

REPORT ON MACHINERY.

No. 31041

FRI. 25 APR. 1919

Date of writing Report

19

When handed in at Local Office

24/4/19 Port of Hull

No. in Survey held at Hull
Reg. Book.now named "BETTY JOHNSON"
on the John Gulper (Castle class trawler)

Date First Survey 15-4-19 Last Survey 12-4-1919

Number of Visits 65
Tons } Gross 290
Net 127

Master

Built at Beverley By whom built Cook, Welton & Gemmell Ltd When built 1919

Engines made at Hull

By whom made Amos & Smith Ltd (nº 2965) when made 1919

Boilers made at Hull

By whom made Amos & Smith Ltd (nº 2964) when made 1919

Registered Horse Power

Owners James Johnson.

Port belonging to Scarborough.

Nom. Horse Power as per Section 28 87.86

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"-24 35" Length of Stroke 26" Revs. per minute

Dia. of Screw shaft as per rule 7.5" Material of iron
as fitted 7½" screw shaft

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 34"

Dia. of Tunnel shaft as per rule 6.58

Dia. of Crank shaft journals as per rule 6.95"

Dia. of Crank pin 7½"

Size of Crank webs 14" x 4 7/8" Dia. of thrust shaft under

collars 7½" Dia. of screw 9'-6" Pitch of Screw 11'-1½"

No. of Blades 4 State whether moveable No. Total surface 35.5 sq

No. of Feed pumps 2 Diameter of ditto 2½" Stroke 12" Can one be overhauled while the other is at work Yes.

No. of Bilge pumps 2 Diameter of ditto 2½" Stroke 12" Can one be overhauled while the other is at work Yes.

No. of Donkey Engines 2+ ejector Sizes of Pumps 6"x3"x6" & 6"x4"x6" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room One 2" engine room one 2" aft one 2" in Holds, &c. One 2" from forehold one 2" from

slushwell also separate 2" ejector suction from slushwell.

No. of Bilge Injections one sizes 3½" 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 Valves & Cocks.

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 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 Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Port Talbot Steel Co. Ltd - Port Talbot

Total Heating Surface of Boilers 1590 sq Is Forced Draft fitted no. No. and Description of Boilers one single ended.

Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 3/4/19 No. of Certificate 3349.

Can each boiler be worked separately Area of fire grate in each boiler 48.75 sq No. and Description of Safety Valves to

each boiler two spring loaded Area of each valve 49 sq Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear Yes.

Smallest distance between boilers or uptakes and bunkers or woodwork 11" dia. of boilers 162" Length 10'-6 1/2" Material of shell plates steel.

Thickness 1 3/32" Range of tensile strength 28/32 tons Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams double

long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1 5/32" Pitch of rivets 8" Top of plates or width of butt straps 17"

Per centages of strength of longitudinal joint 89.3 Working pressure of shell by rules 182 lbs. Size of manhole in shell 16" x 12"

Size of compensating ring 9' x 1 3/32" No. and Description of Furnaces in each boiler 3 plain. Material steel Outside diameter 40 7/8"

Length of plain part 76" Thickness of plates crown 2 5/32" Description of longitudinal joint welded. No. of strengthening rings

Working pressure of furnace by the rules 188 Combustion chamber plates: Material steel Thickness: Sides 1 1/16" Back 3/32" Top 1 1/16" Bottom 7/8"

Pitch of stays to ditto: Sides 9 1/2" x 9 3/8" Back 9' x 9" Top 9 1/2" x 9 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 182

Material of stays steel Area at smallest part 2.07 sq Area supported by each stay 90.25 sq Working pressure by rules 206 End plates in steam space:

Material steel Thickness 1 1/16" Pitch of stays 17 3/8" x 17" How are stays secured DN4W Working pressure by rules 181 Material of stays steel

Area at smallest part 6.10 sq Area supported by each stay 295 sq Working pressure by rules 215 Material of Front plates at bottom steel.

