out all required maintenance as soon as possible when the required spares arrive.	$0
✖	Signs of frosting were observed at multiple locations in the inspected void spaces around the cargo tanks.	Further investigation recommended.	$0
−	The loadline markings on the port side of the vessel were partially obscured by corrosion.	To repaint the markings as soon as practical.	<$1000
−	A suspected low insulation reading was observed on the 220V switchboard.	Further investigation is recommended.	$0
−	It was reported that an IMO approved BWTS is installed with no documentation provided onboard to verify it's USCG compliance.	This is recommended to be further investigated.	$0

⊖	It was reported that the auxiliary engines undergo a major overhaul every 32000 running hours, and it was reported that no major overhaul had been completed for any of the engines since delivery. Whilst it was not indicated that any maintenance was overdue on the provided documentation, clear running hours for the major components for the auxiliary engines were not provided and therefore, it could not be confirmed if there was no overdue maintenance on the engines at the time of this review.	Further investigation may be required.	**$0**
✓	En-suite facilities were reportedly provided in all cabins.	Positive.	**$0**
✓	The vessel was reportedly fitted with dual fuel engines.	Positive.	**$0**
✓	It was reported that diesel generator no. 2 was fitted with a Selective Catalytic Reduction System (SCR).	Positive.	**$0**

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.

GRADING DATA

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:

Condition	89	Management	87

The following are grades representing individual areas of interest of the vessel:

Design and Construction	90	Hull	90
Mooring Decks	100	Weather Decks and Fittings	90
Ballast Tanks and Systems	90	Accommodation	90
Bridge and Navigation Equipment	100	Engine Room and Machinery	90
Fire Fighting Equipment and Systems	90	Lifesaving Appliances	90
Safe Working Environment	90	Pollution Control	100
Onboard Management	80	Vessel Capabilities and Cargo Systems	60
Forthcoming Regulatory Compliance	100	Crew Welfare	90
Crew Performance	90	Safety Management	80
Planned Maintenance System (PMS)	80	Classification and Certification	90
PSC Performance	70		

DESIGN AND CONSTRUCTION

90

The design and construction was found to be good to very good overall, with the vessel built to IACS standards and Rules in People's Republic Of China by example shipyard. The vessel is an LNG carrier with 2 cargo tanks, and is driven by 2 azimuth thrusters. The vessel has 3 NOx tier 3 Auxiliary Engines, but no shaft generator. It is not on the Enhanced Survey Program or Extended Dry Docking schedule, but does hold a Class notation for In Water Surveys. Apart from the equipment required by international rules and regulations, the bridge is also reportedly fitted with a 3rd independent ECDIS, machinery space control system repeater panel, enclosed bridge wings, differential-GPS and an internal and external CCTV system, and the engine room and machinery are reportedly fitted with fuel mass flowmeters for the cargo system, dual-fuel engines, inverter drives for some pumps, UMS capabilities and centralised sea water cooling. It was reported that diesel generator no. 2 was fitted with a Selective Catalytic Reduction System (SCR), and as per crew reports, the vessel was planned to be fitted with an SCR system for diesel generator no. 1.

HULL

90

The hull was seen to be in a good to very good overall condition, with the hull able to be inspected from the port side only. The vessel was found to be free of both major and minor structural defects and had only minor localised surface corrosion, less than approximately 5% of the hull's total surface area, mainly located at scupper exits and near the portside anchor, but the hull was generally seen to have had adequate coating. The loadline markings on the port side of the vessel were partially obscured by corrosion, and it is recommended to repaint the markings as soon as practical, though no marine fouling was observed. The vessel's first out of water bottom survey will be due by 05-Jan-27 and reportedly, as per management Company policy, hull cleaning was to be performed every 2.5 years along with an in water survey, and azimuth thruster propeller cleaning was to be performed on a yearly basis.

NOTABLE ITEMS

Description	Estimated Cost [USD]
Issue: The loadline markings on the port side of the vessel were partially obscured by corrosion. **Corrective Action:** To repaint the markings as soon as practical.	<$1000

MOORING DECKS

100 The mooring decks were seen to be in a very good condition overall with the decks found to be free of structural defects and were well coated with no notable corrosion observed. Deck fittings were found to be in a good condition with fairleads and mooring rollers free to turn when tested. All hydraulic windlasses and winches were reported to be fully operational and free from hydraulic leakage as observed. Mooring machinery was in generally good condition with the band brake linings seen to have had substantial thicknesses, and visible sections of the anchor chains and mooring ropes were in a good overall condition. Mooring practices were seen to be good and snap-back zone warnings were seen to be posted at the entrances to mooring areas as per industry best practice. The Bosun's store was in a good overall condition with no notable issues to the structure, coatings or housekeeping observed. The bitter end release arrangements were seen to be clear and unobstructed, and the emergency towing booklet was seen to be available near to the Foc'sle.

WEATHER DECKS AND FITTINGS

90

The weather decks and fittings were seen to be in good to very good condition overall, with the decks found to be free of structural defects and the decks were generally well coated with minimal signs of coating breakdown observed. Deck fittings were found to generally be in a good condition, however, early stage corrosion was observed on some fittings such as around nuts and bolts for vents, but pipework and fittings were seen to be generally free of leakages and deck mooring machinery was in good condition. The accommodation ladders and gangways were in a good overall condition, with no notable defects found, as were provision lifting appliances. It was reported that the provision crane is fitted with 2 hoisting wires and was used for both lifting and rescue boat launching, and floating fenders were seen to have been carried onboard.

BALLAST TANKS AND SYSTEMS

90

Ballast tanks and systems were deemed to be in a good to very good overall condition. Nos. 7 starboard and 4 port upper ballast tanks were entered for inspection however, no photographs of previous tank entries were provided for review. The inspected ballast tanks were found to be generally free of significant structural defects and were generally seen to have had no notable corrosion. Ballast tank fittings, such as ladders and pipework, were seen to be in a good overall condition with anodes seen to be depleted by less than approximately 5%. Tanks were seen to have had 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 reportedly in good working order and were in a good visual condition. As reported by crew, the vessel reportedly had had an issue with ballast water contamination with hydraulic oil; this was reportedly due to the ballast tanks remote control valve actuators placed inside the ballast tanks. It was was reported that the actuators plate tightening bolts had corroded, and oil leaked into the ballast tanks. The bolts were reportedly changed to a stainless steel type, and the EAL hydraulic oil was reportedly changed. As per the attached documentation, the company instructed the crew to implement additional procedures during ballasting operations, and as advised by the Master, the Company planned to modify the current hydraulic system during the the next dry-docking. This was also noted to have been raised as a SIRE observation on the provided report dated 13-Jan-23.

ACCOMMODATION

90

The accommodation areas were seen to be in a good to very good condition overall with floor and wall coverings found to be in good condition, and upholstery and furniture were found to be free from deterioration and notable defects. 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 was kept up to date. The accommodation was found to be outfitted to an average quality with the Air Handling Unit (AHU) found to have been maintaining a comfortable temperature and was seen to be in good condition with no notable defects. The galley equipment was deemed to be in a good overall condition with all equipment reportedly in good working order, and 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 however, at one instance in the inspection, the meat and fish room temperatures were higher than required; this may possibly have been due to a defrost cycle, but further investigation is recommended in order to confirm that the cold rooms maintain an adequate and consistent temperature. 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 was generally seen to have been well coated with minimal signs of coating breakdown observed, though minor scaling corrosion was observed on the exhausts at the top of the funnel. 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. Crew welfare was found to have been good to very good overall with it noted that the vessel was reportedly fitted with a free to access, unlimited use Wi-Fi system, Seagull onboard training facilities and a well stocked bonded store. It was reported that electronic tablets were provided in each cabin for crew use, and en-suite facilities were reportedly provided in all cabins.

NOTABLE ITEMS

Description	Estimated Cost [USD]
Issue: En-suite facilities were reportedly provided in all cabins. **Corrective Action:** Positive.	$0

BRIDGE AND NAVIGATION EQUIPMENT

100 The Bridge and navigation equipment were found to be in a very 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 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 was 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 notable defects.

ENGINE ROOM AND MACHINERY

90

The engine room and machinery were found to be in a good to very good overall condition, with no significant defects reported or observed and with the engine room generally found to be very clean. During the inspection the purifiers, air compressors, refrigeration compressor and sewage treatment plant were seen running. Bilges and tank tops were generally free of oil or water, and pipework was seen to be in good overall condition, free of leaks, temporary repairs and significant corrosion with pipework lagging seen to be all clean and intact. Housekeeping was seen to be to a good overall standard with the vessel found to be equipped with adequate critical spares as recommended by the ship manager Safety Management System (SMS) which were seen to be neatly stowed and secured. The NOx Technical file was up to date and last updated on 07-Jan-22. No lube oil analysis results were provided and therefore, an assessment of the condition of the oils of the equipment and machinery onboard was not possible at the time of this review. The 3 Auxiliary Engines were reported to be fully operational and were seen to be in good condition, with no major visible defects. It was reported that the auxiliary engines undergo a major overhaul every 32000 running hours, and it was reported that no major overhaul had been completed for any of the engines since delivery. Whilst it was not indicated that any maintenance was overdue on the provided documentation, clear running hours for the major components for the auxiliary engines were not provided and therefore, it could not be confirmed if there was no overdue maintenance on the engines at the time of this review, and further investigation may be required. A review of the latest auxiliary engines performance reports provided showed that the engine load at which the diesel generator performance tests were conducted at was noted to have been between approximately 49-57%; performance tests are recommended to be conducted at a minimum of 70% engine load in order to produce accurate results. Therefore, an accurate assessment of the performance of the diesel generators could not be made at the time of this review. Propulsion systems, such as shafts, gearing and bearings including the bow thruster, were reportedly in good working order with no defects reported or sighted. The vessel was reportedly fitted with a hot water heater for hot water consumers onboard which was reportedly fully operational and in a good condition, with the safety valves seen to have been satisfactory and free of tampering. All auxiliary equipment was reported to be fully operational and in good condition, and the steering gear was reportedly in good working order, free of leakage and had emergency steering instructions seen to be posted nearby. The machinery spaces are operated in Unmanned mode and the alarm and control system was seen to be free of any serious alarms. Electrical distribution systems including the main switchboard were reportedly in good working order however, a suspected low insulation reading was observed on the 220V switchboard, and further investigation of this is recommended.

NOTABLE ITEMS

Description	Estimated Cost [USD]

Issue: A suspected low insulation reading was observed on the 220V switchboard.

Corrective Action: Further investigation is recommended.

$0

Description	Estimated Cost [USD]
Issue: It was reported that the auxiliary engines undergo a major overhaul every 32000 running hours, and it was reported that no major overhaul had been completed for any of the engines since delivery. Whilst it was not indicated that any maintenance was overdue on the provided documentation, clear running hours for the major components for the auxiliary engines were not provided and therefore, it could not be confirmed if there was no overdue maintenance on the engines at the time of this review. **Corrective Action:** Further investigation may be required.	$0

Description	Estimated Cost [USD]
Issue: The vessel was reportedly fitted with dual fuel engines. **Corrective Action:** Positive.	$0

Description	Estimated Cost [USD]
Issue: It was reported that diesel generator no. 2 was fitted with a Selective Catalytic Reduction System (SCR). **Corrective Action:** Positive.	$0

FIRE FIGHTING EQUIPMENT AND SYSTEMS

90

Fire fighting equipment and systems were found to be in a good to very good condition overall and generally free of fire hazards with all firefighting equipment seen to be regularly serviced and inspected. The fire detection and alarm system was reported to be fully operational and was free of signs of tampering and alarms. The vessel is reportedly fitted with Water Spray and CO2 fixed firefighting in the engine room, Water Spray and 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. A fire pump was tested during the inspection and was found to deliver adequate pressure. The fire main and ancillaries, such as hydrants and valves, were in good overall condition, free of notable 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. The fire doors were found to be in good condition, closing effectively and free from any unauthorised 'hold-open' arrangements.

LIFESAVING APPLIANCES

90

Lifesaving appliances were seen to be in a good to very good overall condition with all equipment regularly serviced and inspected as required. The vessel is fitted with 1 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

90

Safe working was deemed to be good to very good overall with no unsafe practices observed during the inspection, and the vessel presented a generally safe working environment. Hazards were seen to be clearly marked and external walkways adequately coated with non-slip 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 26-May-23, which was an abandon ship drill.

