

REPORT ON MACHINERY

No. 12809.

THU. OCT. 6 1921

Received at London Office

Writing Report

19

When handed in at Local Office

5. 10. 1921

Port of

Aberdeen

Survey held at

Aberdeen

Date, First Survey

12. 3. 20

Last Survey

7. 7. 1921

Book

(Number of Visits 60.)

on the

Single sc. "CAIRNSIDE"

er

Built at Aberdeen

By whom built

A. Hallbygd No. 590

When built

1921

Gross 55945

Net 25055

nes made at

Aberdeen

By whom made

A. Hallbygd No. 283

when made

1921

rs made at

do

By whom made

do do No. 245

when made

1921

tered Horse Power

86

Owners

Thomas Rose

Port belonging to Sunderland

Horse Power as per Section 28

108.3

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

INES, &c.—Description of Engines

Triple expansion

No. of Cylinders 3

No. of Cranks 3

of Cylinders

15 1/2, 25, 42

Length of Stroke

24

Revs. per minute

106

Dia. of Screw shaft

8 1/2

Material of screw shaft

steel

screw shaft fitted with a continuous liner the whole length of the stern tube no liner fitted

propeller boss yes If the liner is in more than one length are the joints burned

on the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

are fitted, is the shaft lapped or protected between the liners

of Tunnel shaft as per rule 4.544 7.6 Dia. of Crank shaft journals as per rule 7.955 7.98

s 8 1/2 Dia. of screw 9 1/2 Pitch of Screw 11 1/2 No. of Blades 4 State whether moceable no Total surface 38 1/2

of Feed pumps 2 Diameter of ditto 2 1/2 Stroke 14 Can one be overhauled while the other is at work yes

of Bilge pumps 2 Diameter of ditto 2 1/2 Stroke 14 Can one be overhauled while the other is at work yes

of Donkey Engines 4 Sizes of Pumps General 6x4x6 duplex Ballast 6x6x6 No. and size of Suctions connected to both Bilge and Donkey pumps

ngine Room One of 2 1/2 (aft) - Storehold, one each wing 2 1/2 In Holds, &c. one each wing 2 1/2

of Bilge Injections 1 sizes 4 Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size yes: 2 1/2

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

all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Both valves & cocks

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 below

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

of pipes are carried through the bunkers Suctions from Hold How are they protected Strong wood casing

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

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

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

ERS, &c.—(Letter for record (S)) Manufacturers of Steel Glasgow Iron & Steel Coy Ltd.

Heating Surface of Boilers 1492.27 Is Forced Draft fitted no No. and Description of Boilers One, cyl. & mult. single ended

king Pressure 180 lbs. Tested by hydraulic pressure to 320 lbs. Date of test 12. 4. 21 No. of Certificate 1004

each boiler be worked separately Area of fire grate in each boiler 44.6 No. and Description of Safety Valves to

boiler 2: direct spring Area of each valve 5.94 Pressure to which they are adjusted 180 lbs. Are they fitted with easing gear yes

least distance between boilers or uptakes and bunkers or woodwork about 8" INTERNAL Mean dia. of boilers 14.6 Length 10.276 Material of shell plates S

ness 1 3/16 Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams d. n. lap

seams double straps Diameter of rivet holes in long. seams 1 1/4 Pitch of rivets 2-43 1/2 Lap of plates or width of butt straps 18 1/2 x 1 7/8

percentages of strength of longitudinal joint rivets 84.8 Working pressure of shell by rules 182.9 Size of manhole in shell 16 x 12

of compensating ring Incheil No. and Description of Furnaces in each boiler 3 plain (with draw) Material S Outside diameter 43 1/2

th of plain part top 70 1/2 Thickness of plates crown 3 1/2 Description of longitudinal joint weld No. of strengthening rings

king pressure of furnace by the rules 182.9 Combustion chamber plates: Material S Thickness: Sides 22 32 Back 1/16 Top 32 Bottom 32

h of stays to ditto: Sides 10 x 9 1/2 Back 10 x 9 Top 10 x 9 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180.6

erial of stays S Area at smallest part 2.04 Area supported by each stay 90 Working pressure by rules 207. End plates in steam space:

erial S Thickness 1 1/4 Pitch of stays 20 1/2 x 19 1/2 How are stays secured d. n. v. l. Working pressure by rules 184.8 Material of stays S

z at smallest part 4.24 Area supported by each stay 400 Working pressure by rules 188. Material of Front plates at bottom S

ickness 13/16 Material of Lower back plate S Thickness 3/32 Greatest pitch of stays 11 1/16 x 10 Working pressure of plate by rules 205.3

meter of tubes 3 1/2 ext Pitch of tubes 4 3/4 x 4 5/8 Material of tube plates S Thickness: Front 13/16 & 7/16 d. l. Back 3/4 Mean pitch of stays 9 3/8

h across wide water spaces 14 1/2 Working pressures by rules F. 203.6 B. 229.3 Girders to Chamber tops: Material S Depth and

ickness of girder at centre 8 1/2 x 1 1/2 Length as per rule 30 1/2 Distance apart 10 Number and pitch of stays in each two: 9 1/2

rking pressure by rules 194.4 Steam dome: description of joint to shell None % of strength of joint