Thickness 3 1/32" Material of Lower back plate steel Thickness 1 5/16" Greatest pitch of stays 14" x 9" Working pressure of plate by rules 219

Diameter of tubes 3 1/2" Pitch of tubes 5' x 4 3/4" Material of tube plates steel Thickness: Front 3 1/32" Back 7/8" Mean pitch of stays 10"

Pitch across wide water spaces 14" Working pressures by rules 184-188 Chamber tops: Material steel Depth and

thickness of girder at centre 8 1/2" x 1 3/4" Length as per rule 32 Distance apart 29 1/2" Number and pitch of stays in each two 9 1/2"

Working pressure by rules 197 Steam dome: description of joint to shell % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of

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

015139-015154-0007

IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two top & two bottom end bolts & nuts, one set coupling bolts & nuts, two main bearing bolts & nuts, one set each of Air Feed & Bilge Pump Valves, one set piston studs & nuts, three condenser tubes, three boiler tubes, one escape valve spring of each size, two donkey pump suction & delivery valves, a quantity of assorted bolts & nuts, & iron of assorted sizes.

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

W. E. Brown

Manufacturer.

Asst. Secretary.

Dates of Survey while building { During progress of work in shops - 1/9/18 - May 15 Jun 7 14 18 20 25 29 Jul 3 8 11 15 19 26 30 Aug 2 3 13 15 22 28 29 Sep 2 5 9 10
During erection on board vessel - 14 17 18 30 Oct 2 8 Nov 14 20 Dec 5 11 20 24 31 1919 Jan 3 8 13 14 20 22 24 29 31 Feb 3 10 Mar 6 11
Total No. of visits 65

Is the approved plan of main boiler forwarded herewith

previously sent

Dates of Examination of principal parts—Cylinders 24/12/18 Slides 24/12/18 Covers 24/12/18 Pistons 3/1/19 Rods 8/1/19.
Connecting rods 14/1/19 Crank shaft 14/1/19 Thrust shaft 20/1/19 Tunnel shafts ✓ Screw shaft 9/9/18 Propeller 28/8/18.
Stern tube 9/9/18 Steam pipes tested 12/4/19. Engine and boiler seatings 22/1/19 Engines holding down bolts 10/4/19.
Completion of pumping arrangements 17/4/19 Boilers fixed 10/4/19 Engines tried under steam 15/4/19.
Completion of fitting sea connections 18/9/18 Stern tube 18/9/18 Screw shaft and propeller 18/9/18.
Main boiler safety valves adjusted 15/4/19. Thickness of adjusting washers P $\frac{11}{32}$ S $\frac{23}{64}$
Material of Crank shaft steel Identification Mark on Do. 2207 WNS Material of Thrust shaft steel Identification Mark on Do. 2209 WNS
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts iron Identification Marks on Do. 1914 FF
Material of Steam Pipes Solid drawn copper Test pressure 360 lbs.
Is an installation fitted for burning oil fuel ✓ 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

Michael Griffith

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 the Society. The material & workmanship are good. The boiler & steam pipe have been tested as above & found sound & good. The machinery has been properly fitted & secured on board the vessel & on completion was tested at full power for two hours as required by the Admiralty & found satisfactory. The safety valves have been adjusted under steam & accumulation did not exceed 9 lbs.

In my opinion the vessel is eligible for the record + LMC 4, 19.

It is submitted that this vessel is eligible for THE RECORD + LMC 4. 19.

The amount of Entry Fee ... £ 2 : — : When applied for,

Special ... £ 26 : 2 : 19

Donkey Boiler Fee ... £ : : When received.

Travelling Expenses (if any) £ : : 26.4.19

Committee's Minute

TUE APR 29 1919

Assigned

+ LMC 4. 19

W. Stone
Engineer Surveyor to Lloyd's Register of Shipping.

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14466
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