

REPORT ON OIL ENGINE MACHINERY.

No. 72091

Received at London Office 24 SEP 1947

Date of writing Report 19 When handed in at Local Office 19-9-47 Port of GLASSGOW
 Date, First Survey 29-10-45 Last Survey 17-9-47
 Number of Visits 117
 Survey held at GLASSGOW
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 Single on the Twin Screw vessel MOTOR VESSEL "LA HEVE"
 Triple
 Quadruple
 Built at GLASSGOW By whom built HARLANDY WOLFE LTD. Yard No. 1345 When built 1947
 Engines made at GLASSGOW By whom made HARLANDY WOLFE LTD. Engine No. 1345 When made 1947
 Main Boilers made at By whom made Boiler No. When made
 Indicated Horse Power 5500 Owners THE FRENCH GOVERNMENT Port belonging to NANTES
 Indicated Horse Power as per Rule 1217 Is Refrigerating Machinery fitted for cargo purposes YES Is Electric Light fitted YES
 Made for which vessel is intended OCEAN GOING

ENGINES, &c. — Type of Engines HEAVY OIL AIRLESS INJECTION 2 or 4 stroke cycle 2 Single or double acting Single
 Maximum pressure in cylinders 700 lb./sq. in. Diameter of cylinders 620 1/4 Length of stroke 1150 1/2 No. of cylinders 20 No. of cranks 10
 Indicated Pressure 100 lb./sq. in. of bearings, adjacent to the crank, measured from inner edge to inner edge 816 1/4 Is there a bearing between each crank YES
 Revolutions per minute 135 Flywheel dia. 2136 1/4 Weight 2000 Kgs Means of ignition Comp. Kind of fuel used Diesel
 Crankshaft, dia. of journals as per Rule 425 1/4 Crank pin dia. 445 1/4 Crank webs Mid. length breadth 825 MEAN Thickness parallel to axis 280 1/4
 as fitted 445 1/4 WITH 150 1/4 DIA. HOLE WITH 170 1/4 DIA. HOLE Mid. length thickness 280 1/4 shrunk Thickness around eye-hole 254.5 1/4
 as per Rule 425 1/4 Intermediate Shafts, diameter as per Rule 13.87 Thrust Shaft, diameter at collars as fitted 440 1/4
 as fitted 445 1/4 as fitted 14 1/8 Is the tube screw shaft fitted with a continuous liner YES
 as per Rule 15.16 as fitted 15 3/4 Is the tube screw shaft fitted with a continuous liner YES
 as fitted 3/4 as fitted 15 3/4 Is the tube screw shaft fitted with a continuous liner YES
 Liners, thickness in way of bushes as per Rule 13.16 Thickness between bushes as per Rule 9/16 Is the after end of the liner made watertight in the
 as fitted 13.16 as fitted 9/16 Is the after end of the liner made watertight in the
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
 the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-
 erosive If two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after
 of tube shaft No If so, state type Length of bearing in Stern Bush next to and supporting propeller 5'3"
 Propeller, dia. 15'6" Pitch 12'9" No. of blades 4 Material Bronze whether moveable No Total developed surface 90 sq. feet
 Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when decelerated YES Means of
 lubrication Forced Thickness of cylinder liners 42 1/4 Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled
 lagged with non-conducting material Lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
 back to the engine Cooling Water Pumps, No. 1FW Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES
 Bilge Pumps worked from the Main Engines, No. None Diameter Stroke Can one be overhauled while the other is at work
 Pumps connected to the Main Bilge Line No. and size 1 Ballast 150 tons/hr 1 Bilge 90 tons/hr 1 Gen. Ser. 60 tons/hr
 How driven Electric motors
 Is the cooling water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
 arrangements
 Ballast Pumps, No. and size 1 C 150 tons/hr Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 C 220 tons/hr
 Are two independent means arranged for circulating water through the Oil Cooler YES Suctions, connected to both main bilge pumps and auxiliary
 bilge pumps, No. and size:—In machinery spaces 2 C 3 1/2, 3 C 2 1/2, 1 C 2 Tunnel well 1 C 3 app. In pump room
 Holds, &c. No. 1 Hold 2 C 3, No. 2 Hold 2 C 3, No. 3 Hold 2 C 2 1/2, No. 4 Hold 2 C 3, No. 5 Hold 2 C 2 1/2, No. 6 Hold 1 C 2 1/2
 Independent Power Pump Direct Suctions to the engine room bilges, No. and size 1 C 6, 1 C 5
 Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes YES Are the bilge suction pipes in the machinery spaces led from easily
 accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges YES
 Are all Sea Connections fitted direct on the skin of the Ship YES Are they fitted with valves or cocks Both Are they fixed
 efficiently high on the ship's side to be seen without lifting the platform plates YES Are the overboard discharges above or below the deep water line Below
 Are they each fitted with a discharge valve always accessible on the plating of the vessel YES Are the blow off cocks fitted with a spigot and brass covering plate
 What pipes pass through the bunkers None How are they protected
 What pipes pass through the deep tanks None Have they been tested as per Rule
 Are all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times YES
 Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery
 spaces, or from one compartment to another YES Is the shaft tunnel watertight YES Is it fitted with a watertight door YES worked from MAIN DECK
 On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
 Main Air Compressors, No. None No. of stages diameters stroke driven by
 Auxiliary Air Compressors, No. 2 No. of stages 2 diameters 280 1/4, 1245 1/4 stroke 130 1/4 driven by ELECTRIC MOTOR
 Small Auxiliary Air Compressors, No. ONE No. of stages 2 CAPACITY 15 CUB. FT. stroke driven by EMERGENCY GENERATOR
 Is provision made for first charging the air receivers Small compressor driven by emergency generator
 Salvaging Air Pumps, No. None diameter stroke driven by
 Auxiliary Engines crank shafts, diameter as per Rule Approved No. 3 Position 2 Port, 1 Starboard
 Have the auxiliary engines been constructed under special survey YES Is a report sent herewith YES

