

REPORT ON OIL ENGINE MACHINERY.

No. 49475

Received at London 21 JUL 1929

Date of writing Report 10 When handed in at Local Office 29-7-29 Port of Glasgow
No. in Survey held at Glasgow Date, First Survey 12 Nov 1928 Last Survey July 10 1929
Book. Number of Visits 53
on the Single }
Twin } Screw vessel
Triple }
Quadruple }
at Rotterdam By whom built Messrs Wilton Yard No. When built 1929
vessels made at Glasgow By whom made Harland & Wolff Ltd Engine No 3672 When made 1929
Boilers made at Annan By whom made Cochran & Co Annan Ltd Boiler No. 11145 When made 1929
Horse Power 6200 Owners Port belonging to
Horse Power as per Rule 1203 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted yco
for which vessel is intended ✓

ENGINES, &c.—Type of Engines Diesel 4 stroke cycle 4 Single or double acting single
Mean pressure in cylinders 500 LBS/sq" Diameter of cylinders 740 7/8" Length of stroke 1850 7/8" No. of cylinders 16 No. of cranks 16
of bearings, adjacent to the Crank, measured from inner edge to inner edge 1004 7/8" Is there a bearing between each crank yco
Revolutions per minute 94 TURNING WHEEL dia. 9'-5" Weight 3.84 tons Means of ignition Compression Kind of fuel used above 150°F
Crank Shaft, dia. of journals as per Rule 506.5 7/8" Crank pin dia. 520 7/8" Crank Webs Mid. length breadth 340 7/8" shrunk Thickness parallel to axis 320 7/8"
as fitted 520 7/8" Mid. length thickness 320 7/8" Thickness around eye hole 229.5 7/8"
WHEEL Shaft, diameter as per Rule 506.5 Intermediate Shafts, diameter as per Rule 14.9" Thrust Shaft, diameter at collars as per Rule 15.65"
as fitted 560 7/8" as fitted 15 1/4" as fitted 16"
Shaft, diameter as per Rule 16.233" Is the tube screw shaft fitted with a continuous liner yco
as fitted 17" as fitted 23 1/32"

Liners, thickness in way of bushes as per Rule .82" Thickness between bushes as per rule .615" Is the after end of the liner made watertight in the
as fitted .875" as fitted 23 1/32"
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner one length.

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-corrosive first tightly

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 the tube shaft Length of Bearing in Stern Bush next to and supporting propeller 6'-5" ✓

eller, dia. 16' ✓ Pitch 17'-3" No. of blades 3 Material Mang Bry whether Moveable No Total Developed Surface 61 sq. feet

od of reversing Engines Air Is a governor or other arrangement fitted to prevent racing of the engine yco Means of lubrication

Thickness of cylinder liners TOP 53 7/8" Are the cylinders fitted with safety valves yco Are the exhaust pipes and silencers water cooled or lagged with

conducting material yco If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine ✓

ing Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓

Pumps worked from the Main Engines, No. ✓ Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓

ps connected to the Main Bilge Line { No. and Size ✓
How driven ✓

ast Pumps, No. and size ✓ Lubricating Oil Pumps, including Spare Pump, No. and size ✓

two independent means arranged for circulating water through the Oil Cooler ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

ps, No. and size:—In Machinery Spaces

olds, &c.

pendent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ✓

all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes ✓ Are the Bilge Suctions in the Machinery Spaces

rom easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges ✓

all Sea Connections fitted direct on the skin of the ship ✓ Are they fitted with Valves or Cocks ✓

They fixed sufficiently high on the ship's side to be seen without lifting the platform plates ✓ Are the Overboard Discharges above or below the deep water line ✓

