

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

-4 JUL 1934

Date of writing Report 29-6-1934 When handed in at Local Office 30.6.1934 Port of Glasgow

No. in Survey held at Blydebank & Bowling Date, First Survey 13.2.34 Last Survey 28.6.1934
 Reg. Book 8.8. "Thorn" (Number of Visits 30) Tons Gross 347
on the 8.8. "Thorn" Net 121

Built at Bowling By whom built Scott & Sons Yard No. 326 When built 1934

Engines made at Blydebank By whom made Aitchison Blair & Co. Engine No. 187 When made 1934

Boilers made at Glasgow By whom made D. Rowan & Co. Boiler No. 393 When made 1934

Registered Horse Power _____ Owners Frontier Towing & S. Co. Ltd Port belonging to Harpy

Nom. Horse Power as per Rule 79 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

Trade for which Vessel is intended Coasting

ENGINES, &c.—Description of Engines Triple expansion Revs. per minute 130

Dia. of Cylinders 11 1/2" - 20" - 32" Length of Stroke 24" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals 6 5/8" Crank pin dia. 6 5/8" Crank webs 13 1/8" Thickness parallel to axis 4 5/16"
 as fitted 6 5/8" Mid. length thickness 4 5/16" shrunk Thickness around eye-hole 3 1/4"

Intermediate Shafts, diameter as per Rule _____ as fitted none Thrust shaft, diameter at collars as per Rule 6 5/8" as fitted _____

Tube Shafts, diameter as per Rule _____ as fitted none Screw Shaft, diameter as per Rule 7 1/4" Is the { tube } shaft fitted with a continuous liner { yes }

Bronze Liners, thickness in way of bushes as per Rule 19/32" Thickness between bushes as per Rule 9/16" Is the after end of the liner made watertight in the 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 light

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 30"

Propeller, dia. 9'-0" Pitch 9'-3" No. of Blades 4 Material C.C. whether Moveable yes Total Developed Surface 28 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 2" Stroke 12 1/2" Can one be overhauled while the other is at work yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 2" Stroke 12 1/2" Can one be overhauled while the other is at work yes

Feed Pumps { No. and size 1-5" x 3 1/2" x 6" Pumps connected to the { No. and size 1-6 1/4" x 5" x 6" (Ballast pumps) }
 How driven Steam Main Bilge Line How driven Steam

Ballast Pumps, No. and size 1-6 1/4" x 5" x 6" Lubricating Oil Pumps, including Spare Pump, No. and size none

Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 1-2 1/2", 2-2"

In Pump Room 3-2 1/4"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-3 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-2 1/2" Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes yes

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 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 stokehold plates yes Are the Overboard Discharges above or below the deep water line Above

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 suction & fore peak How are they protected Wood ceiling

What pipes pass through the deep tanks none Have they been tested as per Rule yes

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 none Is it fitted with a watertight door yes worked from yes

MAIN BOILERS, &c.—(Letter for record 8) Total Heating Surface of Boilers 1489 sq

Is Forced Draft fitted no No. and Description of Boilers 1- multitubular Working Pressure 205

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes

IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? yes

Is the donkey boiler intended to be used for domestic purposes only yes

PLANS. Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers yes Donkey Boilers yes
 (If not state date of approval)

Superheaters _____ 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 2- propeller blades.

The foregoing is a correct description,

Manufacturer.

AITCHISON BLAIR LIMITED

Arch. Blair

Lloyd's Register

002846-002852-0042

NOTE.—The words which do not apply should be deleted.

Dates of Survey while building

During progress of work in shops -- 1934 July: 13 Mar: 1, 8, 13, 22, 28 Apr: 3, 11, 19, 25 May: 2, 10, 16, 18, 23

During erection on board vessel --- 1934 Mar: 26 Apr: 11, 16 May: 2, 4, 9, 17, 29 June: 3, 8, 11, 18, 22, 28

Total No. of visits 30

Dates of Examination of principal parts—Cylinders 8-3-34 etc Slides 28-3-34 etc Covers 28-3-34 etc

Pistons 1-3-34 etc Piston Rods 13-2-34 etc Connecting rods 1-3-34 etc

Crank shaft 13-3-34 etc Thrust shaft 13-3-34 etc Intermediate shafts 9-4-34 etc

Tube shaft Screw shaft 3-4-34 etc Propeller 25-4-34 etc

Stern tube 28-3-34 etc Engine and boiler seatings 4-5-34 Engines holding down bolts 13-6-34

Completion of fitting sea connections 17-6-34

Completion of pumping arrangements 22-6-34 Boilers fixed 5-6-34 Engines tried under steam 22-6-34

Main boiler safety valves adjusted 22-6-34 Thickness of adjusting washers P 5/16. S 1/32"

Crank shaft material S Identification Mark 9384 Thrust shaft material S Identification Mark 9384

Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark

Screw shaft, material S Identification Mark 9429 Steam Pipes, material Copper Test pressure 410 Date of Test 13-6-34

Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F. Yes

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

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

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with Yes

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

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under special survey in accordance with the approved plans and the Society's Rules and requirements, the materials and workmanship are good, it has been securely fitted on board and satisfactorily tried under steam, and is in our opinion eligible for the record + L.M.C. 6-34.

30/6/34

GLASGOW

The amount of Entry Fee ... £ 2 : -

3/5 Special ... £ 11 : 17 : 29.6.34

Donkey Boiler Fee ... £ : : : When received, 2.7.34

Travelling Expenses (if any) £ : : : When applied for, 29.6.34

Jas. Cairns, W. Deth.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 3 JUL 1934

Assigned + L.M.C. 6.34

GLASGOW

The Surveyors are requested not to write on or below the space for Committee's Minute.

CERTIFICATE WRITTEN

