

REPORT ON MACHINERY.

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Date of writing Report 19 When handed in at Local Office 27 APR 1920 Port of SUNDERLAND.

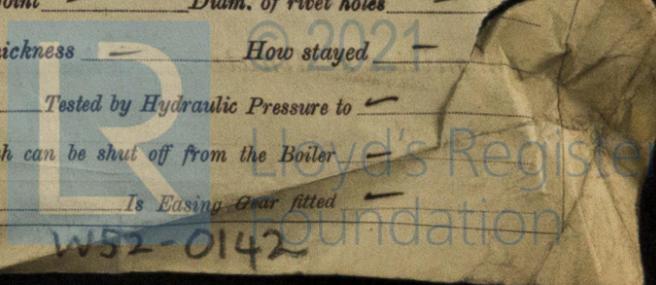
No. in Survey held at Sunderland Date, First Survey 26 Aug 19 Last Survey 2nd April 19 20
 Reg. Book. 515 'KORANTON' (Number of Visits 28) Tons { Gross 6695
 Net 4422
 Master A. Adams Built at Sunderland By whom built Miss Doxford Ltd (523) When built 19 20
 Engines made at Sunderland By whom made Miss Doxford Ltd (523) when made 19 20
 Boilers made at Sunderland By whom made Miss Doxford Ltd (523) when made 19 20
 Registered Horse Power _____ Owners R. Chapman Ltd Port belonging to Newcastle
 Nom. Horse Power as per Section 28 596 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 27, 44, 70 Length of Stroke 48 Revs. per minute 78 Dia. of Screw shaft 14.85 Material of screw shaft Steel
 as per rule 14.67 as fitted 15.2
 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 5-0 1/2
 Dia. of Tunnel shaft 13.32 Dia. of Crank shaft journals 14 Dia. of Crank pin 14 1/2 Size of Crank webs 22 1/2 x 9 Dia. of thrust shaft under collars 14 3/4 Dia. of screw 19-0 Pitch of Screw 17-0 No. of Blades 4 State whether moveable no Total surface 98.29
 No. of Feed pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 4 Sizes of Pumps 20 1/2 x 7 x 18, 10 1/2 x 14 x 24, 10 x 10 x 10 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room Four 3 1/2 In Holds, &c. Two in each hold 3 1/2, one in Tunnel
 No. of Bilge Injections 1 sizes 13 Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size 4 1/2 3/4
 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 none How are they protected —
 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 upper platform

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Spencer & Sons
 Total Heating Surface of Boilers 9525 Is Forced Draft fitted yes No. and Description of Boilers Three single ended 3.5.B.
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 23.12.19, 31.12.19, 9.1.20 No. of Certificate 364, 364, 364
 Can each boiler be worked separately yes Area of fire grate in each boiler 729 No. and Description of Safety Valves to each boiler 2 Spring Valves Area of each valve 12.5 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork no bunkers in ex. way 1 in Mean dia. of boilers 16-2 5/8 Length 12-5 Material of shell plates S
 Thickness 1 1/2 Range of tensile strength 28 1/2 - 33 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams lap 1/4
 long. seams lap 1/4 no Diameter of rivet holes in long. seams 1 3/8 Pitch of rivets 9 1/2 Lap of plates or width of butt straps 20 1/2
 Per centages of strength of longitudinal joint rivets 88.5 Working pressure of shell by rules 191 Size of manhole in shell 16 x 12 plate 85.5
 Size of compensating ring Hanged No. and Description of Furnaces in each boiler 4 Diphther Material S Outside diameter 3-7
 Length of plain part top — bottom — Thickness of plates crown 3 1/2 bottom 3 1/2 Description of longitudinal joint welded No. of strengthening rings —
 Working pressure of furnace by the rules 190 Combustion chamber plates: Material S Thickness: Sides 2 3/2 Back 3/4 Top 2 3/2 Bottom 7/8
 Pitch of stays to ditto: Sides 10 1/8 x 8 3/4 Back 9 3/8 x 9 1/4 Top 8 3/4 x 10 1/8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 198
 Material of stays S Area at smallest part 2.03 Area supported by each stay 88.75 Working pressure by rules 205 End plates in steam space: Material S Thickness 1 1/2 Pitch of stays 23 1/2 x 22 1/2 How are stays secured as in 1. W. Working pressure by rules 185 Material of stays S
 Area at smallest part 9.66 Area supported by each stay 528 Working pressure by rules 189 Material of Front plates at bottom S
 Thickness 3/2 Material of Lower back plate S Thickness 7/8 Greatest pitch of stays 13 5/8 Working pressure of plate by rules 187
 Diameter of tubes 7 1/2 Pitch of tubes 3 3/4 x 3 5/8 Material of tube plates S Thickness: Front 3/2 Back 3/4 Mean pitch of stays 11 1/4 x 7 1/4
 Pitch across wide water spaces 13 5/8 Working pressures by rules 180 Girders to Chamber tops: Material S Depth and thickness of girder at centre 10 1/2 x 1 3/4 Length as per rule 36 1/2 Distance apart 10 1/8 Number and pitch of stays in each 3, 8 3/2
 Working pressure by rules 200 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 —
 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler —
 Valve — Pressure to which each is adjusted — Is Easing Gear fitted —

