

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Port of **Glasgow** 18 MAY 1932
 Date, First Survey 31-8-31 Last Survey 3-5-1932
 (Number of Visits 58)
 Tons { Gross 607
 Net 226
 Date of writing Report 19-5-32 When handed in at Local Office 9-5-32
 To. in Survey held at **Glasgow**
 Reg. Book. on the new steel S/S "ROYAL IRIS II."
 Built at **Glasgow** By whom built **Harland & Wolff Ltd** Yard No. **918 G** When built **1932**
 Engines made at **Glasgow** By whom made **D & W. Henderson & Co. Ltd** Engine No. **918 G** when made **1932**
 Boilers made at **Glasgow** By whom made **D & W. Henderson & Co. Ltd** Boiler No. **918 G** when made **1932**
 Rated Horse Power **185** Owners **Mayor, Aldermen & Burgesses of the Borough of Wallasey** Port belonging to **Liverpool**
 Horse Power as per Rule **185** Is Refrigerating Machinery fitted for cargo purposes **no** Is Electric Light fitted **yes**
 For which Vessel is intended **Mersey Ferry**

ENGINES, &c.—Description of Engines **Twin Triple expansion** Revs. per minute **140**
 of Cylinders **14 1/2 - 23 1/2 - 38"** Length of Stroke **24"** No. of Cylinders **6** No. of Cranks **6**
 Shaft, dia. of journals as per Rule **7.226** Crank pin dia. **7 1/4"** Crank webs Mid. length breadth **13 1/8"** Thickness parallel to axis **5"**
 as fitted **7.25** Mid. length thickness **5"** shrunk Thickness around eye-hole **3 3/16"**
 Intermediate Shafts, diameter as per Rule **6.882** Thrust shaft, diameter at collars as per Rule **7.226**
 as fitted **6 15/16"** as fitted **7 1/4"**
 Shafts, diameter as per Rule **7.81** Is the tube shaft fitted with a continuous liner **no**
 as fitted **8 1/2"** in tube { screw }
 Liners, thickness in way of bushes as per Rule **9 1/2"** as fitted **9 1/2"** Is the after end of the liner made watertight in the
 as fitted **none** as fitted **none**
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner **-**
 Liners are fitted, is the shaft lapped or protected between the liners **-** Is an approved Oil Gland or other appliance fitted at the after
 the tube shaft **yes** "United States" Length of Bearing in Stern Bush next to and supporting propeller **48"**
 Diameter, dia. **7-9"** Pitch **11-0"** No. of Blades **4** Material **Bronze** whether Moveable **no** Total Developed Surface **19.5** sq. feet
 Pumps worked from the Main Engines, No. **none** Diameter **-** Stroke **-** Can one be overhauled while the other is at work **-**
 Pumps worked from the Main Engines, No. **none** Diameter **-** Stroke **-** Can one be overhauled while the other is at work **-**
 No. and size **2, 8-6 x 15" (Halls)** Pumps connected to the Main Bilge Line { No. and size **Gen service single 8-6 x 15". Sanitary single 5 1/2 - 4 1/2 x 12"**
 How driven **Steam** How driven **Steam**
 Pumps, No. and size **Circulating pumps Gen service Lubricating Oil Pumps, including Spare Pump, No. and size none**
 independent means arranged for circulating water through the Oil Cooler **-** Suctions, connected to both Main Bilge Pumps and Auxiliary
 pumps;—In Engine and Boiler Room **Engine room - 1 @ 2 1/2". Boiler room - 3 @ 2 1/2".**
 Suctions, &c. **Forward - 2 @ 2".**

Water Circulating Pump Direct Bilge Suctions, No. and size **1 @ 6"** Independent Power Pump Direct Suctions to the Engine Room Bilges,
 size **1 @ 2 1/2"** Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes **yes**
 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 **yes**
 Sea Connections fitted direct on the skin of the ship **yes** Are they fitted with Valves or Cocks **both**
 fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates **yes** Are the Overboard Discharges above or below the deep water line **above**
 each fitted with a Discharge Valve always accessible on the plating of the vessel **all valves in inner shell** Are the Blow Off Cocks fitted with a spigot and brass covering plate **yes**
 Pipes pass through the bunkers **none** How are they protected **-**
 Pipes pass through the deep tanks **none** Have they been tested as per Rule **-**
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times **yes**
 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 **none** Is it fitted with a watertight door **-** worked from **-**

