

Rpt. 4.

REPORT ON MACHINERY.

No. 2922

Date of writing Report 25 Aug 19 20 When handed in at Local Office 19 Port of Melvor
No. in Survey held at Melvor Haven Date, First Survey 7 June Last Survey 21 July 19 20
Reg. Book. on the ST "William Mannel" (Number of Visits 10)
Master Nightingale Built at Middlesbro By whom built Smith Dock Co. L^d Tons { Gross
Engines made at Middlesbro By whom made Smith Dock Co. L^d When built 1917 Net
Boilers made at Newcastle on Tyne By whom made Hawthorn Leslie & Co. L^{ts} when made 1917
Registered Horse Power 87 Owners Mrs Bishop Port belonging to ✓
Nom. Horse Power as per Section 28 87 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted ✓

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 12 1/2" x 21" x 35" Length of Stroke 26 Revs. per minute 110 Dia. of Screw shaft 7 1/2" as per rule 7 1/2" Material of Iron
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 34"
Dia. of Tunnel shaft 6 5/8" as per rule 6 5/8" Dia. of Crank shaft journals 6 7/8" as per rule 6 7/8" Dia. of Crank pin 7 1/8" Size of Crank webs 14 x 4 1/2" Dia. of thrust shaft under
collars 7 1/8" Dia. of screw 9 1/8" Pitch of Screw 11 1/2" No. of Blades 4 State whether moveable No Total surface 35.5 sq
No. of Feed pumps 2 Diameter of ditto 2 1/2" Stroke 12 Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 2 1/2" Stroke 12 Can one be overhauled while the other is at work Yes
No. of Donkey Engines 2 Suction Sizes of Pumps 6 x 3 x 6, 6 x 4 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 1 2' forward & 1 2' aft & 2" Superheater In Holds, &c. from Holds, and sluck well
and also Suction from all parts
No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2 1/2" 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 None
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 Wood 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 ✓ Is it fitted with a watertight door ✓ worked from ✓

OILERS, &c.—(Letter for record S) Manufacturers of Steel
Total Heating Surface of Boilers 1619 Is Forced Draft fitted No No. and Description of Boilers Single ended
Working Pressure 180 Tested by hydraulic pressure to 360 lbs Date of test 1/2/17 No. of Certificate 2431
Can each boiler be worked separately ✓ Area of fire grate in each boiler 50 sq No. and Description of Safety Valves to
each boiler 2 Spring loaded Area of each valve 4 1/2" Pressure to which they are adjusted 182 Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 7 in dia. of boilers 13 1/2" Length 10 1/2" Material of shell plates S
Thickness 3/32 Range of tensile strength 28 1/2 32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams double
Long. seams T.R.B.S. Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 8" Lap of plates or width of butt straps 17"
Per centages of strength of longitudinal joint 89 1/2 85 1/2 Working pressure of shell by rules 180 Size of manhole in shell 16 x 12"
Size of compensating ring 9' x 1 1/2" No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 40 9/16"
Length of plain part top 81 1/2" Thickness of plates crown 25" Description of longitudinal joint Welded No. of strengthening rings ✓
bottom 76" Working pressure of furnace by the rules 188 Combustion chamber plates: Material S Thickness: Sides 1/16" Back 3/32" Top 1/16" Bottom 7/8"
Pitch of stays to ditto: Sides 9 1/2" x 9 1/2" Back 9 1/2" x 7 1/2" Top 8 1/2" x 9 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181
Material of stays S Area at smallest part 2 1/2" Area supported by each stay 98 2/5 Working pressure by rules 205 End plates in steam space:
Material S Thickness 1 1/16" Pitch of stays 17 1/2" x 18" How are stays secured DNW Working pressure by rules 181 Material of stays S
Area at smallest part 6 1/10 Area supported by each stay 295 Working pressure by rules 215 Material of Front plates at bottom S
Thickness 3/32 Material of Lower back plate S Thickness 1/16" Greatest pitch of stays 14 1/9" Working pressure of plate by rules 219
Diameter of tubes 3 1/2" Pitch of tubes 5 x 4 3/4" Material of tube plates S Thickness: Front 3/32" Back 7/8" Mean pitch of stays 10"
Pitch across wide water spaces 14" Working pressures by rules 184 Girders to Chamber tops: Material S Depth and
thickness of girder at centre 8 3/4" x 1 3/4" Length as per rule 32" Distance apart 8 3/4" Number and pitch of stays in each 20 8 3/4"
Working pressure by rules 197 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 ✓
PERHEATER. 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 ✓

W1030-0210

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

✓

SPARE GEAR.

State the articles supplied:—

Four top end bolts, and nuts 2
Bottom end bolts, and nuts 1 set of Coupling bolts
and nuts 1 Set Air, feed, and bilge pump valves complete
Set of piston studs 2 nuts 4 Condenser tubes 3 boiler tubes
4 tube stoppers 1 Set of donkey suction valves.
assorted quantity of iron bolts, and nuts

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - - }
Total No. of visits

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders

Slides

Covers

Pistons

Rods

Connecting rods

Crank shaft

Thrust shaft

Tunnel shafts

Screw shaft

Propeller

Stern tube

Steam pipes tested

Engine and boiler seatings

Engines holding down bolts

Completion of pumping arrangements

Boilers fixed

Engines tried under steam

Completion of fitting sea connections

Stern tube

Screw shaft and propeller

Main boiler safety valves adjusted

Thickness of adjusting washers

Material of Crank shaft

Iron

Identification Mark on Do.

✓

Material of Thrust shaft

Iron

Identification Mark on Do.

Material of Tunnel shafts

✓

Identification Marks on Do.

✓

Material of Screw shafts

Iron

Identification Marks on Do.

Material of Steam Pipes

S D Copper

Test pressure

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

Yes

Is this machinery duplicate of a previous case

Yes

If so, state name of vessel

General Remarks

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

The workmanship of

this vessel's machinery appears good. The machinery was built under British Corporation Survey. The plans, and specification being mutually approved by this Society, and the B.C. In my opinion the vessel is eligible to have L.M.C. 7.20 entered in the Register

The amount of Entry Fee

£ 10 : 10

When applied for,

Special

£

8 Aug 19.20

Donkey Boiler Fee

£

When received,

Travelling Expenses (if any) £

£

4/11/ 19.20

£668.

J. H. Johnstone

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. SEP. 3 1920

Assigned

L.M.C. 7.20



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