

Rt. Stephens & Co. 547 Beller
Smith Dock Co. S.S.
Shildes & Co. E

Rpt. 4.

REPORT ON MACHINERY.

No. 52330

THUR. 8 AUG 1907

Received at London Office

Port of Newcastle on Tyne

No. in Survey held at *Newcastle & North Shields* Date, first Survey *Apr 26* Last Survey *Aug 2* 1907
Reg. Book. on the *Shel S.S. Oxwich Castle* (Number of Visits *18*)
Master Built at *North Shields* By whom built *Smeths Dock Cold (348)* Tons { Gross *252*
Engines made at *North Shields* By whom made *Shields Engineering Co Ltd (94)* when made *1907*
Boilers made at *Newcastle* By whom made *Rt. Stephens & Co. Ltd* when made *1907*
Registered Horse Power Owners *Casde Steam Trawlers Ltd* Port belonging to *Swansea*
Nom. Horse Power as per Section 28 *71* 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 *12 1/2, 20, 34* Length of Stroke *24* Revs. per minute *108* Dia. of Screw shaft *7 3/4* as per rule *7 3/4* as fitted *7 1/2* Material of screw shaft *W. 7*
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 *2'-9 1/2"*
Dia. of Tunnel shaft *6 3/4* as per rule *6 3/4* as fitted *none* Dia. of Crank shaft journals *6 3/4* as per rule *6 3/4* as fitted *6 3/4* Dia. of Crank pin *6 3/4* Size of Crank webs *12 1/2* Dia. of thrust shaft under collars *6 3/4* Dia. of screw *9'-3* Pitch of Screw *9'-6"* No. of Blades *4* State whether moveable *no* Total surface *28 1/4 sq ft*
No. of Feed pumps *2* Diameter of ditto *2 3/8"* Stroke *12"* Can one be overhauled while the other is at work *yes*
No. of Bilge pumps *2* Diameter of ditto *2 3/8"* Stroke *12"* Can one be overhauled while the other is at work *yes*
No. of Donkey Engines *one* Sizes of Pumps *Pearson Vertical D.A.R (6x3x6)* No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room *2 of 2" and ejector* In Holds, &c. *1 of 2" change cock in stokehold to tank*
No. of Bilge Injections *1* sizes *3* Connected to condenser, or to circulating pump *CP* Is a separate Donkey Suction fitted in Engine room & size *yes. 2"*
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 *hold suction & tank suction* How are they protected *hold suction used for cargo*
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*
Dates of examination of completion of fitting of Sea Connections *13 June 07* of Stern Tube *13 June* Screw shaft and Propeller *23 July 07*
Is the Screw Shaft Tunnel watertight *✓* Is it fitted with a watertight door *✓* worked from *✓*

OILERS, &c.—(Letter for record *5*) Manufacturers of Steel *J. Spencer & Son*
Total Heating Surface of Boilers *1230* Is Forced Draft fitted *no* No. and Description of Boilers *One, Cyl. Mult. S Ind.*
Working Pressure *180* Tested by hydraulic pressure to *360* Date of test *18. 7. 07* No. of Certificate *7531*
Can each boiler be worked separately *✓* Area of fire grate in each boiler *38* No. and Description of Safety Valves to each boiler *Two D. Spring loaded* Area of each valve *397 sq in* Pressure to which they are adjusted *185 lb* Are they fitted with easing gear *yes*
Smallest distance between boilers or uptakes and bunkers or woodwork *12"* Ex¹ dia. of boilers *12'-6"* Length *10'-6"* Material of shell plates *5*
Thickness *1 1/2* Range of tensile strength *28-32* Are the shell plates welded or flanged *no* Descrip. of riveting: cir. seams *d lap*
long. seams *d strap* Diameter of rivet holes in long. seams *1 1/8* Pitch of rivets *7 1/8* Lap of plates or width of butt straps *16*
Per centages of strength of longitudinal joint: rivets *89* Working pressure of shell by rules *182* Size of manhole in shell *16 x 12*
Size of compensating ring *7 x 1 1/2* No. and Description of Furnaces in each boiler *2 Plain* Material *S* Outside diameter *43*
Length of plain part: top *7 3/4* bottom *7 1/2* Thickness of plates: crown *49* bottom *64* Description of longitudinal joint *Weld* No. of strengthening rings *42*
Working pressure of furnace by the rules *182* Combustion chamber plates: Material *S* Thickness: Sides *5/8* Back *2 1/32* Top *5/8* Bottom *15/16*
Pitch of stays to ditto: Sides *8 x 9* Back *9 x 8 1/2* Top *8 1/2 x 8* If stays are fitted with nuts or riveted heads *nut* Working pressure by rules *186*
Material of stays *S* Diameter at smallest part *1 1/2* Area supported by each stay *76-5* Working pressure by rules *180* End plates in steam space:
Material *S* Thickness *1 1/8* Pitch of stays *16 x 17 1/2* How are stays secured *d h & w* Working pressure by rules *190* Material of stays *S*
Diameter at smallest part *5-05* Area supported by each stay *280* Working pressure by rules *184* Material of Front plates at bottom *S*
Thickness *1* Material of Lower back plate *S* Thickness *15/16* Greatest pitch of stays *a. per plan* Working pressure of plate by rules *180*
Diameter of tubes *3 1/2* Pitch of tubes *4 7/8 x 5* Material of tube plates *S* Thickness: Front *1* Back *3/4* Mean pitch of stays *9 3/4 x 10*
Pitch across wide water spaces *14* Working pressures by rules *182* Girders to Chamber tops: Material *S* Depth and thickness of girder at centre *9 x 13 1/4* Length as per rule *33* Distance apart *8* Number and pitch of stays in each *3-8 1/2*
Working pressure by rules *217* Superheater or Steam chest; how connected to boiler *—* Can the superheater be shut off and the boiler worked separately *—*
Diameter *—* Length *—* Thickness of shell plates *—* Material *—* Description of longitudinal joint *—* Diam. of rivet holes *—* Pitch of rivets *—* Working pressure of shell by rules *—* Diameter of flue *—* Material of flue plates *—* Thickness *—*
If stiffened with rings *—* Distance between rings *—* Working pressure by rules *—* End plates: Thickness *—* How stayed *—*
Working pressure of end plates *—* Area of safety valves to superheater *—* Are they fitted with easing gear *—*

