

Received at London Office

Date of writing Report 17th Aug 1920 When handed in at Local Office 17.5.1920. Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 4.6.19. Last Survey 10th May 1920
 Reg. Book. T.S.S. DORSETSHIRE (oil engine) - 25.8.19 (Number of Visits 60 14-8-20 Gross 7445
 on the Tons } Net 4545
 Master W. C. Stanley Built at Belfast By whom built Harland & Wolff Ltd (no 578) When built 1920
 Engines made at Glasgow By whom made Harland & Wolff Ltd (no 578) when made 1920
 Boilers made at Annan By whom made Cochran & Co Ltd when made 1920
 Registered Horse Power Owners Ribby Bros Port belonging to Liverpool
 Nom. Horse Power as per Section 28 858 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

No. of Cylinders 12 No. of Cranks 12
 Description of Engines T.S. Diesel 4 Stroke Cycle
 Dia. of Cylinders 740 Length of Stroke 1150 Revs. per minute 115
 Dia. of Screw shaft 15 1/4 Material of screw shaft Steel
 Is the after end of the liner made water tight
 the screw shaft fitted with a continuous liner the whole length of the stern tube Yes
 the propeller boss If the liner is in more than one length are the joints burned Carburetor
 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive fits whole length If two
 liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 5-7 1/2
 Dia. of Tunnel shaft 13.5 Dia. of Crank shaft journals 17.4 442 Dia. of Crank pin 17.453 456 Size of Crank webs 880 1300 Dia. of thrust shaft under
 collars 15 Dia. of screw 13-6 Pitch of Screw 13-0 No. of Blades 3 State whether moveable Yes Total surface 43 ft
 No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work
 No. of Bilge pump (2) 4 inch Diameter of ditto 6 Stroke 6 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines (1) 10 Stroke 10 Three 150 B.H.P. Diesel engines driving dynamos & electric driven air
 Engine Room (3) 3 1/2 (2) 4 1/2 In Holds, &c. No 1 (3) 3 1/2 No 2 (3) 3 1/2 (1) 2 1/2
 No 4 (2) 3 1/2 (2) 2 1/2 No 5 (2) 3 1/2 (2) 3 Tunnel well (1) 3 1/2
 No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size Yes 5
 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 hatch 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 None How are they protected
 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 Top of E. Room
 AIR RESERVOIRS See Separate Report
 Manufacturers of Steel Three Reservoirs

Total Heating Surface of Boilers		Is Forced Draft fitted		No. and Description of Bottoms		No. of Certificate	
Working Pressure 356 lb		Tested by hydraulic pressure to 712 lb		Date of test 26.4.20		15231 15243 15248	
Can each boiler be worked separately		Area of fire grate in each boiler		No. and Description of Safety Valves to		Are they fitted with easing gear	
Reservoirs 2 Spring loaded		Area of each valve 7.06 sq		Pressure to which they are adjusted 356 lb		No	
Smallest distance between boilers or uptakes and bunkers or woodwork		Mean dia. of boilers		Length		Material of shell plates	
Thickness		Range of tensile strength		Are the shell plates welded or flanged		Description of riveting: cir. seams	
long. seams		Diameter of rivet holes in long. seams		Pitch of rivets		Lap of plates or width of butt straps	
Per centages of strength of longitudinal joint		Working pressure of shell by rules		Size of manhole in shell		Material	
Size of compensating ring		No. and Description of Furnaces in each boiler		Material		Outside diameter	
Length of plain part		Thickness of plates		Description of longitudinal joint		No. of strengthening rings	
Working pressure of furnace by the rules		Combustion chamber plates: Material		Thickness: Sides		Back Top Bottom	
Pitch of stays to ditto: Sides		If stays are fitted with nuts or riveted heads		Working pressure by rules		End plates in steam space:	
Material of stays		Area at smallest part		Area supported by each stay		Working pressure by rules	
Material		Thickness		Pitch of stays		How are stays secured	
Area at smallest part		Area supported by each stay		Working pressure by rules		Material of Front plates at bottom	
Thickness		Material of Lower back plate		Thickness		Greatest pitch of stays	
Diameter of tubes		Pitch of tubes		Material of tube plates		Thickness: Front Back	
Pitch across wide water spaces		Working pressures by rules		Girders to Chamber tops: Material		Depth and	
thickness of girder at centre		Length as per rule		Distance apart		Number and pitch of stays in each	
Working pressure by rules		Steam dome: description of joint to shell		Diam. of rivet holes		% of strength of joint	
Diameter		Thickness of shell plates		Material		Description of longitudinal joint	
Pitch of rivets		Working pressure of shell by rules		Crown plates		Thickness	
SUPERHEATER. Type		Date of Approval of Plan		Tested by Hydraulic Pressure to		How stayed	
Date of Test		Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler		Is Easing Gear fitted		Lloyd's Register	
Diameter of Safety Valve		Pressure to which each is adjusted		W1647-0205		Foundation	

IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes*

SPARE GEAR. State the articles supplied:—

See Separate list

The foregoing is a correct description,
For HARLAND & WOLFF, LTD.

J. C. Green

MANAGER FINNIESTON WORKS

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } 1919 June 23. July 1. 10. Sept 1. 22. Oct 13. 20. Nov 3. 5. 12. 14. 17. 21. 28. Dec 4. 5. 9. 17.
{ During erection on board vessel -- } 22. 30. 1920 Jan 9. 8. 12. 13. 15. 16. 19. 24. 28. 29. Feb 2. 3. 4. 5. 10. 13. 19. 24. 25. Mar. 2. 3.
Total No. of visits 60 *Belfast* 25-9-19 to 14-8-20 Is the approved plan of main boiler forwarded herewith *✓*
Belfast 27

Dates of Examination of principal parts—Cylinders 22. 9. 19 Slides — Covers 17. 3. 20 Pistons 14. 11. 19 Rods 14. 11. 19

Connecting rods 20. 10. 19 Crank shaft 16. 1. 20 Thrust shaft 10. 5. 20 Tunnel shafts 7. 4. 20 Screw shaft 22. 3. 20 Propeller 7. 4. 20

Stern tube 22. 3. 20 Steam pipes tested — Engine and boiler seatings 17. 3. 20 Engines holding down bolts 11. 7. 20

Completion of pumping arrangements 14. 8. 20 *Donkey* Boilers fixed 11. 7. 20 Engines tried ~~under steam~~ 14. 8. 20

Completion of fitting sea connections 8. 4. 20 Stern tube 13. 4. 20 Screw shaft and propeller 15. 4. 20

Donkey Main boiler safety valves adjusted 5. 8. 20 Thickness of adjusting washers $\frac{5}{16}$ "

Material of Crank shaft *Steel* Identification Mark on Do. *no 578* Material of Thrust shafts *Steel* Identification Mark on Do. *S 842. 4280*

Material of Tunnel shafts *Steel* Identification Marks on Do. *⊗* Material of Screw shafts *Steel* Identification Marks on Do. *S 392. 979*

Material of Steam Pipes — Test pressure —

Is an installation fitted for burning oil fuel in *Donkey Boiler* Is the flash point of the oil to be used over 150°F. *Yes*

Have the requirements of Section 49 of the Rules been complied with *Yes*

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.)

S 407. 3949 S 408. 3950
⊗ 12722 A. J. P. 12722 A. J. P.
⊗ 12697 A 3970 3935 398 31151 5540 5410 5328
982 4098 54 4518 4566 4156 981 933
4118 2689 A 195 A 1 12726 A 3506 B 3186 B 12696 A 12692 A
M.R. J.P. R.E.M. J.P. J.P. J.P. M.R. M.R.

The materials and workmanship are good.
The machinery has been constructed under special survey in accordance with the Rules and approved Plans and has been forwarded to Belfast where it is to be fitted to the vessel, and when this has been done, and it has been tried to the satisfaction of the Society's Surveyors, it will, in my opinion, be eligible to be classed + L M C with date

The main and auxiliary machinery has been satisfactorily fitted on board and on trial in Belfast Lough it worked satisfactorily. In my opinion it is eligible for record + L. M. C. 8-20

The amount of Entry Fee ... £ 3 : 0 :
Special *due Sep. 14. 1920* *18 MAY 1920*
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When received, *1-7-1920*

Committee's Minute *GLASGOW 18 MAY 1920*

Assigned *Deferred.* *glb* + L M C 8. 20

MACHINE Y CERT. OIL ENGINE
WRITTEN.

Lloyd's Register Foundation