

REPORT ON MACHINERY.

No. 2958

Received at London Office

29th Nov 20
1920
When handed in at Local Office
10 Port of *Milford* TUE. 3 NOV. 1920
Date, First Survey 21 July Last Survey 18 Sept 1920
Survey held at *Pembroke Dockyard*
on the *ST "Henry Flight"*
(Number of Visits) 206
Tons { Gross 206
Net 94
When built 1918
Built at *Chester* By whom built *Abdela & Mitchell*
Engines made at *Britains comb* By whom made *Abdela & Mitchell* when made 1918
Boilers made at *Glasgow* By whom made *Ross & Duncan* when made 1918
Registered Horse Power Owners Port belonging to
Horse Power as per Section 28 74 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 12"x 20"x 24" Length of Stroke 23 Revs. per minute 110 Dia. of Screw shaft as per rule 6.85 Material of screw shaft Iron
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
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 30"
Dia. of Tunnel shaft as per rule 6.117 Dia. of Crank shaft journals as per rule 6.42 Dia. of Crank pin 6.75 Size of Crank webs 10"x 4 1/2" Dia. of thrust shaft under
lars 6 3/4 Dia. of screw 8"-4" Pitch of Screw 11-6 No. of Blades 4 State whether moveable No Total surface 29
No. of Feed pumps 1 Diameter of ditto 2 5/8 Stroke 12 Can one be overhauled while the other is at work Yes
No. of Bilge pumps 1 Diameter of ditto 2 7/8 Stroke 12 Can one be overhauled while the other is at work Yes
No. of Donkey Engines 2 No. and size of Suctions connected to both Bilge and Donkey pumps
Engine Room 1 2" aft In Holds, &c. and 1 2" forward in Forenoon
Blow off well and separate ejectors working from all parts
No. of Bilge Injections 1 sizes 3 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 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 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
That pipes are carried through the bunkers Forward Suctions 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 Yes Is it fitted with a watertight door Yes worked from Yes
Boilers, &c.—(Letter for record S) Manufacturers of Steel
Total Heating Surface of Boilers 1347 Is Forced Draft fitted No No. and Description of Boilers Single ended
Working Pressure 180 Tested by hydraulic pressure to Date of test 7-5-18 No. of Certificate
Can each boiler be worked separately Yes Area of fire grate in each boiler 39.5 sq ft No. and Description of Safety Valves to
each boiler 2 Spring loaded Area of each valve 5.94 Pressure to which they are adjusted 185 Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 7" Mean dia. of boilers 12-6 Length Material of shell plates S
Thickness 1 1/2 Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Double
Long. seams Double Seam Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 7 3/4, 3 1/2 Lap of plates or width of butt straps 16 1/2 25/32
Percentage of strength of longitudinal joint rivets 85.5 Working pressure of shell by rules 181.8 Size of manhole in shell 16" x 12"
Size of compensating ring 28" x 1 No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 36.6
Length of plain part top 3 8 1/2 Thickness of plates crown 3 7/5 Description of longitudinal joint Weld No. of strengthening rings 1 1/2 x 3
Working pressure of furnace by the rules 189 Combustion chamber plates: Material S Thickness: Sides 7/8 Back 7/8 Top 7/8 Bottom 7/8
Pitch of stays to ditto: Sides 9 x 8 Back 9 x 8 Top 8 1/2 x 8 1/2 If stays are fitted with nuts or riveted heads But Working pressure by rules 186.2
Material of stays Area at smallest part 1.929 Area supported by each stay 72 sq in Working pressure by rules 200 End plates in steam space:
Material S Thickness 1 1/8 Pitch of stays 18" x 18" How are stays secured N x W Working pressure by rules 185 Material of stays S
Area at smallest part 6.22 Area supported by each stay 324 sq in Working pressure by rules 185 Material of Front plates at bottom S
Thickness 1" Material of Lower back plate S Thickness 1/16 Greatest pitch of stays 14 1/2 x 8" Working pressure of plate by rules 213.8
Diameter of tubes 3 1/2 Pitch of tubes 4.75 Material of tube plates S Thickness: Front 1" Back 3/32 Mean pitch of stays 11 3/8
Pitch across wide water spaces 14.5 Working pressures by rules 182-6 Girders to Chamber tops: Material S Depth and
Thickness of girder at centre 7 x 1 3/4 Length as per rule 28.5 Distance apart 5.75 Number and pitch of stays in each 2 8 in
Working pressure by rules 183.2 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
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

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

2 Top end bolts and nuts
Bottom end bolts and nuts
2 main bearing bolts and nuts
1 Set Coupling bolts and nuts
1 complete set of suction and delivery valves for auxiliary pump
Main and donkey check valve
1 escape valve spring
3 plain tubes for boiler, and tube stoppers
3 Condenser tubes, and assorted 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	182	Thickness of adjusting washers	3 5/16 P 5/16		
Material of Crank shaft	I r S	Identification Mark on Do.	Material of Thrust shaft	S	Identification Mark on Do.
Material of Tunnel shafts	S	Identification Marks on Do.	Material of Screw shafts	2	Identification Marks on Do.
Material of Steam Pipes	S A C	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

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 sound, and was built under British Corporation Survey to plans, and specification mutually approved by this Society, and the British Corporation and in my opinion is eligible to have L.M.C 9. 20 assigned,

The amount of Entry Fee ... £
Special ... £
Donkey Boiler Fee ... £
Travelling Expenses (if any) £
When applied for, 19...
When received, 19...

Committee's Minute

Assigned

FRID. DEC. 3 1920

Dec 6. 9. 20

J. W. Johnstone

Engineer Surveyor to Lloyd's Register of Shipping.

TUE JAN 24 1921



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