

Rpt. 4. **REPORT ON MACHINERY.** No. 30,702

Received at London Office WED. 18 SEP. 1918

Date of writing Report 19 When handed in at Local Office 11-9 10/18 Port of Hull

No. in Survey held at Hull Date First Survey DEC 3/17 Last Survey Sep 9th 1918
Reg. Book. on the steel screw trawler William Jones (Number of Volls 4.1 Gross 324 Net 149 When built 1918-9

Master Built at Lelby By whom built Cochrane & Sons Ltd
Engines made at Hull By whom made Chas. D. Holmes & Co. Ltd (No 24) when made 1918-9
Boilers made at Hull By whom made Chas. D. Holmes & Co. Ltd (No 39) when made 1918-9
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 113 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 ✓ If two
liners are fitted, is the shaft lapped or protected between the liners ✓ 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 1/2" x 14 1/4" 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 334 ft.
No. of Feed pumps one Diameter of ditto 2 7/8" Stroke 14 3/4" Can one be overhauled while the other is at work no
No. of Bilge pumps one Diameter of ditto 2 7/8" Stroke 14 3/4" Can one be overhauled while the other is at work no
No. of Donkey Engines one & 3 1/2" 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" dia. In Holds, &c. one 2" in each compartment all
suctions also connected to ejector
No. of Bilge Injections one sizes 3 1/2" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size 3" ejector
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 & wind chain How are they protected strong 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
Is the Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from

BOILERS, &c.—(Letter for record S) Manufacturers of Steel J. Spence & Sons & Pri-Labbe
Total Heating Surface of Boilers 1440 ft. Is Forced Draft fitted no No. and Description of Boilers one single ended
Working Pressure 200 lbs Tested by hydraulic pressure to 400 Date of test 1-8-18 No. of Certificate 3309
Can each boiler be worked separately ✓ 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 or uptakes and bunkers or woodwork 8" Bl lagging Mean dia. of boilers 165" Length 10'-8" Material of shell plates steel
Thickness 1 1/8" 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. 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 plate 85.8 Working pressure of shell by rules 202 Size of manhole in shell 16" x 12"
Size of compensating ring 7" x 1 1/8" 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 ✓
Working pressure of furnace by the rules 206 Combustion chamber plates: Material steel Thickness: Sides 3/4" Back 23/32" 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 1/32" Pitch of stays 19" x 17 1/8" How are stays secured 8 x 6 Working pressure by rules 210 Material of stays steel
Area at smallest part 2.6 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 3/4" 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" x 3/4" Back 7/8" Mean pitch of stays 10"
Pitch across wide water spaces 14" Working pressures by rules 215 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 ✓ % of strength of joint ✓
Diameter ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet holes ✓
Pitch of rivets ✓ Working pressure of shell by rules ✓ Crown plates ✓ Thickness ✓ How stayed ✓
UPERHEATER. Type ✓ Date of Approval of Plan ✓ Tested by Hydraulic Pressure to ✓
Date of Test ✓ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler ✓
Diameter of Safety Valve ✓ Pressure to which each is adjusted ✓ Is Easing Gear fitted ✓

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 & bilge pump valves, six pump ring studs & nuts, one main & one donkey check valve, two valves for donkey pump, one safety valve spring, 3 condenser tubes, one set of fire bars & a quantity of bolts & nuts & wire of various sizes.*

The foregoing is a correct description,
for **CHARLES D. HOLMES & CO. LTD.**

J. N. Cooper

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } *1917: Dec 3 1916: Apr 3, 10, 12, 19, 30. May 6, 8, 13, 14, 24, 31. Jun 4, 5, 7, 10, 12, 13, 19, 21, 27, 28. Jul 2*
{ During erection on board vessel --- } *4, 10, 12, 16, 16, 20, 26. Aug 1, 13, 15, 20, 22, 26, 30. Sep. 3, 4, 5, 9.*
Total No. of visits *41*

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

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *19-21-6-18* Slides *2-7-18* Covers *21-6-18* Pistons *10-6-18* Rods *19-8-18*
Connecting rods *2-7-18* Crank shaft *4-7-18* Thrust shaft *4-7-18* Tunnel shafts ☒ Screw shaft *5-6-18* Propeller *5-6-18*
Stern tube *5-6-18* Steam pipes tested *30-8-18* Engine and boiler seatings *7-6-18* Engines holding down bolts *20-8-18*
Completion of pumping arrangements *5-9-18* Boilers fixed *3-9-18* Engines tried under steam *5-9-18*
Completion of fitting sea connections *5-6-18* Stern tube *5-6-18* Screw shaft and propeller *5-6-18*
Main boiler safety valves adjusted *3-9-18* Thickness of adjusting washers *7 5/16 & 3/8*
Material of Crank shaft *steel* Identification Mark on Do. *2141 FLS* Material of Thrust shaft *steel* Identification Mark on Do. *2143 FLS*
Material of Tunnel shafts ☒ Identification Marks on Do. ☒ Material of Screw shafts *steel* Identification Marks on Do. *2131 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 *Lord Murray class.*

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 specification & the rules of this Society, the materials & workmanship are good. The boiler & steam pipes have been tested by hydraulic pressure as above & found sound & tight. The machinery has been properly fitted & secured on board the vessel & on completion tested under full power for two hours, as required by the Admiralty & found satisfactory. The safety valves were tested for accumulation which did not exceed 215 lbs.*

In my opinion the vessel is eligible for the record + L.M.C. 9-18

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 9.18

18-9-18

JPB

Frank A. Sturgeon

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ *2* : *0* :
Special ... £ *26* : *2* :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, *17-9-18*
When received, *23-10-18*

FRI. 20 SEP. 1918

Committee's Minute

Assigned

+ L.M.C. 9.18.



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Hull

Certificate (if required) to be sent to

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