

REPORT ON MACHINERY.

No. 18216

Received at London Office

WED. 14 MAY. 1924

Date of writing Report 16. 4. 1924

When handed in at Local Office 8th May, 1924.

Port of Greenock

No. in Survey held at Greenock
Reg. Book. S/S "Jehangir"Date, First Survey 10th January, 1923 Last Survey 5. 5. 1924
(Number of Visits 73.)

Master

Built at Pt. Glasgow

By whom built Littlejohn & Co. (1855)

When built 1924

Engines made at Greenock

By whom made Rankine & Blackmore Ltd (401) when made 1924

Boilers made at ditto

By whom made ditto (401) when made 1924

Registered Horse Power

Owners Bombay Persia Steam Nav Co. Port belonging to Bombay

Nom. Horse Power as per Section 28 394

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion

No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 24"-40"-67" Length of Stroke 45 Revs. per minute 70

Dia. of Screw shaft as per rule 13.85 as fitted 14 3/4 Material of screw shaft S

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

If two

liners are fitted, is the shaft lapped or protected between the liners

Length of stern bush 59

Dia. of Tunnel shaft as per rule 12.56 as fitted 12 5/8 Dia. of Crank shaft journals as per rule 13.19 as fitted 13 1/2

Dia. of Crank pin 13 1/2 Size of Crank webs 19.8 3/4 Dia. of thrust shaft under

collars 13 1/2 Dia. of screw 16-6 Pitch of Screw 18-0 No. of Blades 4 State whether moveable Yes Total surface 90 1/2

No. of Feed pumps 2 Diameter of ditto Stroke 7+2 1/2 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 Stroke 22 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 7+2 1/2 12+2 1/2 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2 at 3' Cofferdam 1-2 1/4 Tunnel Well 2 1/4 In Holds, &c. 70 1/4 Hold - 2-2 3/4 70 2 - 2 - 3 70 3 - 2-2 3/4

70 4 - 2-2 3/4 Stowhold 2-3 No. of Bilge Injections 1 sizes 8 Connected to condenser or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 2-4 1/2

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

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 stowhold plates Yes Are the Discharge Pipes above or below the deep water line

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 Bilge Suction How are they protected Good canvas

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 UER Platform

BOILERS, &c.—(Letter for record (R) Manufacturers of Steel James Dunslop, Steel Co., Spencer, Colville

2SB. Total Heating Surface of Boilers 5384 Is Forced Draft fitted Yes No. and Description of Boilers 2 Single Ended

Working Pressure 200 Tested by hydraulic pressure to 350 Date of test 15. 2. 23 No. of Certificate 1640

Can each boiler be worked separately Yes Area of fire grate in each boiler 63 1/2 No. and Description of Safety Valves to

each boiler Double Spring Area of each valve 1104 Pressure to which they are adjusted 205 Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 13 Mean dia. of boilers 15-9 Length 12-0 Material of shell plates S

Thickness 17/16 Range of tensile strength 28-32 Are the shell plates welded or flanged Descrip. of riveting: cir. seams DR

long. seams TR. D.B.S. Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 10 1/4 Lap of plates or width of butt straps 1-10

Per centages of strength of longitudinal joint rivets 92.4 plate 85.36 Working pressure of shell by rules 203 Size of manhole in shell 16x12

Size of compensating ring 24 3/8 x 31 7/8 x 17/16 No. and Description of Furnaces in each boiler 3 Corrugated Material S Outside diameter 4-1 1/4

Length of plain part top Thickness of plates crown 3 1/4 bottom 1 1/4 Description of longitudinal joint weld No. of strengthening rings

Working pressure of furnace by the rules 202 Combustion chamber plates: Material S Thickness: Sides 23/32 Back 23/32 Top 23/32 Bottom 13/16

Pitch of stays to ditto: Sides 9 3/8 x 9 1/2 Back 9 x 9 3/4 Top 9 1/2 x 9 3/8 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 204

Material of stays Iron Area at smallest part 203-271 Area supported by each stay 84.9 Working pressure by rules 206 End plates in steam space:

Material S Thickness 13/8 Pitch of stays 1-6 7/8 x 1-10 3/4 How are stays secured DN Working pressure by rules 205 Material of stays S

