

**IDWAL**

**Report commissioned by:**

Example Individual

**Organisation:**

Example Organisation



CONDITION  
REPORT

# EXAMPLE LPG CARRIER

---

IMO Number: 123456789

INSPECTED AT NIGERIA  
1<sup>st</sup> OCTOBER 2022



# REPORT TERMS OF USE

This report is intended for the sole use of **Example Individual** and is designed to offer a condition evaluation of the subject vessel, as found on the day of the survey and in the opinion of the surveyor concerned. The report is subject to any access restrictions as described herein, and subject always to the level of cooperation afforded to the surveyor during the inspection itself. All details are given in good faith, and without guarantee.

This report has been prepared and issued by Idwal Marine Services Ltd to its Customer, **Example Individual of Example Organisation**, in accordance with, and subject to, the General Terms and Conditions of Idwal Marine Services Ltd, a copy of which can be obtained at [www.idwalmarine.com/terms-conditions](http://www.idwalmarine.com/terms-conditions). Attention is particularly drawn to restrictions on reproduction and disclosure of, and limits on reliance on, this Report as more fully set out therein.

To access all documents related to this report, and verify the authenticity of its contents, please view the full version available here:

[customer.idwalmarine.com/000-000](http://customer.idwalmarine.com/000-000)

<b>Pre-sale report reference:</b>	000/000
<b>Report commissioned for:</b>	Example Individual
<b>Organisation:</b>	Example Organisation
<b>PDF generated for:</b>	example@example.com
<b>Time &amp; date:</b>	00:00 (UTC) on 1st October 2022



# CONTENTS

---

INSPECTION SUMMARY .....	3
COMPARE YOUR IDWAL GRADE .....	5
KEY NOTABLE ITEMS .....	6
DECARBONISATION SUMMARY .....	8
GRADING DATA .....	9
DESIGN AND CONSTRUCTION .....	10
HULL .....	11
MOORING DECKS .....	12
WEATHER DECKS AND FITTINGS .....	13
BALLAST TANKS AND SYSTEMS .....	14
ACCOMMODATION .....	15
BRIDGE AND NAVIGATION EQUIPMENT .....	17
ENGINE ROOM AND MACHINERY .....	18
FIRE FIGHTING EQUIPMENT AND SYSTEMS .....	20
LIFESAVING APPLIANCES .....	21
SAFE WORKING ENVIRONMENT .....	22
POLLUTION CONTROL .....	24
ONBOARD MANAGEMENT .....	26
VESSEL CAPABILITIES AND CARGO SYSTEMS .....	28

## ADDITIONAL DOCUMENTS

---



Vessel documents



Vessel photos



# INSPECTION SUMMARY



Okrika,  
Nigeria



01 Oct 2022



Status:  
Discharging



10.5 Hours  
Aboard



Majority of  
documents  
provided

The Example Vessel is an example DWT, example Gross Tonnage, Example flagged, LPG Carrier vessel built to a Good standard by Example Shipyard, in South Korea under Example Class supervision and was delivered on the 1st January 2009. The vessel remains Classed with Example Class.

A Condition Inspection of the vessel was conducted on the 1st January 2022 in Nigeria by Idwal under instruction from Example Organisation.

Good cooperation was provided by the ship's crew however, no access was possible to Cargo tanks due to operational constraints and only one ballast tank was available for inspection. The vessel was alongside, discharging 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

<b>Ship Name</b>	Example
<b>Previous Name</b>	N/A
<b>IMO Number</b>	123456789
<b>Port of Registry</b>	Example Port
<b>Ship Type</b>	LPG Carrier
<b>Flag</b>	Example Flag
<b>Classification Society</b>	Example Class
<b>Registered Owner</b>	Example Owner
<b>Technical Manager</b>	Example Manager
<b>Shipbuilder</b>	Example Shipbuilder
<b>Delivery Date</b>	01/01/2009
<b>Dead Weight</b>	Example MT
<b>Gross Tonnage</b>	Example MT
<b>Net Tonnage</b>	Example MT
<b>Length Overall</b>	Example m
<b>Breadth</b>	Example m
<b>Depth</b>	Example m
<b>Summer Draught</b>	Example m
<b>Lightweight</b>	Example MT

The onboard management was found to be Good with the Safety Management system found to be well implemented and the vessel generally presented in a Good overall condition. The vessel was found to provide a safe working environment. The Port State Control (PSC) history was found to be good to very good with 1 deficiencies and 0 detentions in the 7 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.

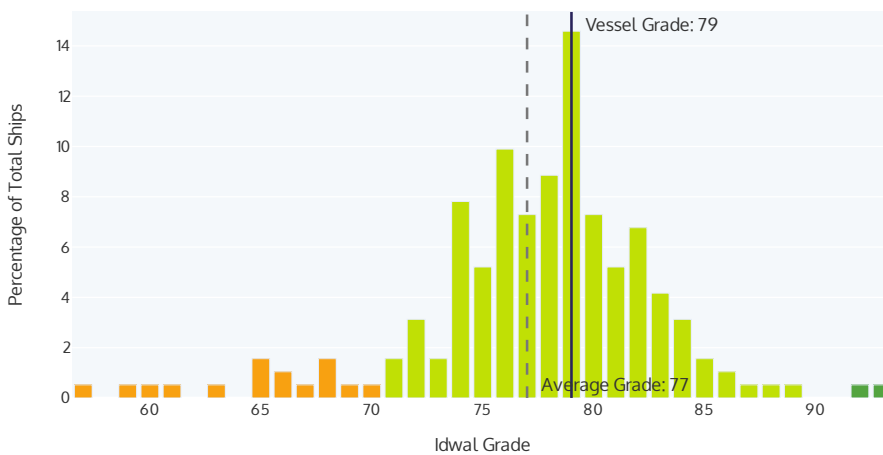
The vessel's Attained EEXI was calculated to be between 8.44 and 8.96, which is above the required EEXI of 7.53, and therefore the vessel will require the installation of technologies to reduce the EEXI score.

