

Report commissioned by:

Example Client

**Organisation:** 

Example Company



# **EXAMPLE LNG CARRIER**

IMO Number: 123456789

INSPECTED AT EXAMPLE PORT, SPAIN

1<sup>st</sup> MAY 2023





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Report commissioned for: **Example Client** 

Organisation: **Example Company** 

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Time & date: 15:05 (UTC) on 1st May 2023



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#### ADDITIONAL DOCUMENTS





## INSPECTION SUMMARY









1May 2023



Status: Standing



9 Hours Aboard



Majority of documents

The example vessel is an example DWT, example Gross Tonnage, example flagged, LNG Carrier vessel built to a good standard by example shipyard, in Spain under example class (IACS) supervision and was delivered on the 1st October 2003. The vessel remains Classed with example class.

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

Good cooperation was provided by the ship's crew with access granted to the cargo tanks, void spaces and ballast tanks. 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 above 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.



#### 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 Example MT **Net Tonnage Length Overall** Example m Breadth Example m Depth Example m **Summer Draught** Example m

Example MT

Lightweight



Ref: 0/0000



The onboard management was found to be good with the Safety Management system found to be well implemented and the vessel generally well maintained. The vessel was found to provide a safe working environment. The Port State Control (PSC) history was found to be very good with 0 deficiencies and 0 detentions in the 6 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.



# KEY NOTABLE ITEMS

	Description	Action / Timeline	Estimated Cost [USD]
8	Vessel currently in dry dock with new Class certificate having not yet been provided due to renewal surveys in progress. Crew onboard reported that these will be released prior the vessel sailing.	For information.	\$0
*	A Ballast Water Treatment System (BWTS) was in the process of being retrofitted. The system has yet to be commissioned by Class attendance as well as for the International Ballast Water Management certificate to be credited with D-2 compliance.	It is recommended that this is further investigated and arranged at the earliest opportunity.	\$0
	Engine room was rather disorganized with evidence of oil staining, un-attended spare parts, tools and oily rags subsequent to the ongoing dry dock scheduled works.	Crew onboard reported that the engine room would be organised and cleaned with an improvement in house keeping when the vessel departs the dry dock.	\$1000 - \$5000
	Isolated corrosion concentrated on weather deck light fixtures and securing bolts.	It is recommended that the affected areas are treated and restored at the earliest conveneince.	<\$1000
	Several sacrificial anode mounting brackets in the ballast tanks were corroded and partially wasted away.	it is recommended that these are restored at the earliest convenience.	<\$1000
	One washing machine was defective and out of order. Service repairs were undergoing at the time of the inspection.	It is recommended that this is repaired or replaced as soon as operationally permissible.	\$0
	Service repair by shoreside technicians was in the process of being conducted on the No.1 gyro compass number. This was not concluded prior completion of the inspection.	It is recommended that this is further investigated and ensure that the gyro compass is in good working order.	\$0
	Crew onboard reported that the hoist motor for the life rafts had been sent ashore for repairs at the dock workshop.	It is recommended that this is further investigated and ensure that the hoist motor is in good working order.	\$0
	Crew onboard reported that the vessel stern tube and bow thruster use an Environmentally Acceptable Lubricants (EALs) and would therefore be USA VGP complaint in this regard.	It is recommended that this is further investigated and verified at the earliest opportunity.	\$0





$\bigcirc$	Vessel is reportedly fitted with CCTV cameras that cover key operational areas.	Positive.	\$0
	Vessel has a spare propeller stowed on the weather deck.	Positive.	\$0
	Vessel has a BA compressor.	Positive.	\$0
	The vessel is reportedly fitted with free to access unlimited use Wi-Fi system	Positive.	\$0
	Vessel is fitted with a pre-swirl energy efficiency device.	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	80	Management		79			
The following are grades representing individual areas of interest of the vessel:							
Design and Construction	90	Hull		90			
Mooring Decks	80	Weather Decks and Fittings		80			
Ballast Tanks and Systems	80	Accommodation		80			
Bridge and Navigation Equipment	70	Engine Room and Machinery		80			
Fire Fighting Equipment and Systems	80	Lifesaving Appliances		70			
Safe Working Environment	80	Pollution Control		80			
Onboard Management	80	Vessel Capabilities and Cargo Systems		80			
Forthcoming Regulatory Compliance	60	Crew Welfare		90			
Crew Performance	80	Safety Management		80			
Planned Maintenance System (PMS)	80	Classification and Certification		80			
PSC Performance	100						



90

### **DESIGN AND CONSTRUCTION**

The construction and design was found to be good to very good overall, with the vessel built to