POLLUTION CONTROL

100

Pollution control was deemed to be very good overall and generally found to be well implemented on board with the vessel free of pollution hazards. The vessel holds a Class-approved Inventory of Hazardous Materials, which is required for entry into EU ports. As reported by crew, the vessel reportedly had had an issue with ballast water contamination with hydraulic oil; this was reportedly due to the ballast tanks remote control valve actuators placed inside the ballast tanks. It was was reported that the actuators plate tightening bolts had corroded, and oil leaked into the ballast tanks. The bolts were reportedly changed to a stainless steel type, and the EAL hydraulic oil was reportedly changed. As per the attached documentation, the company instructed the crew to implement additional procedures during ballasting operations, and as advised by the Master, the Company planned to modify the current hydraulic system during the the next dry-docking. This was also noted to have been raised as a SIRE observation on the provided report dated 13-Jan-23. The vessel's Oily Water Separator (OWS) was reported to be fully operational and in good overall condition, with no obvious defects. The OWS was tested during the inspection and the 15ppm Oil Content Meter (OCM) was seen to be calibrated. The bilge overboard was seen to be 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 boxes were 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 03-Jun-23. It was reported that an IMO approved Ballast Water Treatment System (BWTS) is fitted onboard with no documentation provided onboard to verify it's USCG compliance which 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. No evidence was provided that the vessel uses Environmentally Acceptable Lubricants (EALs) or an air seal and therefore, the vessel's oil-to-water interfaces could not be confirmed as being USA VGP compliant in this regard. The vessel's sewage treatment plant was reported to be fully operational and in good overall condition, with no obvious defects. 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 30-May-23. The Emission Control Area (ECA) change-over logbook was not provided for review, and no incinerator is fitted on the vessel, and combustible garbage is landed ashore for processing. 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

Description	Estimated Cost [USD]

	Issue: No evidence was provided that the vessel uses Environmentally Acceptable Lubricants (EALs) or an air seal and therefore, the vessel's oil-to-water interfaces could not be confirmed as being USA VGP compliant in this regard. **Corrective Action:** For information.	$0

	Description	Estimated Cost [USD]
	Issue: It was reported that an IMO approved BWTS is installed with no documentation provided onboard to verify it's USCG compliance. **Corrective Action:** This is recommended to be further investigated.	$0

ONBOARD MANAGEMENT

80

Onboard management was found to be good overall. 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 Class-approved system-based Planned Maintenance System (PMS) was fully integrated with the SMS for ordering of spares and general vessel management, and the PMS system was found to be kept up to date with no critical overdue work orders. The Port State Control (PSC) history was found to be fair to good with 5 deficiencies and 0 detentions in the 2 inspections conducted in the past three years, and 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.

VESSEL CAPABILITIES AND CARGO SYSTEMS

60 Vessel capabilities and cargo systems were deemed to be in a fair overall condition due to the following: BOG Compressor No.1 was reported to have been out of order due to ABB VFD BOG Compressor No.1 control panel monitor was reportedly out of order. It was reported that a spare was on order. It was reported that no. 2 BOG compressor was operational, and it is recommended to carry out all required maintenance as soon as possible when the required spares arrive. Additionally, signs of frosting were observed at multiple locations in the inspected void spaces around the cargo tanks, and further investigation recommended. The inspected void spaces were found to have been free from obvious structural defects and were seen to have had no notable coating breakdown. The vessel is a reportedly fully refrigerated LNG Carrier equipped with 2 cargo tanks, and can reportedly carry up to 2 segregations of cargo. Neither of the cargo tanks were able to be inspected due to them being fully loaded with cargo at the time of the inspection, and no photographs of previous inspections conducted by crew were provided. Therefore, no condition assessment of the cargo tanks was able to be made at the time of this review. The last cargo carried was LNG with the next intended cargo reported to also be LNG. It was reported that electrically driven deep well cargo pumps were fitted that were reported to have been fully operational and in a good condition. The motor room was reportedly in good condition, with airlocks reportedly in good condition. Cargo pipework was in good overall condition with pipes, manifolds and relevant deck equipment suitably marked, and the hose handling crane was reportedly in full working order and in good condition. Tank level, pressure and temperature monitoring systems were reportedly in full working order and the Cargo Control Room (CCR) was in a good overall condition with Cargo Emergency Shutdown Devices (ESDs) reported to have been in full working order as observed. The Maximum Allowable Relief Valves (MARVs) were reportedly in good condition and operating pressures were clearly marked. The vessel is reportedly fitted with a vent mast, which was reported to have been in a good overall condition. Gas monitoring instruments are provided on board which were calibrated, with records of calibration provided, and fixed gas monitoring equipment was reportedly in full working order. The vessels last SIRE inspection was on the 13-Jan-23, in which 3 observations were recorded; as per crew reports, these had been fully resolved. The auxiliary equipment for the cargo systems were reported to have been in good condition with no operational defects reported or seen, aside from the aforementioned issue with BOG compressor no. 1.

NOTABLE ITEMS

Description	Estimated Cost [USD]

	Description	Estimated Cost [USD]
✖	**Issue:** Neither of the cargo tanks were able to be inspected due to them being fully loaded with cargo at the time of the inspection, and no photographs of previous inspections conducted by crew were provided. Therefore, no condition assessment of the cargo tanks was able to be made at the time of this review. **Corrective Action:** For information.	$0

	Description	Estimated Cost [USD]
✖	**Issue:** BOG Compressor No.1 was reported to have been out of order due to ABB VFD BOG Compressor No.1 control panel monitor was reportedly out of order. It was reported that a spare was on order, and it was reported that no. 2 BOG compressor was operational. **Corrective Action:** To carry out all required maintenance as soon as possible when the required spares arrive.	$0

	Description	Estimated Cost [USD]
✖	**Issue:** Signs of frosting were observed at multiple locations in the inspected void spaces around the cargo tanks. **Corrective Action:** Further investigation recommended.	$0



OPERATIONAL DATA

Operational Data Condition

Does the vessel have an Exhaust Gas Cleaning System (EGCS)? ☒ No

Total High Sulphur Fuel Oil (HSFO) capacity:	0 m^3
Total Very and Ultra Low Sulphur Fuel Oil (VLSFO and ULSFO) capacity:	m^3
Total Marine Gas Oil (MGO) and Diesel Oil (DO) capacity:	295.3 m^3