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure _____ tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area _____ Description of Safety _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____ Dia. of donkey boiler _____ Length _____

Material of shell plates _____ Thickness _____ Range of tensile strength _____ Descrip. of riveting long. seams _____

Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____ Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Plates _____

Working pressure of shell by rules _____ Thickness of shell crown plates _____ Radius of do. _____ No. of stays to do. _____ Dia. of stays _____

Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— *two top end bolts and nuts two bottom end bolts and nuts two main bearing bolts and nuts, spare coupling bolts and nuts. Spare feed & bilge pump valves. assorted iron bolts and nuts (share propeller)*

The foregoing is a correct description,

Manufacturer.

For

ROBERT STEPHENSON & CO., LIMITED

M. H. Robinson

MANAGING DIRECTOR

Dates of Survey while building

During progress of work in shops	ENR. 1907 June 7, 1907 July 22, 18, 22, 23, 25, 27, 29 Aug 2
During erection on board vessel	BLR. 1907 Apr. 26, June 11, July 1, 5, 8
Total No. of visits	18

Is the approved plan of main boiler forwarded herewith *no*
retained for duplicate
 donkey " " "

Dates of Examination of principal parts—Cylinders *8. 7. 07* Slides *16 7. 07* Covers *16 7. 07* Pistons *7. 5. 07* Rods *7. 5. 07*
 Connecting rods *7. 5. 07* Crank shaft *8. 7. 07* Thrust shaft *8. 7. 07* Tunnel shafts *✓* Screw shaft *7. 5. 07* Propeller *2. 7. 07*
 Stern tube *7 June 07* Steam pipes tested *18 July 07* Engine and boiler seatings *22. 7. 07* Engines holding down bolts *23 July 07*
 Completion of pumping arrangements *1 August 07* Boilers fixed *22. 7. 07* Engines tried under steam *27 July 07*
 Main boiler safety valves adjusted *27 July 07* Thickness of adjusting washers *5/16 3/8 1/2*
 Material of Crank shaft *Steel* Identification Mark on Do. *1836AT6* Material of Thrust shaft *2 In* Identification Mark on Do. *1836AT6*
 Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *2 7* Identification Marks on Do. *1836AT6*
 Material of Steam Pipes *Copper* Test pressure *360 lb sq. in.*

General Remarks (State quality of workmanship, opinions as to class, &c.)

The material & workmanship is good.
The Machinery has been built under special survey & is eligible in my opinion for classification & the record. I M C 8 - 07

It is submitted that
 this vessel is eligible for
 THE RECORD. *1 LMC 8 07*

The amount of Entry Fee.. £ / : : : When applied for, *7 AUG 1907*
 Special .. £ 10 : 13 : :
 Donkey Boiler Fee .. £ : : : :
 Travelling Expenses (if any) £ : : : : When received, *17. 8. 07*

Committee's Minute

FRI. 16 AUG 1907

Assigned

MACHINERY CERTIFICATE
 WRITTEN.



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 Foundation

Certificate (if required) to be sent to Committee's Minute.