

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Rpt. 4.
D.O.

Date of writing Report 19 1945 When handed in at Local Office 19.3.45 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 16.3.44 Last Survey 8.3.45
 Reg. Book SS FIREBEAM (Number of Visits 5) Tons Gross 1553.73
 Net 892.58
 Built at Aberdeen By whom built Messrs Hall Russell & Co. Ltd Yard No. 785 When built 1945
 Engines made at Glasgow By whom made David Rowan & Co. Ltd Engine No. 1133 When made 1945
 Boilers made at -do- By whom made -do- Boiler No. 1133 When made 1945
 Registered Horse Power 184 Owners Gas Light & Coke Co. Ltd Port belonging to London
 Nom. Horse Power as per Rule 184 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes
 Trade for which vessel is intended

Revs. per minute

ENGINES, &c.—Description of Engines Triple Expansion
 Dia. of Cylinders 16 1/2" : 24 1/2" : 46" Length of Stroke 33" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 9.167" Crank pin dia. 9 3/4" Crank webs Mid. length breadth 18 1/2" Thickness parallel to axis 6"
as fitted 9 1/2" Mid. length thickness 6" shrink Thickness around eye-hole 4 1/4"
 Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as per Rule 9.167"
as fitted as fitted 9 1/2"
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 9.83 Is the tube shaft fitted with a continuous liner Yes
as fitted as fitted 10 1/4" screw
 Bronze Liners, thickness in way of bushes as per Rule .597" Thickness between bushes as per Rule .448" Is the after end of the liner made watertight in the
as fitted 5/8" as fitted 2/16" propeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner One length
 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 Yes
 If two liners are fitted, is the shaft lapped or protected between the liners white metal ring revolving on brass faced ring Is an approved Oil Gland or other appliance fitted at the after end of the tube Yes
with rubber compression ring Length of Bearing in Stern Bush next to and supporting propeller 3'-6"
 Propeller, dia. 13'-2" Pitch 13'-3" No. of Blades 4 Material C.I. whether Moveable Solid Total Developed Surface 58 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 18" Can one be overhauled while the other is at work Yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 18" Can one be overhauled while the other is at work Yes
 Feed Pumps No. and size How driven Pumps connected to the Main Bilge Line No. and size How driven
 Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size
 Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected both to Main Bilge Pumps and Auxiliary
 Bilge Pumps:—In Engine and Boiler Room In Holds, &c.
 In Pump Room

Main Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges.
 No. and size Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes.
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Are they fitted with Valves or Cocks.
 Are all Sea Connections fitted direct on the skin of the ship Are the Overboard Discharges above or below the deep water line.
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Blow Off Cocks fitted with a spigot and brass covering plate
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel How are they protected.
 What Pipes pass through the bunkers Have they been tested as per Rule
 What pipes pass through the deep tanks Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times.
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times 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
 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 Is the Shaft Tunnel watertight Is it fitted with a watertight door. worked from

MAIN BOILERS, &c.—(Letter for record S.V.) Total Heating Surface of Boilers 2750 sq. ft.
 Which Boilers are fitted with Forced Draft main Which Boilers are fitted with Superheaters Yes
 No. and Description of Boilers One Single Ended Working Pressure 200 LBS/sq. in.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes
 Can the donkey boiler be used for other than domestic purposes Yes
 PLANS. Are approved plans forwarded herewith for Shafting Yes Main Boiler Yes Auxiliary Boilers Yes Donkey Boilers Yes
 (If not state date of approval)
 Superheaters Yes General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements Yes

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes.
 State the principal additional spare gear supplied See list attached.

The foregoing is a correct description.
 For David Rowan & Co. Ltd. Manufacturer.
Arch. H. Grierson,

During progress of work in shops - - *1944 Mar 16 Apr 20 25 May 23 25 June 3 Aug 7 28 Oct 5 9 18 Nov 9 12 22 28 Dec 4 5 12 18 21 26 1945 Jan 4 11 22 23*
 16 20 Feb 7 8 10 15 22 26 Mar 8

Dates of Survey while building
 During erection on board vessel - - -
 Total No. of visits *35*

Dates of Examination of principal parts—Cylinders *21-12-44* Slides *30-1-45* Covers *21-12-44*
 Pistons *8-2-45* Piston Rods *8-2-45* Connecting rods *12-1-45*
 Crank shaft *4-12-44* Thrust shaft *21-12-44* Intermediate shafts *✓*
 Tube shaft *✓* Screw shaft *7-2-45* Propeller *7-2-45*
 Stern tube *to be machined & fitted at Aberdeen* Engine and boiler seatings Engines holding down bolts

Completion of fitting sea connections
 Completion of pumping arrangements Boilers fixed Engines tried under steam

Main boiler safety valves adjusted Thickness of adjusting washers
 Crank shaft material *S.M. Steel* Identification Mark *LLOYDS 12230 JS* Thrust shaft material *S.M. Steel* Identification Mark *LLOYDS 12230 JS*

Intermediate shafts, material *✓* Identification Marks *✓* Tube shaft, material *✓* Identification Mark *✓*
 Screw shaft, material *S.M. Steel* Identification Mark *LLOYDS 12230 JS* Steam Pipes, material *Steel* Test pressure *600 LBS/SQ IN* Date of Test *8-3-45*
Remainder of Steam Pipes to be tested at Aberdeen.

Is an installation fitted for burning oil fuel. Is the flash point of the oil to be used over 150° F.
 Have the requirements of the Rules for the use of oil as fuel been complied with *for Aberdeen Surveyors*
 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 *Yes*. If so, state name of vessel *"William Pearman" Glas. Rept. No. 65197*

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. The materials and workmanship are good. It has been dispatched to Aberdeen for installation in the vessel and upon the completion of satisfactory trials will, in my opinion, be eligible to be classed with record & L.M.C. with date and notation C.L.*

Certificate to be sent to
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee	£ 3 : 0 : 0	When applied for,
<i>£46 Glas. a/c</i>	<i>£ 36 : 16 : 0</i>	20 MAR 1945
Special	£ :	
<i>Aberdeen a/c</i>	<i>£ 9 : 4 : 0</i>	
Donkey Boiler Fee	£ :	When received,
Travelling Expenses (if any)	£ :	19

Gas Stevenson
 Engineer Surveyor to Lloyd's Register of Shipping.

Date **GLASGOW 20 MAR 1945**

FRI 29 JUN 1945

Committee's Minute
Referred for completion

See F.E. machy. rpt.

