

REPORT ON MACHINERY.

No. 14640

22 JAN 1927

Received at London Office

Port of Aberdeen
Date, First Survey 25-1-26 Last Survey 14-1-1927
(Number of Visits 35)
in Survey held at Aberdeen
on the S.S. "FERMANAGH"
Master Built at Aberdeen By whom built J. Lewis & Sons Ltd. When built 1926
Engines made at Aberdeen By whom made J. Lewis & Sons Ltd. (No 180.) when made 1926
Boilers made at Aberdeen By whom made J. Lewis & Sons Ltd. (No 143) when made 1926
Registered Horse Power 63 Owners John Kelly Ltd. Port belonging to Belfast
Nom. Horse Power as per Section 28 63 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 10 1/2 - 18 - 30 Length of Stroke 21 Revs. per minute as per rule 6.25 Material of screw shaft 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 yes 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 yes If two
liners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 28
Dia. of Tunnel shaft as per rule 5.575 Dia. of Crank shaft journals as per rule 5.85 Dia. of Crank pin 6 Size of Crank webs 8 1/2 x 4 Dia. of thrust shaft under
collars 6 Dia. of screw 8-0 Pitch of Screw 10-6 No. of Blades 4 State whether moveable no Total surface 25 sq
No. of Feed pumps one Diameter of ditto 2 1/4 Stroke 10 1/2 Can one be overhauled while the other is at work yes
No. of Bilge pumps one Diameter of ditto 2 1/4 Stroke 10 1/2 Can one be overhauled while the other is at work yes
No. of Donkey Engines 2 Sizes of Pumps 5 1/2 x 6; 6 x 6 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room One @ 2" forward, 1 @ 2" aft. In Holds, &c. one @ 2 1/4" port, 1 @ 2 1/4" starboard.

No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes, 2 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 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 hold suction How are they protected below ceiling
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 W. Beardmore & Co. Ltd. No. and Description of Boilers One S.E. Main
Total Heating Surface of Boilers 1180 sq Is Forced Draft fitted no No. and Description of Safety Valves One S.E. Main
Working Pressure 200 lb. Tested by hydraulic pressure to 350 lb. Date of test 13-10-26 No. of Certificate 1052
Can each boiler be worked separately yes Area of fire grate in each boiler 34.4 sq No. and Description of Safety Valves One S.E. Main
each boiler 2 spring loaded Area of each valve 3.97 sq Pressure to which they are adjusted 200 lb Are they fitted with easing gear yes
Smallest distance between boilers or uptakes and bunkers or woodwork alt 4-0 dia. of boilers 11-6 Length 10-0 Material of shell plates S
Thickness 1 1/8 Range of tensile strength 28/32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R.
long. seams TRDBS Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 7 1/8 Length of plates or width of butt straps 16
Per centages of strength of longitudinal joint 84.9 Working pressure of shell by rules 200 Size of manhole in shell 15 x 19
Size of compensating ring 16 x 12 No. and Description of Furnaces in each boiler 2 plain Material S Outside diameter 41
Length of plain part 73.75 Thickness of plates 32 Description of longitudinal joint welded No. of strengthening rings 21
Working pressure of furnace by the rules 202.5 Combustion chamber plates: Material S Thickness: Sides 32 Back 16 Top 32 Bottom 32
Pitch of stays to ditto: Sides 8 x 9 1/4 Back 7 1/2 x 10 1/2 Top 7 1/2 x 9 1/4 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 200.5
Material of stays S Area at smallest part 1 3/8 x 1 3/4 Area supported by each stay 74.8 Working pressure by rules 200.5 Material of stays S
Material S Thickness 31 Pitch of stays 15 7/8 x 13 5/8 How are stays secured D.N. Working pressure by rules 208 Material of Front plates at bottom S
Area at smallest part 2 1/2 Area supported by each stay 212.5 Working pressure by rules 208 Material of Front plates at bottom S
Thickness 15 Material of Lower back plate S Thickness 13 Greatest pitch of stays 17 Working pressure of plate by rules 210
Diameter of tubes 3 1/2 Pitch of tubes 4 3/4 x 4 3/4 Material of tube plates S Thickness: Front 15 Back 13 Mean pitch of stays 11
Pitch across wide water spaces 14 1/2 x 9 1/2 Working pressures by rules 201 lb Girders to Chamber tops: Material S Depth and
thickness of girder at centre 8 1/4 x 1 1/8 Length as per rule 2-5 Distance apart 7 1/8 Number and pitch of stays in each 2 @ 9 1/4
Working pressure by rules 201.5 Steam dome: description of joint to shell yes % of strength of joint yes
Diameter yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet holes yes
Pitch of rivets yes Working pressure of shell by rules yes Crown plates yes Thickness yes How stayed yes
SUPERHEATER. Type yes Date of Approval of Plan yes Tested by Hydraulic Pressure to yes
Date of Test yes Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes
Diameter of Safety Valve yes Pressure to which each is adjusted yes Is Easing Gear fitted yes

