

Rpt. 4.

REPORT ON MACHINERY.

No. 31189

SAT. 5-JUL. 1919

Date of writing Report 3/7/1919 When handed in at Local Office 3/7/1919 Port of Hull.
No. in Survey held at Reg. Book. Hull. Date, First Survey Last Survey 25/6/1919
on the JAMES MANSELL (Number of Visits) Gross 326.
Master Built at Selby By whom built Buchanan & Co. Ltd. When built 1919.
Engines made at Hull By whom made Shaw & Holmes & Co. Ltd. when made 1919.
Boilers made at Hull By whom made Do when made 1919.
Registered Horse Power Owners J. J. J. Port belonging to Grimsby
Nom. Horse Power as per Section 28 87. Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Triple expansion. No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 13"-23"-37" Length of Stroke 26" Revs. per minute 115. Dia. of Screw shaft as per rule 8.29 Material of screw shaft Steel.
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 — 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. (Vickers type) Length of stern bush 36"
Dia. of Tunnel shaft as per rule 7.04 Dia. of Crank shaft journals as per rule 7.39 Dia. of Crank pin 7.5" Size of Crank webs 16x11" Dia. of thrust shaft under collars 7.5" Dia. of screw 9-7.5" 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" Stroke 14.5" Can one be overhauled while the other is at work —
No. of Bilge pumps one Diameter of ditto 2.5" Stroke 14.5" Can one be overhauled while the other is at work —
No. of Donkey Engines one & 1/2 Sizes of Pumps 6" 4 1/2" & 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 motions also connected to ejector
No. of Bilge Injections one sizes 3.5" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 3" ejector
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 Fuel motions & wind then 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 worked from

OILERS, &c.—(Letter for record S.) Manufacturers of Steel Port Talbot & J. Spencer & Co.
Total Heating Surface of Boilers 1440 sq. ft. Is Forced Draft fitted No. No. and Description of Boilers one single ended multi.
Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 14/3/19. No. of Certificate 3343
Can each boiler be worked separately — Area of fire grate in each boiler 48 sq. ft. No. and Description of Safety Valves to each boiler two spring loaded Area of each valve 4.9 sq. ft. Pressure to which they are adjusted 205 lbs. Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 8" (lapped) diam. of boilers 16.5" Length 10-8" Material of shell plates Steel
Thickness 1 1/4" Range of tensile strength 28-32 Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams double.
long. seams TR DBS. Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8.5" Lap of plates or width of butt straps 18" 18"
Per centages of strength of longitudinal joint rivets 88.9% Working pressure of shell by rules 202 Size of manhole in shell 16 x 12
Size of compensating ring 7.8 x 1 1/4" No. and Description of Furnaces in each boiler Three plain Material Steel Outside diameter 40"
Length of plain part top 7.8" Thickness of plates crown 3.13" Description of longitudinal joint welded No. of strengthening rings —
bottom 6.9" Thickness of plates bottom 3.13"
Working pressure of furnace by the rules 206 lbs. Combustion chamber plates: Material Steel Thickness: Sides 3/4" Back 3/2" Top 3/2" Bottom 3/2"
Pitch of stays to ditto: Sides 10 x 8 Back 9 1/2 x 8 1/2 Top 11 x 8 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 208
Material of stays Steel Area at smallest part 2.07 sq. ft. Area supported by each stay 88 sq. ft. Working pressure by rules 211 lbs. End plates in steam space:
Material Steel Thickness 1 1/2" Pitch of stays 19 x 17 1/2 How are stays secured JN & W Working pressure by rules 210 lbs. Material of stays Steel
Area at smallest part 7.5 sq. ft. Area supported by each stay 335 sq. ft. Working pressure by rules 233 lbs. Material of Front plates at bottom Steel
Thickness 1/2" Material of Lower back plate Steel Thickness 1/2" Greatest pitch of stays 13 1/2 x 9 1/2 Working pressure of plate by rules 216
Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" Material of tube plates Steel Thickness: Front 1/2" Back 1/2" Mean pitch of stays 10"
Pitch across wide water spaces 14" Working pressures by rules 275 lbs. Girders to Chamber tops: Material Steel Depth and
thickness of girder at centre 11" x 1 1/2" Length as per rule 36.2" Distance apart 11" Number and pitch of stays in each 3 2 8"
Working pressure by rules 201 lbs. 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 —

W635-0126

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two top end bolts & nuts, two main bearing bolts & nuts, two bottom end bolts & nuts, one set coupling bolts & nuts, one set air feed & bilge pump valves, 6 finking iron studs & nuts, one main & one donkey check valve, two valves for donkey pump, one safety valve spring, three condenser tubes, one set finking & a quantity of bolts & nuts & iron of various sizes.

The foregoing is a correct description,

CHARLES D. HOLMES & CO. LTD

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1918 Sep. 24. 27. Oct. 1. 3. 9. 24. 29. Nov. 8. 15. 22. 26. 30. Dec. 6. 10. 18. 24. 30
During erection on board vessel - - 31. 1919 Jan. 3. 10. 16. 20. 26. 30 Mar. 10. 14. May. 29 Jun. 2. 18. 25.
Total No. of visits 25 30

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 18/12/18 Slides 18/12/18 Covers 16-1-19 Pistons 15-11-18 Rods 18-12-18
Connecting rods 24-12-18 Crank shaft 24-12-18 Thrust shaft 16-1-19 Tunnel shafts - Screw shaft 3-10-18 Propeller 6-10-18
Stern tube 3-10-18 Steam pipes tested 2-6-19 Engine and boiler seatings 28-5-19 Engines holding down bolts 28-5-19
Completion of pumping arrangements 26/6/19 Boilers fixed 26/6/19 Engines tried under steam 26/6/19
Completion of fitting sea connections 9/10/18 Stern tube 9/10/18 Screw shaft and propeller 9/10/18
Main boiler safety valves adjusted 26/6/19 Thickness of adjusting washers $9\frac{1}{2}$ " $F\frac{3}{8}$ "
Material of Crank shaft Steel Identification Mark on Do. 2193 Material of Thrust shaft Steel Identification Mark on Do. 2200
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do. 2170
Material of Steam Pipes S.D. Copper. Test pressure 400 lbs. sq. in.

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

If so, state name of vessel

Munsey class.

General Remarks

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

The engines & boiler of this vessel have been built under special survey and the materials & workmanship are good. On completion they were examined while running full power trials in the Dumbur and found satisfactory. The machinery throughout is now in good & efficient condition, & eligible in my opinion to have the record LMC-6-19 marked in red in the Society's Register Book.

It is submitted that this vessel is eligible for THE RECORD + LMC. 6.19

Recd.

5.7.19.

J.M.

The amount of Entry Fee ... £ 2-0-0
Special ... £ 26-2-0
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :

When applied for,

4/7/19 19 mb.

When received,

15/7/19 19 21.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 8-JUL. 1919

Assigned

+ L.M.C. 6.19

MACHINERY CERTIFICATE WRITTEN copy 18/11/22 ENDORSED WITH NEW NAME OF VESSEL



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