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

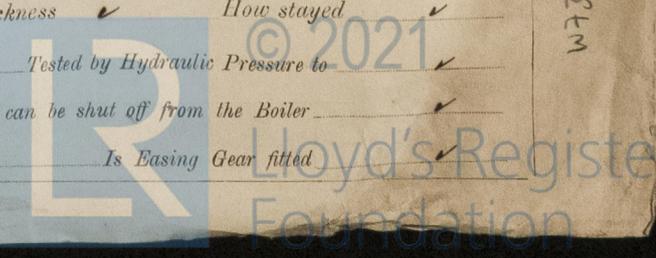
h of rivets Working pressure of shell by rules Crown plates Thickness How stayed

ERHEATER. Type None Date of Approval of Plan Tested by Hydraulic Pressure to

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

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

737-007M



IS A DONKEY BOILER FITTED? *Yes.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *2 Top & 2 bottom end, bolts & nuts. 2 main bearing & 1 set. Coax bolts & nuts: 1 set each. Cliv, Feed & Bilge pump valves: 1 each main & donkey check valve. bolts and nuts assorted, and iron of various sizes.*

The foregoing is a correct description,
For ALEXANDER HALL & CO., LTD

A. H. Mc...

SECRETARY.

Manufacturer of Main Engines & Boilers

Dates of Survey while building { During progress of work in shops -- } *1920* Mar. 12, 18, 25, 31. Apr. 8, 14, 22, 28. May 8, 11, 19, 25, 31. June 14, 17, 29. July 6, 14. Aug 10, 16, 26. Sep 1. { During erection on board vessel -- } *1921* Oct. 6, 19. Nov. 10. Dec. 9, 21. Jan 11, 19, 31. Feb 4, 9, 15, 17, 24. Mar 5, 15, 21, 23, 29. Apr 12, 22. May 5, 6, 12. Total No. of visits *60.* June 6, 10, 14, 20, 23, 29. July 1, 2, 4, 6, 7.

Dates of Examination of principal parts—Cylinders *29.3.21* Slides *17.2.21* Covers *5.3.21* Pistons *12.4.21* Rods *5.10.21* Connecting rods *5.10.20* Crank shaft *14.6.20* Thrust shaft *19.1.21* Tunnel shafts ✓ Screw shaft *19.1.21* Propeller *23.3.21* Stern tube *29.3.21* Steam pipes tested *25.5.21*. Engine and boiler seatings *17.2.21*. Engines holding down bolts *25.5.21*.

Completion of pumping arrangements *20.6.21*. Boilers fixed *25.5.21*. Engines tried under steam *4.7.21*. Completion of fitting sea connections *22.4.21*. Stern tube *22.4.21*. Screw shaft and propeller *22.4.21*. Main boiler safety valves adjusted *4.7.21*. Thickness of adjusting washers *Starboard 3/8" - Port 1/2" base.*

Material of Crank shaft *S.* Identification Mark on Do. *1318A* Material of Thrust shaft *S.* Identification Mark on Do. *1353*. Material of Tunnel shafts *None* Identification Marks on Do. ✓ Material of Screw shafts *S.* Identification Marks on Do. *1352*. Material of Steam Pipes *Copper solid drawn 4 1/2" bore, No 5 W.G.* Test pressure *360 lbs per sq inch.*

Is an installation fitted for burning oil fuel *no.* Is the flash point of the oil to be used over 150°F. ✓ Have the requirements of Section 49 of the Rules 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.)
*These Engines, and the Boiler, have been constructed under Special Survey and in accordance with the Secretary's letters, the Rules, and approved plans. The materials and workmanship are good, and on completion they together with the Donkey Boiler (Gls Rept. No. 40891) were properly fitted on board the vessel and tried under steam with satisfactory results, and are now in good order and in my opinion entitled to the record * L.M.C. 21. in the Register Book.*

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 7.21

AWD
13/10/21

Ridley Howell
Engineer Surveyor of Lloyd's Register of Shipping.

The amount of Entry Fee ... £ *3* : - : When applied for, :
Special ... £ *27* : - : *5.10.1921*
Donkey Boiler Fee ... £ : : :
Travelling Expenses (if any) £ : : : *8.10.21*

Committee's Minute
Assigned *14 1921*
+ L.M.C. 7.21

Aberdeen Office.

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