They each fitted with a Discharge Valve always accessible on the plating of the vessel ✓ Are the Blow Off Cocks fitted with a spigot and brass covering plate ✓

t pipes pass through the bunkers ✓ How are they protected ✓

t pipes pass through the deep tanks ✓ Have they been tested as per Rule ✓

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times ✓

he 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

partment to another ✓ Is the Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork ✓

in Air Compressors, No. One per engine No. of stages 3 Diameters 260, 775, 202 7/8" Stroke 560 7/8" Driven by main engines

iliary Air Compressors, No. One per aux. No. of stages 3 Diameters 400, 350, 82 7/8" Stroke 260 7/8" Driven by aux. — " —

all Auxiliary Air Compressors, No. one No. of stages 2 Diameters 106, 34 7/8" Stroke 80 7/8" Driven by steam — " —

avenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓

Auxiliary Engines crank shafts, diameter as per Rule 177.27 7/8" JOURNALS 190 PINS

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule ✓

Can the internal surfaces of the receivers be examined ✓ What means are provided for cleaning their inner surfaces ✓

Is there a drain arrangement fitted at the lowest part of each receiver ✓

High Pressure Air Receivers, No. ✓ Cubic capacity of each ✓ Internal diameter ✓ thickness ✓

Seamless, lap welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure by Rules ✓

Starting Air Receivers, No. ✓ Total cubic capacity ✓ Internal diameter ✓ thickness ✓

Seamless, lap welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure by Rules ✓

IS A DONKEY BOILER FITTED? Yes

If so, is a report now forwarded? No

PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval)

Receivers ☒

Separate Tanks ☒

Donkey Boilers ☒

General Pumping Arrangements ☒

Oil Fuel Burning Arrangements ☒

SPARE GEAR

As per attached list which is in accordance with the rules.

The foregoing is a correct description,

For HARLAND & WOLFF, LTD.

J. C. Finner, Manager

Manufacturer.

Dates of Survey while building { During progress of work in shops - 1928, Nov 12, Dec 5, 27, 1929 Jan 8, 30, Feb 14, 24, Mar 11, 12, 18, 20, 25, Apr 3, 9, 16, 22, 23, 26, 29, 30 May 2, 3, 7, 9, 15, 16, 17, 22, 24, 27, 28, 29, 31
During erection on board vessel - June 4, 5, 6, 7, 10, 11, 12, 13, 17, 18, 20, 21, 24, 25, 27, 28, July 1, 2, 10
Total No. of visits 53

Dates of Examination of principal parts—Cylinders 24-5-29/10-7-29 Covers 24-5-29/10-7-29 Pistons 27-5-29/10-6-29 Rods 27-5-29/10-6-29 Connecting rods

Crank shaft 7-5-29 TURNING WHEEL Flywheel shaft 7-5-29 Thrust shaft 24-5-29 Intermediate shafts 10-6-29 Tube shaft ☒

Screw shaft 24-5-29 Propeller 24-5-29 Stern tube 7-6-29 Engine seatings ☒ Engines holding down bolts ☒

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

Crank shaft, Material Siemens Steel Identification Mark TURNING WHEEL Flywheel shaft, Material Siemens Steel Identification Mark

Thrust shaft, Material Siemens Steel Identification Mark 8389 J.P. Intermediate shafts, Material Siemens Steel Identification Marks 1726, 1727, 1780, 1862, 1827, 1801

Tube shaft, Material ☒ Identification Mark ☒ Screw shaft, Material Siemens Steel Identification Mark 1608 1624 1750 8389

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

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo ☒ If so, have the requirements of the Rules been complied with ☒

Is this machinery duplicate of a previous case No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) These engines have been built under

special survey in accordance with the rules and the approved plans, the materials and workmanship are good

The machinery is eligible in our opinion for classification with record of + LMC with date on the satisfactory completion of installing the engines on board the vessel in Rotterdam

The amount of Entry Fee ... £ 105.17/-

4/5 Special ... £ 32.18/-

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ :

Committee's Minute GLASGOW

Assigned Deferred

When applied for,

30/7/29

When received,

19.8.29

Chas R Rouchie S. C. Dan
Engineer Surveyor to Lloyd's Register of Shipping

Lloyd's Register of Shipping
Foundation