

REPORT ON MACHINERY.

No. 42290

Received at London Office

WED. NOV. 15 1922

Date of writing Report Nov¹¹th 1922 When handed in at Local Office Nov¹¹th 1922 Port of

GLASGOW

No. in Survey held at
Reg. Book.

Troon

Date, First Survey Jan 28th 1921 Last Survey Nov¹st 1922.

(Number of Visits 34)

on the Twin Screw Ferry.

FRANCIS STOREY.

Master

Built at

Troon

By whom built

Ailsa S.B. Co Ltd.

When built

1922.

Engines made at

Troon

By whom made

Ailsa S.B. Co Ltd

N° 118

when made

1922.

Boilers made at

Glasgow

By whom made

Dunsmuir & Jackson Ltd B144

when made

1922.

Registered Horse Power

Owners

Wallesey Corporation

Port belonging to

Liverpool.

Nom. Horse Power as per Section 28

184.

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines Twin Screw 4 Cylinder Triple No. of Cylinders 8 No. of Cranks 8

Dia. of Cylinders 15, 2 3/2, 25 3/4 25 3/4 Length of Stroke 21 Revs. per minute 145 Dia. of Screw shaft as per rule 8.08 Material of screw shaft MS

Is the screw shaft fitted with a continuous liner the whole length of the stern tube No liners Is the after end of the liner made water tight

in the propeller boss Yes If the liner is in more than one length are the joints burned — 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 Vickers Gland fitted to shafts Length of stern bush 4'-0"

Dia. of Tunnel shaft as per rule 4.19 Dia. of Crank shaft journals as per rule 4.55 Dia. of Crank pin 4 5/8 Size of Crank webs 16" x 5 1/2 Dia. of thrust shaft under

collars 4 5/8 Dia. of screw 4' 6" Pitch of Screw 11' 3" No. of Blades 4 State whether moveable No Total surface 28 sq. ft.

No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work —

No. of Bilge pumps 2 Diameter of ditto Stroke Can one be overhauled while the other is at work Yes

No. of Donkey Engines 9 Sizes of Pumps See over. No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room One @ 2 1/2" Strokehold 2 @ 2 1/2" 1 @ 2 1/2" In Holds, &c. For One @ 2"

No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 2 3/4"

Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible None

Are all connections with the sea direct on the skin of the ship Yes Are they 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 Discharge Pipes 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 are carried through the bunkers Ballast How are they protected Wood Casing.

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

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door — worked from —

BOILERS, &c.—(Letter for record S.C.) Manufacturers of Steel

Total Heating Surface of Boilers 3498 sq. ft. Is Forced Draft fitted No No. and Description of Boilers 2 Navy Type.

Working Pressure 200 lbs Tested by hydraulic pressure to Date of test No. of Certificate 16005

Can each boiler be worked separately Yes Area of fire grate in each boiler No. and Description of Safety Valves to

each boiler 2 Spring-loaded Area of each valve 4.06 sq. ft. Pressure to which they are adjusted 205 lbs Are they fitted with easing gear Yes.

Smallest distance between boilers or uptakes and bunkers or woodwork 3' 3" Mean dia. of boilers Length Material of shell plates

Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell

Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules

Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

Area at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and

thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each

Working pressure by rules Steam dome: description of joint to shell % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to

Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

003349-003356-0205

IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded? —

SPARE GEAR. State the articles supplied:— 2 HP top end bolts and nuts 2 HP bottom end bolts & nuts 2 LP top end and two LP bottom end bolts and nuts. 2 main bearing bolts A quantity of assorted bolts and iron of various sizes 1 set of feed and bilge pump valves.

The foregoing is a correct description,
FOR AILS SHIPBUILDING CO., LIMITED.

McNaughton
ENGINEER-MANAGER

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1921 Jan 28 Feb 2 11 16 22 Mar 1 May 13 Nov 9 25 Dec 6 9 13 1922 Jan 31 Feb 17 21 27 Mar 6 7 24 May 23 Jun 1 7 26 Jul 7 11
During erection on board vessel -- Aug 11 24 25 Sep 18 Oct 6 17 26 31 Nov 1
Total No. of visits 34.

Is the approved plan of main boiler forwarded herewith Yes

" " " donkey " " " —

Dates of Examination of principal parts—Cylinders 25-11-21 Slides 25-11-21 Covers 25-11-21 Pistons 25-11-21 Rods 6-3-22

Connecting rods 6-3-22 Crank shaft 13-12-21 Thrust shaft 14-2-22 Tunnel shafts 14-2-22 Screw shaft 14-2-22 Propeller 9-12-21

Stern tube 6-3-22 Steam pipes tested 11-8-22 Engine and boiler seatings 23-5-22 Engines holding down bolts 11-4-22

Completion of pumping arrangements 26-10-22 Boilers fixed 4-4-22 Engines tried under steam 1-11-22

Completion of fitting sea connections 4-3-22 Stern tube 4-3-22 Screw shaft and propeller 23-5-22

Main boiler safety valves adjusted 26-10-22 Thickness of adjusting washers PBFV 15 32 PBAV 16 SBFV 21 64 SBAV 33 64

Material of Crank shaft S Identification Mark on Do. LLOYDS No 118 DCB 13-2-22 Material of Thrust shaft S Identification Mark on Do. LLOYDS No 6834 DCB 14-2-22

Material of Tunnel shafts S Identification Marks on Do. LLOYDS No 6834 DCB 14-2-22 Material of Screw shafts MS Identification Marks on Do. LLOYDS No 6834 DCB 14-2-22

Material of Steam Pipes S.D. Copper Test pressure 400 lbs.

Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes

Have the requirements of Section 49 of the Rules been complied with Yes

Is this machinery duplicate of a previous case Yes If so, state name of vessel J. Farley.

General Remarks (State quality of workmanship, opinions as to class, &c.

DONKEY PUMPS. 2 Feed pumps $4\frac{1}{2} \times 5 \times 10$ 1 Gen. Service pump $4\frac{1}{2} \times 5 \times 10$
1 Sanitary pump $4\frac{1}{2} \times 3 \times 5$ 1 Combined Air and Circulating pump $14 \times 16 \times 15$. 1 Pulsometer. 2 oil fuel pumps $3 \times 4\frac{1}{2} \times 6$. 1 Oil fuel transfer pump. $4 \times 3 \times 6$

The engines have been constructed under Special Survey in accordance with the Rules of the Society. The workmanship and materials are of good quality. The engines and boilers have been securely fitted on board and tried under steam with satisfactory results.

It is submitted that this vessel is eligible for a record of LMC 11-22 in the Register Book, and to have record of Fitted for oil fuel F.P. above 150°F. 11-22.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 11.22. O.G.

"Fitted for oil fuel" 11.22. F.P. above 150°F.

The amount of Entry Fee ... £ 3 : 0
Special ... £ 28 : 1
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 4 : 10

When applied for,

When received,

David C Barr.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 14 NOV 1922

Assigned + LMC 11.22.

Fitted for oil fuel 11.22 F.P. above 150°F.



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