

REPORT ON MACHINERY

No. 80932

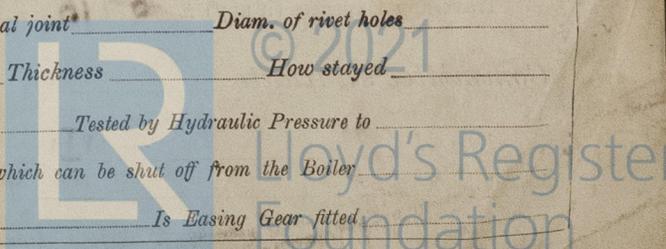
Received at London Office WED. JUL. 7 1920

When handed in at Local Office - 5 JUL 1920 Port of Liverpool
 Date, First Survey July 8th 1919 Last Survey July 2nd 1920
 (Number of Visits 17)
 Survey held at Northwich
 on the Barge 'D.W. Williams'
 Master J. Bennett Built at Northwich By whom built W. J. Yarwood & Sons
 Gross 177 Tons Net 100
 When built 1920
 Engines made at Northwich By whom made J. J. when made 1920
 Milers made at Stockton By whom made Cambridge & Riley Bros. when made 1920
 Registered Horse Power ✓ Owners Anchor, Brocklebank Line. Port belonging to Liverpool
 Net Horse Power as per Section 28, 33 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Vert. Compound No. of Cylinders 2 No. of Cranks 2
 No. of Cylinders 12 7 2 6 Length of Stroke 18" Revs. per minute 150 Dia. of Screw shaft 5.78 as per rule 5.13/16 Material of screw shaft M.S.
 the screw shaft fitted with a continuous liner the whole length of the stern tube no liners Is the after end of the liner made water tight
 the propeller boss ✓ 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 1-10 1/2
 Dia. of Tunnel shaft 5.07 as per rule 5.04 Dia. of Crank shaft journals 5.7/16 as per rule 5.29 Dia. of Crank pin 5.7/16 Size of Crank webs 8 1/2 x 3/4 Dia. of thrust shaft under
 bars 5.7/16 Dia. of screw 6-6 Pitch of Screw 8-6 No. of Blades 4 State whether moceable no Total surface 140'
 No. of Feed pumps 1 Diameter of ditto 2" Stroke 8" Can one be overhauled while the other is at work ✓
 No. of Bilge pumps 1 Diameter of ditto 2" Stroke 8" Can one be overhauled while the other is at work ✓
 No. of Donkey Engines one Sizes of Pumps 5 1/2 + 3 1/2 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room one 2" In Holds, &c. two 2" in fore hold
 No. of Bilge Injections 1 sizes 2" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 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 & Cocks yes
 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 yes
 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 none How are they protected ✓
 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
 Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door ✓ worked from ✓

MILERS, &c.—(Letter for record (S.) Manufacturers of Steel
 Total Heating Surface of Boilers 615 # Is Forced Draft fitted no No. and Description of Boilers I.S.B.
 Working Pressure 130 lb Tested by hydraulic pressure to 227 # Date of test 27 # No. of Certificate 6066
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 27 # No. and Description of Safety Valves to
 each boiler 2 spring loaded Area of each valve 3.98 0" Pressure to which they are adjusted 130 lb Are they fitted with easing gear yes
 Smallest distance between boilers on supports and bunkers on woodwork 9" Mean dia. of boilers 9" Length 9" Material of shell plates
 Thickness 9" Range of tensile strength 9" Are the shell plates welded or flanged ✓ Descrip. of riveting: cir. seams
 g. seams 9" Diameter of rivet holes in long. seams 9" Pitch of rivets 9" Lap of plates or width of butt straps
 Percentages of strength of longitudinal joint 9" Working pressure of shell by rules 9" Size of manhole in shell
 No. of compensating ring 9" No. and Description of Furnaces in each boiler 9" Material 9" Outside diameter
 Length of plain part 9" Thickness of plates 9" Description of longitudinal joint 9" No. of strengthening rings
 Working pressure of furnace by the rules 9" Combustion chamber plates: Material 9" Thickness: Sides 9" Back 9" Top 9" Bottom 9"
 Pitch of stays to ditto: Sides 9" Back 9" Top 9" If stays are fitted with nuts or riveted heads 9" Working pressure by rules
 Material of stays 9" Area at smallest part 9" Area supported by each stay 9" Working pressure by rules 9" End plates in steam space:
 Material 9" Thickness 9" Pitch of stays 9" How are stays secured 9" Working pressure by rules 9" Material of stays
 Area at smallest part 9" Area supported by each stay 9" Working pressure by rules 9" Material of Front plates at bottom
 Thickness 9" Material of Lower back plate 9" Thickness 9" Greatest pitch of stays 9" Working pressure of plate by rules
 Diameter of tubes 9" Pitch of tubes 9" Material of tube plates 9" Thickness: Front 9" Back 9" Mean pitch of stays
 Pitch across wide water spaces 9" Working pressures by rules 9" Girders to Chamber tops: Material 9" Depth and
 Thickness of girder at centre 9" Length as per rule 9" Distance apart 9" Number and pitch of stays in each
 Working pressure by rules 9" Steam dome: description of joint to shell 9" % of strength of joint
 Diameter 9" Thickness of shell plates 9" Material 9" Description of longitudinal joint 9" Diam. of rivet holes
 Pitch of rivets 9" Working pressure of shell by rules 9" Crown plates 9" Thickness 9" How stayed 9"
SUPERHEATER. Type 9" Date of Approval of Plan 9" Tested by Hydraulic Pressure to 9"
 Date of Test 9" Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Diameter of Safety Valve 9" Pressure to which each is adjusted 9" Is Easing Gear fitted 9"