006903-006911-0273

AIR RECEIVERS:—Have they been made under survey... *yes* State No. of report or certificate... *21816*
Is each receiver, which can be isolated, fitted with a safety valve as per Rule... *yes*
Can the internal surfaces of the receivers be examined and cleaned... *yes* Is a drain fitted at the lowest part of each receiver... *yes*
Injection Air Receivers, No. *None* Cubic capacity of each... Internal diameter... Thickness...
Seamless, lap welded or riveted longitudinal joint... Material... Range of tensile strength... Working pressure...
Starting Air Receivers, No. *Two* Total cubic capacity... *540 cub ft* Internal diameter... *75 3/4"* thickness... *1 1/8"*
Seamless, lap welded or riveted longitudinal joint... *Welded* Material... *Steel* Range of tensile strength... *29/33 ton* Working pressure... *33.6*

IS A DONKEY BOILER FITTED *No* If so, is a report now forwarded...
Is the donkey boiler intended to be used for domestic purposes only...
PLANS. Are approved plans forwarded herewith for shafting... *30-N-46* Receivers... *Off. Belfast* Separate fuel tanks...
Donkey boilers... General pumping arrangements... *13-2-46* Pumping arrangements in machinery space... *13-2-46*
Oil fuel burning arrangements...

SPARE GEAR.

Has the spare gear required by the Rules been supplied... *yes* *See attached*
State the principal additional spare gear supplied... *Propeller shaft and C. I. propeller*

MARKS ON SPARE SCREW SHAFT

LLLOYDS
S.S. 505-3
E.B.
27566
21-8-46
NK 30-7-47

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops...
During erection on board vessel...
Total No. of visits... *117*

Dates of examination of principal parts—Cylinders... Covers... Pistons... Rods... Connecting rods...

Crank shaft... Flywheel shaft... Thrust shaft... Intermediate shafts... Tube shaft...

Screw shaft... Propeller... Stern tube... Engine seatings... Engine holding down bolts...

Completion of fitting sea connections... Completion of pumping arrangements... Engines tried under working conditions...

Crank shaft, material... Identification mark... Flywheel shaft, material... Identification mark...

Thrust shaft, material... Identification mark... Intermediate shafts, material... Identification marks...

Tube shaft, material... Identification mark... Screw shaft, material... Identification mark...

Identification marks on air receivers...

Is the flash point of the oil to be used over 150°F... *yes*

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with... *yes*

Description of fire extinguishing apparatus fitted... *Loamite fire hose*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo... *No*

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with...

Is this machinery duplicate of a previous case... *yes* If so, state name of vessel... *N. MORBIHAN GLS. RPT. N° 71892*

General Remarks (State quality of workmanship, opinions as to class, &c.)

This machinery has been constructed under special survey in accordance with the Rules and approved plans.

The materials and workmanship are good.

*The machinery has been satisfactorily installed in the vessel, tried under full working conditions and found in good order and is eligible in my opinion to have Record of *LMC 9.47 and T.S.C.L.*

The torsional vibration characteristics are in accordance with Landon letter dated 5-7-46

The amount of Entry Fee ... £ ...

Special ... £ 186 ...

Donkey Boiler Fee... £ ...

Travelling Expenses (if any) £ ...

Committee's Minute

Assigned *1- LMC 9.47*

When applied for

When received

Engineer Surveyor to Lloyd's Register of Shipping

Lloyd's Register Foundation