

REPORT ON MACHINERY

No. 20191
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 Built at Beverley By whom built Cook, Wilton & Gemmill When built 1917-10

Engines made at Hull By whom made Amos & Smith, L^d Hull when made 1917-10

Boilers made at Hull By whom made Amos & Smith, L^d Hull when made 1917-10

Registered Horse Power Owners Royal Tⁿ Fishing Co. L^d Port belonging to Gimsby

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 Dia. of Screw shaft as per rule 7 1/16" Material of 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

on 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 1/4" Dia. of Crank shaft journals as per rule 6 7/8" Dia. of Crank pin 7" Size of Crank webs 4 3/8" x 4 3/8" 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 moceable 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

No. of Bilge pumps one Diameter of ditto 2 3/4" Stroke 12" Can one be overhauled while the other is at work

No. of Donkey Engines two 2" dia. Sizes of Pumps 6 1/2" x 4 1/2" x 6" 4 6" x 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 pumps 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 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. 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 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" Bl. lapped dia. of boilers 152" Length 10'-3 29/32" Material of shell plates S

Thickness 1 1/32" 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 7/16" Pitch of rivets 7" Lap of plates or width of butt straps 15 7/16"

Per centages of strength of longitudinal joint rivets 91.2 plate 84.82 Working pressure of shell by rules 180 Size of manhole in shell 16" x 12"

Size of compensating ring 9" x 1 1/32" No. and Description of Furnaces in each boiler two plain Material S Outside diameter 44 9/16"

Length of plain part top 78 bottom 72 1/2 Thickness of plates crown 3 1/16 bottom 3 1/16 Description of longitudinal joint welded No. of strengthening rings

Working pressure of furnace by the rules 185 Combustion chamber plates: Material S Thickness: Sides 1 1/16 Back 1 1/16 Top 1 1/16 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 1/32" Pitch of stays 16 1/2" x 16 1/4" How are stays secured N. F. 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 15 1/16" 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 % 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 Is Easing Gear fitted

WB24-0215

Lloyd's Register Foundation

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. Shackleton 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, ^{Oct} 6, 11, 13, 17, 22, Dec 4, 11, 16,
 { During erection on board vessel - - - } 1917:— Jan 5, 6, 13, 16, 23, 29 Feb 3, 5, 10, 12, 14, Jul 19, Sep 4, 18, 17, 20, 26, 29, Oct 5, 6,
 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 1-1-17
 Connecting rods 1-8-17 Crank shaft 1-3-17 Thrust shaft 8-1-17 Tunnel shafts ✓ Screw shaft 1-6-10-16 Propeller 1-6-10-16
 Stern tube 1-6-10-16 Steam pipes tested 1-8-9-17 Engine and boiler seatings 1-9-7-17 Engines holding down bolts 2-0-9-17
 Completion of pumping arrangements 6-10-17 Boilers fixed 2-9-17 * Engines tried under steam 6-10-17
 Completion of fitting sea connections 1-9-7-17 Stern tube 1-9-7-17 Screw shaft and propeller 1-9-7-17
 Main boiler safety valves adjusted 2-9-9-17 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, 31.10.17

Frank L. Sturgis
 Engineer Surveyor to Lloyd's Register of Shipping.
 15/10/17

Committee's Minute
 Assigned TUE 16 OCT. 1917
 + L.R.C. 10.17

MACHINERY CERTIFICATE WRITTEN



Hull

Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.