

REPORT ON MACHINERY.

No. 30,489

Received at London Office

TUE 1918

Date of writing Report 24-4-18 19 When handed in at Local Office 26-4-18 19 Port of Hull

No. in Survey held at Hull Date, First Survey 21-1-18 Last Survey 24-4-18 19
Reg. Book. on the steel screw trawler "John Jefferson" (Number of Visits 30)

Master Built at Selby By whom built Cochrane & Sons Ltd Tons Gross 324 Net 142
Engines made at Hull By whom made Chas. D. Holmes & Co Ltd (170220) When built 1918-4

Boilers made at Hull By whom made Chas. D. Holmes & Co Ltd (170234) when made 1918-4

Registered Horse Power Owners British Admiralty Port belonging to
Nom. Horse Power as per Section 28 87 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 *13" - 23" - 37"* Length of Stroke *26"* Revs. per minute *11* Dia. of Screw shaft as per rule *7.9"* Material of screw shaft *steel*
 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 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 *35 1/2"*
 Dia. of Tunnel shaft as per rule *7.04"* Dia. of Crank shaft journals as per rule *7.39"* Dia. of Crank pin *7 1/2"* Size of Crank webs *4 7/8" x 11"* Dia. of thrust shaft under collars *7 1/2"* Dia. of screw *9-7 1/2"* Pitch of Screw *11-0"* No. of Blades *4* State whether moveable *no* Total surface *33 sq ft*
 No. of Feed pumps *one* Diameter of ditto *2 5/8"* Stroke *14 3/4"* Can one be overhauled while the other is at work *yes*
 No. of Bilge pumps *one* Diameter of ditto *2 5/8"* Stroke *14 3/4"* Can one be overhauled while the other is at work *yes*
 No. of Donkey Engines *one 7.3" cycto* Sizes of Pumps *6", 4 1/2" x 6" duplex* No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room *two 2" diam* In Holds, &c. *one 2" diam in each compartment*
all suction also connected to cycto
 No. of Bilge Injections *one sizes 3 1/2"* Connected to circulating pump *yes* Is a separate Donkey Suction fitted in Engine room & size *3" cycto*
 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 *Forward suction* How are they protected *strong 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*
 Is the Screw Shaft Tunnel watertight *yes* Is it fitted with a watertight door *yes* worked from *top*

BOILERS, &c.—(Letter for record *S*) Manufacturers of Steel *J. Spence & Sons & Port Talbot etc*
 Total Heating Surface of Boilers *1440 sq ft* Is Forced Draft fitted *no* No. and Description of Boilers *one single ended*
 Working Pressure *200 lbs* Tested by hydraulic pressure to *400 lbs* Date of test *28-3-18* No. of Certificate *3282*
 Can each boiler be worked separately *yes* Area of fire grate in each boiler *48 sq ft* No. and Description of Safety Valves to each boiler *two spring loaded* Area of each valve *4.9 sq in* Pressure to which they are adjusted *205* Are they fitted with easing gear *yes*
 Smallest distance between boilers *8" Blagger* and bunkers *8" Blagger* Mean dia. of boilers *165"* Length *10-8"* Material of shell plates *steel*
 Thickness *1 5/16"* Range of tensile strength *28-32 tons* Are the shell plates welded or flanged *no* Descrip. of riveting: cir. seams *double*
 long. seams *J.R.D.B. 1* Diameter of rivet holes in long. seams *1 1/4"* Pitch of rivets *8 3/8"* Lap of plates or width of butt straps *18"*
 Per centages of strength of longitudinal joint rivets *85-9* Working pressure of shell by rules *202* Size of manhole in shell *16" x 12"*
 Size of compensating ring *7" x 1 5/16"* No. and Description of Furnaces in each boiler *Three plain* Material *steel* Outside diameter *40"*
 Length of plain part top *78 1/2"* bottom *69"* Thickness of plates crown *3 13/16"* Description of longitudinal joint *welded* No. of strengthening rings *yes*
 Working pressure of furnace by the rules *206* Combustion chamber plates: Material *steel* Thickness: Sides *3/4"* Back *2 3/32"* Top *3/4"* Bottom *3/4"*
 Pitch of stays to ditto: Sides *10" x 8"* Back *9 3/4" x 8 3/4"* Top *11" x 8"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *208*
 Material of stays *steel* Area at smallest part *2.07 sq in* Area supported by each stay *88 sq in* Working pressure by rules *211* End plates in steam space: Material *steel* Thickness *1/32"* Pitch of stays *19" x 17 1/2"* How are stays secured *8 7/8"* Working pressure by rules *210* Material of stays *steel*
 Area at smallest part *7.5 sq in* Area supported by each stay *335 sq in* Working pressure by rules *233* Material of Front plates at bottom *steel*
 Thickness *1 5/16"* Material of Lower back plate *steel* Thickness *1 5/16"* Greatest pitch of stays *13 3/4" x 9 9/16"* Working pressure of plate by rules *216*
 Diameter of tubes *3 1/2"* Pitch of tubes *4 7/8"* Material of tube plates *steel* Thickness: Front *1 5/16" + 3/8"* Back *7/8"* Mean pitch of stays *10"*
 Pitch across wide water spaces *14"* Working pressures by rules *275* Girders to Chamber tops: Material *steel* Depth and thickness of girder at centre *11" x 1 3/4"* Length as per rule *36.218"* Distance apart *11"* Number and pitch of stays in each *Three 8"*
 Working pressure by rules *201* Steam dome: description of joint to shell *yes* % of strength of joint *yes*
 Diameter *yes* Thickness of shell plates *yes* Material *yes* Description of longitudinal joint *yes* Diam. of rivet holes *yes*
 Pitch of rivets *yes* Working pressure of shell by rules *yes* Crown plates *yes* Thickness *yes* How stayed *yes*

