

Rpt. 4.

REPORT ON MACHINERY.

No. 19285

WED. 14 AUG 1907

Port of Hull

Received at London Office

19

No. in Survey held at Hull & Selby Date, first Survey Apr 6th Last Survey July 19th 1907
 Reg. Book. 4 on the Steam Drifter "Fraserburgh" (Number of Visits 22)
 Master Selby Built at Selby By whom built Bochraane & Sons Tons { Gross 83
 Engines made at Hull By whom made Amos & Smith Net 24
 Boilers made at do By whom made do When built 1907
 Registered Horse Power 32 Owners British Coal S. F. Co Ltd when made 1907
 Nom. Horse Power as per Section 28 32 Port belonging to Hull when made 1907
 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Compound No. of Cylinders 2 No. of Cranks 2
 Dia. of Cylinders 11 1/4", 25" Length of Stroke 16" Revs. per minute 150 Dia. of Screw shaft 5 3/8" 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 buried ✓ 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 26"
 Dia. of Tunnel shaft 4 7/8" Dia. of Crank shaft journals 5 1/4" Dia. of Crank pin 5 1/4" Size of Crank webs 10 3/4" Dia. of thrust shaft under
 collars 5 1/4" Dia. of screw 6 1/8" Pitch of Screw 7 1/8" No. of Blades 4 State whether moveable No Total surface 15 sq. ft.
 No. of Feed pumps 1 Diameter of ditto 2 1/4" Stroke 8" Can one be overhauled while the other is at work ✓
 No. of Bilge pumps 1 Diameter of ditto 2 1/4" Stroke 8" Can one be overhauled while the other is at work ✓
 No. of Donkey Engines One Sizes of Pumps 5 x 2 1/2 x 5" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room One 2" dia. In Holds, &c. One 2" dia.
Ejector suction from hold & engine room bilges & discharge overboard.
 No. of Bilge Injections 1 sizes 2 1/2" Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size 2" Ejector
 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
 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 27.5.07 of Stern Tube 27.5.07 Screw shaft and Propeller 27.5.07
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record (5)) Manufacturers of Steel Wm. Beardmore & Co.
 Total Heating Surface of Boilers 6304 sq. ft. Forced Draft fitted No No. and Description of Boilers One S.E. cyl. mult.
 Working Pressure 140 lbs Tested by hydraulic pressure to 280 lbs Date of test 2.7.07 No. of Certificate 1572
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 27 1/2 sq. ft. No. and Description of Safety Valves to
 each boiler Two spring Area of each valve 3.9" Pressure to which they are adjusted 145 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 6 1/2" Mean dia. of boilers 9 1/8" Length 9 1/2" Material of shell plates Steel
 Thickness 1 1/16" Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams SR Lap
 long. seams AB 3 Riv Diameter of rivet holes in long. seams 29/32" Pitch of rivets 4 7/8" Lap of plates or width of butt straps 9 1/2"
 Per centages of strength of longitudinal joint: rivets 87.5 Working pressure of shell by rules 140 lbs Size of manhole in shell 16 x 12"
 Size of compensating ring 3 1/2 dia x 1 1/16" No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 34 1/4"
 Length of plain part 5 10 3/4" Thickness of plates 5/8" Description of longitudinal joint Welded No. of strengthening rings ✓
 Working pressure of furnace by the rules 170 lbs Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 19/32" Top 5/8" Bottom 5/8"
 Pitch of stays to ditto: Sides 9 1/2 x 7 1/2" Back 8 3/4 x 8 3/4" Top 10 1/2 x 7" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 159 lbs
 Material of stays Steel Diameter at smallest part 1 3/8" Area supported by each stay 76.5" Working pressure by rules 155 lbs End plates in steam space:
 Material Steel Thickness 1 3/16" Pitch of stays 16 1/2 x 10 1/2" How are stays secured Sn + W Working pressure by rules 1634 Material of stays Steel
 Diameter at smallest part 3.43 Area supported by each stay 173.25" Working pressure by rules 197 Material of Front plates at bottom Steel
 Thickness 1 3/16" Material of Lower back plate Steel Thickness 1 3/16" Greatest pitch of stays 14" Working pressure of plate by rules 140 lbs
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2 x 4 1/2" Material of tube plates Steel Thickness: Front 13/16" Back 11/16" Mean pitch of stays 9"
 Pitch across wide water spaces 13 1/2" Working pressures by rules 148 lbs Girders to Chamber tops: Material Iron Depth and
 thickness of girder at centre 8 x 1 1/2" Length as per rule 2-2" Distance apart 10 1/2" Number and pitch of stays in each 20 y"
 Working pressure by rules 167 lbs Superheater or Steam chest; how connected to boiler Riveted Can the superheater be shut off and the boiler worked
 separately No Diameter 2 1/2" Length 2-0" Thickness of shell plates 1/2" Material Steel Description of longitudinal joint SR Lap Diam. of rivet
 holes 29/32" Pitch of rivets 2 1/8" Working pressure of shell by rules 208 Diameter of flue ✓ Material of flue plates ✓ Thickness ✓
 If stiffened with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness 3/4" How stayed Two 2" stays & flanged
 Working pressure of end plates 140 lbs Area of safety valves to superheater ✓ Are they fitted with easing gear ✓