IACS standards and Rules in Spain by shipyard with the keel laid on 11/4/2001. The vessel is a prismatic fully refrigerated LNG Carrier, with 4 cargo tanks. The vessel is fitted with a 28000kW example Steam Turbine capable of LNG dual fuel burning. The vessel is also fitted with two steam turbine generators as well as one example diesel generator. The two steam turbine generators are dual fuel and can be powered on HFO or by means of Boil Off Gas (BOG). It is not on the Enhanced Survey Program or Extended Dry Docking schedule but does hold a Class notation for In Water Surveys. The UTM report showed only minor steel diminution. Apart from the equipment required by international rules and regulations, the bridge is also fitted with machinery space control system repeater panel and internal and external cctv system and the engine room and machinery are fitted with dual-fuel engines, high voltage systems, UMS capabilities and centralised sea water cooling.

#### NOTABLE ITEMS

	Estimated
Description	Cost
	[USD]



**Issue:** Vessel currently in dry dock with new Class certificate having not yet been provided due to renewal surveys in progress. Crew onboard reported that these will be released prior the vessel sailing.

Corrective Action: For information.

\$0

Description	Estimated
Description	Cost [USD]

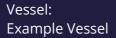


**Issue:** Vessel is reportedly fitted with CCTV cameras that cover key operational areas.

Corrective Action: Positive.

\$0

marking are all



Ref: 0/0000

Issued On: May 1 2023



Description Estimated Cost [USD]



**Issue:** Vessel has a spare propeller stowed on the weather deck.

Corrective Action: Positive.

\$0



Ref: 0/0000



### HULL

The hull was seen to be in a good to very good 90 overall condition, with the hull able to be inspected from all round while alongside. The vessel was found to be free of both major and minor structural defects and was free of coating breakdown and corrosion. The vessel has undergone hull blasting and recoating during the dry docking. The coating applications was found to have been carried out to a good standard with no patchy or thinly applied areas identified at the time of the

inspection. Hull markings were well painted and legible with no marine fouling observed. The vessel's last out of water bottom survey was carried out on 25-Apr-18, with the vessel's next out of water bottom survey due by 22-Apr-23. The vessel's pre-swirl device. propeller and bow thruster were also all visible at the time of the inspection with no significant structural damage or coating breakdown sighted or reported by attending shipyard staff or crew onboard.



### MOORING DECKS

The Mooring decks were seen to be in a good condition overall with the decks found to be free of structural defects and had only minor corrosion, up to approximately 5% of the mooring deck plating total surface area, mainly located on plating below mooring machinery and in way of save alls. Deck fittings were found to be in a good condition with fairleads and mooring rollers free to turn when tested. All Hydraulic windlass(es) 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 adequate remaining

thickness. Anchor chains and mooring ropes were in a good overall condition. Additionally, at the time of the inspection it was identified that the anchors had been ranged during the dry docking with shackles identified with white and red. It was note that there was also localized corrosion with evidence of scaling on the Emergency Towing System (ETS) chains. 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. It was also noted that there was some minor isolated corrosion on valves on mooring decks in way of fire hose.



### WEATHER DECKS AND FITTINGS

The Weather Decks and Fittings were seen to be in good condition overall, with the decks found to be free of structural defects and had only minor localised and spot corrosion, up to approximately 2% of the main deck plating total surface area, mainly located on plating in way of bulkheads and beneath pipework. Deck fittings were found to be in a good condition with pipework and fittings free of leakages and deck mooring machinery was in good condition. At the time of the inspection several miscellaneous dry dock equipment and items were left scattered on the weather decks including but not limited to tools as well as cables. There was also evidence of spot coating maintenance being undertaken on weather deck

fittings. The engine room skylight was opened for ongoing maintenance works and BWTS installation in the engine room. This has also been appropriately segregated. There was also scaffolding noted in way of the provision crane. However, it was noted that there was isolated corrosion concentrated on weather deck light fixtures and securing bolts. The accommodation ladders and gangways were in a good overall condition, with no notable defects found, as were provisions lifting appliances. It was also noted that recent maintenance and servicing had been conducted on the accommodation ladder during the scheduled dry dock works including load tests.

### **NOTABLE ITEMS**

Description Estimated

Cost

[USD]



**Corrective Action:** It is recommended that the affected areas are treated and restored at the earliest conveneince.

<\$1000





### **BALLAST TANKS AND SYSTEMS**

Ballast tanks and systems were deemed to be in a good overall condition. The No.4 WBT (P&S) and Fore Peak Tank (FPT) were entered for inspection and photographs of previous tank entries in 31-Dec-22 were provided for review. From the tanks entered, it was seen that the ballast tanks were found to be generally free of significant structural defects and had only minor localised corrosion, up to approximately 3% of the ballast tanks total surface area, mainly located on edges of structural members such as longitudinals as well as on bulkheads. 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%. However, it was identified that several sacrificial anode mounting brackets in the ballast tanks were corroded and partially wasted away. 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.

