

# REPORT ON MACHINERY

No. 30191  
MON. OCT. 15 1917.

Received at London Office

Date of writing Report 8-10-17 When handed in at Local Office 12-10-17 Port of Hull  
No. in Survey held at Hull Date, First Survey 6/4/16 Last Survey 7-10-17 19  
Reg. Book. 6 on the steel screw trawler "Oswaldian" (Number of Visits 57) Tons { Gross 261  
Net 102  
Master Beverley Built at Beverley By whom built Cock & Wilton & Gemmell When built 1917-10  
Engines made at Hull By whom made Amos & Smith, L<sup>d</sup> Hull when made 1917-10  
Boilers made at Hull By whom made Amos & Smith, L<sup>d</sup> Hull when made 1917-10  
Registered Horse Power 74 Owners Loyal T<sup>n</sup> Fishing Co. L<sup>d</sup> Port belonging to Grimby  
Nom. Horse Power as per Section 28 74 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders Three No. of Cranks 3  
Dia. of Cylinders 12 1/2" - 21 1/2" - 35 1/4" Length of Stroke 24" Revs. per minute as per rule 7 1/16" Material of screw shaft as fitted 7 1/2" screw shaft 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 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 34"  
Dia. of Tunnel shaft as per rule 6 1/4" Dia. of Crank shaft journals as per rule 6 1/2" Dia. of Crank pin 7" Size of Crank webs 13 1/2" x 4 1/2" Dia. of thrust shaft under  
collars 6 7/8" Dia. of screw 8-9" Pitch of Screw 11-0" No. of Blades 4 State whether moveable no Total surface 29 sq ft  
No. of Feed pumps one Diameter of ditto 2 3/4" Stroke 12" Can one be overhauled while the other is at work yes  
No. of Bilge pumps one Diameter of ditto 2 3/4" Stroke 12" Can one be overhauled while the other is at work yes  
No. of Donkey Engines two 2" dia Sizes of Pumps 6 1/2", 4 1/2" x 6", 3" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room Two 2" dia In Holds, &c. one two inch dia in each compartment  
all suction also connected to ejector  
No. of Bilge Injections yes sizes 3" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2" dia  
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 no  
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 slating 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 yes Is it fitted with a watertight door yes worked from yes

BOILERS, &c.—(Letter for record S) Manufacturers of Steel J. Spencer & Sons  
Total Heating Surface of Boilers 1267 sq ft Is Forced Draft fitted no No. and Description of Boilers one single ended  
Working Pressure 180 lbs Tested by hydraulic pressure to 260 lbs Date of test 14-2-17 No. of Certificate 3193  
Can each boiler be worked separately yes Area of fire grate in each boiler 37.6 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 185 Are they fitted with easing gear yes  
Smallest distance between boilers or uptakes and bunkers or woodwork 10" 13 lb lapped dia. of boilers 152" Length 10'-3 29/32" Material of shell plates S  
Thickness 1 1/2" 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 1/8" Pitch of rivets 7" Lap of plates or width of butt straps 15 1/2"  
Per centages of strength of longitudinal joint 91.2 Working pressure of shell by rules 180 Size of manhole in shell 16" x 12"  
Size of compensating ring 9" x 1 1/2" No. and Description of Furnaces in each boiler two plain Material S Outside diameter 44 9/16"  
Length of plain part 78" Thickness of plates 3 1/16" Description of longitudinal joint welded No. of strengthening rings yes  
Working pressure of furnace by the rules 185 Combustion chamber plates: Material S Thickness: Sides 1 1/8" Back 1 1/8" Top 1 1/8" Bottom 3/4"  
Pitch of stays to ditto: Sides 10" x 7" Back 9 1/2" x 9" Top 9 1/2" x 7" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 191  
Material of stays S Area at smallest part 2.07 sq in Area supported by each stay 85.5 sq in Working pressure by rules 217 End plates in steam space:  
Material S Thickness 1 1/2" Pitch of stays 16 1/2" x 16 1/4" How are stays secured N. H. & W. Working pressure by rules 187.5 Material of stays S  
Area at smallest part 5.05 sq in Area supported by each stay 268 sq in Working pressure by rules 196 Material of Front plates at bottom S  
Thickness 3 1/32" Material of Lower back plate S Thickness 1 5/16" Greatest pitch of stays 13 3/4" x 9 1/2" Working pressure of plate by rules 217  
Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 3/4" Material of tube plates S Thickness: Front 3 1/32" Back 2 7/32" Mean pitch of stays 11.25"  
Pitch across wide water spaces 13 3/4" Working pressures by rules 190 Girders to Chamber tops: Material S Depth and  
thickness of girder at centre 8 3/8" x 9 1/2" x 1 1/4" Length as per rule 2'-9" Distance apart 8 1/2" x 9 1/2" Number and pitch of stays in each Three 7"  
Working pressure by rules 180 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

WB24-0215



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, & quantities of bolts & nuts & nuts of various sizes.*

The foregoing is a correct description,

FOR AMOS & SMITH LTD.

*W. Rackenbury*

Manufacturer,

Dates of Survey while building { During progress of work in shops - - } *1916: Apr 6, 7, 11, 13, 18, 29 May 6, 13, 22, 27 Jun 3, 10, 17, 24 Jul 3, 11, 22, 31 Aug 5, 12, 19, 26, 29, 31 Oct 11, 13, 17, 22 Dec 1, 4, 11, 16,*  
{ During erection on board vessel - - } *1917: Jan 5, 6, 13, 18, 23, 29 Feb 3, 5, 10, 12, 14 Jul 19 Sep 4, 18, 17, 20, 26, 29 Oct 5, 11,*  
Total No. of visits *51*

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

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *5-1-17* Slides *3-2-17* Covers *5-1-17* Pistons *3-2-17* Rods *10-1-17*

Connecting rods *18-1-17* Crank shaft *13-1-17* Thrust shaft *8-1-17* Tunnel shafts *✓* Screw shaft *16-10-16* Propeller *16-10-16*

Stern tube *16-10-16* Steam pipes tested *18-9-17* Engine and boiler seatings *19-7-17* Engines holding down bolts *20-9-17*

Completion of pumping arrangements *6-10-17* Boilers fixed *29-9-17* \* Engines tried under steam *6-10-17*

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 *29-9-17* Thickness of adjusting washers *1 9/32" 1 11/32"*

Material of Crank shaft *Iron* Identification Mark on Do *1702 G.A* Material of Thrust shaft *Iron* Identification Mark on Do *1701 G.A*

Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *Iron* Identification Marks on Do *1675 G.A*

Material of Steam Pipes *1 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 *✓*

Is this machinery duplicate of a previous case *yes* ✓ If so, state name of vessel *Olympia Helvetia etc* ✓

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 tried under steam & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 188 lbs.*

*In my opinion the vessel is eligible for the record & L.R.C. 10-17*

It is submitted that  
this vessel is eligible for  
THE RECORD. + L.M.C. 10.17.

The amount of Entry Fee ... £ 1 : 0 :  
Special ... £ 11 : 2 :  
Donkey Boiler Fee ... £ ✓ : :  
Travelling Expenses (if any) £ ✓ : :  
When applied for, *13/10/17*  
When received, *31.10.1917*

*Frank A. Sturges*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE. 16 OCT. 1917

*+ L.R.C. 10.17*

MACHINERY CERTIFICATE  
WRITTEN.



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Foundation