The vessel's latest Carbon Intensity Indicator (CII) score was reported to be 12.1, which places the vessel in Band C for this current Calendar year. If the vessel were to maintain this Attained CII score with no tangible reduction or increase, then the vessel will likely be in Band C by 2023 when the regulations come into force. This means that the vessel will not be required to create a carbon reduction plan in 2023.

# COMPARE YOUR IDWAL GRADE

This section of the report allows you to compare your ship's grade with similar ships.

**Your Idwal Grade vs other LPG Tanker vessels**

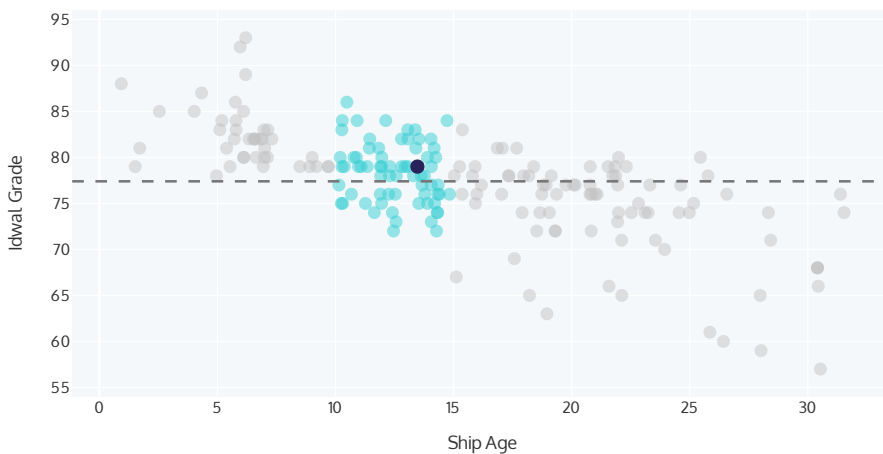


This graph shows the distribution of Idwal Grades against your ship's sector.

**KEY**

- Your Idwal grade ———
- Average Idwal grade - - - -
- Grade range
- > 90 (green)
- 71 - 90 (yellow-green)
- 51-70 (orange)
- 30 - 50 (red)

**Your Idwal Grade vs other LPG Tanker vessels, age 10-15 years**



This graph shows your ship's Idwal Grade compared against other ships inspected in the same sector, within a similar age range, and how it compares against the average Idwal Grade for the sector.

**KEY**












- Your Idwal grade ●
- Average Idwal grade - - - -
- All sector ships ●
- Age comparable ships ●





The ship's grade may appear different when compared with the average of the two graphs. This is as a result of the second graph comparing a smaller and more focused sample of ships.

For a more in-depth analysis of where your vessel compares amongst its peers, please contact your Idwal sales rep.



## KEY NOTABLE ITEMS

	Description	Action / Timeline	Estimated Cost [USD]
	The vessel is not equipped with a Ballast Water Treatment System (BWTS)	Under IMO regulations this will not be required until IOPP renewal survey due by 28-Apr-24.	\$50000+
	An unsafe practice was seen during the inspection with loose mooring ropes observed at the entrance to the foc'sle store.	Review Safety Management System and improve training to prevent any unsafe practices.	\$0
	ORB was seen to be not correctly filled in with an incomplete ORB page observed signed my Master. This was corrected during the inspection.	Ensure ORB is kept up to date and filled in correctly.	\$0
	Last inventory check of SOPEP equipment was on 15.07.2022.	Ensure monthly checks are carried out.	\$0
	As per MFAG the vessel must have at least one oxygen cylinder of 40L/200 bar (at ship's hospital, assembled for direct use) but only portable cylinders were sighted in the hospital.	To be investigated and correct equipment supplied if required.	\$1000 - \$5000
	One toilet in the accommodation was seen to have a cracked mounting and staining around the base.	To be repaired or renewed when possible.	<\$1000
	No. 2 L.O. purifier starter power fail alarm fixed on the panel since 28.07.2022. according to the alarm system, No. 2 L.O. purifier has been off since July.	To be investigated and rectified as required.	\$1000 - \$5000
	Oily water was observed in the aft bilge well during the inspection	Pump and clean bilges and rectify causes of oil or water.	<\$1000
	The latest SIRE inspection reported that there were two yellow warnings indicated in the Lub Oil Analysis dated 11-Aug-22 but the provided Lub oil analysis dated 11-Aug-22 showed no warnings.	To be investigated and samples sent for items with reported warnings as per the latest SIRE inspection.	<\$1000
	One portable UHF radio was seen to be missing the antenna, potentially reducing it's range.	Ensure radio equipment is correctly maintained.	<\$1000
	Developing corrosion was observed on multiple warping drums.	Areas of corrosion should be addressed.	<\$1000

