

REPORT ON MACHINERY.

No. H4135

12 NOV 1924

Received at London Office

Date of writing Report 6th Nov. 1924 When handed in at Local Office 8th Nov. 1924 Port of GLASGOW.

No. in Survey held at Glasgow Date, First Survey 13th June 1924 Last Survey 5th Nov. 1924

Reg. Book. on the Steel Screw Steamer "RED LINE No. 1" "REDLINE No. 1" (Number of Visits 26) Tons { Gross 271.9 Net 119.9

Master Built at Glasgow By whom built Messrs. Harland & Wolff Ltd. (N° 698 G) when made 1924-5

Engines made at Glasgow By whom made Messrs. A. & J. Inglis Ltd. (N° 698 G) when made 1924-5

Boilers made at do. By whom made do. (N° 698 G) when made 1924-5

Registered Horse Power Owners British Mexican Petroleum Co. Ltd. Port belonging to London

Nom. Horse Power as per Section 28 39. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Direct acting triple expansion surface condensing No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 9 1/2, 15 & 24 ins. Length of Stroke 22 ins. Revs. per minute 140 Dia. of Screw shaft as per rule 5 1/2 as fitted 5 3/4 Material of steel

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 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

liners are fitted, is the shaft lapped or protected between the liners No oil gland fitted Length of stern bush 24 ins.

Dia. of Tunnel shaft as per rule 5 1/2 as fitted none Dia. of Crank shaft journals as per rule 5 3/8 as fitted 5 3/8 Dia. of Crank pin 5 3/8 Size of Crank webs 10 1/2 x 3 1/2 Dia. of thrust shaft under

collars 5 3/8 Dia. of screw 7 1/2 Pitch of Screw 7 1/2 No. of Blades 4 State whether moveable no Total surface 25 ft. 2

No. of Feed pumps 1 Diameter of ditto 9 Stroke 9 Can one be overhauled while the other is at work

No. of Bilge pumps 1 Diameter of ditto 2 1/2 Stroke 9 Can one be overhauled while the other is at work

No. of Donkey Engines 2 Sizes of Pumps 6 x 4 x 12 ins. & 6 x 6 x 9 ins. No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 3 @ 2 1/2 1-2 1/2 In Holds, &c. None - In pump room forward

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

Are all the bilge suction pipes fitted with roses Yes Are the rooms in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible

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 none How are they protected

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 S.) Manufacturers of Steel D. Colville & Sons, Ltd.

Total Heating Surface of Boilers 742 ft. 2 Is Forced Draft fitted no No. and Description of Boilers 1-Cylindrical 18 Return Tube

Working Pressure 180 lbs. Tested by hydraulic pressure to 320 lbs. Date of test 22-9-24 No. of Certificate 16611

Can each boiler be worked separately Yes Area of fire grate in each boiler None Oil Burning No. and Description of Safety Valves to

each boiler 2: spring loaded Area of each valve 3.14 ins. 2 Pressure to which they are adjusted 180 lbs. Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 2 ft. Mean dia. of boilers 9 1/2 Length 9 1/2 Material of shell plates steel

Thickness 27/32 Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R. Lap

long. seams I.R.D.B.S. Diameter of rivet holes in long. seams 15/16 Pitch of rivets 6 1/8 Lap of plates or width of butt straps 14 3/4

Per centages of strength of longitudinal joint rivets 95.2 Working pressure of shell by rules 183 lbs. Size of manhole in shell 20" x 16"

Size of compensating ring 7 1/2 x 13 1/2 plate 85.9 No. and Description of Furnaces in each boiler 2 Corrugated Material Steel Outside diameter 2' 9 1/2"

Length of plain part top 15 1/2 bottom 13 1/2 Thickness of plates 15 1/2 Description of longitudinal joint weld No. of strengthening rings

Working pressure of furnace by the rules 199 lbs. Combustion chamber plates Material steel Thickness: Sides 5/8 Back 5/8 Top 5/8 Bottom 3/4

Pitch of stays to ditto: Sides 9 x 7 7/8 Back 8 7/8 x 8 Top 7 1/2 x 9 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 190 lbs.