WS24 - 0258

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

✓

SPARE GEAR.

State the articles supplied:—

Two top end bolts & nuts, Two bottom end bolts & nuts, 2 main bearing bolts, 1 set of coupling bolts, 1 set of feed & bilge pump valves, a quantity of assorted bolts & nuts, iron of various sizes, propeller, safety valve spring, escape valve spring, main & donkey check valves, 6 cylinder studs & nuts, 6 junk ring studs & nuts, 3 boiler tubes, 3 condenser tubes, 1/2 set of fire bars.

The foregoing is a correct description,

FOR JOHN LEWIS & SONS, LTD.,

John J. Donald

Manufacturer.

Dates of Survey while building { During progress of work in shops - - Jan 25. Feb. 3. 9. 24. Mar. 2. 10. 16. Apr. 5. 12. 14. 23. May 6. 24. June 11. 18. 29. July 9. 15. 29. Aug. 13. 24. 31. During erection on board vessel - - - Nov. 8. 12. 13. 18. 22. 23. 1927. Jan 14. Total No. of visits 35

Is the approved plan of main boiler forwarded herewith

yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 5-4-26 Slides 11-6-26 Covers 5-4-26 Pistons 11-6-26 Rods 11-6-

Connecting rods 11-6-26 Crank shaft 12-3-26 Thrust shaft 24-9-26 Tunnel shafts ✓ Screw shaft 24-9-26 Propeller 24-

Stern tube 24-9-26. Steam pipes tested 13-11-26 Engine and boiler seatings 8-11-26. Engines holding down bolts 12-11-

Completion of pumping arrangements 23-11-26 Boilers fixed 12-11-26. Engines tried under steam 23-11-26

Completion of fitting sea connections 8-11-26 Stern tube 8-11-26 Screw shaft and propeller 8-9-26.

Main boiler safety valves adjusted 14-1-27 Thickness of adjusting washers P 9/32 S 5/16

Material of Crank shaft Steel Identification Mark on Do. 1048 JES. Material of Thrust shaft Steel Identification Mark on Do. 1050

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 1049

Material of Steam Pipes S.D. Copper, 3" dia, 8 S.W.G. Test pressure 400 lbs per sq. in.

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 ✓ If so, state name of vessel ✓

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

The engines & boiler of this vessel have been built under special survey & in accordance with the approved plans & the Rules of this Society. The materials & workmanship are good. The machinery has been properly fitted & secured on board, tried under working conditions, & found good. The steam & feed pipes have been tested by hydraulic pressure as required by the Rules. The safety valves have been adjusted under steam & tried for accumulation.

The machinery is eligible in my opinion to have the record & LMC 1-27 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD & LMC 1-27. CL.

For H.C. Foster & self. P. Fitzgerald

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 2 : 0 : 0 When applied for, Special ... £ 15 : 15 : 0 19. Donkey Boiler Fee ... £ : : : When received, Travelling Expenses (if any) £ : : 5-5-27 19.

Committee's Minute

TUES. 25 JAN 1927

Assigned

+ L. AC 1:27

CERTIFICATE WRITTEN.



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