

REPORT ON MACHINERY.

No. 78516

Received at London Office

12 NOV 1924

Date of writing Report 19 When handed in at Local Office 8/11/1924 Port of NEWCASTLE-ON-TYNE

No. in Survey held at South Shields Date, First Survey 2nd June 1924 Last Survey 5th Nov 1924
 Reg. Book. on the Steamer ABEILLE 20 (Number of Visits 20.)

Master Built at S. Shields By whom built J. P. Remoldson & Co. When built

Engines made at S. Shields By whom made J. P. Remoldson & Co. when made 1924. 9

Boilers made at S. Sunderland By whom made George Clark & Co. Ltd when made 1924.

Registered Horse Power 83 Owners Cie. de Romang & de Samselag } Port belonging to Havre
 Led. Abeille }

Nom. Horse Power as per Section 28 83 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple Exp^d Condensing No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 12 1/4" 21" 33" Length of Stroke 24" Revs. per minute 120 Dia. of Screw shaft as per rule 7 1/4" Material of screw shaft S.I.
 as fitted 7 5/8"

Is the screw shaft fitted with a continuous liner the whole length of the stern tube no Is the after end of the liner made water tight in the propeller boss no 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 no liners Length of stern bush 2'-6"

Dia. of Funnel shaft as per rule 6.3" Dia. of Crank shaft journals as per rule 6.61" Dia. of Crank pin 6 3/4" Size of Crank webs 12 1/2" x 4 1/2" Dia. of thrust shaft under collars 6 3/4" Dia. of screw 8'-8" Pitch of Screw 11'-6" No. of Blades 4 State whether moveable no Total surface 22'8"

No. of Feed pumps 2 Diameter of ditto 2 1/4" Stroke 12" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 2 5/8" Stroke 12" Can one be overhauled while the other is at work yes

No. of Donkey Engines 2 Sizes of Pumps 4 1/2" x 3" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps 6" x 7 1/2" x 6"

In Engine Room two, 2" diam In Holds, &c. one Ford Hold, one Ford Tank, one aft Hold, one aft Tank, all 2" diam

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

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 Main Steam aux. steam, Main & D. Feed, Eng. How are they protected steel 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 (5) Manufacturers of Steel

Total Heating Surface of Boilers 1613 sq ft Is Forced Draft fitted no No. and Description of Boilers 1 SB one single ended

Working Pressure 180 lbs Tested by hydraulic pressure to — Date of test — No. of Certificate 3901

Can each boiler be worked separately — Area of fire grate in each boiler 45.2 sq ft No. and Description of Safety Valves to each boiler two direct spring Area of each valve 11.06" Pressure to which they are adjusted 182 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 14" 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

Percentages 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

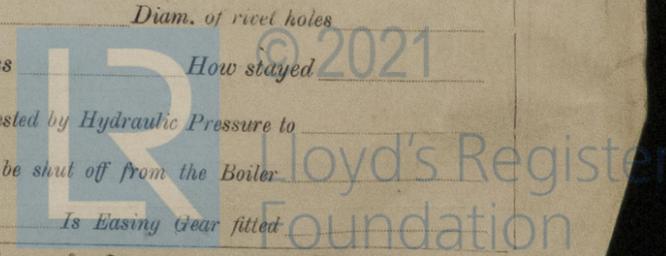
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

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

011586-011594-0215



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

SPARE GEAR. State the articles supplied:— 2 Con. Rod. bottom end bolts & nuts, 2 Con. Rod top end bolts & nuts, 2 main bearing bolts, one set coupling bolts, one set of fuel & bilge pump valves 6 piston bolts, 1/2 cwt assorted iron, 36 assorted bolts & nuts, 2 fuel donkey pump valves, 1 spare boiler pressure gauge, one spare tail end shaft & nut, one spare stem bush of C.I. one spare propeller*, 10 plain boiler tubes, 30 condenser tubes, 60 condenser ferrules, 2 boiler stay tubes. *Note: Spare propeller now stored on shore.

The foregoing is a correct description,

J. P. RENNOLDSON & SONS LTD

Charles Ross

DIRECTOR

Manufacturer.

Dates of Survey while building { During progress of work in shops - - June 25, 10, 14, 18, 19, July 1, 28, 31, Aug 13, Sept 5, 9.
 { During erection on board vessel - - - Sept 19, Oct 13, 9, 10, 15, 20, 23, 31, Nov 5.
 Total No. of visits 22

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders June 16, 18 Slides June 19 Covers June 19 Pistons June 19 Rods Aug 13
 Connecting rods Aug 13 Crank shaft July 1 Thrust shaft July 1 Tunnel shafts July 1 Screw shaft Aug 13 Propeller Sept 9
 Stern tube Sept 7 & 9 Steam pipes tested Oct 20, 23 & 31 Engine and boiler seatings Sept 9 Engines holding down bolts Sept 9
 Completion of pumping arrangements Oct 31 Boilers fixed Sept 19 Engines tried under steam Nov 5
 Completion of fitting sea connections Sept 9 Stern tube Sept 5, 9 Screw shaft and propeller Sept 9 & Oct 9
 Main boiler safety valves adjusted Nov 5 Thickness of adjusting washers 9/16"
 Material of Crank shaft M.S. Identification Mark on Do. 6885N Material of Thrust shaft I.S. Identification Mark on Do. 1004
 Material of Tunnel shafts S.I. Identification Marks on Do. 6885N Material of Screw shafts S.I. Identification Marks on Do. 6885
 Material of Steam Pipes Copper Test pressure 360 lbs/sq. in.

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 yes ✓ If so, state name of vessel "Abigail 3." ✓

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel, has been built under special survey, the materials and workmanship are of good quality, it has been securely fitted on board and satisfactorily tried under full steam, and is, in my opinion, eligible for Record L.M.C. 11.24. in the Register Book.

Report on Boiler & Forging Reports are forwarded herewith.

It is submitted that this vessel is eligible for THE RECORD. + LMC 11.24.

J.W.D. Cud.
13/11/24

L.R. Stone

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 2 :
 Special ... £ 10 :
 Donkey Boiler Fee ... £ :
 Travelling Expenses (if any) £ :

When applied for, 11 NOV 1924

When received, 13 NOV 1924

Committee's Minute FRI. 14 NOV 1924

Assigned + L.M.C. 11.24

CERTIFICATE WRITTEN



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NEWCASTLE-ON-TYNE

Certificate (if required) to be sent to

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

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 plates: Mater
 Top 9 1/2 + 10 1/2
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 Pitch of tubes
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 Working press
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