

REPORT ON MACHINERY.

No. 10205

Received at London Office THU. 3 FEB. 1916

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Writing Report on the Survey held at Grimshy on the Str. Mawley Prefect Date, First Survey 31.1.16 Port of Grimshy Last Survey 24.1.1916 (Number of Visits 53)
Built at Selby By whom built Cochrane & Sons When built 1916
Engines made at Grimshy By whom made G. Central Co. op. Eng. W. R. Ch. when made 1916
Boilers made at do. By whom made do. when made 1916
Registered Horse Power 84 Owners Anchor Str. Fish. Co. Ltd. Port belonging to Grimshy
Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple Exp. Inverted No. of Cylinders 3 No. of Cranks 3
No. of Cylinders 13. 23. 37 Length of Stroke 24 Revs. per minute 7.5 Dia. of Screw shaft 7.5 Material of screw shaft Iron
Is the after end of the liner made water tight 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 36"
Dia. of Tunnel shaft 6.85" Dia. of Crank shaft journals 6.95" Dia. of Crank pin 7.5" Size of Crank webs 4 1/2 x 14 Dia. of thrust shaft under rollers 7 1/2
No. of Feed pumps 2 Diameter of ditto 2 1/2 Stroke 12 Can one be overhauled while the other is at work yes
No. of Bilge pumps 2 Diameter of ditto 2 1/2 Stroke 12 Can one be overhauled while the other is at work yes
No. of Donkey Engines 1 Sizes of Pumps 6 x 3 1/2 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 2" to sea, Robbins, & bilges (2) In Holds, &c. 2 to forepeak, forehold, and fishroom (2)
No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size 2 1/2 inches
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 rich steam exhaust & middle steam 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 See at Hull of Stern Tube See at Hull Screw shaft and Propeller See at Hull
Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Stewart & Lloyd's Lin.

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Stewart & Lloyd's Lin.
Total Heating Surface of Boilers 1371 Is Forced Draft fitted no No. and Description of Boilers one SE. return tube
Working Pressure 200 lb. Tested by hydraulic pressure to 400 lb. Date of test 8.12.16 No. of Certificate 139
Can each boiler be worked separately yes Area of fire grate in each boiler 43 No. and Description of Safety Valves to each boiler 2 direct spring Area of each valve 3.95 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 4" Mean dia. of boilers 14-0" Length 10-6 Material of shell plates S
Thickness 1/4 Range of tensile strength 28/32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double
long. seams dr. butt Diameter of rivet holes in long. seams 15/16 Pitch of rivets 8 3/4 Lap of plates or width of butt straps 18 3/8
Per centages of strength of longitudinal joint 91.5 Working pressure of shell by rules 200 Size of manhole in shell 12 x 16
Size of compensating ring 16 x 16 x 1/4 No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 39
Length of plain part 46 Thickness of plates 5/16 + 1/8 Description of longitudinal joint welded No. of strengthening rings none
Working pressure of furnace by the rules 200 Combustion chamber plates: Material S Thickness: Sides 1/16 Back 1/16 Top 1/16 Bottom 1/8
Pitch of stays to ditto: Sides 8 x 8 1/2 Back 9 x 8 1/2 Top 9 x 8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 245 End plates in steam space: Material of stays S
Material of stays S Thickness 1 5/32 Pitch of stays 21 x 15 How are stays secured d. nuts & washers Working pressure by rules 200 Material of stays S
Material S Thickness 1 Area supported by each stay 3.15 Working pressure by rules 218 Material of Front plates at bottom S
Diameter of tubes 3 1/2 Pitch of tubes 5.06 Material of tube plates S Thickness: Front 1" Back 7/8" Mean pitch of stays 11.5
Pitch across wide water spaces 14" Working pressures by rules 209 Girders to Chamber tops: Material S Depth and thickness of girder at centre 2-10 1/4 x 7/8 Length as per rule 36 Distance apart 9" Number and pitch of stays in each 3-8"
Working pressure by rules 215 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked separately
Diameter 2 1/2 Length 14" Thickness of shell plates S Material S Description of longitudinal joint S Diam. of rivet holes 1" Working pressure of shell by rules 209 Diameter of flue 1" Material of flue plates S Thickness 1"
If stiffened with rings yes Distance between rings 14" Working pressure by rules 209 End plates: Thickness 1" How stayed 2021
Working pressure of end plates 215 Area of safety valves to superheater 209 Are they fitted with easing gear yes