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

Does the vessel have any energy efficiency technologies installed? ☑ Yes

Engines Table

	Main Engine 1	Main Engine 2	Aux Engine 1	Aux Engine 2	Aux Engine 3	Aux Engine 4
Designer			Example	Example	Example	
Model			Example	Example	Example	
Number of Cylinders			8	8	8	
Speed (RPM)			900	900	900	
Bore (mm)			225	225	225	
Stroke (mm)			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			197.44	202.57	197.86	
Nox Tier			3	3	3	
Fuel Oil Consumption at full load (tonnes/day)			0.6	0.6	0.6	
Cylinder Oil Consumption (litres/day)			0	0	0	
System Oil Consumption (litres/day)			10	12	7	
Major Overhaul Interval (Hours)			32,000	32,000	32,000	
Running Hours since last overhaul (Hours)			7,256	6,453	5,543	

	Vessel Speed (knots)	Consumption (t/day)
Loaded Eco	10.5	11.54
Loaded Service	12.5	16.72
Ballast Eco	10.5	10.92
Ballast Service	12.5	15.42

Main Engine Maintenance

Class Surveys

Were all Class and Statutory certificates valid? ☑ Yes

Is the vessel on the Extended Dry Docking (EDD) program? ☒ No

Is the vessel on the Enhanced Survey Program (ESP)? ☒ No

Does the vessel have an In Water Survey Class notation? ☑ Yes

Is the vessel ice classed? ☑ Yes

Ice class: *IB*

Survey	Date Last Completed	Date Next Due
Main / Special / Renewal	05-Jan-22	05-Jan-27
Intermediate	05-Jan-22	05-Apr-25
Annual	03-Nov-22	05-Apr-24
Bottom In Water		05-Jan-25
Bottom in dry dock	05-Jan-22	05-Jan-27

What was the location of the last out-of-water docking?	*the vessel was delivered in January 2,022 and had yet to undergo it's first dry dock survey at the time of the inspection*
Is the vessels last dry dock report provided and attached?	☒ No
Provide details of works done in last dry dock	*the vessel was delivered in January 2,022 and had yet to undergo it's first dry dock survey at the time of the inspection*
Has the vessel remained with the same flag since build?	☑ Yes
Has the vessel remained with the same Class since build?	☑ Yes
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.	0
Does the vessel have any Class Memos, Observations or Additional Requirements?	☒ No

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:	800,000
What was the status of the vessel at the time of inspection?	Standing by

DESIGN AND CONSTRUCTION

Design and Construction Condition

Has the vessel been built to the standards and Rules of an IACS-member Class Society?

☑ Yes

Under what IACS Class society supervision was the vessel built?	Example class
Did the vessel provide Ultrasonic Thickness Measurement (UTM) reports?	No, vessel less than 10 years old

Hull & Structure

Bridge & Communication

What features were seen on the bridge?

☑ 3rd Independent ECDIS

reportedly a 3rd ECDIS was fitted near the chart table

☑ Machinery Space Control System repeater panel

reportedly fitted

☑ Enclosed Bridge Wings

as per the design of the vessel

☑ Differential-GPS

FURUNO GP-170

☑ Internal and External CCTV system

reportedly fitted Maker: ORLACO

Engine Room & Firefighting

What features were seen in the engine room?

- [x] Fuel Mass Flowmeters

reportedly fitted for LNG cargo system.

- [x] Dual-fuel engines

LNG and MDO diesel generators

- [x] Inverter drives for pumps and fan motors

it was reported that some pumps had inverter drives

- [x] UMS Capabilities (regardless of Class notation)

as per Class notation E0

- [x] Centralised Sea Water cooling

reportedly fitted

HULL

Hull Condition

What sections of the hull were inspected?	Port side

Was the vessel free of any major structural damage or indentations? ☑ Yes

Was the vessel free of any minor structural damage or indentations? ☑ Yes

What was the level of Hull coating breakdown and corrosion?	Minor
Coating breakdown and corrosion was mainly located in the following areas:	at scupper exits and near the portside anchor, but the hull was generally seen to have had adequate coating
The amount of surface area coating breakdown and corrosion was approximately:	5%

Type of coating breakdown and corrosion: ☑ Localised ☑ Surface

What was the condition of the hull markings?	Partly obscured

What level of marine fouling was seen?	None

Were fenders installed on the hull? ☒ No

MOORING DECKS

Mooring Decks Condition

Were the decks free of any structural damage or deformations?	☑ Yes
What was the level of coating breakdown and corrosion observed on the decks?	None
What was the general condition of the deck fittings?	Good
Were fairleads and mooring rollers free to move when tested?	☑ Yes
Were all mooring machinery reported to be fully operational?	☑ Yes
What type of windlass(es) and winches were fitted?	Hydraulic
Were the windlass(es) and winches seen to be free of hydraulic oil leaks?	☑ Yes
Was the mooring machinery hydraulic pump unit (HPU) seen to be free from leaks?	☑ Yes
What was the condition of the mooring machinery?	Good
What amount of band brake lining was seen to be remaining?	Substantial
What condition were the visible sections of the anchor chains seen to be in?	Good
What type of mooring lines did the vessel have?	Rope

What was the condition of the mooring ropes / wires?	Good

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

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

Date of last test	*03-Mar-23*

What type of snap back warning signs/zones were posted?	Signs at the entrance to the mooring decks

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

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?	Coatings fully intact with no corrosion
Was the condition of the bosun's store housekeeping?	Neat and tidy with items secured

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

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

WEATHER DECKS AND FITTINGS

Weather Decks and Fittings Condition

Were the decks free of any structural damage or deformations?	☑ Yes
What was the level of coating breakdown and corrosion observed on the decks?	None
What was the general condition of the deck fittings e.g handrails, brackets, vent heads, walkways, lighting etc.?	Fair
Please provide further details	*generally in a good condition, however, early stage corrosion was observed on some fittings such as around nuts and bolts for vents*
Does the vessel have mooring winches fitted on the main deck?	☑ Yes
What was the condition of the mooring winches?	Good
Were deck equipment and pipework free of leakages?	☑ Yes
What was the condition of the accommodation ladders or gangways?	Good
Was the vessel fitted with a provision lifting appliance(s)?	☑ Yes
What was the condition of the provision lifting appliance(s)?	Good
Does the vessel carry any major spares on external decks e.g. propeller blades, anchor etc.	☒ No

