

REPORT ON MACHINERY.

No. 30,337

MON. 21 JAN. 1918

Received at London Office

Date of writing Report 19 When handed in at Local Office 18/1/18 Port of Hull

No. in Survey held at Hull Date, First Survey 28/3/17 Last Survey 18/1/1918

Reg. Book on the Steel Screw Trawler "John Brennan" (Number of Visits) 60

Master Built at Beverley By whom built Cook, Wilton & Gemmell Tons Gross 273 Net 108

Engines made at Hull By whom made Amos & Smith No. 2925 when made 1918.1

Boilers made at Hull By whom made Amos & Smith No. 2923 when made 1918.1

Registered Horse Power Owners British Admiralty Port belonging to ✓

Nom. Hors. Power as per Section 28 83 ✓ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 12½" 21½" 35¼" Length of Stroke 24" Revs. per minute 115 Dia. of Screw shaft as per rule 7.42" Material of screw shaft Iron as fitted 7½"

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 ✓ 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 33"

Dia. of Tunnel shaft as per rule 6.44" 6.63" Dia. of Crank shaft journals as per rule 6.97" Dia. of Crank pin 7¼" Size of Crank webs 14½" 4½" Dia. of thrust shaft under collars 7¼" Dia. of screw 9.0" Pitch of Screw 11.3" No. of Blades 4 State whether moveable No Total surface 31.5 f

No. of Feed pumps One Diameter of ditto 2¾" Stroke 12" Can one be overhauled while the other is at work ✓

No. of Bilge pumps One Diameter of ditto 2¾" Stroke 12" Can one be overhauled while the other is at work ✓

No. of Donkey Engines One 2 ejector Sizes of Pumps 6¼" 4¾" 6" 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 ejector

No. of Bilge Injections One—size 3" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2" 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

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 Suctions How are they protected Wood covering

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 Messrs John Spencer & Sons Ltd

Total Heating Surface of Boilers 1450 f Is Forced Draft fitted No No. and Description of Boilers One single ended

Working Pressure 200 Tested by hydraulic pressure to 400 Date of test 12.10.17 No. of Certificate 3244 T.L.S.

Can each boiler be worked separately ✓ Area of fire grate in each boiler 48 f No. and Description of Safety Valves to each boiler Two spring loaded Area of each valve 4.9" 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" Mean dia. of boilers 13'0" Length 10'6" Material of shell plates S.

Thickness 1¼" Range of tensile strength 28.32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Double long. seams S.S.S.S. Diameter of rivet holes in long. seams 1¾" Pitch of rivets 7.71" Lap of plates or width of butt straps 17½"

Per centages of strength of longitudinal joint rivets 91.1 plate 84.6 Working pressure of shell by rules 200 Size of manhole in shell 16" 12"

Size of compensating ring 30.40.1¼" No. and Description of Furnaces in each boiler 3 Plain Material S. Outside diameter 3'2½"

Length of plain part top 78" bottom 73" Thickness of plates crown 13/16" bottom 13/16" Description of longitudinal joint Welded No. of strengthening rings ✓

Working pressure of furnace by the rules 217 Combustion chamber plates: Material S. Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 1/16"

Pitch of stays to ditto: Sides 8" 10" Back 8¾" 9" Top 8" 9¼" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 200

Material of stays S. Area at smallest part 2.4" Area supported by each stay 97" Working pressure by rules 222 End plates in steam space: Material S. Thickness 1/8" Pitch of stays 16½" 17½" How are stays secured S.S.S.S. Working pressure by rules 207 Material of stays S.

Area at smallest part 6.10 Area supported by each stay 289" Working pressure by rules 219 Material of Front plates at bottom S.

