

Received at London Office

Date of writing Report 1<sup>st</sup> April 1917 When handed in at Local Office

19 Port of NEWCASTLE-ON-TYNE APR. 8 - 1919

No. in Survey held at Newcastle-on-Tyne Date, First Survey 19 Sept 1917 Last Survey 4<sup>th</sup> Mar 1919  
 Reg. Book. on the SCREW STEAMER DACRE CASTLE (Number of Visits 98)

Master Built at Newcastle-on-Tyne By whom built Swan Hunter & Wigham Richardson When built 1919

Engines made at Newcastle-on-Tyne By whom made Swan Hunter & Wigham Richardson When made 1919

Boilers made at Newcastle-on-Tyne By whom made R.W. Hawthorn Leslie & Co. Ltd. When made 1919

Registered Horse Power Owners The Lancashire Steamship Co. Ltd. Port belonging to Liverpool

Nom. Horse Power as per Section 28 517 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

GINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks Three

Di. of Cylinders 24-14-7 Length of Stroke 48 Revs. per minute 78 Dia. of Screw shaft as per rule 14 1/2 Material of screw shaft Steel

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

the propeller boss Yes If the liner is in more than one length are the joints burned the length 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 5' 0 1/2

Di. of Tunnel shaft as per rule 13 3/4 Dia. of Crank shaft journals as per rule 14 1/2 Dia. of Crank pin 14 1/2 Size of Crank webs 23 x 9 Dia. of thrust shaft under

rollers 14 1/4 Dia. of screw 17 1/2 Pitch of Screw 16 1/2 No. of Blades 4 State whether moveable No Total surface 98.2 sq. ft.

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 Three Sizes of Pumps 9 1/2 x 7 x 18 10 1/2 x 14 x 24 No. and size of Suctions connected to both Bilge and Donkey pumps

in Engine Room Three 3 1/2 dia. In Holds, &c. No. 1 HOLD 3 1/2 dia. No. 2 HOLD 3 1/2 dia. No. 3 HOLD (Reserve Bunker) 3 1/2 dia. No. 4 HOLD 3 1/2 dia. No. 5 HOLD 3 1/2 dia. TUNNEL WELL 3 1/2 dia.

No. of Bilge Injections 1 sizes 8 Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2 dia.

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 Below

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 How are they protected Cased in

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 14/12/18 of Stern Tube 16/12/18 Screw shaft and Propeller 16/12/18

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from upper platforms

BOILERS, &c.—(Letter for record \$) Manufacturers of Steel J. Spence & Sons

Total Heating Surface of Boilers 4668 Is Forced Draft fitted Yes No. and Description of Boilers 2 Cylindrical 2 Single

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 15/8/18 No. of Certificate 9123

Can each boiler be worked separately Yes Area of fire grate in each boiler 63.59 sq. ft. No. and Description of Safety Valves to

each boiler 2 Relief Spring loaded Area of each valve 9.62 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 About 48 Mean dia. of boilers Length Material of shell plates

Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell

Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules

Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and

thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each

Working pressure by rules 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

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

WISI - 0221



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *✓*

SPARE GEAR. State the articles supplied:— 2 Conn Rod Top End Bolts & nuts, 2 Conn Rod Bolt End Bolts & nuts, 2 main bearing Bolts & nuts, 3 Crank shaft Coupling Bolts & nuts, 3 Journal shaft Coupling Bolts & nuts, 2 feed pump valves, 2 Bilge pump valves, 3 main feed check valves, 3 donkey feed check valves, 50 Bolts & nuts assorted, 6 Cylinder Cover Studs & nuts, 12 Journal Ring Studs & nuts, 8 Bars of Iron, 1 C.I. Propeller, 6 Steam Chest Cover Studs & nuts, 6 Studs of each size for Boiler Mounting, 2 Cur Rivets, 12 main Condenser tubes, 25 Capped Exhausters, 25 plain do., 6 Air pump valves, 2 Packing for each Piston Rod & valve spindle, 1 spare feed pump escape valve spring, Valve disc for main engine valve, 1 willow bucket, 1 diaphragm for each size Reducing valve, 1 spare gear for centrifugal pump engine, 1 donkey, 12 Boiler tubes 100 Condenser Packings, 12 Gauge Glasses 150 psi

The foregoing is a correct description, Feed donkey, General service donkey, Ballast donkey, Fan engine

Wm. & Co. also 12 Boiler tubes 100 Condenser Packings, 12 Gauge Glasses 150 psi  
Manufacturer.

FOR  
SWAN, HUNTER, & WILKINSON, LTD.

Dates of Survey while building { During progress of work in shops - - - 1918  
During erection on board vessel - - - 1918  
Total No. of visits 31  
Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 30/1/19 Slides 30/1/19 Covers 26/3/19 Pistons 23/12/18 Rods 1/19  
Connecting rods 3/1/19 Crank shaft 30/1/19 Thrust shaft 18/12/18 Tunnel shafts 3/12/18 Screw shaft 12/12/18 Propeller 6/12/18  
Stern tube 6/12/18 Steam pipes tested 30/1/19 Engine and boiler seatings 4/12/18 Engines holding down bolts 17/12/19  
Completion of pumping arrangements 7/3/19 Boilers fixed 17/2/19 Engines tried under steam 26/3/19  
Main boiler safety valves adjusted 18/3/19 Thickness of adjusting washers 11 1/2 5/16 11 1/2 5/16 11 1/2 5/16 11 1/2 5/16

Material of Crank shaft Steel Identification Mark on Do. 3215-N Material of Thrust shaft Steel Identification Mark on Do. 4537  
Material of Tunnel shafts Steel Identification Marks on Do. 4537 Material of Screw shafts Steel Identification Marks on Do. 4522  
Material of Steam Pipes W.I. Lap welded Test pressure 150 psi at Glasgow

Is an installation fitted for burning oil fuel. 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. *No* If so, state name of vessel Standard A

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

The Engines & Boilers of this vessel were built under special license and the materials and workmanship are good. On completion the were examined under steam at sea on a full power trial and found to work satisfactorily.

The machinery throughout is now in good and efficient condition and eligible in our opinion to have the record of

LMC 3, 19 marked in the Society's Register Book

It is submitted that this vessel is eligible for THE RECORD + LMC 3 19. F.D.

The amount of Entry Fee ... £ 117 : 5 : 9  
Special ... £ 48 : 8 : 0  
Donkey Boiler Fee ... £ 88 : 15 : 9  
Travelling Expenses (if any) £

When applied for,

When received,

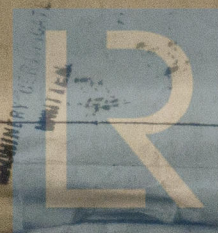
Committee's Minute

Assigned

TUE 15 APR. 1919

+ L.M.C. 3:19 J.S.

Wm. R. Austin, + W. Sindale  
Engineer Surveyors to Lloyd's Register of British & Foreign Shipping



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