	The emergency switchboard was seen to be without appropriate electrical insulation mats.	Appropriate insulation matting to be provided.	<b>\$1000 - \$5000</b>
	The vessel has completed an out of water bottom survey within 12 months from the date of inspection.	Positive.	<b>\$0</b>
	The vessel is reportedly fitted with paid to access unlimited use Wi-Fi system.	Positive.	<b>\$0</b>
	The vessel's stern tube is fitted with an air seal so is VGP compliant in this regard for trading to the USA.	Positive.	<b>\$0</b>

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



## DECARBONISATION SUMMARY

The vessel was delivered to the market before the EEDI requirements, and therefore has no EEDI score assigned. Based on information provided by the vessel during the inspection, the Attained EEXI score was calculated to be between 8.44 and 8.96. This Attained EEXI score is above the required EEXI of 7.53, and therefore the vessel will require the installation of technologies to reduce the EEXI score. The vessel's latest Carbon Intensity Indicator (CII) score was reported to be 12.1, which places the vessel in Band C for this current Calendar year. If the vessel were to maintain this Attained CII score with no tangible reduction or increase, then the vessel will likely be in Band C by 2023 when the regulations come into force. This means that the vessel will not be required to create a carbon reduction plan in 2023. For more information about technologies to reduce a vessel's EEXI, the creation of the EEXI technical file or operational measures to reduce a vessel's Attained CII, please contact your Idwal sales representative.

### EEXI

Required EEXI

**7.53**

gCO<sub>2</sub>/t.nm

Attained EEDI/EEXI

**8.44 - 8.96**

gCO<sub>2</sub>/t.nm

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

### CII

Last Recorded CII (2021)

**12.1**

gCO<sub>2</sub>/t.nm

Last attained CII Band (2021)

**C**

If the vessel maintains its last recorded CII score we anticipate it will be in Band C by 2023

# 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:



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



## DESIGN AND CONSTRUCTION

---

80

The construction and design was found to be good overall, with the vessel built to IACS standards and Rules in South Korea by Example Shipyard with the keel laid on 10/12/2008. The vessel is a LPG Carrier, with 3 tanks, driven by a fixed pitch, direct drive propeller. The Main Engine is a NOx Tier 1, MAN B&W and the vessel has 3 Auxiliary Engines, and 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. 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 differential-gps and the engine room and machinery are fitted with incinerator sludge burning system, UMS capabilities, 2-stroke engine variable delivery lubricator and centralised sea water cooling.

## 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 spot corrosion, up to approximately 1% of the surface area, located minimally on weld seams and

areas contacted by tugs and fenders. Hull markings were partly obscured by rust staining and light corrosion though with no marine fouling observed. The vessel's last out of water bottom survey was carried out on 15-Dec-21, with the vessel's next out of water bottom survey due by 28-Apr-24.

## NOTABLE ITEMS

---

Description	Estimated Cost [USD]
 <b>Issue:</b> The vessel has completed an out of water bottom survey within 12 months from the date of inspection. <b>Corrective Action:</b> Positive.	\$0

---

## MOORING DECKS

80

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 localised and surface corrosion, up to approximately 5% of the mooring deck plating total surface area, mainly located around the mooring machinery with additional areas of rust staining, multiple localised coating repairs were evident particularly on the foc'sle indicating positive ongoing maintenance. 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 good condition with only minor coating breakdown and corrosion noted on the foundations and warping drums. 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 though instances of loose items such as ropes were observed. The bitter end release arrangements were seen to be clear and unobstructed and the emergency towing booklet seen to be available near to the Foc'sle.

## NOTABLE ITEMS

### Description

### Estimated Cost [USD]



**Issue:** Developing corrosion was observed on multiple warping drums.

**Corrective Action:** Areas of corrosion should be addressed.

<\$1000

## WEATHER DECKS AND FITTINGS

---

**70**

The Weather Decks and Fittings were seen to be in fair to good condition overall, with the decks found to be free of structural defects and had only minor surface corrosion, up to approximately 5% of the main deck plating total surface area, mainly located at outer extreme edges, beneath pipework and around some fittings such as ballast tank lids. Deck fittings were found to be in a fair to good condition due to surface corrosion on walkways

and operator platform gratings, on raised pump platforms and cable trays however, pipework and fittings were seen to be generally free of leakages and deck mooring machinery was in good condition with only minor corrosion observed on the foundations. The accommodation ladders and gangways were in a good overall condition, with no notable defects found, as were provisions lifting appliances.

## BALLAST TANKS AND SYSTEMS

---

80

Ballast tanks and systems were deemed to be in a good overall condition. The Aft Peak Tank was entered for inspection and reports of previous tank entries from 11-Dec-21 were provided for review. From the photographs provided, it was seen that the ballast tanks were found to be generally free of significant structural defects and had only minor spot corrosion, up to approximately 1% of the ballast tanks total surface area, located minimally on free edges of structural members and lightening holes. Ballast tank fittings such as ladders and

pipework were seen to be in a fair to good overall condition due to instances of developing spot corrosion observed on the ladders and pipework with Anodes seen to be depleted up to 5%. Tanks were seen to have a minimal amount of mud/sediment accumulation but were free of any signs of staining from sewage or marine fouling. Ballast control systems such as valves and gauges were reported to be fully operational and all ballast pumps were in good working order and in good visual condition.