#### **NOTABLE ITEMS**

Description

**Issue:** Several sacrificial anode mounting brackets in the ballast tanks were corroded and partially wasted away.

**Corrective Action:** it is recommended that these are restored at the earliest convenience.

<\$1000

**Estimated** 

Cost [USD]



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### **ACCOMMODATION**

The accommodation areas were seen to be in a good condition overall with floor and wall 80 coverings found to be in good condition and upholstery and furniture found to be free from deterioration and 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 kept up to date. The accommodation was found to be outfitted to an average quality. It was however noted at the time of the inspection that one washing machine was defective and out of order. Service repairs were undergoing at the time of the inspection. The Air Handling Unit (AHU) was found to be maintaining a comfortable temperature and was seen to be in good condition with no defects. 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 very 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 spot corrosion, up to approximately 2% of the surface area, mainly located on forward plating of the accommodation superstructure.. 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. It was also noted the Crew Welfare was found to be in good to very good overall with it noted that the vessel is fitted with a free and unlimited Wi-Fi system and crew were reported to have access to a well-stocked bond store.

### **NOTABLE ITEMS**

Description

[USD]

Cost

**Estimated** 

**Issue:** One washing machine was defective and out of order. Service repairs were undergoing at the time of the inspection.

**Corrective Action:** It is recommended that this is repaired or replaced as soon as operationally permissible.

\$0





Ref: 0/0000 Issued On: May 1 2023



**Estimated** Description Cost [USD]



**Issue:** The vessel is reportedly fitted with free to access unlimited use Wi-Fi system

Corrective Action: Positive.

\$0



### BRIDGE AND NAVIGATION EQUIPMENT

The Bridge and navigation equipment were found to be in a fair to good condition overall. the housekeeping found to be good, however it was identified that service repair by shoreside technicians was in the process of being conducted on the No.1 gyro compass number. This was not concluded prior completion of the inspection. It was also noted that shore side technicians were also expected to carry out an annual performance test of the VDR and AIS. 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 ECDIS backed up by a folio of paper charts 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. 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.

### **NOTABLE ITEMS**

Description

**Issue:** Service repair by shoreside technicians was in the process of being conducted on the No.1 gyro compass number. This was not concluded prior completion of the inspection.

**Corrective Action:** It is recommended that this is further investigated and ensure that the gyro compass is in good working order.

\$0

Cost [USD]

**Estimated** 







### ENGINE ROOM AND MACHINERY

The Engine room and machinery were found to be in a good overall condition, with no significant 80 defects reported or observed and with the engine room generally found to be clean. During the inspection no machines were seen running largely owing to the ongoing scheduled dry dock works. At the time of the inspection several scheduled dry dock works were in the process of being completed or had already been done by ship yard staff and/or vessels crew and/or shoreside service contractors. These scheduled engine room service tasks included were not limited to overhauling and/or/servicing of engine room supply fans, steering gear pumps and respective motors, SW circulation main pumps, compressor electric motors, alternators, boiler feed water pumps as well as turbo generator exhaust valve as well as stern seal. As well as the installation of a Ballast Water Treatment System (BWTS). Subsequently, the engine room was rather disorganized with evidence of oil staining and un-attended spare parts and tools. Crew onboard reported that the engine room would be organised and cleaned with an improvement in house keeping when the vessel departs the dry dock. Bilges and tank tops were generally free of oil or water. 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. A review of the latest lube oil analysis reports provided showed no areas of concern. The NOx Technical file was up to date and last updated on 20-Dec-22. The vessel is fitted

with a example Steam Turbine capable of LNG dual fuel burning. The vessel is also fitted with two steam turbine generators as well as one example diesel generator. The two steam turbine generators are dual fuel and can be powered on HFO or by means of Boil Off Gas (BOG). The main IZAR-KHI steam turbine was found to be in generally good overall condition with no signficiant defects or leakages sighted or reported by crew onboard. Similarly concerning the two steam turbine generators as well as one auxiliary engine, these were also assessed to be in generally good condition with no significant damage or defcets sighted or reported by crew onboard or buy attending shore side service engineers. Propulsion systems, such as shafts, gearing and bearings including the Bow thruster were in good working order with no defects reported or sighted. The vessel's two MHI MB-4E roof fired boilers 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. 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 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 in good working order and switchboard insulation readings were adequate.

### **NOTABLE ITEMS**

Description

Estimated Cost [USD]



Ref: 0/0000 Issued On: May 1 2023



**Issue:** Engine room was rather disorganized with evidence of oil staining, un-attended spare parts, tools and oily rags subsequent to the ongoing dry dock scheduled works.

