

REPORT ON MACHINERY.

No. 8053.

Received at London Office

Date of writing Report 11th Dec^r 1918 When handed in at Local Office 1918 Port of Belfast
 No. in Survey held at Belfast Date, First Survey 18th March Last Survey 5th Dec^r 1918
 Reg. Book. S. S. "WAR MUSIC" (Number of Vistas 35)
 Master Booth Built at Belfast By whom built Harland & Wolff, Ltd Tons Gross 6497
 Engines made at Belfast By whom made Harland & Wolff, Ltd when made 1918
 Boilers made at " By whom made " when made "
 Registered Horse Power V Owners The Shipping Controller Port belonging to London
 Nom. Horse Power as per Section 28 578 517 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Single Screw Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 27" - 44" - 73" Length of Stroke 48" Revs. per minute 79 Dia. of Screw shaft as per rule 14.76 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 ✓ If two
 liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 63"
 Dia. of Tunnel shaft as per rule 13.33 Dia. of Crank shaft journals as per rule 13.9 Dia. of Crank pin 14.34 Size of Crank webs 28 x 9 Dia. of thrust shaft under
 collars 15" Dia. of screw 17.9 Pitch of Screw 16.6" No. of Blades 4 State whether moveable No Total surface 100 Sq. ft.
 No. of Feed pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 as sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3-3 1/2 1-2 1/2 In Holds, &c. 6-3 1/2, 2-4 1/2 1-3 5-2 1/2
 No. of Bilge Injections one size 13 Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size 10-3 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 - except Are they Valves or Cocks Yes
 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 Below
 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 Fore hold Suctions How are they protected Iron Casings
 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 No W.T. Trunks worked from deck

BOILERS, &c.—(Letter for record S) Manufacturers of Steel J. Colville Sons Ltd
 Total Heating Surface of Boilers 7668 Sq. ft. Is Forced Draft fitted Yes No. and Description of Boilers 3 Single End Cyl.
 Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 18/10/18 No. of Certificate 534
 Can each boiler be worked separately Yes Area of fire grate in each boiler 635 Sq. ft. No. and Description of Safety Valves to
 each boiler 2 Direct Spring Area of each valve 9.62 Sq. ft. Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork About 2 ft. Mean dia. of boilers 15.6" Length 11.6" Material of shell plates Steel
 Thickness 1 1/4" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Lap 50 lb
 long. seams Butt Triple Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 9 1/8" Lap of plates or width of butt straps 19 1/2"
 Per centages of strength of longitudinal joint 88% Working pressure of shell by rules 182 lb Size of manhole in shell 16 x 12"
 Size of compensating ring Raf flanges No. and Description of Furnaces in each boiler 3-Right on Material Steel Outside diameter 50 1/2"
 Length of plain part top 5" Thickness of plates crown 19" Description of longitudinal joint Weld No. of strengthening rings ✓
 Working pressure of furnace by the rules 188 lb Combustion chamber plates: Material Steel Thickness: Sides 23" Back 16" Top 22" Bottom 22"
 Pitch of stays to ditto: Sides 10 1/8" x 9 1/4" Back 9 1/2" x 8 1/2" Top 10 1/2" x 9 1/4" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 180 lb
 Material of stays Steel Area at smallest part 2.3 1/2 x 3.5 Area supported by each stay 98 1/4 Sq. ft. Working pressure by rules 186 lb End plates in steam space:
 Material Steel Thickness 1 1/2" Pitch of stays 21 1/2" x 20" How are stays secured 2. Nut Working pressure by rules 180 lb Material of stays Steel
 Area at smallest part 8.25 Sq. ft. Area supported by each stay 4.59 1/2 Sq. ft. Working pressure by rules 187 1/4 Material of Front plates at bottom Steel
 Thickness 3 1/2" Material of Lower back plate Steel Thickness 3 1/2" Greatest pitch of stays 13 1/4" Working pressure of plate by rules 189 1/2
 Diameter of tubes 2 3/4" Pitch of tubes 4 x 3 3/8" Material of tube plates Steel Thickness: Front 3 1/2" Back 3 1/4" Mean pitch of stays 12 x 7 1/4"
 Pitch across wide water spaces 13 1/8" Working pressures by rules 181 lb Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 10 x (7 x 2) Length as per rule 35 1/2 Distance apart 10 1/2 Number and pitch of stays in each 3-9 1/4"
 Working pressure by rules 182 lb 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 "

IS A DONKEY BOILER FITTED?