## ACCOMMODATION

80

The accommodation areas were seen to be in a good condition overall with floor and wall 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 though it was noted that as per MFAG the vessel must have at least one oxygen cylinder of 40L/200 bar (at ship's hospital, assembled for direct use) but only portable cylinders were sighted in the hospital, however, the drugs were locked away. The associated drugs log was kept up to date. The accommodation was found to be outfitted to an average quality. 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 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 1% of the surface area, mainly located at weld connections to fittings of 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.

## NOTABLE ITEMS

Description	Estimated Cost [USD]
<p><b>Issue:</b> As per MFAG the vessel must have at least one oxygen cylinder of 40L/200 bar (at ship's hospital, assembled for direct use) but only portable cylinders were sighted in the hospital.</p>	\$1000 -
<p><b>Corrective Action:</b> To be investigated and correct equipment supplied if required.</p>	\$5000



Description

Estimated  
Cost  
[USD]



**Issue:** One toilet in the accommodation was seen to have a cracked mounting and staining around the base.

<\$1000

**Corrective Action:** To be repaired or renewed when possible.



## BRIDGE AND NAVIGATION EQUIPMENT

80

The Bridge and navigation equipment were found to be in a good condition overall with housekeeping found to be good and with all bridge equipment reported to be fully operational. The vessel's VDR was found to be free from any unanticipated alarms with collection instructions posted nearby and with the Bridge Navigation Watch Alarm System (BNWAS) reported to be fully operational. The vessel's primary means of navigation, as listed on form E of the safety equipment certificate is a dual ECDIS system which were found to be up to date. RADAR blind sectors were seen to be posted near the RADARs with the compass deviation card up-to-date and available near to the helm. The compass deviation log was found to be satisfactory, with no major deviations and

generally up-to-date. 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 also up to date and correctly filled in. The Monkey island was found to be in a good overall condition with the mast, aerials and antennas seen to be satisfactory and free of defects.

## ENGINE ROOM AND MACHINERY

80

The Engine room and machinery were found to be in a good overall condition, with no significant defects reported or observed and with the engine room generally found to be clean. During the inspection the Auxiliary Engines, purifiers, pumps, air compressors and sewage treatment plant were seen running. Bilges and tank tops were generally seen to be dirty with oily water was observed in the aft bilge well during the inspection. 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. 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 15-Dec-21. The Main Engine was reported to be fully operational and was seen to be in good condition, with no major visible defects. A review of the latest Main Engine performance report provided showed no areas of concern. A review of the latest engine running hours showed that the Cylinder

heads, Pistons, Bearings and Cylinder liners overhauls were within the service hours. Propulsion systems, such as shafts, gearing and bearings were in good working order with no defects reported or sighted. The 3 Auxiliary Engines were reported to be fully operational and were seen to be in good condition, with no major visible defects. A review of the latest Auxiliary engines performance report provided showed no areas of concern. Auxiliary engines running hour data was found to be in order with no major overhauls overdue. The vessel's steam boiler was found to be fully operational and in good condition. The boiler safety valves were seen to be satisfactory and free of tampering. All Auxiliary equipment was found to be fully operational and in good condition barring purifiers, which were in fair 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]
<p><b>Issue:</b> No. 2 L.O. purifier starter power fail alarm fixed on the panel since 28.07.2022. according to the alarm system, No. 2 L.O. purifier has been off since July.</p> <p><b>Corrective Action:</b> To be investigated and rectified as required.</p>	\$1000 - \$5000

Description

Estimated  
Cost [USD]



**Issue:** Oily water was observed in the aft bilge well during the inspection

**Corrective Action:** Pump and clean bilges and rectify causes of oil or water.

<\$1000



## FIRE FIGHTING EQUIPMENT AND SYSTEMS

80

Fire Fighting Equipment and Systems were found to be in a 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 found to be fully operational and was free of signs of tampering and alarms. The vessel is fitted with Water Spray and CO2 fixed firefighting in the engine room, Water Spray, Dry Powder and CO2 for the cargo areas and Galley Wet Chemical and Galley CO2 in the accommodation. Fixed firefighting systems were all reported to be in good working condition with operating instructions clearly posted. The main and emergency fire pumps were reportedly fully operational and both were found to be in a good condition, free of leakages. The fire main and ancillaries such as hydrants and valves

were in good overall condition, free of defects. Fire extinguishers were all in good condition and all portable equipment were positioned in accordance with the fire plan. Firefighting outfits and associated equipment were all in good condition with BA equipment found fully charged and ready for use. The emergency generator was 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.

## LIFESAVING APPLIANCES

---

80

Lifesaving appliances were seen to be in a good overall condition with all equipment regularly serviced and inspected as required. The vessel is fitted with 2 davit launched lifeboats, which were seen to be in good overall condition externally and internally. The lifeboat engines were not tested during the inspection, but were reported to be in good working order. The vessel has no dedicated rescue boat and uses the starboard lifeboat as a rescue boat. 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. 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

70

Safe working was deemed to be fair to good overall with unsafe practices observed such as loose mooring ropes were observed at the entrance to the foc'sle store however, the vessel did present 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 with clear pilot boarding instructions posted. Regular drills were conducted on board with the last drill conducted on the 26-Sept-22, which was an SOPEP drill.

