

Received at London Office

THU. SEP. 13 1917.

Date of writing Report 31-8-17. When handed in at Local Office

10/17 Port of Hull

No. in Survey held at Hull

Date, First Survey Mar 15<sup>th</sup> Last Survey Sep 1<sup>st</sup> 1917

Reg. Book.

(Number of Visits 43)

on the steel screw tug James Berry

Tons Gross 269  
Net 109

Master Built at Beverley By whom built Cook Wilton &amp; Gemmell When built 1917-9

Engines made at Hull By whom made Amos & Smith L<sup>td</sup> (2919) when made 1917-9Boilers made at Hull By whom made Amos & Smith L<sup>td</sup> (2917) when made 1917-9

Registered Horse Power Owners British Admiralty Port belonging to

Nom. Horse 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 Three No. of Cranks 3  
Dia. of Cylinders 12½" - 21½" - 35½" Length of Stroke 24" Revs. per minute Dia. of Screw shaft as per rule 7.42" Material of screw shaft as fitted 7.92" Iron  
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 7½" Size of Crank webs 4½" x 4½" Dia. of thrust shaft under collars 7½" Dia. of screw 9-0" Pitch of Screw 11-3" No. of Blades 4 State whether moveable no Total surface 31' 5 1/2" ft.  
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" dia. Sizes of Pumps 6½", 4¾" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room Two 2" dia. In Holds, &c. one 2" dia. in each compartment  
all suction also connected to ejector.  
No. of Bilge Injections one sizes 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 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 Is it fitted with a watertight door worked from

BOILERS, &amp;c.—(Letter for record S) Manufacturers of Steel Stewarts &amp; Lloyds

Total Heating Surface of Boilers 1450 ft<sup>2</sup> 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 27-6-17 No. of Certificate 3221 G.A.  
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" 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 Dia. of boilers 156" Length 10'-6" Material of shell plates steel  
Thickness 1½" Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double long, seams 7 P.P. 13.5 Diameter of rivet holes in long. seams 1¾" Pitch of rivets 7.71" Lap of plates or width of butt straps 17 3/8"  
Per centages of strength of longitudinal joint rivets 91.1 plate 84.6 Working pressure of shell by rules 210 Size of manhole in shell 16" x 12"  
Size of compensating ring 9' x 1½" No. and Description of Furnaces in each boiler 3 plain Material steel Outside diameter 38½"  
Length of plain part top 78" bottom 73" Thickness of plates crown 7 13/16" bottom 7 1/16" Description of longitudinal joint welded No. of strengthening rings  
Working pressure of furnace by the rules 217 Combustion chamber plates: Material steel Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 1/16"  
Pitch of stays to ditto: Sides 8" x 10" Back 8 3/4" x 9" Top 8" x 9 1/4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 200  
Material of stays steel Area at smallest part 2.4" Area supported by each stay 97" Working pressure by rules 222 End plates in steam space:  
Material steel Thickness 1½" Pitch of stays 16 1/2" x 17 1/2" How are stays secured 7.7 x 7.7 Working pressure by rules 207 Material of stays steel  
Area at smallest part 6' 10" Area supported by each stay 289" Working pressure by rules 219 Material of Front plates at bottom steel  
Thickness 1½" Material of Lower back plate steel Thickness 1 5/16" Greatest pitch of stays 14 3/4" x 9" Working pressure of plate by rules 203  
Diameter of tubes 3½" Pitch of tubes 4 1/2" Material of tube plates steel Thickness: Front 1/8" Back 7/8" Mean pitch of stays 10"  
Pitch across wide water spaces 14" Working pressures by rules 202 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 9 1/2" x 1 3/4" Length as per rule 34" Distance apart 9 1/2" Number and pitch of stays in each Three 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  
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 & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of air feed & helix pump valves, one safety valve spring, one main & one donkey check valve, one set of piston & nuts, 4 condenser tubes, 3 boiler tubes, one escape valve spring each size, two donkey pump suction & delivery valves, one impeller & shaft for circulating pumps, one propeller, 2 set of fire bars & quantity of bolts & nuts & nuts of various sizes.

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

Manufacturer.

Secretary

Dates of Survey while building { During progress of work in shops -- } 1917:—Mar 15, 24, 28 Apr 2, 3, 11, 23, 31 May 5, 7, 9, 12, 14, 23, 25 Jun 2, 4, 8, 9, 13, 15, 22, 25, 27 Jul 2, 3, 11, 13, 14, 16, 19, 25, 31 Aug 13, 17, 20, 22, 23, 24, 27 Sept 1.  
Total No. of visits 43

Is the approved plan of main boiler forwarded herewith Yes, /

" " " donkey " " " with H. H.

Dates of Examination of principal parts—Cylinders 14-5-17 Slides 4-7-17 Covers 14-5-17 Pistons 9-6-17 Rods 9-6-17

Connecting rods 9-6-17 Crank shaft 13-6-17 Thrust shaft 25-6-17 Tunnel shafts ✓ Screw shaft 5-5-17 Propeller 5-5-17

Stern tube 5-5-17 Steam pipes tested 13-8-17 Engine and boiler seatings 9-5-17 Engines holding down bolts 20-8-17

Completion of pumping arrangements 27-5-17 Boilers fixed 20-8-17 Engines tried under steam 27-8-17

Completion of fitting sea connections 9-5-17 Stern tube 9-5-17 Screw shaft and propeller 9-5-17

Main boiler safety valves adjusted 22-8-17 Thickness of adjusting washers  $0.976$   $1.1732$

Material of Crank shaft Iron Identification Mark on Do. 1818 J.A. Material of Thrust shaft Iron Identification Mark on Do. 1822

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 1808

Material of Steam Pipes Solid drawn copper ✓ Test pressure 400 ✓

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 Yes, Hugh Black ✓

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 and

steam pipes have been tested 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 have been adjusted under steam & tested for accumulation

which did not exceed 207 lbs.

In our opinion the vessel is eligible for the record + L.H.B. 9-17.

It is submitted that  
this vessel is eligible for  
THE RECORD. + L.M.C. 9.17.

The amount of Entry Fee ... £ 1 : 0 :  
Special ... £ 24 : 18 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 12/9/17  
When received, 29/9/17

Committee's Minute

Assigned

FRI. 14 SEP. 1917

+ L.H.B. 9.17

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation