

REPORT ON OIL ENGINE MACHINERY.

No. 64110

Received at London Office 31 JUL 1941

Date of writing Report

When handed in at Local Office

19: 7: 10 41 Port of GLASGOW

No. in Survey held at
Reg. Book

GLASGOW

Date, First Survey

23: 8: 39

Last Survey

11-7-1941

Number of Visits 10

on the ^{Single}
~~Double~~
^{Triple}
~~Quadruple~~
Screw vessel"GLOUCESTER"Tons { Gross
Net

Built at GLASGOW By whom built ALEX. STEPHENS & SONS LD. Yard No. 575 When built 1941

Engines made at -DO- By whom made BARCLAY CURLE & CO. LD. Engine No. 128 When made 1941

Donkey Boilers made at HYDE By whom made J. ADAMSON & CO. LD. Boiler No. 2566 When made 1940

Brake Horse Power 6400 Owners NEW ZEALAND SHIPPING CO. LD. Port belonging to LONDON

Nom. Horse Power as per Rule 1294 Is Refrigerating Machinery fitted for cargo purposes YES Is Electric Light fitted YES

Trade for which vessel is intended

IL ENGINES, &c.—Type of Engines OPPOSED PISTON

2 or 4 stroke cycle 2 Single or double acting SINGLE

Maximum pressure in cylinders 640 LBS/IN² Diameter of cylinders 670 mm Length of stroke 2320 mm No. of cylinders 6 No. of cranks 6Mean Indicated Pressure 85 LBS/IN² SIDE RODS

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1300 mm Is there a bearing between each crank YES

Revolutions per minute 113 Flywheel dia. 5'-6" Weight 4 TONS Means of ignition Comp. Kind of fuel used Diesel Oil

Crank Shaft, { Solid forged as per Rule 48'-2" A 3 3/4 TONS Mid. length breadth 754 mm Thickness parallel to axis 221 mm
Semi built dia. of journals as fitted 530 mm Crank pin dia. 530 mm Crank Webs Mid. length thickness shrunk Thickness around eye hole 300 mm
All built

Flywheel Shaft, diameter as per Rule 48'-2" Intermediate Shafts, diameter as per Rule 16" Thrust Shaft, diameter at collars as per Rule 48'-2" as fitted 480 mm as fitted 16" as fitted 500 mm

Tube Shaft, diameter as per Rule 48'-2" Screw Shaft, diameter as per Rule 16" Is the { tube screw } shaft fitted with a continuous liner YES

Bronze Liners, thickness in way of bushes as per Rule 48'-2" Thickness between bushes as per Rule 48'-2" Is the after end of the liner made watertight in the propeller boss YES

If 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-corrosive

If two liners are fitted, is the shaft lapped or protected between the liners YES Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft NO If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 5'-10"

Propeller, dia. 16'-9" Pitch 15'-0" No. of blades 4 Material Bronze blades whether Moveable YES Total Developed Surface 92 sq. feet

Method of reversing Engines DIRECT Is a governor or other arrangement fitted to prevent racing of the engine when disengaged YES Means of lubrication

Forced Thickness of cylinder liners 25 mm Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or lagged with non-conducting material YES

Cooling Water Pumps, No. Two (fresh water) 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 All centrifugal pumps - Bilge 100 lpm, Gen. Service - 100 lpm, Ballast 400 lpm
How driven all by 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 One centrifugal 470 lpm Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 centrifugal each 65 lpm

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 3 @ 3"

In Holds, &c. N°1 hold - 2 @ 3" N°2 hold - 2 @ 3" N°3 hold - 2 @ 2 1/2" N°4 hold - 2 @ 3 1/2" N°5 hold - 1 @ 3" Tunnel well - 1 @ 2 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 3 @ 5"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YES Are the Bilge Suctions 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 sufficiently 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 YES

What pipes pass through the bunkers hold bilge & fresh water pipes How are they protected in pipe tunnel

What pipes pass through the deep tanks only as above 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 upper deck

If 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. - No. of stages - Diameters 12 1/4" - 3" Stroke 7" Driven by ELECT. MOTORS

Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 12 3/4" - 10 1/4" Stroke 7" Driven by ELECT. MOTORS

Small Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 3" - 3 1/4" Stroke 3 1/4" Driven by AUX. OIL ENGINE

What provision is made for first Charging the Air Receivers SMALL COMP. UNIT HAND STARTING

Scavenging Air Pumps, No. 1 Diameter 1852 mm Stroke 1480 mm Driven by MAIN ENGINE

Auxiliary Engines crank shafts, diameter as per Rule No. Position FORD PORT - 5 1/4" RPT 514

Have the Auxiliary Engines been constructed under special survey YES Is a report sent herewith AFT PORT 523

STARBOARD - Nottingham 525 only

004653-004661-0240

AIR RECEIVERS:—Have they been made under survey yes State No. of Report or Certificate 181

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.