## NOTABLE ITEMS

### Description

### Estimated Cost [USD]

**Issue:** One portable UHF radio was seen to be missing the antenna, potentially reducing its range.

**Corrective Action:** Ensure radio equipment is correctly maintained.

<\$1000



Description

Estimated  
Cost [USD]



**Issue:** The emergency switchboard was seen to be without appropriate electrical insulation mats.

**Corrective Action:** Appropriate insulation matting to be provided.

\$1000 - \$5000



## 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 but SOPEP equipment was in a fair condition. Issues were identified with the Oil Record Book (ORB) with an uncompleted ORB page observed signed my Master. This was corrected during the inspection. The vessel is not fitted with a Ballast Water Treatment System (BWTS), which will be required before the next International Oil Pollution Prevention (IOPP) certificate

expiry date on the 28-Apr-24. The vessel's ballast record book was seen to be up to date and correctly filled in. The vessel is fitted with an airseal on the stern tube and is therefore Vessel General Permit (VGP) compliant in this regard. The vessel's sewage treatment plant was found to be fully operational 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-Sept-22. The Emission Control Area (ECA) change-over logbook was reviewed and found to be satisfactory with the date of last entry on 15-Aug-22. 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]
<p><b>Issue:</b> The vessel is not equipped with a Ballast Water Treatment System (BWTS)</p> <p><b>Corrective Action:</b> Under IMO regulations this will not be required until IOPP renewal survey due by 28-Apr-24.</p>	\$50000+

Description	Estimated Cost [USD]
 <b>Issue:</b> The vessel's stern tube is fitted with an air seal so is VGP compliant in this regard for trading to the USA. <b>Corrective Action:</b> Positive.	\$0


## ONBOARD MANAGEMENT

80

Onboard management was found to be good overall. The paper-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 good to very good with 1 deficiencies and 0 detentions in the 7 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 though only fair cooperation was provided but with the majority of requested documents provided.

## NOTABLE ITEMS

Description	Estimated Cost [USD]
<p> <b>Issue:</b> ORB was seen to be not correctly filled in with an incomplete ORB page observed signed my Master. This was corrected during the inspection.</p> <p><b>Corrective Action:</b> Ensure ORB is kept up to date and filled in correctly.</p>	\$0

## Description

Estimated  
Cost [USD]

**Issue:** Last inventory check of SOPEP equipment was on 15.07.2022.

**Corrective Action:** Ensure monthly checks are carried out.

\$0

## VESSEL CAPABILITIES AND CARGO SYSTEMS

70

Vessel capabilities and cargo systems were deemed to be in a fair to good overall condition.

The vessel is a Fully-refrigerated LPG Carrier equipped with 3 cargo tanks and can carry 2 segregations of cargo. No tanks could be entered due to operational constraints however, photographs of previous tanks entries reportedly from 10-Apr-19 were provided for review. Cargo tank structural members were found to be free of damage as were tank fixtures such as ladders and pipework etc. From the provided photographs the void spaces surrounding the cargo tanks were seen to be free of structural damage with no cold spots or deteriorated insulation identified. Void spaces were generally free of coating breakdown and corrosion. Independent tanks are fitted, which were found in good condition with no evident deterioration. The last cargo carried was Propane, with the next intended cargo reported to be not yet confirmed. Svanehoj international 400 m<sup>3</sup>/hr electrically driven deep well cargo pumps are fitted, which were fully operational and in good condition. The compressor room was found to be in good condition, with the airlocks in good working order and alarms fully functional. The motor room was also found to be in good condition, with the airlocks in good working order and alarms fully functional. 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 condition as observed. 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 reportedly in full working order as observed. The Maximum Allowable Relief Valves (MARVs) were in good condition and operating pressures were clearly marked. 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. Float level gauges are fitted, which were in good condition with no obvious defects seen or reported. The vessels last SIRE inspection was on the 16-Aug-22, in which 2 observations were recorded. These had all been fully resolved. The vessels last CDI inspection was on the 25-Jun-22, in which 0 observations were recorded. The Vaporiser, Cargo Heater, Inert Gas System, Cargo Booster, Spray Pumps, Cargo pipework insulation, Compressor and Condenser were all found to be in good condition with no operational defects reported or seen.

## NOTABLE ITEMS

Description	Estimated Cost [USD]
<p><b>Issue:</b> The latest SIRE inspection reported that there were two yellow warnings indicated in the Lub Oil Analysis dated 11-Aug-22 but the provided Lub oil analysis dated 11-Aug-22 showed no warnings.</p> <p><b>Corrective Action:</b> To be investigated and samples sent for items with reported warnings as per the latest SIRE inspection.</p>	<\$1000





## OPERATIONAL DATA

### Operational Data Condition

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

Total High Sulphur Fuel Oil (HSFO) capacity:	m <sup>3</sup>
Total Very and Ultra Low Sulphur Fuel Oil (VLSFO and ULSFO) capacity:	1,591.1 m <sup>3</sup>
Total Marine Gas Oil (MGO) and Diesel Oil (DO) capacity:	131.2 m <sup>3</sup>
Total Fresh Water capacity:	298 m <sup>3</sup>
Total Ballast Capacity Excluding Cargo Hold Ballast Capacity:	11,392.4 m <sup>3</sup>
Total Bilge water capacity:	39.3 m <sup>3</sup>
Total sludge and residues capacity:	42.73 m <sup>3</sup>