013750-013759-0135



IS A DONKEY BOILER FITTED? *no*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *2 top end, 2 bottom end, 2 main bearing bolts, 1 set coupling bolts, set feed & bilge pump valves, set piston springs, assorted bolts & nuts & rivets.*

The foregoing is a correct description,

For W. J. YARWOOD & SONS, LTD.

Albert Yarwood Manufacturer.

| | | | | | |
|--------------------------------|--|--|--|---|--------|
| Dates of Survey while building | { During progress of work in shops - - { During erection on board vessel - - - { Total No. of visits | { July 3.22. Sept 9. Oct 10. Nov 3. 21. Dec 11. | { 1919 | { Jan 7. Feb 4. 27. Mar 17. Apr 9. 23. May 13. 26. June 11. July 2. | { 1920 |
| | | { 17. | { Is the approved plan of main boiler forwarded herewith <input checked="" type="checkbox"/> | | |
| | | { " " " donkey " " " <input checked="" type="checkbox"/> | | | |

Dates of Examination of principal parts—Cylinders *17.3.20* Slides *17.3.20* Covers *17.3.20* Pistons *17.3.20* Rods *17.3.20*

Connecting rods *17.3.20* Crank shaft *9.4.20* Thrust shaft *13.5.20* Tunnel shafts Screw shaft *2.11.19* Propeller *2.11.19*

Stern tube *3.11.19* Steam pipes tested Engine and boiler seatings *2.11.19* Engines holding down bolts *13.5.20*

Completion of pumping arrangements Boilers fixed *7.1.20* Engines tried under steam *11.6.20*

Completion of fitting sea connections *2.11.19* Stern tube *3.11.19* Screw shaft and propeller *2.11.19*

Main boiler safety valves adjusted *11.6.20* Thickness of adjusting washers *1/4" P.S.*

Material of Crank shaft *M.S.* Identification Mark on Do. *1451* Material of Thrust shaft *M.S.* Identification Mark on Do. *1451*

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts *M.S.* Identification Marks on Do. *1451*

Material of Steam Pipes *P.D. Copper* Test pressure

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 If so, state name of vessel

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

The machinery of this vessel has been built under Special Survey. The workmanship materials are good. Engines & boiler now fitted on board in an efficient manner, and tried under steam, and are now eligible for record of + L.M.C. 7.20

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 7. 20. 130th.

J.W.D.
16/7/20
J.P.R.

| | | | |
|--------------------------------|--------|-------------------|------------------|
| The amount of Entry Fee ... £ | 1 : 0 | When applied for, | |
| Balance of Special ... £ | 5 : 18 | When received, | 6 JUL 1920 |
| Donkey Boiler Fee ... £ | | | |
| Travelling Expenses (if any) £ | 6 : 16 | | 24/8/19.20/66625 |

P. Howard
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

LIVERPOOL - 6 JUL 1920

Assigned

L.M.C. 7. 20



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

MACHINES CERTIFIED WRITTEN 7.7.20