

## REPORT ON MACHINERY.

No. 27971

FRI. OCT. - 9. 1914

Date of writing Report 27-8-14 in 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 1914  
Reg. Book. 1-13 on the Hull screw steam trawler White-Ear (Number of Vents 43)

Master Built at Gool By whom built Gool & Bopp & Co. Ltd. Tons Gross 191 Net 73  
Engines made at Hull By whom made Earle & Co. Ltd. When built 1914-8  
Boilers made at Hull By whom made Earle & Co. Ltd. when made 1914-8

Registered Horse Power Owners Kelsall Bros & Bucking 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 as per rule 7.38" Material of screw shafts as fitted 7.34" Iron  
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 as per rule 5.74 Dia. of Crank shaft journals as per rule 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 ft

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" yacht suction In Holds, &c. one 2" to fore hold, two 2" to tank  
Four 2 1/2" yacht connection 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 & size 2 1/2" yacht  
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 Abt. Höder Verein Händl

Total Heating Surface of Boilers 900 ft 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 11 1/2"  
Per centages of strength of longitudinal joint rivets 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 top 76 1/2" Thickness of plates crown 2 1/32 Description of longitudinal joint welded No. of strengthening rings  
bottom 70" Thickness of plates bottom 2 1/32

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 1'76" 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.B. Working pressure by rules 161 Material of stays steel  
Diameter at smallest part 4'22" 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 5/8" x 4 5/8" 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 riveted 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,

SHARPLES  
SHIPBUILDERS & ENGINEERS CO. LIMITED,  
Sheffield

Manufacturer.

MANAGER

Dates of Survey while building { During progress of work in shops - - 1914:— Mar 4. 16. 27. Apr 3. 6. 8. 20. 22. 24 May 1. 5. 6. 7. 11. 13. 15. 20. 26. 29 Jun 10. 11.  
During erection on board vessel - - Jun 12. 15. 17 18. 22. 25. 30 Jul 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 " " " ✓

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 7/16

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. ✓

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 Lyn, 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 12.6.8.14

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

J.W.D.  
9/10/14

The amount of Entry Fee ... £ 1 : 0 :  
Special ... £ 2 : 5 :  
Donkey Boiler Fee ... £  
Travelling Expenses (if any) £ : 6 : 4

When applied for,

8/10/1914

When received,

24/10/1914

Frank L. Sturgeon

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

Committee's Minute TUE. OCT. 13. 1914

Assigned

+ L.M.C. 8.14

MACHINERY CERTIFICATE  
WRITTEN



© 2020

Lloyd's Register  
Foundation