BALLAST TANKS AND SYSTEMS

Ballast Tanks and Systems Condition

Were ballast tanks entered?	☑ Yes
Please provide further details	*Tanks Entered: nos. 7 starboard and 4 port upper ballast tanks*
Were recent (last 12 months) ballast tank inspection photographs provided?	☒ No
Were inspection reports or reports of the tanks condition provided?	☑ Yes
Were the tanks free of any structural damage or indentations?	☑ Yes
What was the level of Ballast Tank coating breakdown and corrosion?	None
What was the condition of ballast tank fittings (e.g. ladders, handrails, pipes & manhole seals)?	Good
Were the ballast tanks fitted with sacrificial anodes?	☑ Yes
Anode depletion:	*5%*
How much mud/sediment was seen inside the ballast tanks?	Minimal
Please provide further details	*%*
Were the tanks seen to be free from any signs of staining from oil, sewage or marine fouling?	☑ Yes
Were ballast tank manhole covers seen to be in good condition?	☑ Yes

Were the remote ballast control systems fully operational (e.g. valves, gauging etc)?	☑ Yes
Were the ballast and/or anti-heeling pumps reported to be fully operational?	☑ Yes
What condition were the ballast and/or anti-heeling pumps in?	Good

ACCOMODATION

Internal Accomodation Condition

Were accommodation spaces used for their assigned purposes?	☑ Yes
What was the condition of the flooring and wall coverings?	Good
What was the condition of the upholstery and furniture?	Good
What were the general levels of housekeeping and cleanliness?	Good
What was the level of hygiene of the sanitary facilities?	Good
Was all laundry equipment in good working order?	☑ Yes
Was the Hospital well equipped and ready for use?	☑ Yes
Were the drugs found to be controlled and secured with the associated drugs log kept up to date?	☑ Yes
What was the quality of accommodation outfitting?	Average quality of outfitting
Did the Air Handling Unit (AHU) maintain a comfortable temperature?	☑ Yes
What was the condition of the AHU?	Good

Galley Condition

What was the level of cleanliness in the Galley?	Clean

Was all galley equipment operational? ☑ Yes

What was the general condition of galley equipment?	Good

Were the insides of Galley hoods clean? ☑ Yes

What type of cold provisions stores does the vessel have?	Walk-in stores / Cold rooms

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

Were provisions stores clean and hygienic? ☑ Yes

Were provisions stores at the required temperatures? ☒ No

at one instance in the inspection, the meat and fish room temperatures were higher than required; this may possibly have been due to a defrost cycle, but further investigation is recommended in order to confirm that the cold rooms maintain an adequate and consistent temperature

Were provision stores temperatures recorded and records kept nearby? ☑ Yes

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

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

External Areas Condition

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

Were accommodation external doors found to be in good condition and providing an adequate seal? ☑ Yes

What was the level of external accommodation superstructure coating breakdown and corrosion?	None

What was the general condition of external superstructure fittings?	Good

Crew Welfare

What is the average contract length for crew members?

Officers:	2 Months
Crew:	8 Months

Was Wi-Fi provided on-board?	Yes, Free, Unlimited
What is the approximate average internet speed?	Average (Able to access social media apps and websites with ease)

Is access provided to catering facilities or food at all times?

- [x] Yes

What Public Recreation equipment did the crew have access to?

- [x] Free Weights
- [x] Fixed weight machine
- [x] Treadmill
- [x] Cycling Machine
- [x] Television
- [x] Games console
- [x] Karaoke
- [x] Entertainment Library - Books, DVDs, Games, etc.
- [x] Musical Instruments
- [x] Public Computer
- [x] En-suite facilities for all crew members

What was the quality of crew recreation facilities?	Good

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

- [x] Yes

What facilities were provided in crew cabins?

- [x] Carpets
- [x] Television
- [x] Sofa
- [x] Desk
- [x] Ample storage

Does the vessel have any onboard training facilities?	Yes

Type of onboard training facilities:

- [x] Seagull

Is there a crew suggestion policy in place?

- [x] Yes

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)?	Yes

BRIDGE AND NAVIGATION EQUIPMENT

General Condition

Was all the bridge equipment reported to be fully operational?	☑ Yes
Was the bridge found to be clean and well maintained with good housekeeping?	☑ Yes
Were all required bridge equipment annual performance tests (e.g. VDR and AIS) completed in the last 12 months?	☑ Yes
Was the vessel fitted with a Voyage Data Recorder (VDR)?	☑ Yes
Type of VDR fitted:	*VDR*
Was the VDR seen to be free from any unanticipated alarms?	☑ Yes
Were the VDR collection instructions posted and known to the Master?	☑ Yes
Was the vessels Bridge Navigation and Watch Alarm System (BNWAS) fully operational, and turned on when at sea?	☑ Yes
Normal time setting at sea	*12 mins*

Navigation Condition

	Primary	Secondary
What was the vessels primary & secondary means of navigation as listed on Form E?	ECDIS	ECDIS

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

Latest update week	*22*	
Does the vessel receive up to date weather information?	☑ Yes	*04-Jun-23*

What type of weather updating service does the vessel use?	Digital subscription

Was an in-date compass deviation card posted near to the helm?	☑ Yes
Was a compass deviation log kept, up to date and free of any major deviations?	☑ Yes
Were azimuth rings (bearing diopters) found to be available on the bridge?	☑ Yes

Communication Condition

What GMDSS sea areas was the vessel licensed to cover?	☑ A1	☑ A2	☑ A3	☒ A4
Were the radio batteries seen to be in good condition?	☑ Yes			
Were the EPIRBs, SARTs and Emergency Hand Held VHF Batteries within their expiry dates?	☑ Yes			

	Battery expiry dates
EPIRBS	01-Oct-26
SARTs	01-Oct-27
VHF	01-Aug-26

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

Documentation Condition

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

Were passage plans signed by all navigating officers? ☑ Yes

What format were nautical publications provided in?	Electronic

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

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

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

Date of last test *03-Jun-23*

External Condition

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

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

Were bridge wing manoeuvring controls fitted? ☑ Yes

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

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

ENGINE ROOM AND MACHINERY

General Condition

What equipment was seen running?	☑ Main Engine(s) ☑ Air compressors ☑ Refrigeration Compressor ☑ Purifiers ☑ Sewage treatment plant	
Was the engine room free of any significant defects, either reported by crew or observed?	☑ Yes	
What was the general cleanliness of the Engine Room?	Very Clean	
Were bilges and tank tops free of oil and water?	☑ Yes	
Was housekeeping to a good overall standard?	☑ Yes	
Was the vessel equipped with adequate critical spares as recommended by the ship manager Safety Management System (SMS)?	☑ Yes	
Were spares neatly stowed and correctly secured?	☑ Yes	
Were all sounding pipe self-closing devices in good working order and sounding pipes capped?	☑ Yes	
Were recent copies of lube oil analysis reports provided for review?	☒ No	*no lube oil analysis results were provided and therefore, an assessment of the condition of the oils of the equipment and machinery onboard was not possible at the time of this review*
Was the NOx Technical file kept up to date?	☑ Yes	
Date of entry:		*07-Jan-22*
Were Chief Engineer Standing Orders clearly posted and signed by all engineers?	☑ Yes	