\$1000 -\$5000

**Corrective Action:** Crew onboard reported that the engine room would be organised and cleaned with an improvement in house keeping when the vessel departs the dry dock.





### FIRE FIGHTING EQUIPMENT AND SYSTEMS

to be in a good condition overall and generally 80 free of fire hazards with all firefighting equipment seen to be regularly serviced and inspected. 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, Foam and Water Spray 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. It was also noted that several CO2 fixed system cylinders were on the ground at the time of the inspection in order to undergo hydrostatic testing by shore side technicians. Certification and testing of the foam system was expected, as well as annual certification of all firefighting equipment anticipated

Fire Fighting Equipment and Systems were found

as reported by crew onboard. 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 not tested during the inspection, but was reported 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.

#### NOTABLE ITEMS

Description

**Estimated** Cost [USD]



Issue: Vessel has a BA compressor.

Corrective Action: Positive.

\$0



### LIFESAVING APPLIANCES

Lifesaving appliances were seen to be in a fair to good overall condition with all equipment 70 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(s) was not tested during the inspection, but was reported to be in good working order. The vessel's rescue boat was found to be in a good overall condition. The lifeboat and rescue boat were located at the dock of the dry dock for maintenance and servicing. The hoist motor for the life rafts had been sent ashore for repairs at the dock workshop. The vessel is equipped with 5 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. However, Crew onboard reported that the hoist motor for the life rafts had been sent ashore for repairs at the dock workshop. 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.

### NOTABLE ITEMS

**Estimated** Description

Issue: Crew onboard reported that the hoist motor for the life rafts had been sent ashore for repairs at the dock workshop.

Corrective Action: It is recommended that this is further investigated and ensure that the hoist motor is in good working order.

\$0

Cost [USD]





### SAFE WORKING ENVIRONMENT

Safe working was deemed to be good overall with 80 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 27-Apr-23, which was an abandon ship drill.



### POLLUTION CONTROL

80

Pollution control was deemed to be 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. 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 not tested during the inspection though the 15ppm Oil Content Meter (OCM) was seen to be calibrated. The bilge overboard was seen to be sealed 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 wellmaintained and up-to-date, with the last entry on the 21-May-23. A Ballast Water Treatment System (BWTS) was in the process of being retrofitted. The system has yet to be commissioned by Class attendance as well as for the International Ballast Water Management certificate to be

credited with D-2 compliance. The vessel's ballast record book was seen to be up to date and correctly filled in. Crew onboard reported that the vessel stern tube and bow thruster use an Environmentally Acceptable Lubricants (EALs) and would therefore be USA VGP complaint in this regard. The vessel's sewage treatment plant was found 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 24-Apr-23. The Emission Control Area (ECA) change-over logbook was reviewed and found to be satisfactory with the date of last entry on 02-Mar-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

Description

**Estimated** Cost [USD]



Issue: A Ballast Water Treatment System (BWTS) was in the process of being retrofitted. The system has yet to be commissioned by Class attendance as well as for the International Ballast Water Management certificate to be credited with D-2 compliance.

Corrective Action: It is recommended that this is further investigated and arranged at the earliest opportunity.

\$0





	Estimated
Description	Cost
	[USD]
<b>Issue:</b> Crew onboard reported that the vessel stern tube and bow thruster use an Environmentally Acceptable Lubricants (EALs) and would therefore be USA VGP complaint in this regard.	
<b>Corrective Action:</b> It is recommended that this is further investigated and verified at the earliest opportunity.	\$0

Description	Estimated Cost [USD]
<b>Issue:</b> Vessel is fitted with a pre-swirl energy efficiency device.	



Corrective Action: Positive.

\$0



### ONBOARD MANAGEMENT

Onboard management was found to be good 80 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 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 found to be very good with 0 deficiencies and 0 detentions in the 6 inspections conducted in the past three years. 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

The vessel capabilities and cargo systems were assessed to be in good condition. The cargo tanks 80 and void spaces were entered and inspected during at the time of the inspection. Cargo tank and void space structural members were found to be free of damage as were tank fixtures, such as ladders and pipework etc. There was also no significant coating breakdown or corrosion sighted in way of the void spaces, but with some minor deterioration noted on pipework laggings. The vessel is a prismatic fully refrigerated LNG gas carrier equipped with 4 sets of cargo tanks. The compressor and motor room were found to be in generally good condition with no significant defects sighted or reported by crew onboard. Cargo pipework was in good overall condition with pipes, manifolds and relevant deck equipment were suitably marked. The hose handling crane was in full working order and in good structural condition as observed, with no significant coating breakdown or corrosion sighted. Tank

