

REPORT ON MACHINERY

No. 11969
MON. 30 JUL. 1917

Received at London Office

When handed in at Local Office 28. 4. 1917 Port of Aberdeen
held at Aberdeen Date, First Survey 11. 9. 16 Last Survey 22. 6. 1917
S.S. Redhall (Number of Vessels 51)

Built at Aberdeen By whom built Hall Russell & Co. Ltd. No. 599 When built 1914
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do By whom made do do do when made 1914

se Power 148. Owners Aberdeen Coal Co. Ltd. Port belonging to Aberdeen
as per Section 28 148. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

&c. — Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3
14 1/2", 29", 44" Length of Stroke 33" Revs. per minute 90 Dia. of Screw shaft 10 1/2" Material of brass
shaft fitted with a continuous liner the whole length of the stern tube yes Is the after end of the liner made water tight

er boss yes If the liner is in more than one length are the joints burned length If the liner does not fit tightly at the part
arings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes If two

is the shaft lapped or protected between the liners yes Length of stern bush 3' 6"
as per rule 8. 823 Dia. of Crank shaft journals 9 1/2" as per rule 9. 264 Dia. of Crank pin 9 1/2" Size of Crank webs 14" x 6 3/4" Dia. of thrust shaft under
as fitted 9 1/2" as fitted 9 1/2"

Dia. of screw 12' 3" Pitch of Screw 14' 0" No. of Blades 4 State whether moveable no Total surface 44 1/2"
pumps 2 Diameter of ditto 2 1/8" Stroke 18" Can one be overhauled while the other is at work yes
pumps 2 Diameter of ditto 2 1/8" Stroke 18" Can one be overhauled while the other is at work yes

ey Engines Two Sizes of Pumps Ballast 6 x 4 1/2 x 6 duplex No. and size of Suctions connected to both Bilge and Donkey pumps
Room 2 of 2 1/2'

In Holds, &c. Main Hold 2 of 2 1/2'
old 2 wing 2 1/2' + one to after hold well, and to tunnel well each side

Injections 1 size 3" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size yes 2 1/2"
ilge 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

ections with the sea direct on the skin of the ship yes Are they Valves or Cocks both
ed 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

h 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
s are carried through the bunkers Suctions from main hold How are they protected wood limbers

ipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
ilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes

examination of completion of fitting of Sea Connections 6. 3. 14 of Stern Tube 14. 3. 14 Screw shaft and Propeller 2. 4. 14
rew Shaft Tunnel watertight apparently Is it fitted with a watertight door yes worked from upper grating of engine room

RS, &c. — (Letter for record (r)) Manufacturers of Steel W. Beardmore & Co. Ltd. - L. Colville & Sons Ltd.

ating Surface of Boilers 3300 1/2 Is Forced Draft fitted no No. and Description of Boilers 2 cyl, mult, single ended
g Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test S. 26. 4. 14 No. of Certificate S. 905

h boiler be worked separately yes Area of fire grate in each boiler 52 1/2 No. and Description of Safety Valves to
ler 2 direct spring Area of each valve 5. 94 Pressure to which they are adjusted 180 lbs Are they fitted with easing gear yes

t distance between boilers or uptakes and bunkers or woodwork bunkers no side Inside Mean dia. of boilers 13' 6" Length 10' 6" Material of shell plates S.
as 1 1/8" Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams cl. 7 lap

ams double straps Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 8 3/8" now 2 rows 4 1/2" Lap of plates or width of butt straps 8 1/2" x 0.07
tages of strength of longitudinal joint rivets 84.4 Working pressure of shell by rules 186.4 Size of manhole in shell 16" x 12"

compensating ring 28" dia x 1" No. and Description of Furnaces in each boiler 3 corrugated Material S. Outside diameter 42 1/4"
of plain part top 2" Thickness of plates crown 1 1/4" bottom 3/32 Description of longitudinal joint weld No. of strengthening rings 1

ng pressure of furnace by the rules 193.6 Combustion chamber plates: Material S. Thickness: Sides 3/32 Back 3/32 Top 1/16 Bottom 3/32
of stays to ditto: Sides 10" x 1 1/4" Back 9 1/4" x 8 1/2" Top 11" x 1 1/4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 188.6

ial of stays Iron Diameter at smallest part 1 9/16" Area supported by each stay 48.6 Working pressure by rules 183.9 End plates in steam space:
ial S. Thickness 1 5/32 Pitch of stays 18 3/4" x 18 3/4" How are stays secured cl. 7 + 10 Working pressure by rules 180.1 Material of stays S.

eter at smallest part 2 1/16" Area supported by each stay 35.1 Working pressure by rules 184 Material of Front plates at bottom S.
ness 1" Material of Lower back plate S. Thickness 3/8" Greatest pitch of stays 14 1/4" x 9 1/4" Working pressure of plate by rules 183.4

eter of tubes 3 1/2" ex Pitch of tubes 4 3/4" x 4 5/8" Material of tube plates S. Thickness: Front 1" Back 13/16" Mean pitch of stays 11 1/16"
h across wide water spaces 14 1/2" Working pressures by rules B. 204.1 Girders to Chamber tops: Material S. Depth and

ness of girder at centre 9 1/2" x 1 3/4" Length as per rule 32 1/2" Distance apart 11" Number and pitch of stays in each three, 4"
king pressure by rules 184.6 Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked

ately yes Diameter yes Length yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet
Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yes

tified with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yes
orking pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes

003767-003768-0030

IS A DONKEY BOILER FITTED? *yes.*

If so, is a report now forwarded? *yes.*

SPARE GEAR. State the articles supplied:— *Two top end bolts & nuts; 2 bottom end bolts & nuts; 2 main bearing & 1 set coupling bolts & nuts; 1 set each, Air, circulating, Feed & Bilge pump valves; 1 each, main & donkey check valves; 1 Safety valve spring; bolts and nuts assorted, and iron of various sizes.*

The foregoing is a correct description,

for **HALL, RUSSELL & CO. LTD.**

James Hunter

Manufacturers of main Engines & Boilers—

Dates of Survey while building { During progress of work in shops - - - *1916 Sept. 11, 14 - Oct. 13, 23. Nov. 13, 22, 30 - Dec. 12, 19, 29 - 1917 Jan. 6, 15, 14, 22, 25 - Feb. 4, 9, 22, 23, 28 - Mar. 2, 6, 12, 14, 15, 21, 23, 28, 29 - Apr. 2, 9, 11, 12, 16, 18, 23, 26, 30 - May 2, 9, 10, 16, 24, 30*
During erection on board vessel - - -
Total No. of visits *51.* *June 1, 8, 14, 22, 23 /* Is the approved plan of main boilers forwarded herewith *yes.*

Dates of Examination of principal parts—Cylinders *30, 29, 6, 22, 6, 21* Slides *29, 6* Covers *29, 14, 9, 21* Pistons *29, 14, 9, 21* Rods *29, 14, 9, 21*
Connecting rods *22, 29, 4, 21* Crank shaft *13, 19, 15, 5* Thrust shaft *6, 15, 4, 9* Tunnel shafts *29, 14, 9, 21* Screw shaft *29, 14, 9, 21* Propeller *6, 3*
Stern tube *4, 2, 6* Steam pipes tested *16, 5, 14* Engine and boiler seatings *18, 12, 16* Engines holding down bolts *12, 16, 24*
Completion of pumping arrangements *26, 4, 14* Boilers fixed *24, 5, 14* Engines tried under steam *30, 5, 14*
Main boiler safety valves adjusted *30, 5, 14* Thickness of adjusting washers *Port Boiler P¹⁰ 5 5/8" - Starb Boiler P¹⁰ 5 3/8"*
Material of Crank shaft *steel* Identification Mark on Do. *1065A* Material of Thrust shaft *steel* Identification Mark on Do. *1067A*
Material of Tunnel shafts *Iron* Identification Marks on Do. *1068A, 1069A, 1070A* Material of Screw shafts *Iron* Identification Marks on Do. *1071A*
Material of Steam Pipes *Copper, solid drawn 4" bore No 6, 3rd 9. 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. *yes.*

Have the requirements of Section 49 of the Rules been complied with *yes.*

Is this machinery duplicate of a previous case *no.* If so, state name of vessel *yes.*

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

*These Engines and Boilers 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 (See separate Report) were properly fitted on board the vessel, and tried under steam at moorings with satisfactory results, and are now in good order, and in my opinion entitled to the record * L.M.C. 6.17. in the Register Book.*

It is submitted that
this vessel is eligible for
THE RECORD: + L.M.C. 6.17.

J.M. H.W.
30/7/17

The amount of Entry Fee ... £ *2:* : When applied for,
Special ... £ *26: 14* : *28.4.1917*
Donkey Boiler Fee ... £ *2: 2* : When received,
Travelling Expenses (if any) £ : : *11/9/17*

Ridley Howell
Engineer-Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute *TUE JUL 31 1917*

Assigned *+ L.M.C. 6.17*

TUE 14 AUG 1917



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