Were all machinery special tools provided and in good condition?	☑ Yes

Main Engine Condition

Was the main engine in good working condition? Yes

What condition did the Main Engine appear to be in?	Good

Were Main Engine performance reports provided for review?	☒ No	*N/A*
Was there any overdue maintenance on the Main Engine Turbochargers?	☒ No	

Propulsion

What type of propulsion does the vessel have?	Azimuth Drive

Were the Propulsion systems, including shafts, machinery and electric motors, if relevant, in good working condition?	☑ Yes
What type of thruster systems does the vessel have?	☑ Bow Thruster
Was the thruster(s) in good working condition?	☑ Yes

What condition did the thruster(s) appear to be in?	Good

Power Generation

How many Auxiliary Engines does the vessel have?	3

Were the auxiliary engines in good working condition?	☑ Yes

What condition did the Auxiliary Engines appear to be in?	Good

Were Auxiliary Engines performance reports provided for review?	☑ Yes	
Were the performance reports satisfactory?	☒ No	*the engine load at which the diesel generator performance tests were conducted at was noted to have been between approximately 49-57%; performance tests are recommended to be conducted at a minimum of 70% engine load in order to produce accurate results. Therefore, an accurate assessment of the performance of the diesel generators could not be made at the time of this review*
Does the vessel have a shaft generator?	☒ No	
Does the vessel have a shaft motor (Power Take-In)?	☒ No	

Auxiliary Machinery

Does the vessel have an Auxiliary Boiler?	☑ Yes
Was the boiler in good working condition?	☑ Yes

What condition did the Boiler appear to be in?	Good

Were boiler safety valves in satisfactory condition?	☑ Yes

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

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

What condition was pipework lagging in?	Clean

Was the steering gear in good working condition?	☑ Yes
Was the steering gear free of leakages?	☑ Yes
Was the emergency steering communication equipment and gyro repeater working as required?	☑ Yes
Were emergency steering instructions posted nearby?	☑ Yes
Was the Engine workshop clean and tidy?	☑ Yes

ECR and Electrical

Was the Engine Control Room clean and tidy?	☑ Yes	
Was the Engine Control and Alarm system free of any serious alarms?	☑ Yes	
Does the vessel have an Unmanned Machinery Space (UMS) notation?	☑ Yes	
Does the machinery space operate in UMS mode?	☑ Yes	
Were all Electrical distribution systems in good working condition?	☑ Yes	
Were Main Switchboard Insulation readings adequate?	☒ No	*a suspected low insulation reading was observed on the 220V switchboard*
Were distribution and switchboard panels protected with approved rubber matting?	☑ Yes	

FIRE FIGHTING EQUIPMENT AND SYSTEMS

Fire and Safety Appliances Condition

Was the vessel free of fire hazards? ☑ Yes

Was all fire and safety equipment regularly serviced? ☑ Yes

Date of last service	31-Oct-22

Were all relevant Fire and Safety instructions correctly posted? ☑ Yes

What was the vessels Fixed fire detection systems?

Engine Room	Cargo Holds	Accomodation
☑ Flame	☒ Flame	☒ Flame
☑ Smoke	☒ Smoke	☑ Smoke
☑ Heat	☑ Heat	☑ Heat
☒ Smoke & Heat (Combined)	☒ Smoke & Heat (Combined)	☒ Smoke & Heat (Combined)

Was the fire detection system reportedly fully operational? ☑ Yes

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

What is the vessels Fixed firefighting systems?

Engine Room	Cargo Holds	Accomodation
☑ CO2	☑ CO2	☒ Water Mist
☒ Foam	☒ Deck Foam	☑ Galley CO2
☑ Water Spray	☑ Water Spray	☒ Wet Chemical
☒ None	☒ None	☒ None

Were all fixed fire fighting systems in good working condition?	☑ Yes
Were clear operating instructions posted for the fixed firefighting systems?	☑ Yes
Was the fixed firefighting system release protected against unauthorised operation?	☑ Yes
Was the main fire pump working?	☑ Yes
Was the emergency fire pump working?	☑ Yes
Was a fire pump tested during the inspection?	☑ Yes
Did the fire pump maintain adequate pressure?	☑ Yes
Were the main and emergency fire pumps in good condition and free of leakages?	☑ Yes
What was the condition of the fire main and ancillaries such as pipework hydrants and valves?	Good
Does the vessel have a fire control station?	☑ Yes
Were all portable equipment in place as per the fire plan?	☑ Yes
Were all fire extinguishers in good condition?	☑ Yes
Were the firefighting outfits and associated equipment in good condition?	☑ Yes

Were the International Shore Connections on board?	☑ Yes
Location:	*Fire station*
Was the BA equipment fully charged in good condition?	☑ Yes
Was the Emergency Generator tested during the inspection?	☑ Yes
Was the Emergency Generator in working order?	☑ Yes
Were Emergency Generator Starting instructions clearly posted?	☑ Yes
What was the condition of the Emergency Generator?	Good
Was the "18 hour" fuel level marked on the emergency generator fuel tank?	☑ Yes
Was the Quick Closing Valve system in good working order?	☑ Yes
Were fire doors in good condition and effectively closing?	☑ Yes
Were fire doors free of unauthorised "hold-open" arrangements?	☑ Yes
Were all ventilation dampers remote closing positions well labelled and in good working order?	☑ Yes
Were all remote machinery shutdown systems well labelled and in good working order?	☑ Yes

LIFESAVING APPLIANCES

Lifsaving Appliances Condition

Were all Lifesaving Appliances regularly serviced? ☑ Yes

Date of last service:	31-Oct-23
How many lifeboats is the vessel equipped with?	1
What type of lifeboat is the vessel fitted with?	Free-fall
What was the external condition of the lifeboat(s)?	Good
What was the internal condition of the lifeboat(s)?	Good

