

REPORT ON MACHINERY.

No. 40312

Received at London Office

WED. SEP. 1 1920

Date of writing Report 30.8.1920 When handed in at Local Office 30.8.1920 Port of Glasgow

Survey held at Glasgow Date, First Survey 30th Apr 1919 Last Survey 19th Aug 1920

Book. S.S. C HANTALA (Number of Visits 63)

on the Tons Gross Not

er Built at Glasgow By whom built Barclay Currie & Co Ltd When built 1920

nes made at do By whom made do No 589 when made 1920

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stered Horse Power Owners British India Steam Navigation Co Port belonging to

Horse Power as per Section 28 678 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

INES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3

of Cylinders 24-41-70 Length of Stroke 48 Revs. per minute 87 Dia. of Screw shaft as per rule 4 1/4 as fitted 14 3/4 Material of screw shaft Steel

he 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

he propeller boss Yes If the liner is in more than one length are the joints burned continuous If the liner does not fit tightly at the part

een the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive fits whole length If two

rs are fitted, is the shaft lapped or protected between the liners Length of stern bush 5'0"

of Tunnel shaft as per rule 3 25 Dia. of Crank shaft journals as per rule 13 9 3 Dia. of Crank pin 4 1/4 Size of Crank web 26 1/2 x 9 Dia. of thrust shaft under

ars 4 1/4 Dia. of screw 6 6 Pitch of Screw 17-9 No. of Blades 4 State whether moveable Yes Total surface 87 1/2

of Feed pumps 2 Diameter of ditto 5 Stroke 24 Can one be overhauled while the other is at work Yes

of Bilge pumps 2 Diameter of ditto 5 Stroke 24 Can one be overhauled while the other is at work Yes

of Donkey Engines 5 Sizes of Pumps (1) 10 1/2 x 8 1/2 (2) 10 1/2 x 8 1/2 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room (2) 3 1/2 Stroke 10 (2) 3 1/2 In Holds, &c. No 1-2-3-4-5 (2) 3

Tunnel well (1) 2 1/2

of Bilge Injections 1 sizes 10 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 4

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

all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both

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

that pipes are carried through the bunkers 4 Suctions How are they protected Iron casings

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 Yes Is it fitted with a watertight door Yes worked from upper deck

ILERS, &c.—(Letter for record S) Manufacturers of Steel Steel of Scotland & Co Beardmore & Co Ltd

tal Heating Surface of Boilers 11084 Is Forced Draft fitted Yes No. and Description of Boilers 4 Single ended

orking Pressure 215 lb Tested by hydraulic pressure to 377 lb Date of test 22.3.20 25.3.20 No. of Certificate 15171 15178

n each boiler be worked separately Yes Area of fire grate in each boiler 67.84 No. and Description of Safety Valves to

h boiler 2 Spring loaded Area of each valve 9.620 Pressure to which they are adjusted 220 lb Are they fitted with easing gear Yes

allest distance between boilers or uptakes and bunkers or woodwork 1-6 Mean dia. of boilers 15-6 Length 11-6 Material of shell plates Steel

ickness 1 7/16 Range of tensile strength 30 to 34 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L & R

ng. seams TR DBS Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 10 1/4 Lap of plates or width of butt straps 21 1/8

er centages of strength of longitudinal joint rivets 89.25 plate 85.36 Working pressure of shell by rules 221 Size of manhole in shell 16 x 12

ze of compensating ring 3 1/2 x 2-9 x 1 7/8 No. and Description of Furnaces in each boiler 4 Corrugated Material Steel Outside diameter 3-5 1/4

ength of plain part top 19 bottom 32 Thickness of plates crown 19 bottom 32 Description of longitudinal joint welded No. of strengthening rings -

orking pressure of furnace by the rules 229 Combustion chamber plates: Material Steel Thickness: Sides 5/8 Back 1 1/8 Top 5/8 Bottom 3/4

itch of stays to ditto: Sides 1 3/4 x 8 Back 8 x 9 1/8 Top 8 x 7 3/4 If stays are fitted with nuts or riveted heads No Working pressure by rules 218

aterial of stays Steel Area at smallest part 1.73 Area supported by each stay 62 Working pressure by rules 250 End plates in steam space:

aterial Steel Thickness 1 3/8 Pitch of stays 15 1/4 x 1 1/2 How are stays secured DR Working pressure by rules 217 Material of stays Steel

