

REPORT ON MACHINERY

No. 28572

Received at London Office TUE. JUN. 15 1915

Date of writing Report 12-5-15 When handed in at Local Office 12-5-15 Port of Hull
 No. in Survey held at Hull Date, First Survey 28-8-14 Last Survey 20-5-1915
 Reg. Book. 5 Supp. on the Steam Trawler "SEAWARD HO." (Number of Visits 46) (2599)
 Master Built at Beverley By whom built Cook, Wilton & Gemmell Tons } Gross 331
 Engines made at Hull By whom made Amos & Smith (No 2599) when made 1915 } Net 138
 Boilers made at Hull By whom made Amos & Smith when made 1915
 Registered Horse Power Owners S.T. White & Co. Ltd. Port belonging to Hull
 Nom. Horse Power as per Section 28 90 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 13", 22 3/4", 37" Length of Stroke 26" Revs. per minute Dia. of Screw shaft as per rule 7.94" Material of screw shaft Iron
 as fitted 8 1/2"
 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 3'-0"
 Dia. of Tunnel shaft as per rule 7.02" Dia. of Crank shaft journals as per rule 7.37" Dia. of Crank pin 7 1/2" Size of Crank webs 14 3/4" x 4 3/4" Dia. of thrust shaft under
 collars 7 1/2" Dia. of screw 9'-9" Pitch of Screw 11'-3" No. of Blades 4 State whether moveable no Total surface 34 sq ft
 No. of Feed pumps 1 Diameter of ditto 2 7/8" Stroke 12" Can one be overhauled while the other is at work
 No. of Bilge pumps 1 Diameter of ditto 2 7/8" Stroke 12" Can one be overhauled while the other is at work
 No. of Donkey Engines 1 Sizes of Pumps 6" x 4 1/4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2-2" forward & aft. In Holds, &c. 6-2"; one to spare fishroom.
 one to main fishroom, one to storeroom, & 3 to slushwells in fishrooms.
 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 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 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 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
 Dates of examination of completion of fitting of Sea Connections 29-10-14 of Stern Tube 29-10-14 Screw shaft and Propeller 29-10-14
 Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

OILERS, &c.—(Letter for record S) Manufacturers of Steel W. Beardmore & Co. Glasgow
 Total Heating Surface of Boilers 1511 Is Forced Draft fitted no No. and Description of Boilers one single ended
 Working Pressure 200 lb Tested by hydraulic pressure to 400 lb Date of test 8-4-15 No. of Certificate 3070
 Can each boiler be worked separately Area of fire grate in each boiler 48.125 sq ft No. and Description of Safety Valves to
 each boiler 2 spring loaded Area of each valve 4.9 sq ft 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 abt 8" Mean dia. of boilers 13'-9" Length 10'-7 29/32" Material of shell plates steel
 Thickness 1 3/16" Range of tensile strength 29/33 ton Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR.
 long. seams TRDBS Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 3/4" Lap of plates or width of butt straps 17 3/4"
 Per centages of strength of longitudinal joint rivets 87-83 Working pressure of shell by rules 200 Size of manhole in shell 16x12"
 plate 85-71
 Size of compensating ring 40"x30"x1 3/16" No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 3'-4 1/4"
 Length of plain part top 6'-6" Thickness of plates crown 13" Description of longitudinal joint welded No. of strengthening rings
 bottom 5'-10" bottom 16"
 Working pressure of furnace by the rules 206 Combustion chamber plates: Material S Thickness: Sides 11/16" Back 23/32" Top 11/16" Bottom 11/16"
 Pitch of stays to ditto: Sides 9 3/4" x 7 3/4" Back 9 5/8" x 8 1/2" Top 9 1/8" x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 208
 area 2.3970 sq ft
 Material of stays S Diameter at smallest part 2.0660" Area supported by each stay 81.750 sq ft Working pressure by rules 215 End plates in steam space:
 Material S Thickness 1 5/32" Pitch of stays 17 3/4" x 17 3/4" How are stays secured double nuts Working pressure by rules 201 Material of stays S
 area 7.26 sq ft
 Diameter at smallest part 7.26" Area supported by each stay 280 sq ft Working pressure by rules 269 Material of Front plates at bottom S
 Thickness 1" Material of Lower back plate S Thickness 29/32" Greatest pitch of stays 14 1/2" Working pressure of plate by rules 202
 Diameter of tubes 3 1/2" Pitch of tubes 5" x 4 3/4" Material of tube plates S Thickness: Front 1" Back 27/32" Mean pitch of stays 9 3/4"
 Pitch across wide water spaces 13 3/4" Working pressures by rules 202 Girders to Chamber tops: Material S Depth and
 thickness of girder at centre 1 3/4" x 10" Length as per rule 36" Distance apart 9" Number and pitch of stays in each 3-8 1/2"
 Working pressure by rules 209 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
 separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
 holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