Were Lifeboat Engines able to be tested? ☑ Yes

Were lifeboat engines in good working order? ☑ Yes

What was the condition of the rescue boat?	Good
How many life rafts does the vessel have?	3
What was the condition of the life rafts?	Good

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

What was the condition of the Davits and lowering arrangements for the lifeboat(s), rescue boat and liferafts?	Good
What Date is the next Davit wire due for change?	01-Jan-27

Were legible launching/recovery instructions posted near to survival craft?	☑ Yes
Was evidence of regular maintenance, service and inspection of the launching appliances sighted and evident?	☑ Yes

What was the date of the last abandon ship drill?	26-May-23

Were all lifejackets, immersion suits, EEBDs and other lifesaving ancillary equipment in good condition and ready for use?	☑ Yes
Were Man Overboard Buoy (MOB) smoke and light signals in date?	☑ Yes
Were the embarkation ladders in a good, well maintained condition?	☑ Yes
Were pyrotechnics and line throwing apparatus available, stored in an appropriate container and within their expiry dates?	☑ Yes

SAFE WORKING ENVIRONMENT

Safe Working Environment Condition

Were any unsafe practices observed during the inspection?	☒ No
Did the vessel provide a safe working environment?	☑ Yes
Were all hazard markings clear?	☑ Yes
Were external walkways adequately coated with anti-slip paint and free of trip hazards?	☑ Yes
Are all hazardous substances including safely managed and stored with relevant Material Safety Data Sheets (MSDS)?	☑ Yes
Is Personal Protective Equipment (PPE) provided and worn by crew?	☑ Yes
Are 'Enclosed Space Entry' procedures implemented?	☑ Yes
Is an effective Permit To Work (PTW) process implemented?	☑ Yes
Date of last PTW:	04-Jun-23
Is an effective Risk Assessment (RA) process in place?	☑ Yes
Was evidence of the annual and 5-yearly inspections of both fixed and portable lifting equipment and appliances sighted?	☑ Yes
Are main and emergency exits clearly identified and unobstructed?	☑ Yes
Are sufficient portable oxygen and gas detection meters provided and regularly calibrated?	☑ Yes
Date of last calibration:	01-May-23

What is the working language of the vessel?	English

Are standing orders, procedures, instructions and manufacturers' manuals written in a language which can be understood by the crew?	☑ Yes
Are all IMO signs correctly placed, and compliant with IMO requirements?	☑ Yes
Is the vessel equipped with an approved SOLAS training manual?	☑ Yes
Were the pilot ladders and boarding arrangements in a good, safe condition?	☑ Yes
Are regular drills conducted on board?	☑ Yes

Last drill date	26-May-23
Last drill type	abandon ship

POLLUTION CONTROL

General Condition

Was Pollution Control well implemented within the on board Safety Management System (SMS)?	☑ Yes	
Is the vessel free of pollution hazards?	Yes, with no hazards	
Does the vessel have a Class approved Inventory of Hazardous Materials (IHM)?	☑ Yes	*The vessel holds a Class approved Inventory of Hazardous Material (IHM)*

Oil - Marpol Annex I

Is an Oily Water Separator (OWS) fitted?	☑ Yes	
Was the OWS reportedly operational?	☑ Yes	
What was the condition of the OWS?	Good	
Was the OWS Tested?	☑ Yes	
Was the 15ppm meter calibrated?	☑ Yes	
Date of calibration		*17-Dec-19*
Was the Bilge Overboard valve secured against unauthorised opening with adequate signage and warnings posted?	☑ Yes	
Means of securing	☑ Locked	
Was the oily water treatment system including valves and pipework free of any signs of tampering, bypass, or modifications?	☑ Yes	
Was the SOPEP locker or box well stocked?	☑ Yes	

What was the condition of the SOPEP equipment?	Good

Was a list of SOPEP equipment posted and accurate? ☑ Yes

Was the Oil Record Book (ORB) up to date and correctly filled in? ☑ Yes

Date of last entry *03-Jun-23*

Category of last entry *C, transfer*

Were previous bunkering checklists correctly filled out? ☑ Yes

Date of last bunkering *15-Mar-23*

Were bunker samples correctly stored? ☑ Yes

Does the vessel have a Ballast Water Treatment System (BWTS) fitted? ☑ Yes

Ballast Water Treatment System

Manufacturer:	Example BWTS Manufacturer
Type:	Other

Other type: *Filtration + UV*

What regulation is listed on the Ballast Water Management Certificate?	D-2
Type of BWTS approval:	IMO approval

Was the BWTS operational? ☑ Yes

What was the condition of the BWTS?	Good

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

Date of last entry	*31-May-23*

Is the Vessel General Permit (VGP) compliant? ☒ No

The vessel does not use Environmentally Acceptable Lubricants (EALs) in the stern tube or has an airseal and is therefore not VGP compliant in this regard

Sewage - Marpol Annex IV

Was a Sewage Treatment Plant fitted? ☑ Yes

Was the Sewage Treatment Plant operational? ☑ Yes

What was the condition of the Sewage Treatment Plant?	Good

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-combustible type? ☑ Yes

Was the Garbage Record Book (GRB) up to date and correctly filled in?	☑ Yes	
Date of last entry		*30-May-23*
Category of last entry	*F*	

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?	☒ No	
Was an Incinerator fitted?	☒ No	
Does the vessel have an Emission Control Area (ECA) change-over log?	☒ No	*no ECA log was provided for review*

EEXI

Does the vessel have an EEDI score assigned at build?	☑ Yes	
What is the EEDI score?	*22.44*	

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

Does the vessel have any energy efficiency technologies installed?	☑ Yes	
Is the vessel ice classed?	☑ Yes	
Ice class:	*IB*	

Auxiliary Engines

Specific Fuel Oil Consumption (SFOC) (g/kWhr):	197.44

Does the vessel have a shaft motor (Power Take-In)? ☒ No

What is the expiry date of the International Air Pollution Prevention (IAPP) certificate?	05-Jan-27

ONBOARD MANAGEMENT

Onboard Management Condition

Does the vessel have a functioning Safety Management System (SMS)?	☑ Yes
How was the SMS Implemented?	Software / Electronic System
Were the officers familiar with, and allowed easy access to, the SMS?	☑ Yes
Was the SMS well implemented on board, with Permits to Work, Risk Assessments and Safety procedures understood and followed?	☑ Yes
Is the SMS system regularly reviewed by the Master?	☑ Yes
Date of last review	28-Apr-23
Does the vessel management deal with accidents, near-misses and deficiencies in an effective manner?	☑ Yes
Are regular safety committee and management meetings carried out on board?	☑ Yes
Does the vessel have a valid MLC certificate?	☑ Yes
Were Hours of Rest (ILO) records correct and up to date?	☑ Yes
Last updated	04-Jun-23
Are hours of maximum permissible work regularly exceeded?	☒ No
Is an effective Planned Maintenance System (PMS) implemented and kept up to date?	☑ Yes

What type of Planned Maintenance System (PMS) does the vessel have?	Class-approved system
Name of PMS	Example 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) ☑ Yes

Were there any critical overdue PMS work orders? ☒ No

Port State Control (PSC) inspection history

No. of Inspections in Past three years:	2
No. of Deficiencies in Past three years:	5
No. of Detentions in Past three years:	0

Is the vessel flag targeted by Port State Authorities? ☒ No

Is an effective system of security access control, conforming to ISPS standards, in place upon boarding the vessel? ☑ Yes

Type of access control	Gangway watch, CCTV

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

Are random or specific drug and alcohol testing carried out? ☑ Yes

Tests Carried out by	Onboard by Master

Were the Master and crew prepared for the Inspection? ☑ Yes

What level of cooperation was provided by the crew and Master?	Good
Were documents provided as requested?	Majority of documents provided
What was the overall impression of the general management of the vessel?	Well managed

VESSEL CAPABILITIES AND CARGO SYSTEMS - GAS CARRIER

Cargo Tanks

How many Cargo Tanks does the vessel have?	2
How many cargo segregations can the vessel carry?	2
Type of Gas Carrier	LNG
Type of Containment	Fully Refrigerated

Cargo Tank Capacities	(m³)
CT No.1 combined	3,777.22
CT No.2 combined	3,777.22

Cargo Tank Capacities	(m³)
Total Capacity	7,554.44

Were the Cargo tanks able to be entered and inspected? ☒ No

Why were tanks not entered? *the cargo tanks were both fully loaded with cargo at the time of the inspection*

Were recent vessel cargo tank inspection photographs provided? ☒ No

Were cargo tank structural members found to be free from damage? ☑ Yes

Were the cargo tank fittings such as ladders, hand rails and pipe guards etc. found to be free from damage?	☑ Yes
Does the vessel have void spaces surrounding the cargo tanks?	☑ Yes
Were the void spaces and cofferdams surrounding the cargo tanks able to be entered for inspection?	☑ Yes
Were void spaces and cofferdams found to be free of structural damage?	☑ Yes
What was the level of coating breakdown and corrosion observed in the void spaces?	None
Were the void spaces and cofferdams adjacent to cargo tanks free of any cold spots with no damage/deterioration to insulation.	☒ No
Cold spots were identified due to:	*signs of suspected frosting were observed at multiple locations in the inspected void spaces*
Does the vessel have any independent tanks, i.e. tanks located the deck?	☒ No
What was the last cargo carried?	LNG
What is the next intended cargo to be carried?	LNG

Pumping and Piping Systems

What type of main cargo pumps are fitted?	Electrically Driven deep well
	m³/hr
What is the capacity of the deep well pumps?	250

What is the manufacturer of the deep well pumps?	Example manufacturer

Were all the pumps fully operational? ☑ Yes

What condition were the pumps in?	Good

Is the vessel fitted with a compressor room? ☒ No

Is the vessel fitted with a motor room? ☑ Yes

What was the condition of the motor room?	Good

Were the airlocks on the motor room in good working order? ☑ Yes

Were motor room airlock audible and visual alarms in full working order? ☑ Yes

Do the motor room fans maintain a positive pressure in the Motor Room? ☑ Yes

What condition was the cargo pipework in?	Good

Are deck cargo piping, manifolds and relevant deck equipment suitably marked? ☑ Yes

Are reducers and removable U-bends, if carried, in good condition?	Yes

Is the vessel fitted with a hose handling crane(s)? ☑ Yes

Is the crane in full working order? ☑ Yes

What condition was the crane(s) in?	Good

Monitoring and Safety Arrangements

Are tank level, pressure and temperature monitoring systems in full working order?	☑ Yes	
Is the Cargo Control Room (CCR) in good overall condition?	☑ Yes	
Are all cargo Emergency Shutdown Devices (ESD) in full working order?	☑ Yes	
What condition were the Maximum Allowable Relief Valves (MARVs) in?	Good	
Were the operating pressures clearly marked on the MARVs?	Yes	
Is the vessel fitted with Vent Masts?	☑ Yes	
What condition was the Vent Masts in?	Good	
Are Vent Masts fitted with a Fixed Fire Fighting system?	☒ No	
If appropriate, are fire wires in good condition and properly rigged?	N/A - No fire wires fitted	
Is the vessel provided with suitable gas monitoring instruments?	☑ Yes	
Are the monitoring instruments calibrated and records available?	☑ Yes	*No evidence of calibration of Gas monitoring Instruments was provided.*
Does the vessel have a loading computer?	Yes, Class approved	
Is all Fixed Gas monitoring equipment in full working order?	☑ Yes	
Are Float Level Gauges fitted?	☑ Yes	

What condition was the Float Level Gauges in?	Good

Vetting

What was the date of the last SIRE inspection?	13-Jan-23
How many observations were raised in the last SIRE inspection?	3

Have all observations been fully resolved? ☑ Yes

Is the vessel older than 15 years? ☒ No

Equipment (LNG)	Fully operational?	Condition
Boil-off/Warm up heaters	Yes	Good
LNG Vaporiser	Yes	Good
Forcing Vaporiser	NA	
Nitrogen Generator	Yes	Good
Nitrogen Tank	Yes	Good
Inert Gas / Dry Air generator	Yes	Good
Glycol Water Heater	Yes	Good
High Duty (HD) Compressors	Yes	Good
Low Duty (LD) Compressors	Yes	Good
Stripping/Spray Pumps	NA	
Gas Combustion Unit (GCU)	Yes	Good
Cargo Pipework insulation	Yes	Good
Reliquification plant	NA	
Cofferdam Heating System	NA	