

REPORT ON MACHINERY.

No. 27971
FRI. OCT. - 9. 1914

Date of writing Report 27-8-14 When handed in at Local Office 27/8/14 Port of Hull
 No. in Survey held at Hull Date, First Survey 4-3-14 Last Survey 21-8-14 19
 Reg. Book. 1-13 on the Steel screw steam trawler White-Ear (Number of Vents 43)
 Master Goorle Built at Goorle By whom built Goorle J. B. & Pepp Co. Ltd Tons { Gross 191
 Engines made at Hull By whom made Earle's Co. Ltd when made 1914-8 Net 73
 Boilers made at Hull By whom made Earle's Co. Ltd when made 1914-8
 Registered Horse Power 55 Owners Kellall Bros & Becking Port belonging to Hull
 Nom. Horse Power as per Section 28 55 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c. — Description of Engines Triple Expansion No. of Cylinders three No. of Cranks 3
 Dia. of Cylinders 12-21-33 Length of Stroke 21 Revs. per minute 130 Dia. of Screw shaft 7.38 Material of Iron
 as fitted 7.34 screw shafts
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube no two liners 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 Painted Length of stern bush 2'-11 1/2"
 Dia. of Tunnel shaft 5.74 Dia. of Crank shaft journals 6.03 Dia. of Crank pin 6 1/2 Size of Crank webs 4 1/2 x 12 1/2 Dia. of thrust shaft under
 collars 6 1/2 Dia. of screw 9-6 Pitch of Screw 7-0 No. of Blades 4 State whether moveable no Total surface 32 1/2
 No. of Feed pumps one Diameter of ditto 2 1/2 Stroke 10 Can one be overhauled while the other is at work ✓
 No. of Bilge pumps one Diameter of ditto 2 1/2 Stroke 10 Can one be overhauled while the other is at work ✓
 No. of Donkey Engines one duplex Sizes of Pumps 4 1/2 x 2 3/4 x 4 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room one 2" from 2 1/2 ydtr suction In Holds, &c. one 2" to fore hold, two 2" to tank
two 2 1/2 ydtr connected to all spaces
 No. of Bilge Injections one sizes 3 1/2 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room of size 2 1/2 ydtr
 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 Forward suction How are they protected with casings
 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 9-7-14 of Stern Tube 24-7-14 Screw shaft and Propeller 24-7-14
 Is the Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door worked from

BOILERS, &c. — (Letter for record S) Manufacturers of Steel Phoenix Awt. Horder Verein Hnde
 Total Heating Surface of Boilers 900 Is Forced Draft fitted no No. and Description of Boilers one single ended
 Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 24-7-14 No. of Certificate 3007
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 24'5" No. and Description of Safety Valves to
 each boiler two spring loaded Area of each valve 3'14" Pressure to which they are adjusted 165 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork abt 12" Mean dia. of boilers 126" Length 9-6" Material of shell plates steel
 Thickness 27/32 Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double
 long. seams R.R.B. 1 Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 5 3/8 Lap of plates or width of butt straps 1 1/2
 Per centages of strength of longitudinal joint 87.6 Working pressure of shell by rules 161 Size of manhole in shell 12" x 16"
 Size of compensating ring 8" x 27/32 No. and Description of Furnaces in each boiler two plain Material steel Outside diameter 34"
 Length of plain part 76 1/2" Thickness of plates 2 1/32 Description of longitudinal joint welded No. of strengthening rings ✓
 Working pressure of furnace by the rules 177 Combustion chamber plates: Material steel Thickness: Sides 5/8" Back 2 1/32 Top 5/8" Bottom 5/8"
 Pitch of stays to ditto: Sides 9" x 8 1/2" Back 10" x 9" Top 9" x 7 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 165
 Material of stays steel Diameter at smallest part 1' 7/16" Area supported by each stay 76'5" Working pressure by rules 184 End plates in steam space
 Material steel Thickness 7/8" Pitch of stays 15" x 15" How are stays secured R.R. & W. Working pressure by rules 161 Material of stays steel
 Diameter at smallest part 4' 2 1/2" Area supported by each stay 225" Working pressure by rules 195 Material of Front plates at bottom steel
 Thickness 7/8" Material of Lower back plate steel Thickness 7/8" Greatest pitch of stays 14" x 9" Working pressure of plate by rules 191
 Diameter of tubes 3" Pitch of tubes 4 1/2" x 4 1/8" Material of tube plates steel Thickness: Front 7/8" Back 13/16" Mean pitch of stays 9"
 Pitch across wide water spaces 14" Working pressures by rules 160 lbs Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 7 1/4" x 1 1/2" Length as per rule 27 3/32 Distance apart 7 1/2" Number and pitch of stays in each two 9"
 Working pressure by rules 225 Superheater or Steam chest, how connected to boiler welded Can the superheater be shut off and the boiler worked
 separately no Diameter 28 3/4" Length 30" Thickness of shell plates 5/8" Material steel Description of longitudinal joint new Diam. of rivet
 holes 1" Pitch of rivets 3 1/4" Working pressure of shell by rules 370 Diameter of flue ✓ Material of flue plates ✓ Thickness ✓
 If stiffened with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness 5/8" How stayed dished
 Working pressure of end plates 160 Area of safety valves to superheater ✓ Are they fitted with easing gear ✓

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, & circulating pump valves, one main & one donkey check valve, two safety valve springs, one set of donkey pump valves & a quantity of bolts & nuts & iron of various sizes

The foregoing is a correct description,

CHARLES'S SHIPBUILDERS & ENGINEERING CO. LIMITED,

Stobson

Manufacturer.

MANAGER

Dates of Survey while building { During progress of work in shops - - } 1914: - March 16, 27, April 3, 6, 8, 20, 22, 24 May 1, 5, 6, 7, 11, 13, 15, 20, 26, 29 June 10, 11.
{ During erection on board vessel - - } June 12, 15, 17, 18, 22, 25, 30 July 1, 6, 9, 10, 16, 24, 28, Aug 10, 13, 14, 15, 17, 18, 20, 21
Total No. of visits 43.

Is the approved plan of main boiler forwarded herewith yes

" " " donkey " " " yes

Dates of Examination of principal parts - Cylinders 10-6-14 Slides 22-6-14 Covers 22-6-14 Pistons 15-6-14 Rods 11-6-14
Connecting rods 11-6-14 Crank shaft 13-5-14 Thrust shaft 6-5-14 Tunnel shafts / Screw shaft 25-6-14 Propeller 26-5-14
Stern tube 6-7-14 Steam pipes tested 18-8-14 Engine and boiler settings 9-7-14 Engines holding down bolts 17-8-14
Completion of pumping arrangements 20-8-14 Boilers fixed 17-8-14 Engines tried under steam 20-8-14
Main boiler safety valves adjusted 20-8-14 Thickness of adjusting washers P 1/4 3/2 1/16

Material of Crank shaft Steel Identification Mark on Do. 1254 FLS Material of Thrust shaft Identification Mark on Do. 1047 FLS

Material of Tunnel shafts / Identification Marks on Do. / Material of Screw shafts Identification Marks on Do. 1046 FLS

Material of Steam Pipes solid drawn copper Test pressure 40 lbs

Is an installation fitted for burning oil fuel no 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 yes If so, state name of vessel Linn, Kildun etc.

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. The machinery has been properly fitted & secured on board & on completion was tried under steam & found satisfactory. The safety valves have been adjusted as above & tried for accumulation which did not exceed 170 lbs.

In my opinion the vessel is eligible for the record to 12.6.14

It is submitted that this vessel is eligible for THE RECORD. + LMC 8.14.

J.W.D.
G.R.
9/10/14

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 8 : 5 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : 6 : 4

When applied for, 8/10/1914

When received, 24/10/1914

Frank S. Sturgeon

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

Committee's Minute TUE. OCT. 13. 1914

Assigned + Linn 6.8.14

MACHINERY CERTIFICATE WRITTEN



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Certificate to (if required) to be sent to the Registrar