level, pressure and temperature monitoring systems were in full working order and the Cargo Control Room (CCR) was in a good overall condition. Cargo Emergency Shutdown Devices (ESDs) were in full working order as observed. The vessel is fitted with a vent mast, which was seen to be in a good overall condition. Gas monitoring instruments are provided on board which were calibrated, with records of calibration provided. Fixed gas monitoring equipment was in full working order. The vessels last SIRE inspection was on the 04-Apr-2023, in which no observations were recorded. The vessel is also enrolled on the Condition Assessment Programme (CAP) and has an overall CAP rating of 1 as per the submitted HVPQ. The LNG vaporiser, inert gas system, HD & LD compressors, spray pumps and cargo pipework insulation were all found to be in good condition with no operational defects reported or seen at the time of the inspection.



# OPERATIONAL DATA

### **Operational Data Condition**

Does the vessel have an Exhaust Gas Cleaning System (EGCS)?



Total High Sulphur Fuel Oil (HSFO) capacity:	m <sup>3</sup>
Total Very and Ultra Low Sulphur Fuel Oil (VLSFO and ULSFO) capacity:	14,291 m <sup>3</sup>
Total Marine Gas Oil (MGO) and Diesel Oil (DO) capacity:	19,090 m <sup>3</sup>

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

Does the vessel have any energy efficiency technologies installed?





# Engines Table

	Main Engine 1	Main Engine 2	Aux Engine 1	Aux Engine 2	Aux Engine 3	Aux Engine 4
Designer			Example			
Model			Example			
Mark/Series/Revision			Example			
Number of Cylinders			9			
Speed (RPM)			720			
Bore (mm)			320			
Stroke (mm)			550			
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			185.7			
Nox Tier			1			
Fuel Oil Consumption at full load (tonnes/day)			10			
Major Overhaul Interval (Hours)			16,000			
Running Hours since last overhaul (Hours)			2,200			



	Vessel Speed (knots)	Consumption (t/day)
Loaded Eco	14.5	105
Loaded Service	17.3	134
Ballast Eco	14.5	104
Ballast Service	17.3	131

## 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?	<b>x</b> No

Date Last Completed

Date Next Due



Survey

	·	
Main / Special / Renewal	30-Apr-18	29-Apr-23
Annual	11-Mar-22	29-Apr-23
Bottom In Water	27-Apr-21	29-Apr-23
Bottom in dry dock	30-Apr-18	29-Apr-23
What was the location of the last out-of-water docking?	Example shipyard	
Is the vessels last dry dock report provided and attached?	<b>✗</b> No	
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?  Please provide further details	Yes  Actionable Items as per Class status repo	ort
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:	1,000,000	



Ref: 0/0000



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?



Under what IACS Class society supervision was the vessel built?	Example Class
Did the vessel provide Ultrasonic Thickness Measurement (UTM) reports?	Yes
Did the UTM report show any diminution of steelwork?	Minor

Please provide further details

The latest UTM report provided showed minor levels of steel diminution.

#### **Hull & Structure**

What features were seen on the hull?



### **Bridge & Communication**

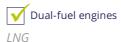
What features were seen on the bridge?

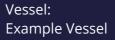


CCIV SYSTEINI PARADOX

### Engine Room & Firefighting

What features were seen in the engine room?











High Voltage (>1,000V) Systems

Medium Voltage Switchboard composed by 24 panels, as per ABB T&D SpA Div. Sace TMS`S



✓ Centralised Sea Water cooling Maker:Hamworthy KSE No. of sets: 2 Type: Centrifugal Model: CGD250 V48 BAN CGD250 V84 BAN 650m³/h at

2.0 bar Capacity: Motor: 65kW



# HULL

### **Hull Condition**

What sections of the hull were inspected?	All round (alongside)
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?	None
What was the condition of the hull markings?	Well painted and clearly legible
What level of marine fouling was seen?	None
Were fenders installed on the hull?	<b>✗</b> 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?	Minor
Coating breakdown and corrosion was mainly located in the following areas:	on plating below mooring machinery and in way of save alls
The amount of surface area coating breakdown and corrosion was approximately:	5%
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?	Moderate/Adequate





What condition were the visible sections of the anchor chains seen to be in?	Good
What type of mooring lines did the vessel have?	Wire
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	15-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?	Minor instances of coating breakdown and corrosion
Was the condition of the bosun's store housekeeping?	Fairly neat with some scattered equipment
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?	Minor
Coating breakdown and corrosion was mainly located in the following areas:	on plating in way of bulkheads and beneath pipework
The amount of surface area coating breakdown and corrosion was approximately:	2%
Type of coating breakdown and corrosion:	<b>V</b> Localised <b>V</b> Spot
What was the general condition of the deck fittings e.g handrails, brackets, vent heads, walkways, lighting etc.?	Good
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.	Yes 01 New one propeller