What fuel type does the vessel run on for the majority of the time?	Heavy Fuel Oil (HFO)
---	----------------------

Does the vessel have any energy efficiency technologies installed?  No

## Engines Table

	Main Engine 1	Main Engine 2	Aux Engine 1	Aux Engine 2	Aux Engine 3	Aux Engine 4
Designer	MAN B&W		MAN B&W	MAN B&W	MAN B&W	
Model	MC-C		6L23/30H	7L23/30H	7L23/30H	
Mark/Series/Revision	7		7	6	6	
Number of Cylinders	6		6	7	7	
Speed (RPM)	127		720	720	720	
Bore (mm)	500		225	225	225	
Stroke (mm)	2,000		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	173.25		198.446	197.109	198.603	
Nox Tier	1		1	1	1	
Fuel Oil Consumption at full load (tonnes/day)	36.00		3.4	3.4	3.4	
Cylinder Oil Consumption (litres/day)	173					
System Oil Consumption (litres/day)	33		28	28	28	

Major Overhaul Interval (Hours)			16,000	16,000	16,000	
Running Hours since last overhaul (Hours)			16,000	16,000	16,000	

	Vessel Speed (knots)	Consumption (t/day)
Loaded Eco	13.00	24
Loaded Service	14.5	31.5
Ballast Eco	13.00	22.00
Ballast Service	14.5	29.0

### Main Engine Maintenance

Component	Condition Based Monitoring?	Overhaul Interval
Cylinder Heads		16,000
Pistons		36,000
Bearings		18,000
Cylinder Liners		36,000

Main Engine No.1

Unit Running Hours

	1	2	3	4	5	6	7	8	9	10	11	12
Cylinder Heads	14,845	14,675	919	12,577	13,238	14,340						
Pistons	3,304	3,304	3,304	3,304	3,304	3,304						
Bearings	17,627	17,627	17,627	17,627	17,627	17,627						
Cylinder Liners	3,304	3,304	3,304	3,304	3,304	3,304						

### 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?  No

Survey	Date Last Completed	Date Next Due
Main / Special / Renewal	29-Apr-19	28-Apr-24
Intermediate	12-Apr-22	29-Apr-27
Annual	12-Apr-22	29-Apr-23
Bottom in dry dock	15-Dec-21	28-Apr-24

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

*Perama, Greece*

Is the vessels last dry dock report provided and attached?

No

*Provide details of works done in last dry dock*

*Only LR final survey report provided*

Does the vessel intend to dry dock before the next scheduled bottom survey?

No

Has the vessel remained with the same flag since build?

Yes

Has the vessel remained with the same Class since build?

Yes

Does the vessel have any Conditions of Class or Recommendations of Class?

No

Does the vessel have any Class Memos, Observations or Additional Requirements?

Yes

*Please provide further details*

*Multiple administrative items recorded*

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:

1,200,000

What was the status of the vessel at the time of inspection?

Discharging

## 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?

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

### Bridge & Communication

What features were seen on the bridge?

Machinery Space Control System repeater panel

*Kongsberg*

Differential-GPS

*JRC*

### Engine Room & Firefighting



Incinerator sludge burning system

*TeamTec Incinerator. Type/Serial number:  
GS500C/K0,649-01*

UMS Capabilities (regardless of Class notation)

*Kongsberg*

2-Stroke Engine Adaptive Cylinder Oil Control e.g.  
MAN B&W Alpha Lubricator

*Serman & Tipsmark Cyl. Lubrication System*

Centralised Sea Water cooling

*MYTEC*

# 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:

minimally on weld seams and areas contacted by tugs and fenders

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

1%

Type of coating breakdown and corrosion:

Spot

What was the condition of the hull markings?

Partly obscured

What type of anti-fouling coating was applied?

Tin Free Self-Polishing Anti-fouling paint

What level of marine fouling was seen?

None

Were fenders installed on the hull?

No

What were the vessels draughts?

Fwd: (m)	7.0
Aft: (m)	8.25

Was the upper sections of the rudder visible?

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:	around the mooring machinery with additional areas of rust staining, multiple localised coating repairs were evident particularly on the foc'sle indicating positive ongoing maintenance
The amount of surface area coating breakdown and corrosion was approximately:	5%

Type of coating breakdown and corrosion:  Localised  Surface

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

Were clutching and gearing arrangements sufficiently greased?

Yes

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*

01-Nov-21

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?

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:

at outer extreme edges, beneath pipework and around some fittings such as ballast tank lids

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

5%

Type of coating breakdown and corrosion:  Surface

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

Fair

*Please provide further details*

*surface corrosion on walkway and operator platform gratings, on raised pump platforms and cable trays*

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: Aft Peak Tank*

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

Yes

*Date photos were provided:*

11-Dec-21

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:

minimally on free edges of structural members and lightening holes

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

1%

Type of coating breakdown and corrosion:

Spot

Were ballast tanks coatings certified to PSPC standards?

Yes

What was the condition of ballast tank fittings (e.g. ladders, handrails, pipes & manhole seals)?