In a Report also sent on the Hull of the ship? If not, state whether, and when, one will be sent?



IS A DONKEY BOILER FITTED? NO

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— Two top end, two bottom end connecting rod bolts and nuts, two main bearing bolts, one at coupling bolts, one at fuel and high pump valves, several bolts and nuts, two various sips four check valves, one propeller

The foregoing is a correct description,
WILLIAM DOXFORD & SONS, Limited

W. Doxford

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1919 Aug 26 Sep 16-20-30 Oct 11, 13, 15, 21, 31 Nov 6, 11, 24, 25 Dec 2, 17, 23, 31 Jan 6, 9, 19, 27
During erection on board vessel --- Feb 5, 11 Mar 15, 19, 23, 31 Apr 21
Total No. of visits (28) Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 30.10.19 Slides 25.11.19 Covers 15.10.19 Pistons 11.11.19 Rods 30.10.19
Connecting rods 30.10.19 Crank shaft 25.11.19 Thrust shaft 25.11.19 Tunnel shafts 6.11.19 Screw shaft 19.3.20 Propeller 23.3.20
Stern tube 1.2.20 Steam pipes tested 11.10, 13.10.19, 23.3. Engine and boiler seatings 19.1.20 Engines holding down bolts 23.3.20

Completion of pumping arrangements 30.3.20 Boilers fixed 30.3.20 Engines tried under steam 21.4.20
Completion of fitting sea connections 24.11.19 Stern tube 23.3.20 Screw shaft and propeller 30.3.20

Main boiler safety valves adjusted 21.4.20 Thickness of adjusting washers Put 13 1/2" x 7/8" S 13/32, Links 1 1/2" x 7/8" S 13/32, Star 1 1/2" x 7/8" S 13/32

Material of Crank shaft Stul Identification Mark on Do. 543 GAH Material of Thrust shaft Stul Identification Mark on Do. 543 GAH
Material of Tunnel shafts Stul Identification Marks on Do. 543 GAH Material of Screw shafts Stul Identification Marks on Do. 543 GAH

Material of Steam Pipes Cripps Test pressure 360 lbs q"
Is an installation fitted for burning oil fuel Yes 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 Standard F Buino, A Engine

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery of this vessel has been built under special survey, the materials & workmanship are sound and good and under the vessel class in my opinion to have

rank of + L.M.C. 4.20
It is submitted that this vessel is eligible for
RECORD + L.M.C. 4.20 F.D
W.S. 30/4/20
J.W.D. A.P.R.

The amount of Entry Fee ... £ 3 : : When applied for, 20/4/1920
Special ... £ 49 : 16 : :
Donkey Boiler Fee ... £ : : : When received, 20/5/1920
Travelling Expenses (if any) £ : : : 21

W. A. Stank
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. MAY 4 1920
Assigned + L.M.C. 4.20 20

MACHINERY CERT.
WRITTEN