rea at smallest part 6.60 Area supported by each stay 247 Working pressure by rules 231 Material of Front plates at bottom Steel

ickness 2 1/2 Material of Lower back plate Steel Thickness 3 1/2 Greatest pitch of stays 14 Working pressure of plate by rules 218

diameter of tubes 2 1/2 Pitch of tubes 3 3/4 x 3 5/8 Material of tube plates Steel Thickness: Front 3 1/2 Back 1 1/2 Mean pitch of stays 9 1/4

itch across wide water spaces 13 1/2 Working pressures by rules 224 Girders to Chamber tops: Material Steel Depth and

ickness of girder at centre 9 x 3 1/2 (2) Length as per rule 31 Distance apart 8 Number and pitch of stays in each (3) 8 x 7 3/4

Working pressure by rules 220 Steam dome: description of joint to shell None % 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

UPERHEATER. Type None 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

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

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied: - 2 Top and bolt and nuts, 2 bottom end bolts and nuts, 2 main bearing bolts and nuts, 6 coupling bolts and nuts, Set of feed and bilge Pump Valves, Iron, bolts and nuts assorted and other articles.

The foregoing is a correct description,

BAROLAY, CURLE & Co., Ltd.

John McEwan.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1919 Apr 30 May 20 Jun 12-26 July 1 Sep 8-26 Oct 1-2-27 Nov 6-4-11 Dec 4-16-19-15-17 26-31 (1920) Jan 12-13-20-26-27 Feb 3-5-9-10-12-13
During erection on board vessel - - - Jan 14-18-19-24 Mar 8-9-10-16-22-23-24-25-29-30-31 Apr 6-7-8-16-21-23-29 May 3-5-6-10-14-24-27 Jun 1- Aug 10-19
Total No. of visits 63.

Is the approved plan of main boiler forwarded herewith

Yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 27.10.19 Slides 1.6.19 Covers 1.6.19 Pistons 11.11.19 Rods 11.11.19

Connecting rods 11.11.19 Crank shaft 16.12.19 Thrust shaft 16.2.20 Tunnel shafts 15.12.19 Screw shaft 15.12.19 Propeller 29.3.20

Stern tube 11.11.19 Steam pipes tested 24.5.20 Engine and boiler seatings 8.3.20 Engines holding down bolts 14.5.20

Completion of pumping arrangements 10.8.20 Boilers fixed 29.4.20 Engines tried under steam 10.8.20 19.8.20

Completion of fitting sea connections 29.3.20 Stern tube 8.3.20 Screw shaft and propeller 29.3.20

Main boiler safety valves adjusted 10.8.20

Thickness of adjusting washers

4a 13a S. F. 13/32 A. 3/8" P. F. 3/32 A. 1/32
S. F. 3/8" A. 1/2" P. F. 5/16 A. 1/16

Material of Crank shaft Steel Identification Mark on Do. 16.12.19 J.E. Material of Thrust shaft Steel Identification Mark on Do. 16.2.20 J.E.

Material of Tunnel shafts Steel Identification Marks on Do. Δ Material of Screw shafts Steel Identification Marks on Do. □

Material of Steam Pipes Iron

Test pressure

645 lb/sq in

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

no

If so, state name of vessel

General Remarks

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

LLoy do 55 3075C JR TM 15.12.19
LLoy do 30 30 H.B. 2959A TM 15.12.19
LLoy do 31 2961A TM 15.12.19
2959 JR38 TM 15.12.19
2959 JR39 TM 15.12.19

The machinery has been constructed under Special Survey in accordance with the Rules and approved Plans and has been seen working satisfactorily under steam. Materials and workmanship are good.

The machinery is eligible in my opinion to be Classed + LMC 8.20 & to have record of Fitted for oil fuel 8.20 F.P. above 150°F

is submitted that this vessel is eligible for THE RECORD. + LMC 8.20 F.P.

Fitted for OIL FUEL 8.20 F.P. above 150°F.

Roll

3/9/20

The amount of Entry Fee ... £ 3 : 0 :
Special ... £ 53 : 18 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 31 AUG 1920
When received, 21/10/20

as Easthope

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW

31 AUG 1920

Assigned + LMC 8.20 F.P.

Fitted for oil fuel 8.20 F.P. above 150°F.



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