# BALLAST TANKS AND SYSTEMS

Ballast Tanks and Systems Condition	
Were ballast tanks entered?	✓ Yes
Please provide further details	Tanks Entered: No.4 WBT (P&S) and Fore Peak Tank (FPT)
Were recent (last 12 months) ballast tank inspection photographs provided?	✓ Yes
Date photos were provided:	31-Dec-22
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?	Minor
Coating breakdown and corrosion was mainly located in the following areas:	on edges of structural members such as longitudinals as well as on bulkheads
The amount of surface area coating breakdown and corrosion was approximately:	3%
Type of coating breakdown and corrosion:	Localised
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:	20%







How much mud/sediment was seen inside the ballast tanks?	Minimal
Please provide further details	96
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?	× No	one washing machine was defective and out of order. Service repairs were undergoing at teh time of the inspection
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?		Very 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?	Yes	
Were provision stores temperatures recorded and records kept nearby?	× No	Provisions stores temperature records were not recorded or kept near the stores.
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?	Minor	
Coating breakdown and corrosion was mainly located in the following areas:	on forward plating of the accommodation superstructure.	
The amount of surface area coating breakdown and corrosion was approximately:	2%	
Type of coating breakdown and corrosion: Spot		
What was the general condition of external superstructure fittings?	Good	

## Crew Welfare

What is the average contract length for crew members?

what is the average contract length for crew members:	
Officers:	3 Months
Crew:	3 Months
Was Wi-Fi provided on-board?	Yes, Free, Unlimited
What is the approximate average internet speed?	Fast (Able to stream music or short videos in low quality)
Is access provided to catering facilities or food at all times?	✓ Yes
What Public Recreation equipment did the crew have access to?	Free Weights  Cycling Machine  Rowing Machine  Swimming Pool  Sauna  Television  Entertainment Library - Books, DVDs, Games, etc.  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.)?	Yes
What facilities were provided in crew cabins?	Double bed  Sofa  Pesk  Ample storage
Does the vessel have any onboard training facilities?	Yes
Type of onboard training facilities:	Seagull
Is there a crew suggestion policy in place?	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?	<b>x</b> No	service repair by shoreside technicians was in the process of being conducted on the No.1 gyro compass number. This was not concluded prior completion of the inspection
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		

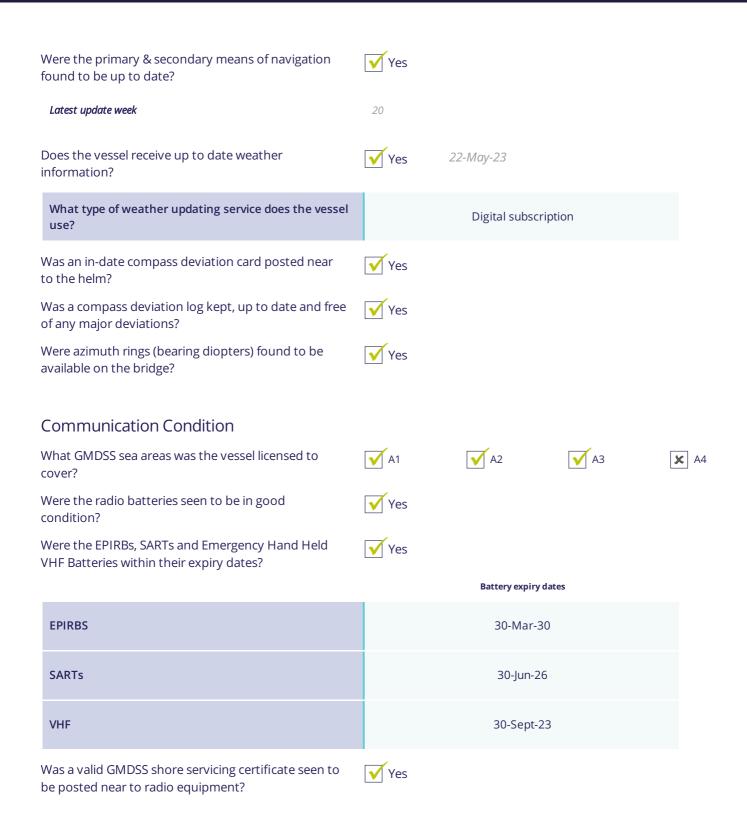
What was the vessels primary & secondary means of navigation as listed on Form E?	ECDIS	Paper Charts
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Primary

Secondary

Vessel:





#### **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	21-May-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	✓ Yes



## ENGINE ROOM AND MACHINERY

General Condition	
What equipment was seen running?	Refrigeration Compressor
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?	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?	✓ Yes
Were any caution (amber) or action (red) alerts seen on the lube oil analysis reports?	<b>x</b> No
Was the NOx Technical file kept up to date?	√Yes
Date of entry:	20-Dec-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

What condition did the Main Engine appear to be in?