No ✓

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

See separate sheet ✓

The foregoing is a correct description,

Manufacturers.

Dates of Survey while building { During progress of work in shops - - 1918 :- March 16th to 5th Dec
During erection on board vessel - - -
Total No. of visits 35

Is the approved plan of main boiler forwarded herewith Yes

" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders

6 Slides 6-7-18

Covers

Stons

Rods

Connecting rods 6-10-18

Crank shaft

23 Thrust shaft 18

Tunnel shafts

Screw shaft 6-10-18

Propeller 7-10-18

Stern tube 7-10-18

Steam pipes tested 16-9-18

Engine and boiler seatings 8-11-18

Engines holding down bolts 23-11-18

Completion of pumping arrangements 5-12-18

Boilers fixed 18-11-18

Engines tried under steam 28-11-18

Completion of fitting sea connections 25-10-18

Stern tube 23-10-18

Screw shaft and propeller 23-10-18

Main boiler safety valves adjusted 28-11-18

Thickness of adjusting washers 9-15-18

Material of Crank shaft I. Steel Identification Mark on Do. F.J.B. 16-10-18

Material of Thrust shaft do Identification Mark on Do. do

Material of Tunnel shafts do Identification Marks on Do. do

Material of Screw shafts do Identification Marks on Do. do

Material of Steam Pipes W. Iron ✓

Test pressure 540 lbs sq. ✓

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 Yes ✓ If so, state name of vessel SS. "War Melody" ✓

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

The machinery of this vessel has been constructed under Special Survey and in accordance with the Rules, and the instructions of the Shipping Controller. The workmanship, and the materials, are of good description and on trials under steam in Belfast Lough, the machinery worked satisfactorily.

In my opinion, it is eligible for record + L.M.C. 12-18, with notation Forced Draft + Electric Light

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 12-18. F.D.

AWD 10/2/19

The amount of Entry Fee £ Fee as agreed :
Special £
Donkey Boiler Fee ... £ 44-8-0
Travelling Expenses (if any) £ :
When applied for, 7-12-1918
When received, 11-1-1919 R.B.M. 10/2/19

R. F. O'Brien
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 11 FEB. 1919

Assigned

+ L.M.C. 12-18

S.D.



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Teefast

Continuation of Report No 5-3 dated 11th Dec^r 1918 on the

2. War Music

- | | | | |
|---|---------------------|-------------------------------------|---|
| 1 | Auxiliary Feed Pump | $9\frac{1}{2} \times 7 \times 18$ | ✓ |
| 1 | General Service | $9\frac{1}{2} \times 7 \times 18$ | ✓ |
| 1 | Ballast | $10\frac{1}{2} \times 14 \times 24$ | ✓ |

Spare Gear Principal Items

- 2 Top End & two bottom end bolts & nuts. ✓
2 main bearing bolts & nuts. ✓
6 Coupling Bolts. ✓
2. Leds + 2 Bilge Pump Valves. ✓
3 Main + 3 donkey feed check valves
50 bolts & nuts assorted ✓
8 Bars Iron. ✓
1 C.I. Propeller.
12 Condenser Tubes.
50 " forules.
6. Air pump Valves.
2 Piston Rod Packing rings.
2 Valve spindle " "
200 Fine Bars.
9 Furnace Baffle Plates.
1 Sinker Bucket + bolts coin like
Set Spare Gear for Circulating Pump
- - - - - Led " "
- - - - - General " "
- - - - - Ballast "
- Piston Rings Fan Engine.
12 Boiler Tubes Plain.
1 Led pump escape valve spring
1. Diaphragm for each size reducing valve
1 Valve disc for main Engine Stop Valve
6 Kinds for Cylinder Covers.
6 " " Main Chest.
6 " " Each size in boiler mountings

R. L. Beveridge