Fair

*Please provide further details*

*instances of developing spot corrosion observed on the ladders and pipework*

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

## ACCOMMODATION

### Internal Accommodation 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?  No

*As per MFAG the vessel must have at least one oxygen cylinder of 40L/200 bar (at ship's hospital, assembled for direct use) but only portable cylinders were sighted in the hospital*

Were the drugs controlled and substances seen to be locked away?  Yes

Was 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?

Yes

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?	Minor
Coating breakdown and corrosion was mainly located in the following areas:	at weld connections to fittings of accommodation superstructure
The amount of surface area coating breakdown and corrosion was approximately:	1%

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?

Officers:	6 Months
Crew:	8 Months

Was Wi-Fi provided on-board?	Yes Paid, Unlimited
------------------------------	---------------------

What is the approximate average internet speed?	Very Fast (Able to stream HD film)
---	------------------------------------

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

What Public Recreation equipment did the crew have access to?

- Free Weights
- Treadmill
- Television
- Fixed weight machine
- Cycling Machine
- 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?

Sofa

Desk

Ample storage

Does the vessel have any onboard training facilities?

Yes

Type of onboard training facilities:

Other

*Please provide further details*

*SQLLEARN system newly introduced to replace 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?  Yes

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

Was the view from the bridge clear and unobstructed?  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* 38

Was the Echo Sounder fully operational?  Yes

Were the RADARs fully operational?  Yes

Were the "blind sectors" posted near to the RADARs?  Yes

Does the vessel receive up to date weather information?  Yes 02-Oct-22

**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

30-Sept-26

SARTs

30-Apr-25

VHF

31-Dec-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*

21-Sept-22

### 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?  No

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?

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Auxiliary Engines        | <input checked="" type="checkbox"/> Purifiers        |
| <input checked="" type="checkbox"/> Pumps                    | <input checked="" type="checkbox"/> Air compressors  |
| <input checked="" type="checkbox"/> Sewage treatment plant   | <input checked="" type="checkbox"/> Auxiliary Boiler |
| <input checked="" type="checkbox"/> 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?

- No

*Oily water was observed in the aft bilge well during the inspection*

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?

- No

Was the NOx Technical file kept up to date?

- Yes

*Date of entry:*

15-Dec-21

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?  Yes

Were the performance reports satisfactory?  Yes

Was there any overdue maintenance on the Main Engine Turbochargers?  No

### 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?  None

### 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?  Yes

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

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	Fair
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

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

*No. 2 L.O. purifier starter power fail*

- 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?

Yes

Were distribution and switchboard panels protected with approved rubber matting?

No

*Distribution and switchboard panels were not protected by approved rubber matting*

# 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

14-Dec-21

Were all relevant Fire and Safety instructions correctly posted?  Yes

What was the vessels Fixed fire detection systems?

	Engine Room	Cargo Holds	Accommodation
<input checked="" type="checkbox"/> Flame	<input checked="" type="checkbox"/> Flame	<input checked="" type="checkbox"/> Flame	<input checked="" type="checkbox"/> Flame
<input checked="" type="checkbox"/> Smoke	<input checked="" type="checkbox"/> Smoke	<input checked="" type="checkbox"/> Smoke	<input checked="" type="checkbox"/> Smoke
<input checked="" type="checkbox"/> Heat	<input checked="" type="checkbox"/> Heat	<input checked="" type="checkbox"/> Heat	<input checked="" type="checkbox"/> Heat
<input checked="" type="checkbox"/> Smoke & Heat (Combined)	<input checked="" type="checkbox"/> Smoke & Heat (Combined)	<input checked="" type="checkbox"/> Smoke & Heat (Combined)	<input checked="" type="checkbox"/> 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
<input checked="" type="checkbox"/> CO2	<input checked="" type="checkbox"/> CO2	<input checked="" type="checkbox"/> Water Mist
<input checked="" type="checkbox"/> Foam	<input checked="" type="checkbox"/> Deck Foam	<input checked="" type="checkbox"/> Galley CO2
<input checked="" type="checkbox"/> Water Spray	<input checked="" type="checkbox"/> Water Spray	<input checked="" type="checkbox"/> Wet Chemical
<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> 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?  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:**

*gangway and on port & stbd upper deck exits*



Was the BA equipment fully charged in good condition?  Yes

Was the Emergency Generator tested during the inspection?  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

## LIFESAVING APPLIANCES

### Lifesaving Appliances Condition

Were all Lifesaving Appliances regularly serviced?  Yes

Date of last service:

14-Dec-21

How many lifeboats is the vessel equipped with?

2

What type of lifeboat is the vessel fitted with?

Davit launched

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?  No

Were lifeboat engines in good working order?  Yes

What type of rescue boat was fitted?

Lifeboat designated as rescue boat

Which lifeboat is designated?

Stbd

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 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?

05-Apr-24

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?