Material of stays steel Area at smallest part 1 1/2 x 1 1/2 Area supported by each stay 67.5 x 71 ins. 2 Working pressure by rules 186 lbs. End plates in steam space:

Material steel Thickness 7/8 Pitch of stays 15 x 15 How are stays secured Nuts & washers Working pressure by rules 182 lbs. Material of stays steel

Area at smallest part 2 1/2 Area supported by each stay 225 ins. 2 Working pressure by rules 196 lbs. Material of Front plates at bottom steel

Thickness 13/16 Material of Lower back plate steel Thickness 13/16 Greatest pitch of stays 20" P.C.D. Working pressure of plate by rules 235 lbs.

Diameter of tubes 3 1/4 Pitch of tubes 4 1/2 x 4 3/8 Material of tube plates steel Thickness: Front 13/16 Back 3/4 Mean pitch of stays 10"

Pitch across wide water spaces 1/4 x 8 3/4 Working pressures by rules 185 lbs. Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 2 @ 7 1/2 x 1/6 Length as per rule 27 1/8 Distance apart 7 1/2 Number and pitch of stays in each 2 @ 9"

Working pressure by rules 235 lbs. Steam dome: description of joint to shell None fitted % 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. None fitted 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

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:

2- connecting rod top end bolts & nuts.

2- " " bottom " " " "

2- main bearing bolts.

1- set coupling bolts.

1- set feed & bilge pump valves.

1- Propeller: a quantity assorted bolts & nuts: And
Iron of various sizes.

The foregoing is a correct description,

A. & J. INGLIS LIMITED.

Manufacturers & Makers.



William Booth, Secy.


Dates of Survey while building { During progress of work in shops - - 1924 Jan 13 17 19 20 July 11 14 16 Aug 6 7 12 15 26 28 Sep 1 4 11 18 22 30 Oct 3 14 20 27 30 31 Nov 3 5.
During erection on board vessel - - -
Total No. of visits 26

Is the approved plan of main boiler forwarded herewith yes

" " " donkey " " " "

Dates of Examination of principal parts—Cylinders { 4-9-24 Slides 4-9-24 Covers 4-9-24 Pistons 11-9-24 Rods 11-9-24
Connecting rods 11-9-24 Crank shaft 18-9-24 Thrust shaft 18-9-24 Tunnel shafts ——— Screw shaft 18-9-24 Propeller 18-9-24
Stern tube 18-9-24 Steam pipes tested 20-10-24 Engine and boiler seatings 14-10-24 Engines holding down bolts 27-10-24
Completion of pumping arrangements 5-11-24 Boilers fixed 27-10-24 Engines tried under steam 5-11-24
Completion of fitting sea connections 1-10-24 Stern tube 3-10-24 Screw shaft and propeller 9-10-24
Main boiler safety valves adjusted 31-10-24 Thickness of adjusting washers 5/16" Ford. 5/16" aft.

Material of Crank shaft steel Identification Mark on Do.  Material of Thrust shaft steel Identification Mark on Do. 

Material of Tunnel shafts none Identification Marks on Do. ——— Material of Screw shafts steel Identification Marks on Do. 

Material of Steam Pipes Solid drawn copper ✓ Test pressure 360 lbs./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 35 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. These Engines & the Boiler have been built under Special Survey in accordance with the Rules & the approved plans: the material & workmanship are good: they have been well fitted on board and tried under steam with satisfactory result.

This Machinery is eligible, in my opinion, to be classed in the Register Book with notations: 11.24 L.M.C. — 11.24; C.L. and Fitted for oil fuel 11.24 F.P. above 150°Fahr.

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

Fitted for oil fuel 11.24 F.P. above 150°F.

J.D. Boyle

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 2 : - :
Special ... £ 15 : - :
Donkey Boiler Fee ... £ - : - :
Travelling Expenses (if any) £ - : - :
When applied for. 11/11/24.
When received. 12/12/24.

Committee's Minute GLASGOW

Assigned + LMC 11.24.

CERTIFICATE WRITTEN 12.11.24 Fitted for oil fuel 11.24 F.P. above 150°F.



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