

REPORT ON MACHINERY.

No. 49709

Port of *Newcastle on Tyne*

MUN. 27 NOV 1905

No. in Survey held at *Newcastle*
Reg. Book. *S.S.*
8 on the *Steel S. S. OBERHAUSEN*

Date, first Survey *Mar 25*

Last Survey *23 Oct* 1905

(Number of Visits *12*)

Master

Built at *Newcastle*

By whom built *New Swan Hunter & W Richardson*

Tons { Gross *4353*
Net *2765*
When built *1905*

Engines made at *Newcastle*

By whom made *New Swan Hunter & W Richardson*

when made *1905*

Boilers made at *S*

By whom made *S*

when made *1905*

Registered Horse Power

Owners *Deutsch-Austral Dampfschiff Ges*

Port belonging to *Hamburg*

Nom. Horse Power as per Section 28 *492*

Is Refrigerating Machinery fitted *Yes*

Is Electric Light fitted *Yes*

ENGINES, &c.—Description of Engines *Quadruple Expansion* No. of Cylinders *4* No. of Cranks *4*

Dia. of Cylinders *23. 32. 48. 72* Length of Stroke *54* Revs. per minute *66* Dia. of Screw shaft *14.9* as per rule *15.38* as fitted Material of screw shaft *Steel*

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 *61 1/2*

Dia. of Tunnel shaft *13.1* as per rule *13.34* as fitted Dia. of Crank shaft journals *13.34* as per rule *14.12* as fitted Dia. of Crank pin *14 1/2* Size of Crank webs *22 1/2 x 9 1/4* Dia. of thrust shaft under

collars *14 3/4* Dia. of screw *18-6* Pitch of screw *19-0* No. of blades *4* State whether moveable *No* Total surface *108 sq ft*

No. of Feed pumps *2* Diameter of ditto *4* Stroke *28* Can one be overhauled while the other is at work *Yes*

No. of Bilge pumps *2* Diameter of ditto *4 1/2* Stroke *28* Can one be overhauled while the other is at work *Yes*

No. of Donkey Engines *Two* Sizes of Pumps *6.9 x 11 x 10. F 9 x 6 x 10* No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room *Five 3 1/2* In Holds, &c. *In all holds - two 3 1/2*

Tunnel well *One 2 1/2*

No. of bilge injections *1* sizes *8* Connected to condenser, or to circulating pump *CP* Is a separate donkey suction fitted in Engine room & size *Yes 3 1/2*

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 *Yes*

Are all connections with the sea direct on the skin of the ship *Yes* Are they Valves or Cocks *Lock*

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 *for bilge pipes* How are they protected *Strong 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*

When were stern tube, propeller, screw shaft, and all connections examined in dry dock *While build* Is the screw shaft tunnel watertight *Yes*

Is it fitted with a watertight door *Yes* worked from *top platform*

BOILERS, &c.— (Letter for record *N*) Total Heating Surface of Boilers *6492 sq ft* Is forced draft fitted *Yes*

No. and Description of Boilers *3 Cyl. Single End* Working Pressure *210* Tested by hydraulic pressure to *420*

Date of test *29-8-05* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *53 1/2 sq ft* No. and Description of safety valves to

each boiler *Two Spring* Area of each valve *9-6* Pressure to which they are adjusted *215* Are they fitted with easing gear *Yes*

Smallest distance between boilers or uptakes and bunkers or woodwork *No side bunkers* Mean dia. of boilers *14-2* Length *12-0* Material of shell plates *S*

Thickness *1 1/32* Range of tensile strength *2834* Are they welded or flanged *No* Descrip. of riveting: cir. seams *d lap* long. seams *d shap*

Diameter of rivet holes in long. seams *1 1/2* Pitch of rivets *10* Lap of plates or width of butt straps *22 5/8*

Per centages of strength of longitudinal joint *89* Working pressure of shell by rules *240* 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 *3 Morrison* Material *S* Outside diameter *42 1/8*

Length of plain part *top 1 1/2 bottom 1 1/2* Thickness of plates *5/8* Description of longitudinal joint *Welded* No. of strengthening rings *Yes*