10-Sept-22

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?  | <input checked="" type="checkbox"/> Yes | <i>loose mooring ropes were observed at the entrance to the foc'sle store</i> |
| Did the vessel provide a safe working environment?   | <input checked="" type="checkbox"/> Yes |   |
| Were all hazard markings clear?  | <input checked="" type="checkbox"/> Yes |   |
| Were external walkways adequately coated with anti-slip paint and free of trip hazards?                            | <input checked="" type="checkbox"/> Yes |   |
| Are all hazardous substances including safely managed and stored with relevant Material Safety Data Sheets (MSDS)? | <input checked="" type="checkbox"/> Yes |   |
| Is Personal Protective Equipment (PPE) provided and worn by crew?  | <input checked="" type="checkbox"/> Yes |   |
| Are 'Enclosed Space Entry' procedures implemented?   | <input checked="" type="checkbox"/> Yes |   |
| Is an effective Permit To Work (PTW) process implemented?  | <input checked="" type="checkbox"/> Yes |   |

Date of last PTW:

03-Oct-22

- |  |   |
|--|---|
| Is an effective Risk Assessment (RA) process in place?   | <input checked="" type="checkbox"/> Yes |
| Was evidence of the annual and 5-yearly inspections of both fixed and portable lifting equipment and appliances sighted? | <input checked="" type="checkbox"/> Yes |
| Are main and emergency exits clearly identified and unobstructed?  | <input checked="" type="checkbox"/> Yes |
| Are sufficient portable oxygen and gas detection meters provided and regularly calibrated?                               | <input checked="" type="checkbox"/> Yes |

Date of last calibration:

23-May-22

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

Does the vessel have an adverse history of accidents and near-misses?  No

Is the vessel equipped with an approved SOLAS training manual?  Yes

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

Does the vessel have clear pilot boarding instructions posted?  Yes

Are regular drills conducted on board?  Yes

Last drill date

26-Sept-22

Last drill type

SOPEP

## 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

Were scuppers plugged in port as required?  Yes

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 15ppm meter calibrated?  Yes

*Date of calibration*

*10-Dec-21*

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

Means of securing  Sealed

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?

Fair

Was a list of SOPEP equipment posted and accurate?

No

*last inventory of SOPEP equipment was on 15.07.2022*

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

No

*An uncompleted ORB page observed signed my Master. This was corrected during the inspection.*

Were previous bunkering checklists correctly filled out?

Yes

*Date of last bunkering*

07-Sept-22

Were bunker samples correctly stored?

Yes

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

No

*The vessel is not equipped with a Ballast Water Treatment System (BWTS)*

*Date of International Oil Pollution Prevention (IOPP) certificate expiry*

28-Apr-24

What regulation is listed on the Ballast Water Management Certificate?

D-1

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

Yes

*Date of last entry*

23-Sept-22

Is the Vessel General Permit (VGP) compliant?

Yes

*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 Acceptable Lubricant

Stern Tube Airseal

### 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

Does the vessel have a garbage management plan?  Yes

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*

24-Sept-22

*Category of last entry*

*Landing of Garbage*

### Air - Marpol Annex VI

Does the vessel have a valid IAPP certificate?  Yes

Is the vessel compliant with IMO 2,020 Sulphur cap regulations?  Yes



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?

Yes

Was the Incinerator operational?

Yes

What was the condition of the Incinerator?

Good

Does the vessel have an Emission Control Area (ECA) change-over log?

Yes

*Date of last entry*

15-Aug-22

**EEXI**

Does the vessel have an EEDI score assigned at build?

No

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

Heavy Fuel Oil (HFO)

Does the vessel have any energy efficiency technologies installed?

No

Is the vessel ice classed?

No

**Main Engine(s)**

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

173.25

**Auxiliary Engines**

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

198.446

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

No

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

28-Apr-24

Year

What were the vessel's CII scores (From the IMO DCS data)? (gramsCO2/ton.Nautical mile)

2021

12.1

# ONBOARD MANAGEMENT

## Onboard Management Condition

Does the vessel have a functioning Safety Management System (SMS)?  Yes

**How was the SMS Implemented?**

Paper Documents

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**

04-Feb-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**

30-Sept-22

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	AMOS

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:	7
No. of Deficiencies in Past three years:	1
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
------------------------	---------------

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?

Fair

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?	3
How many cargo segregations can the vessel carry?	2
Type of Gas Carrier	LPG
Type of Containment	Fully Refrigerated

### Cargo Tank Capacities

(m³)

CT No.1 combined	9,766.145
CT No.2 combined	14,731.55
CT No.3 combined	10,690.585

### Cargo Tank Capacities

(m³)

Other / Independent deck tanks	341.386
Total Capacity	35,529.666

Were the Cargo tanks able to be entered and inspected?

No

*Why were tanks not entered?*

*Discharging operations in progress, no tanks gas free at the time of inspection*

Were recent vessel cargo tank inspection photographs provided?

Yes

*Date photographs were taken:*

10-Apr-19

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?

No

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?

Yes

What condition were the independent tanks in?

Good

What was the last cargo carried?

Propane

**Pumping and Piping Systems**

What type of main cargo pumps are fitted?

Electrically Driven deep well

**m<sup>3</sup>/hr**

What is the capacity of the deep well pumps?

400

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

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?

16-Aug-22

How many observations were raised in the last SIRE inspection?

2

Have all observations been fully resolved?

Yes

What was the date of the last CDI inspection?

25-Jun-22

How many observations were raised in the last CDI inspection?

0

Is the vessel older than 15 years?

No

Equipment (LPG)	Fully operational?	Condition
Vaporiser	Yes	Good
Cargo heater	Yes	Good
Inert Gas (IG) system	Yes	Good
Nitrogen plant	NA	
Cargo Booster	Yes	Good
Spray Pumps	NA	
Reliquification plant	NA	
Cargo Pipework insulation	Yes	Good
Compressor	Yes	Good
Condenser	Yes	Good