Cubic capacity of each

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Actual

Starting Air Receivers, No. Two

Total cubic capacity 360 cu ft

Internal diameter 4 3/2"

thickness 1 9/16"

Seamless, lap welded or riveted longitudinal joint Riveted

Material Steel

Range of tensile strength 29-33 tons

Working pressure

by Rules

Actual

600 lb

IS A DONKEY BOILER FITTED? yes

If so, is a report now forwarded? yes

Mch Rpt. No. 10.35

Is the donkey boiler intended to be used for domestic purposes only no

PLANS. Are approved plans forwarded herewith for Shafting 11-10-39

(If not, state date of approval)

Receivers retained for duplicate yes Separate Fuel Tanks retained for duplicate yes

Donkey Boilers no

General Pumping Arrangements no

Pumping Arrangements in Machinery Space retained for duplicate yes

Oil Fuel Burning Arrangements no

SPARE GEAR.

Has the spare gear required by the Rules been supplied YES

State the principal additional spare gear supplied LIST ATTACHED



The foregoing is a correct description,

Alfred Macneil

Manufacturer.

Dates of Survey while building
During progress of work in shops--
1939 Aug. 23 (1940) Mar. 29 May. 7-28-31 June. 19 July. 17 Aug. 1-13-26-30 Sep. 4-9-12-17 Oct. 3-7-11-15-18-23
Nov. 7-18-20-22-25-26-27 Dec. 2-3-9-12-17-20-23-26-30 (1941) Jan. 2-6-10-16-24 Feb. 20 July. 8-14-14
1940 Apr. 15-22 May. 8-23-27 June. 4-12-18 July. 3-8-17-18 Aug. 6-13-19-26 Sep. 3-10-17-24 Oct. 2-6-22-23-24
Nov. 4-5-26 Dec. 2-10-13-31 (1941) Jan. 6-16-23-27-30 Feb. 14-18-21-24-25-27-28 Mar. 3-18-19-28 Apr. 6-17
30 May. 12-28 June. 4-19 July. 2-10-11-60
Total No. of visits 104

Dates of Examination of principal parts—Cylinders 12-9-40 Covers — Pistons 27-11-40 Rods 20-11-40 Connecting rods 17-9-41

Crank shaft 26-11-40 Flywheel shaft 26-11-40 Thrust shaft 26-11-40 Intermediate shafts 6-1-41 Tube shaft —

Screw shaft 27-1-41 Propeller 24-2-41 Stern tube 21-2-41 Engine seatings 10-12-40 Engines holding down bolts 6-4-41

Completion of fitting sea connections 14-2-41 Completion of pumping arrangements 11-7-41 Engines tried under working conditions 11-7-41

Crank shaft, Material SM Steel Identification Mark LLOYD'S FW/28 Flywheel shaft, Material SM Steel Identification Mark AS CRANK SHAFT

Thrust shaft, Material SM Steel Identification Mark Do-Do Intermediate shafts, Material 1 Steel Identification Marks 6-1-41 R3

Tube shaft, Material — Identification Mark — Screw shaft, Material 1 Steel Identification Mark LLOYD'S SW/27-1-41

Identification Marks on Air Receivers

PORT	STARBOARD
LLOYD'S TEST	LLOYD'S TEST
800 LBS	800 LBS
L.C.D.	L.C.D.
25-10-40	22-10-40

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 —

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 NO If so, state name of vessel —

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been built under special survey in accordance with the Rules and approved plans, and the materials and workmanship are good. It has been satisfactorily installed in the vessel, tested under working conditions and found efficient and, in our opinion, is eligible to be classed in the Register Book with record + LMC 7, 41 and notation CL

Exb

19/7/41

The amount of Entry Fee .. £ 6 : - : 29 JUL 1941

Special ... £ 132 : 7 : 19

WELDOING FEE ... £ 12 : 12 : 19

Donkey Boiler Fee ... £ 4 : 4 : 19

AIR RECEIVERS ... £ 4 : 4 : 19

Travelling Expenses (if any) .. £ 4 : 4 : 19

Committee's Minute GLASGOW 29 JUL 1941

Assigned 1- LMC 7.41

oil Eng.

5B. 100 lb.

W. Brown & L. Davis
Engineer Surveyor to Lloyd's Register of Shipping.

