

REPORT ON MACHINERY.

Port of Newcastle on Tyne

MUN. 27 NOV 1905

Received at London Office

No. in Survey held at Newcastle Date, first Survey Mar 25 Last Survey 23 Oct 1905
Reg. Book. S.S.
& on the Steel S.S. OBERHAUSEN (Number of Visits 13)

Master _____ Built at Newcastle By whom built Swan Hunter & W Richardson Tons { Gross 4353
Net 2765
When built 1905
Engines made at Newcastle By whom made Swan Hunter & W Richardson L^{ts} when made 1905
Boilers made at S By whom made S when made 1905
Registered Horse Power _____ Owners Deutsch-Osthal Dampfesk 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 as per rule 14-9 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 as per rule 13-1 Dia. of Crank shaft journals as per rule 13 3/4 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
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 B. 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 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 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 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 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 bunker Mean dia. of boilers 14-2 Length 12-0 Material of shell plates S
Thickness 15/32 Range of tensile strength 28 3/4 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 rivets 89 plate 85 Working pressure of shell by rules 240 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 3 Morrison Material S Outside diameter 42 1/8
Length of plain part top bottom 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 3/32
Pitch of stays to ditto: Sides 7 1/8 x 7 1/8 Back 7 3/4 x 7 3/4 Top 7 1/8 x 7 3/4 If stays are fitted with nuts or riveted heads nut 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 4/8
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 1/2 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 valve, top & bottom end brass, assorted bolts & nuts, a few bars of iron & other gear

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

Dates of Survey while building { During progress of work in shops - 1905. Mar. 25, 27, 28. Apr. 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.
 { During erection on board vessel - Sep. 7, 27, 29. Oct. 2, 11, 12, 14, 16, 17, 18, 20, 21, 23.
 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: is practically a duplicate of that fitted in the S.S. Ottensen. New Ref: 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.

J.H.H.
27.11.05
27.11.05

Hawcastle-on-Tyne.

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

The amount of Entry Fee. £ 3 : . : When applied for, 25 NOV 1905
 Special £ 44:12 : . :
 Donkey Boiler Fee £ . : . :
 Travelling Expenses (if any) £ . : . : When received, 28 11 1905

John H Heck.
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute TUES. 28 NOV 1905
 Assigned + L.M.C. 10.05
F.D. Elec light
 MACHINERY CERTIFICATE WRITTEN.