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VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____

Made at _____ By whom made _____

Working pressure _____ tested by hydraulic pressure to _____ Date of test _____ When made _____ Where fixed _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ No. of Certificate _____ Fire grate area _____ Description of _____

If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____ Date of adjustment _____

Material of shell plates _____ Thickness _____ Range of tensile strength _____ Dia. of donkey boiler _____ Length _____

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 _____ Radius of do. _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— 2mo top & bottom end and main bearing bolts nuts, a set of coupling bolts nuts, a set of feed, bilge, escape, check, safety valves, safety valve springs, donkey pump valves, air & circulating pump valves, bolts nuts & assorted iron.

The foregoing is a correct description,

For the Great Central Co. of Eng Ship Repair
H. W. Pringle

Manufacturer.

Dates of Survey while building	During progress of work in shops	1914 Nov 7-18-25 Dec 14-22-29	1915 Jan 14-26 Feb 13-20 Mar 31 Apr 10-21 May 18 June 8-14 July 9-16
	During erection on board vessel	21-28 Aug 12-13-20-27	Sep 2-4-21-24 Oct 1-2-7-21-28 Nov 2-6-7-22-25 Dec 3-8-30
	Total No. of visits	53	

Is the approved plan of main boiler forwarded herewith **ye**

Dates of Examination of principal parts—Cylinders	HP 26-1-15	Slides	26-1-15	Covers	10-4-15	Pistons	10-4-15	Rods	10-4-15
Connecting rods	10-4-15	Crank shaft	10-4-15	Thrust shaft	30-12-15	Tunnel shafts	✓	Screw shaft	4-9-15
Stern tube	2-9-15	Steam pipes tested	4-1-16	Engine and boiler seatings	See at Hull	Engines holding down bolts	13-1-16		
Completion of pumping arrangements	21-1-16	Boilers fixed	20-1-16	Engines tried under steam	21-1-16				
Main boiler safety valves adjusted	21-1-16	Thickness of adjusting washers	P 3/8 F 5/8						
Material of Crank shaft	mp steel reb gunmetal iron	Identification Mark on Do.	946 cm.	Material of Thrust shaft	Iron	Identification Mark on Do.	30-12-15 cm.		
Material of Tunnel shafts	✓	Identification Marks on Do.	✓	Material of Screw shafts	Iron	Identification Marks on Do.	4-9-15 cm.		
Material of Steam Pipes	Solid drawn copper - 6 swg.	Test pressure	400 lb.						

General Remarks (State quality of workmanship, opinions as to class, &c.) This machinery has been built under special survey and the material and workmanship are good. The engines and boiler have been efficiently fitted in the vessel and in my opinion are eligible for records of + LMC 1.16. Elec light.

It is submitted that this vessel is eligible for THE RECORD + LMC 1.16.

G.P.R.

J.W.D.
3/1/16

C. Marshall

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

Certificate (if required) to be sent to Committee's Minute.

The amount of Entry Fee	£ 1	When applied for	1/2/16
Special	£ 12.12	When received	2/3/16
Donkey Boiler Fee	£		
Travelling Expenses (if any)	£		

Committee's Minute TUE. - 8 FEB. 1916

Assigned

+ L.M.C. 1.16

MACHINE CERTIFICATE WRITTEN



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Rpt. 13.

Port of

No. in Reg. Book

Owners

Yard No.

DESCRIPTION

Capacity of

Where is

Position of

Positions of

If cut out

circu

If cessel

Are the c

Are all c

are

Are all s

Total nu

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Branc

Lead

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DESCR

13

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II