VERTICAL DONKEY BOILER— Manufacturers of Steel

No.	Description	Made at	By whom made	When made	Where fixed
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing gear	If steam from main boilers can enter the donkey boiler	Dia. of donkey boiler	Length		
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets Plates
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint	
Working pressure of furnace by rules	Thickness of furnace crown plates	Stayed by			
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:—Two top & two bottom-end connecting rod bolts & nuts. Two main bearing bolts & nuts. One set of coupling bolts & nuts. One set of feed & bilge pump valves. Main & donkey feed check valves. Assorted bolts & nuts &c.

The foregoing is a correct description,

FOR AMOS & SMITH

Manufacturer.

Dates of Survey while building	During progress of work in shops—	1907. Apr 6. 10 May 3. 8. 15. 17. 22. 24.	MANAGING PARTNER.	May 17. 28. 31 Jun 5. 24. 27
	During erection on board vessel—	Jul 12. 10. 11. 13. 15. 17. 19.		
Total No. of visits	22			

Is the approved plan of main boiler forwarded herewith ☒ Yes

Dates of Examination of principal parts—	Cylinders 5. 6. 07	Slides 2. 7. 07	Covers 10. 7. 07	Pistons 2. 7. 07	Rods 27. 6. 07
Connecting rods 27. 6. 07	Crank shaft 27. 6. 07	Thrust shaft 27. 6. 07	Tunnel shafts 27. 6. 07	Screw shaft 24. 5. 07	Propeller 24. 5. 07
Stern tube 24. 5. 07	Steam pipes tested 13. 7. 07	Engine and boiler seatings 27. 5. 07	Engines holding down bolts 11. 7. 07		
Completion of pumping arrangements 17. 7. 07	Boilers fixed 11. 7. 07	Engines tried under steam 17. 7. 07			
Main boiler safety valves adjusted 17. 7. 07	Thickness of adjusting washers F $\frac{3}{32}$ A $\frac{1}{32}$				
Material of Crank shaft Steel	Identification Mark on Do. 353 J.K.	Material of Thrust shaft Steel	Identification Mark on Do. 27. 6. 07		
Material of Tunnel shafts Iron	Identification Marks on Do. 353 J.K.	Material of Screw shafts Iron	Identification Marks on Do. 24. 5. 07		
Material of Steam Pipes Solid drawn copper	Test pressure 280 lbs.				

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

The Engines and Boiler of this vessel have been constructed under Special Survey, are of good material and workmanship, and have been fitted and secured on board in accordance with the Rules. They are now in good working condition and in my opinion eligible to have the notation of + LMC 7. 07 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 7.07.

The amount of Entry Fee..	£ 1	When applied for, 13/8/07
Special ..	£ 8	When received, 31/8/07
Donkey Boiler Fee ..	£	
Travelling Expenses (if any) £	3	

Committee's Minute

Assigned

FRI. 16 AUG 1907

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



© 2021

Lloyd's Register Foundation