WS29-0163



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, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of feed, bilge & air pump valves, one main & one donkey check valve, a quantity of bolts & nuts & iron of various sizes.

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

W. H. H. H.

Manufacturer.

Managing Director

Dates of Survey while building { During progress of work in shops --- 1914: - Aug 28 Sep 29. per J.P. Oct. 16. 20. 23. 27. 29. Nov 11. 24. 28. Dec 1. 8. 11. 15. 18. 22. 24
During erection on board vessel --- 29. 1915: - Jan 2. 7. 11. 15. 21. 27. Feb. 2. 10. 18. 23. Mar 1. 5. 9. 12. 18. 22. 26. 29. Apr 1. 7. 8. 12. 22
Total No. of visits 46 Is the approved plan of main boiler forwarded herewith yes
" " " donkey " " "

Dates of Examination of principal parts—Cylinders 12-3-15 Slides 22-3-15 Covers 12-3-15 Pistons 18-3-15 Rods 1-4-15

Connecting rods 22-3-15 Crank shaft 29-3-15 Thrust shaft 8-4-15 Tunnel shafts Screw shaft 27-10-14 Propeller 27-10-14

Stern tube 27-10-14 Steam pipes tested 26-4-15 Engine and boiler seatings 29-10-14 Engines holding down bolts 26-4-15

Completion of pumping arrangements 20-5-15 Boilers fixed 26-4-15 Engines tried under steam 1-5-15

Main boiler safety valves adjusted 1-5-15 Thickness of adjusting washers 7/16 P & S.
no 27 PF

Material of Crank shaft Steel Identification Mark on Do. 29-3-15 Material of Thrust shaft Steel Identification Mark on Do. 2-4-15

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Iron Identification Marks on Do. 13-5-15

Material of Steam Pipes S.D. Copper Test pressure 400 lbs per sq. inch

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 Thomas Stratten

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been constructed under special survey in accordance with the approved plans, & the rules of this Society; the materials & workmanship are good, the boiler & steam pipes have been tested as above by hydraulic pressure & found sound & good. The machinery has been properly fitted & secured on board, & on completion tried under steam & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation, which did not exceed 207 lbs.

In my opinion the vessel is eligible for the record + LMC 5, 15

It is submitted that this vessel is eligible for THE RECORD + LMC 5. 15.

J.W.D. 15. 6. 15.

The amount of Entry Fee ...	£ 1 : 0 : 0	When applied for, 12-6-1915
Special ...	£ 13 : 10 : 0	
Donkey Boiler Fee ...	£ :	When received, 30/6/1915
Travelling Expenses (if any) £	: 2 :-	

P. Fitzgerald.
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute FRI. JUN. 18. 1915
Assigned + LMC 5. 15



Certificate (if required) to be sent to Hall

The Surveyors are requested not to write on or below the space for Committee's Minute.

MACHINERY CERTIFICATE