Thickness 1/16" Material of Lower back plate S. Thickness 15/16" Greatest pitch of stays 14¾" 9" Working pressure of plate by rules 203

Diameter of tubes 3½" Pitch of tubes 4¾" Material of tube plates S. Thickness: Front 1/16" Back 7/8" Mean pitch of stays 10"

Pitch across wide water spaces 14" Working pressures by rules 202 Girders to Chamber tops: Material S. Depth and thickness of girder at centre 9½" 1¾" Length as per rule 34" Distance apart 9¼" Number and pitch of stays in each 3—8"

Working pressure by rules 206 Steam dome: description of joint to shell ✓ % of strength of joint ✓

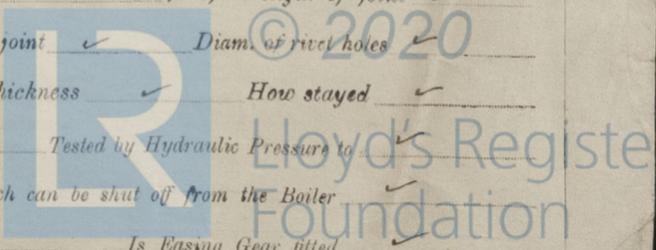
Diameter ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet holes 20

Pitch of rivets ✓ Working pressure of shell by rules ✓ Crown plates ✓ Thickness ✓ How stayed ✓

SUPERHEATER. 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:— Four top end bolts and nuts, two bottom end bolts and nuts, two main bearing bolts and nuts, one set of coupling bolts and nuts, one set of Air Feed and Bilge pump valves, one set of piston studs and nuts, Four Condenser tubes, three Boiler tubes, one Escape valve spring each size, two donkey pump suction and delivery valves, one impeller and shaft for circulating pump, a quantity of assorted bolts and nuts and iron of various sizes.

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

J. F. Robinson

Manufacturer.

Secretary.

Dates of Survey while building { During progress of work in shops - - } 1917:— Mar. 28, Jun. 2, 4, 15, 25, July 2, 10, 11, 16, 19, 23, 25, 28, 31, Aug. 13, 16, 17, 21, 24, 27, 29, 31, Sep. 4, 6, 10, 13, 18, { During erection on board vessel - - - } 19, 21, 26, 29, Oct. 5, 12, 15, 18, 20, 22, 24, 25, 30, Nov. 2, 6, 7, 10, 16, 17, 20, 22, Dec. 4, 11, 15, 17, 19, 26, 29, 1918:— Jan. 15, 8, 18. Total No. of visits 60

Is the approved plan of main boiler forwarded herewith *provisional*

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Dates of Examination of principal parts—Cylinders 28.7.17. Slides 21.8.17. Covers 13.8.17. Pistons 21.8.17. Rods 16.8.17. Connecting rods 16.8.17. Crank shaft 24.8.17. Thrust shaft 24.8.17. Tunnel shafts ✓. Screw shaft 10.7.17. Propeller 10.7.17. Stern tube 10.7.17. Steam pipes tested 10.11.17. Engine and boiler seatings 6.9.17. Engines holding down bolts 6.11.17. Completion of pumping arrangements 8.1.18. Boilers fixed 6.11.17. Engines tried under steam 5.1.18. Completion of fitting sea connections 19.7.17. Stern tube 19.7.17. Screw shaft and propeller 19.7.17. Main boiler safety valves adjusted 5.1.18. Thickness of adjusting washers P. 5/16 S. 5/16

Material of Crank shaft Iron Identification Mark on Do. 2011FL3. Material of Thrust shaft Iron Identification Mark on Do. 2008FL4.

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 1825G.

Material of Steam Pipes S. D. Copper Test pressure 400 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 Yes.

Is this machinery duplicate of a previous case Yes. If so, state name of vessel "James Berry".

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 approved plans and the rules of this Society, the material and workmanship are good, the Boiler and steam pipes have been tested as above and found sound and good. The machinery has been properly fitted and secured on board the vessel and on completion tested under full power for two hours as required by the Admiralty and found satisfactory. The Safety valves have been adjusted under steam and tested for accumulation which did not exceed 208 lbs.

In our opinion the vessel is eligible for the record * L.M.C. 1.18.

It is submitted that this record is eligible for THE RECORD. + L.M.C. 1.18.

J.M. 22.1.18.

The amount of Entry Fee ... £ 7 : - : When applied for, Special ... £ 24 : 18 : 19-1-1918 Donkey Boiler Fee ... £ - : - : When received, Travelling Expenses (if any) £ - : 3 : 30-1-1918

Geo. Allan

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE JAN. 22 1918.

Assigned

+ L.M.C. 1.18.



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