What condition did the Main Engine appear to be in?

Were Main Engine performance reports provided for review?

Were the performance reports satisfactory?

Yes

Was there any overdue maintenance on the Main Engine Turbochargers?

## Propulsion

What type of propulsion does the vessel have?	Fixed Pitch Propeller (FPP)
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?	1
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?	✓ Yes
Does the vessel have a shaft generator?	× No
Does the vessel have a shaft motor (Power Take-In)?	<b>x</b> No
Auxiliary Machinery	
Does the vessel have an Auxiliary Boiler?	Yes
What type of boiler is fitted?	Steam
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 ✓ Yes ✓ 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?

Yes

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		08-Mar-22	
Were all relevant Fire and Safety instructions correctly posted?	Yes		
What was the vessels Fixed fire detection systems?	Engine Room	Cargo Holds	Accomodation
	<b>x</b> Flame	<b>x</b> Flame	<b>X</b> Flame
	<b>x</b> Smoke	<b>x</b> Smoke	<b>x</b> Smoke
	<b>x</b> Heat	<b>x</b> Heat	<b>X</b> 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
	<b>√</b> CO2	<b>√</b> CO2	<b>X</b> Water Mist
	Foam	Deck Foam	Galley CO2
	<b>✓</b> Water Spray	<b>√</b> Water Spray	Wet Chemical
	<b>★</b> None	<b>✗</b> None	<b>✗</b> 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?	<b>✗</b> No √	essel on dry dock a	luring inspection.
Was the emergency fire pump working?	<b>✗</b> No √	essel on dry dock a	luring inspection.
Was a fire pump tested during the inspection?	<b>x</b> No		
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:	Main deck inside d	accommodation in Air o	conditional room.







Was the BA equipment fully charged in good condition?	✓ Yes
Was the Emergency Generator tested during the inspection?	<b>x</b> No
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



and correctly rigged?

## LIFESAVING APPLIANCES

# Lifsaving Appliances Condition Were all Lifesaving Appliances regularly serviced? Date of last service: 08-Mar-22 How many lifeboats is the vessel equipped with? 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? Were lifeboat engines in good working order? What was the condition of the rescue boat? Good How many life rafts does the vessel have? 5 What was the condition of the life rafts? Good Were Liferaft Hydrostatic Release Units (HRU) in date 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?	30-May-26
Were legible launching/recovery instructions posted near to survival craft?	✓ Yes ✓ 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?	27-Apr-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



Ref: 0/0000



## SAFE WORKING ENVIRONMENT

Safe Working Environment Condition	
Were any unsafe practices observed during the inspection?	<b>x</b> 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:	22-May-23
Is an effective Risk Assessment (RA) process in place?	✓ Yes
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?	✓ Yes ✓ Yes
Was evidence of the annual and 5-yearly inspections of both fixed and portable lifting equipment and	
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	Yes



Vessel:





What is the working language of the vessel?	Spanish
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	27-Apr-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?	× No	
Was the OWS Tested? Was the 15ppm meter calibrated?	➤ No ✓ Yes	
Was the 15ppm meter calibrated?  Was the Bilge Overboard valve secured against unauthorised opening with adequate signage and	Yes	
Was the 15ppm meter calibrated?  Was the Bilge Overboard valve secured against unauthorised opening with adequate signage and warnings posted?	✓ Yes ✓ Yes	







Good
✓ Yes
Yes
21-May-23
1
✓ Yes
08-Apr-23
✓ Yes
Yes
Example BWTS Manufacturer
Electrolysis
D-1
IMO approval
No process of being installed
Good