SUPERHEATER. Type *yes* Date of Approval of Plan *yes* Tested by Hydraulic Pressure to *yes*
 Date of Test *yes* Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *yes*
 Diameter of Safety Valve *yes* Pressure to which each is adjusted *yes* Is Easing Gear fitted *yes*

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 air, feed & help pump valves, six joint ring studs & nuts, one main & one donkey chest valve two valves for donkey pump, one safety valve spring, 3 condenser tubes, one set of fire bars & a quantity of bolts & nuts iron of various sizes.*

The foregoing is a correct description,

for CHARLES D. HOLMES & CO. LTD.

Charles D. Holmes & Co. Ltd.

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } 1918:— Jan 21. 25. 30. Feb 2. 4. 6. 11. 14. 18. 21. 27. Mar 1. 6. 7. 8. 11. 13. 16. 18. 20. 22. 25
{ During erection on board vessel --- } 28 Apr 9. 11. 15. 16. 18. 19. 24
{ Total No. of visits } 30

Is the approved plan of main boiler forwarded herewith *dup already forwarded*
" " " donkey " " "

Dates of Examination of principal parts—Cylinders 14-2-18 Slides 27-2-18 Covers 18-3-18 Pistons 11-2-18 Rods 7-3-18
Connecting rods 7-3-18 Crank shaft 11-3-18 Thrust shaft 16-3-18 Tunnel shafts ✓ Screw shaft 4-2-18 Propeller 4-2-18
Stern tube 2-2-18 Steam pipes tested 11-4-18 Engine and boiler seatings 6-2-18 Engines holding down bolts 9-4-18
Completion of pumping arrangements 18-4-18 Boilers fixed 16-4-18 Engines tried under steam 18-4-18
Completion of fitting sea connections 6-2-18 Stern tube 6-2-18 Screw shaft and propeller 6-2-18
Main boiler safety valves adjusted 15-4-18 Thickness of adjusting washers *7/32 & 1/32*
Material of Crank shaft *Steel* Identification Mark on Do. *2103FLS* Material of Thrust shaft *Steel* Identification Mark on Do. *2105FLS*
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Steel* Identification Marks on Do. *2089FLS*
Material of Steam Pipes *solid drawn copper* ✓ Test pressure *400lbs* ✓

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 *Mersey Lass*

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 & found sound & tight. The machinery has been properly fitted & secured on board the vessel & on completion was tested under full power for two hours, as required by the Admiralty & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 216 lbs. In my opinion the vessel is eligible for the record + L.M.C. 4-18*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 4. 18.

J.W.D.
7/5/18
F.R.S.

The amount of Entry Fee ... £ 2 : 0 :
Special ... £ 26 : 2 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 27.4.1918
When received, 2.5.1918

Frank A. Stanger
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 3-MAY. 1918
Assigned + *L.M.C. 4-18*

MACHINERY CERTIFICATE WRITTEN.



Small

Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.