Area at smallest part 4.84 Area supported by each stay 422.8 Working pressure by rules 206 Material of Front plates at bottom S

Thickness 15/16 Material of Lower back plate S Thickness 13/16 Greatest pitch of stays 13/2 Working pressure of plate by rules 204

Diameter of tubes 23/4 Pitch of tubes 4 Material of tube plates S Thickness: Front 15/16 DP Back 25/32 Mean pitch of stays 10

Pitch across wide water spaces 13 1/2 Working pressures by rules 206 Girders to Chamber tops: Material S Depth and

thickness of girder at centre 11 1/4 x 13/16 (2) Length as per rule 34 1/2 Distance apart 9 1/2 Number and pitch of stays in each 3 at 9 3/8

Working pressure by rules 202 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

No. of Visits 99

3.6-11-14-21-24-26-14-18-25-27. Max. 4.6

Lloyd's Register Foundation

IS A DONKEY BOILER FITTED?

yes

If so, is a report now forwarded? yes

SPARE GEAR.

State the articles supplied:— 2 Connecting Rod Bolts, 2 for top end, ditto for bottom ends, 2 main bearing bolts, 1 set of Coupling bolts, 1 set of Feed, Bilge Pump Bolts, a quantity of assorted bolts, nuts, & iron of various sizes.

The foregoing is a correct description,

RANKIN & BLACKMORE, LTD.,

A. Rankin

Director.

Manufacturer.

Dates of Survey while building

During progress of work in shops --
During erection on board vessel --
Total No. of visits

(1923) Jan 10-18-24-29, Feb 1-7-12-19-22-28, Mar 2-8-12-16-20-26-29, Apr 3-4-12-17-25-27, May 2-8-16-22-25-29, June 6-12-19, July 13-24, Aug 1-8-16-28, Sept 5-10-21-27, Nov 1-8-29, Dec 10-18 (1924) Jan 8-17-24, Feb 5-11-15-19-26, Mar 4-7-10-12-14-17-21-25-26-28-31, Apr 8-15-17-18-23-25-28, May 2-3

73.

Is the approved plan of main boiler forwarded herewith

yes

" " " donkey " " " yes

Dates of Examination of principal parts: Cylinders 16-8-23 Slides 1-11-23 Covers 16-8-23 Pistons 2-10-23 Rods 18-12-23

Connecting rods 18-12-23 Crank shaft 10-3-24 Thrust shaft 21-3-24 Tunnel shafts 21-3-24 Screw shaft 10-3-24 Propeller 5-2-24

Stern tube 5-2-24 Steam pipes tested 25-4-24 Engine and boiler seatings 17-3-24 Engines holding down bolts 25-4-24

Completion of pumping arrangements 5-5-24 Boilers fixed 17-4-24 Engines tried under steam 5-5-24

Completion of fitting sea connections 17-3-24 Stern tube 17-3-24 Screw shaft and propeller 17-3-24

Main boiler safety valves adjusted 2-5-24 Thickness of adjusting washers P 3/8 S 3/8 P 3/8 S 3/8 P 3/8 S 3/8 P 3/8 S 3/8

Material of Crank shaft S Identification Mark on Do. 6625 WGM Material of Thrust shaft S Identification Mark on Do. 11380 WGM

Material of Tunnel shafts S Identification Marks on Do. 1970 1975 1976 Material of Screw shafts S Identification Marks on Do. 6652 WGM

Material of Steam Pipes Iron Test pressure 600 lbs

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 No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. These Engines & Boilers have

been built under Special Survey in accordance with the approved

plans. The workmanship & material are of good quality. They have

now been securely fitted on board, tried under steam & found

satisfactory.

The Machinery is eligible in my opinion for the record of LMC 5-24

It is submitted that this vessel is eligible for

THE RECORD. + LMC 5. 24. FD. CL.

CERTIFICATE WRITTEN 20/5/24 (dated 14/5/24)

J.W.D. C.M.D.
16/5/24

The amount of Entry Fee ... £ 5 : -
Special ... £ 84 : 2
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ :
When applied for, 8th May 1924
When received, 8th May 1924

Wm. Gordon-Mitchell
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 13 MAY 1924

Assigned + LMC 524



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