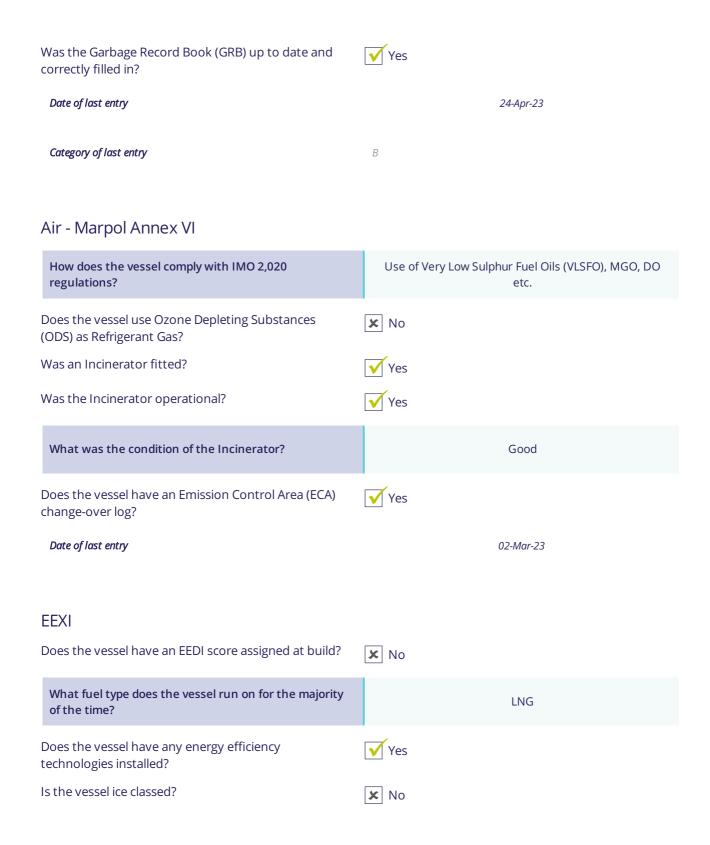


Was the Ballast Record Book up to date and correctly **√** Yes filled in? Date of last entry 05-May-23 Is the Vessel General Permit (VGP) compliant? Due to the use of an EAL or the airseal arrangements in place for the stern tube, the vessel is considered VGP compliant in this regard for trade to the USA How is the vessel VGP Compliant? \*Environmentally Stern Tube EAL Acceptable Lubricant **Bow Thruster EAL** Type of EAL Bioneptan 100 Sewage - Marpol Annex IV Was a Sewage Treatment Plant fitted? Was the Sewage Treatment Plant operational? 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, noncombustible type?















#### **Auxiliary Engines**

Specific Fuel Oil Consumption (SFOC) (g/kWhr):	185.7
Does the vessel have a shaft motor (Power Take-In)?	<b>x</b> No
What is the expiry date of the International Air Pollution Prevention (IAPP) certificate?	26-Apr-23



## 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	30-Dec-22
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	21-May-23
Are hours of maximum permissible work regularly exceeded?	<b>✗</b> 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?	<b>✗</b> No		
Port State Control (PSC) inspection history			
No. of Inspections in Past three years:	6		
No. of Deficiencies in Past three years:	0		
No. of Detentions in Past three years:	0		
Is the vessel flag targeted by Port State Authorities?	× No		
USCG:	Targeted		
Is an effective system of security access control, conforming to ISPS standards, in place upon boarding the vessel?	✓ Yes		
Type of access control	MARSEC 1		
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 External Company		
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? 4 Type of Gas Carrier LNG **Type of Containment Fully Refrigerated Cargo Tank Capacities** (m³) CT No.1 combined 22,344 CT No.2 combined 39,487 CT No.3 combined 39,515 CT No.4 combined 34,737 Cargo Tank Capacities (m³) **Total Capacity** 136,083 Yes Were the Cargo tanks able to be entered and inspected? Which tanks were entered? No.4 cargo tank Were recent vessel cargo tank inspection **✗** No photographs provided?







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.	✓ Yes
Does the vessel have any independent tanks, i.e. tanks located the deck?	<b>✗</b> 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?	1,700
What is the manufacturer of the deep well pumps?	Example Manufacturer





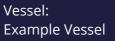
Were all the pumps fully operational?	✓ Yes
What condition were the pumps in?	Good
Is the vessel fitted with a compressor room?	✓ Yes
What was the condition of the compressor room?	Good
Were the airlocks on the compressor room in good working order?	Yes
Were compressor room airlock audible and visual alarms in full working order?	✓ Yes
Do the compressor room fans maintain a positive pressure in the Compressor Room?	✓ Yes
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?	Yes	
What condition was the Vent Masts Fixed Fire Fighting Extinguishing system in?		Good
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	







Program (CAP)?

Is all Fixed Gas monitoring equipment in full working order?

Are Float Level Gauges fitted?

What condition was the Float Level Gauges in?

Good

Vetting

What was the date of the last SIRE inspection?

How many observations were raised in the last SIRE inspection?

How many observations were raised in the last CDI inspection?

Is the vessel older than 15 years?

Is the vessel enrolled in a Condition Assessment

Yes



Equipment (LNG)	Fully operational?	Condition
Boil-off/Warm up heaters	Yes	Good
LNG Vaporiser	Yes	Good
Forcing Vaporiser	Yes	Good
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	Yes	Good
Gas Combustion Unit (GCU)	Yes	Good
Cargo Pipework insulation	Yes	Good
Reliquification plant	NA	
Cofferdam Heating System	Yes	Good