BOILERS, &c.—(Letter for record **S**) Total Heating Surface of Boilers **3171 sq ft**
 Draft fitted **no** No. and Description of Boilers **Three SB** Working Pressure **200**
 REPORT ON MAIN BOILERS NOW FORWARDED? **yes**
 DONKEY BOILER FITTED? **no** If so, is a report now forwarded? **-**

S. Are approved plans forwarded herewith for Shafting **yes** Main Boilers **yes** Auxiliary Boilers **-** Donkey Boilers **-**
 (If not state date of approval)
 General Pumping Arrangements **yes** Oil fuel Burning Piping Arrangements **-**

E GEAR. State the articles supplied:— **as per Rule and in addition, 1 eccentric complete, pair bottom end brasses, one air pump bracket, 2 sets of US packing for piston and valve spindles.**

The foregoing is a correct description,
DAVID & WILLIAM HENDERSON & CO., LIMITED.

T. P. Patil Director

Manufacturer.



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Lloyd's Register
 Foundation

007407-007415-0074

Dates of Survey while building

During progress of work in shops - - -
During erection on board vessel - - -

Total No. of visits

1931 Aug 31 Oct 22 Nov 4 9 11 16 17 20 26 27 30 Dec 2 7 10 11 14 16 21 23 24 (1931)

Jan 12 13 19 22 26 27 Feb 1 2 3 4 11 15 19 21 23 26 29 Mar 1 4 8 9 10 11 14 15 25
Apr 1 4 6 7 8 11 14 18 28 29 May 3

Dates of Examination of principal parts—Cylinders

Pistons

Crank shaft

Tube shaft

Stern tube

Completion of fitting sea connections

Completion of pumping arrangements

Main boiler safety valves adjusted

Crank shaft material

Intermediate shafts, material

Screw shaft, material

Is an installation fitted for burning oil fuel

Have the requirements of the Rules for the use of oil as fuel been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

Is this machinery duplicate of a previous case

General Remarks

12-1-32

26-1-32

1-2-32

23-2-32

9-3-32

9-3-32

18-4-32

29-4-32

J. Steel

J. Steel

J. Steel

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12-1-32

19-2-32

1-2-32

23-2-32

9-3-32

9-3-32

18-4-32

29-4-32

J. Steel

J. Steel

J. Steel

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Slides

Connecting rods

Intermediate shafts

Propellers

Engines holding down bolts

Engines tried under steam

Boilers fixed

Thickness of adjusting washers

Thrust shaft material

Tube shaft, material

Steam Pipes, material

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

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

Is this machinery duplicate of a previous case

General Remarks

The materials and workmanship are good

The machinery has been constructed under Special Survey in accordance

with the Rules, satisfactorily fitted in the vessel, tried under steam

found good. It is eligible in my opinion for Classification and

the Record. LMC 5.32 - Subject to the fore and after peak

being made non-return. This has since been done at Liverpool

letter 12-5-32.

The vessel has left for Seaworth where it is stated the fore and after peak

valves will be made non return. Liverpool Surveyors advised.

11-2-32

13-1-32

23-2-32

19-2-32

4-4-32

3-5-32

14-4-32

14-4-32

J. Steel

J. Steel

Steel

600

4-4

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11-2-32

13-1-32

23-2-32

19-2-32

4-4-32

3-5-32

14-4-32

14-4-32

J. Steel

J. Steel

Steel

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4-4

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11-2-32

13-1-32

23-2-32

19-2-32

4-4-32

3-5-32

14-4-32

14-4-32

J. Steel

J. Steel

Steel

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4-4

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GLASGOW

Certificate to be sent to

The amount of Entry Fee ... £ 3 :
Special ... £ 46 : 5
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ :

When applied for, 13.5.1932
When received, 28/5/1932