Working pressure of furnace by the rules *239* Combustion chamber plates: Material *S* Thickness: Sides *2 1/32* Back *2 1/32* Top *2 1/32* Bottom *1 1/2*

Pitch of stays to ditto: Sides *7 1/8 x 7 1/8* Back *7 1/4 x 7 1/4* Top *7 1/8 x 7 1/4* If stays are fitted with nuts or riveted heads *No* Working pressure by rules *240*

Material of stays *Iron* Diameter at smallest part *2-03* Area supported by each stay *62* Working pressure by rules *245* End plates in steam space:

Material *S* Thickness *1 3/4* Pitch of stays *15 1/2 x 15 1/2* How are stays secured *d x w* Working pressure by rules *216* Material of stays *S*

Diameter at smallest part *6-1* Area supported by each stay *240.25* Working pressure by rules *253* Material of Front plates at bottom *S*

Thickness *1* Material of Lower back plate *S* Thickness *1* Greatest pitch of stays *as per plan* Working pressure of plate by rules *210 4/5*

Diameter of tubes *2 1/2* Pitch of tubes *3 3/4* Material of tube plates *S* Thickness: Front *1* Back *7/8* Mean pitch of stays *9 3/8*

Pitch across wide water spaces *13 1/2* Working pressures by rules *224* Girders to Chamber tops: Material *S* Depth and

thickness of girder at centre *11 1/4 x 13 1/8* Length as per rule *34 1/2* Distance apart *7 1/8* Number and pitch of Stays in each *3- 7 3/4*

Working pressure by rules *236* Superheater or Steam chest; how connected to boiler *Yes* Can the superheater be shut off and the boiler worked

separately *Yes* Diameter *Yes* Length *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* Diameter of flue *Yes* Material of flue plates *Yes* Thickness *Yes*

If stiffened with rings *Yes* Distance between rings *Yes* Working pressure by rules *Yes* End plates: Thickness *Yes* How stayed *Yes*

Working pressure of end plates *Yes* Area of safety valves to superheater *Yes* Are they fitted with easing gear *Yes*

DONKEY BOILER— No. *None* Description

Made at _____ By whom made _____ When made _____ Where fixed _____
Working pressure _____ tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____
No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ 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 _____ 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 _____ Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____
Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *Propeller tail shaft, two top end, two bottom end, two main bearing & set of coupling bolts. Air pump & Air pump rod, feed & bilge valves, top & bottom end boxes, assorted bolts & nuts, a few bars of iron & other gear*

FOR The foregoing is a correct description,
SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

John Lumsden Manufacturer.

Dates { During progress of work in shops— 1905. *March 25, 27, 28, April 5, 12, 19, 26, May 1, 11, 16, 24, June 1, 2, 8, 16, 22, July 4, 17, 18, 24, 26, 28, Aug 5, 11, 18, 21, 23, 24, 29.*
of Survey { During erection on board vessel— *Sept 7, 27, 29, Oct 2, 11, 15, 16, 17, 18, 20, 21, 23*
while building { Total No. of visits *43*

Is the approved plan of main boiler forwarded herewith *Yes*
" " " donkey " " " *None*

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

*The Material & workmanship is good.
The Mach^y is practically a duplicate of that fitted in the S. S. Ottersen. Nuv Ref^y No. 47773-
The Machinery has been built under special Survey & is eligible in my opinion for classification and the record + L.M.C. 10-05.*

It is submitted that
this vessel is eligible for
THE RECORD + L.M.C. 10-05. F.D. ELEC. LIGHT.
REF. MCHY.

*Im.S.
27.11.05
P.S.
27.11.05*

The amount of Entry Fee. £ *3* : : : When applied for, *25 NOV 1905*
Special £ *44* : *12* : : :
Donkey Boiler Fee £ : : : : When received, *29.11.1905*
Travelling Expenses (if any) £ : : : : *29.11.1905*

Committee's Minute

TUES. 28 NOV 1905

Assigned

*+ L.M.C. 10-05
F.D. Elec. light*

MACHINERY CERTIFICATE
WRITTEN.



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Lloyd's Register
Foundation

Harrogate-on-Tyne

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