

Rpt. 4.

REPORT ON MACHINERY.

No. 8035.

Date of writing Report Oct. 2nd 1914 When handed in at Local Office Oct 2nd 1914 Port of DUNDEE
No. in Survey held at Dundee Reg. Book. Date, First Survey 9th February 1914 Last Survey Sept. 29th 1914
on the S. S. "THOMAS BAILEY" (Number of Visits 28) 15-11-17 Hull

Master Built at Lily By whom built Lochran Ross & Co. (No. 818) Tons Gross 151-11-17
Engines made at Dundee By whom made Cooper & Co. Ltd (No. 190) When built 1914-11
Boilers made at Hull By whom made Chas. J. Holmes & Co. Ltd when made 1914-11
Registered Horse Power Owners The Admiralty. Port belonging to
Nom. Horse Power as per Section 28 84.33 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple Expansion, Surface Condensing No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 13" 23" 34" Length of Stroke 26" Revs. per minute 114 Dia. of Screw shaft as per rule 4.9 Material of screw shaft as fitted 8 1/2
Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes 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 Yes 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 Length of stern bush 2'-11 1/2"
Dia. of Tunnel shaft as per rule 4.04 Dia. of Crank shaft journals as per rule 7.39 Dia. of Crank pin 4 1/2" Size of Crank webs 4 1/4" x 4 1/4" Dia. of thrust shaft under collars 7 1/2" Dia. of screw 9'-4 1/2" Pitch of Screw 11'-0" No. of Blades 4 State whether moveable no Total surface 33 sq ft
No. of Feed pumps one Diameter of ditto 2 5/8" Stroke 14 3/4" Can one be overhauled while the other is at work
No. of Bilge pumps one Diameter of ditto 2 5/8" Stroke 14 3/4" Can one be overhauled while the other is at work
No. of Donkey Engines one 8 1/2" HP Sizes of Pumps 6" H.T. x 6" duplex No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room two 2" dia. In Holds, &c. one 2" dia. in each compartment
all suction also connected to quater
No. of Bilge Injections one sizes 3 1/2" Connected to condenser to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size 3" quater
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 yes
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 Forward suction How are they protected strong 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 Yes Is it fitted with a watertight door Yes worked from

BOILERS, &c.—(Letter for record (S) Manufacturers of Steel
Total Heating Surface of Boilers 1440 sq ft Is Forced Draft fitted no No. and Description of Boilers one single ended
Working Pressure 200 Tested by hydraulic pressure to Date of test No. of Certificate
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to each boiler
Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
Smallest distance between boilers or uptakes and bunkers or woodwork 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 bottom 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 2020
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 Valves Pressure to which each is adjusted Is Easing Gear fitted

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—2 Top end bolts & nuts. 2 Bottom end bolts & nuts. 2 main bearing bolts & nuts. One set coupling bolts & nuts. One set feed pump valves. One set bilge pump valves. One set air pump valves. One condenser tubes & 12 females. Six pin ring studs. One main donkey chest valve. Two valves for donkey pump. One safety valve spring. Two escape valve spring. One set of fire bars & a quantity of bolts & nuts & washers of various sizes.

The foregoing is a correct description,

FOR COOPER & GREIG LIMITED.

Shas B Cooper

Manufacturer.

Dates of Survey while building { During progress of work in shops -- FEB. 9, MAR. 2, 5, 13, 16, 28. APR. 3, 14, 18. MAY 1, 8, 16, 29, 31. JUNE 4, 9, 25, 28. JULY 4, 14, 31. During erection on board vessel -- AUG. 14, 15, 20, 30. SEPT. 4, 14, 29. Total No. of visits 28. Is the approved plan of main boiler forwarded herewith ☒ " " " donkey " " " ☒

Dates of Examination of principal parts—Cylinders 17.7.17 Slides 14.9.14 Covers 17.7.17. Pistons 14.9.14 Rods 17.9.14 Connecting rods 14.9.14 Crank shaft 20.8.14 Thrust shaft 4.9.14 Tunnel shafts 17.7.17 Screw shaft 17.7.17 Propeller 17.7.17 Stern tube 17.7.17. Steam pipes tested 1-11-17 Engine and boiler seatings 20-7-17 Engines holding down bolts 24-10-17 Completion of pumping arrangements 6-11-17 Boilers fixed 3-11-17 Engines tried under steam 6-11-17 + 12-11-17 Completion of fitting sea connections 20-7-17 Stern tube 20-7-17 Screw shaft and propeller 20-7-17 Main boiler safety valves adjusted 3-11-17 Thickness of adjusting washers Both 5/16

Material of Crank shaft Steel. Identification Mark on Do. 9597. Material of Thrust shaft Steel. Identification Mark on Do. 9597. Material of Tunnel shafts Steel. Identification Marks on Do. Material of Screw shafts Steel. Identification Marks on Do. 9597. Material of Steam Pipes Solid drawn copper. Test pressure 40 lbs. 190 B.D.R. Is an installation fitted for burning oil fuel ☒ 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 "LEWIS ROATLEY" (Am. Rpt. 8024).

General Remarks (State quality of workmanship, opinions as to class, &c. The engines of this vessel have been built under special survey, & in accordance with the terms of the specification. The materials & workmanship are sound & good. The machinery will be eligible in my opinion to have record of S.L.M.C (with date) when satisfactorily completed on board; and when the spare gear has been checked, the pumping arrangements found in order, and the remaining terms of the specification complied with. The machinery has been properly fitted & secured on board the vessel, the steam pipes tested. On completion it was tested under steam at full power for two hours as required by the Admiralty & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 2 1/2 lbs. In our opinion the vessel is eligible for the record + L.M.C. 11-17.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 11-17.

The amount of Entry Fee ... £ : : When applied for, Approved Special ... £ 14 : 0 : Oct. 2nd 1914. Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 28-11-1914

Committee's Minute TUE 20 NOV 1917

Assigned + L.M.C. 11-17

JSM *W.D.* 20/11/17. *John MacKirdy* Engineer Surveyor to Lloyd's Register of Shipping. *Frank H. Stinger*

Surveyor's Signature