

REPORT ON MACHINERY

No. 73097
THU MAY 13 1920

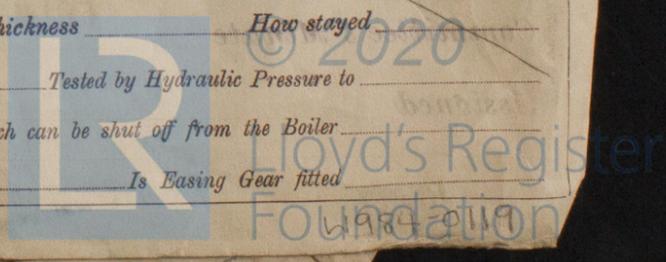
Received at London Office

Writing Report 19 When handed in at Local Office 12 MAY 1920 Port of Newcastle on Tyne
 Survey held at North Shields Date, First Survey 7th May 1917 Last Survey 10th May 1920
 on the SCREW STEAMER JACOBUS (Number of Visits 75)
 Built at Hull By whom built Wilmington & Cooper Tons 1920
 Made at North Shields By whom made Shields Eng & Dry Dock Coy L when made 1920
 Made at St Peter's Wp By whom made Roe & Hartman Leslie & L when made 1920
 Indicated Horse Power _____ Owners _____ Port belonging to _____
 Horse Power as per Section 28 199 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &C.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks Three
 Cylinders 18"-30"-50" Length of Stroke 33" Revs. per minute 78 Dia. of Screw shaft 11.2" Material of screw shaft Iron
 screw shaft fitted with a continuous liner the whole length of the stern tube No Is the after end of the liner made water tight
 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
 the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive _____ If two
 are fitted, is the shaft lapped or protected between the liners _____ Length of stern bush 4.25"
 Tunnel shaft 9.25" Dia. of Crank shaft journals 9.25" Dia. of Crank pin 9.25" Size of Crank webs 8.25" x 5.25" Dia. of thrust shaft under
9.25" Dia. of screw 14.0" Pitch of Screw 12.6" No. of Blades 4 State whether moveable No Total surface 60.5 sq ft
 Feed pumps 2 Diameter of ditto 2.75" Stroke 16.5" Can one be overhauled while the other is at work Yes Main feed pump
 Bilge pumps 2 Diameter of ditto 2.75" Stroke 16.5" Can one be overhauled while the other is at work Yes 7 x 5.5 x 15"
 Donkey Engines Two Sizes of Pumps 7.5 x 6" 7.5 x 4" No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room Four: 2.4" dia In Holds, &c. Forward hold 2-2.4" dia Aft hold 2-2" dia
 Bilge Injections 1 sizes 1.25" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes: 2.4"
 Are 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
 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
 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
 pipes are carried through the bunkers _____ How are they protected _____
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 Crew Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper platform

BOILERS, &C.—(Letter for record S) Manufacturers of Steel J. Spencer & Sons L
 Heating Surface of Boilers 3672 sq ft Is Forced Draft fitted No No. and Description of Boilers 2: Cylindrical built Single
 Working Pressure 180 lbs Tested by hydraulic pressure to 260 lbs Date of test 26/4/17 No. of Certificate 8983
 Can boiler be worked separately Yes Area of fire grate in each boiler 54.5 sq ft No. and Description of Safety Valves to
2: Safety Spring Area of each valve 5.94" Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
 Distance between boilers or uptakes and bunkers or woodwork 9" Mean dia. of boilers _____ Length _____ Material of shell plates _____
 Range of tensile strength _____ Are the shell plates welded or flanged _____ Descrip. of riveting: cir. seams _____
 Diameter of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps _____
 Working pressure of shell by rules _____ Size of manhole in shell _____
 No. and Description of Furnaces in each boiler _____ Material _____ Outside diameter _____
 Thickness of plates _____ Description of longitudinal joint _____ No. of strengthening rings _____
 Working pressure of furnace by the rules _____ Combustion chamber plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____
 Working pressure by rules _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____
 Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ End plates in steam space: _____
 Working pressure by rules _____ Material of stays _____
 Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____
 Working pressure of plate by rules _____
 Material of Lower back plate _____ Thickness _____ Greatest pitch of stays _____ Working pressure of plate by rules _____
 Working pressure by rules _____ Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays _____
 Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and _____
 Distance apart _____ Number and pitch of stays in each _____
 % of strength of joint _____
 Description of longitudinal joint _____ Diam. of rivet holes _____
 Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

SAFETY VALVES. 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 _____
 Pressure to which each is adjusted _____ Is Easing Gear fitted _____



IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 main bearing bolts nuts 2 top end bolts nuts 2
 End bolts nuts 1 set Consigning Bolts nuts 24 Bolt nuts assorted sizes 20 Brass ferrules
 Sea Gauge glasses 7 12 Packing Rings 1 set Feed pump valves seats 1 set Bilge pump valves
 set Junk Ring Bolts nuts. 1 C.S. Propeller, 12 Boiler tubes, 1 set valves for Wens Feed
 Ballast pump 1 set Condenser tubes, 1 set Rambottom Rings for H.P. Piston 2 main
 and check valves 1 set Air pump valves. Iron of various sizes.

The foregoing is a correct description,

FOR THE SHIELDS ENGINEERING & DRY DOCK

W. Read
 MANUFACTURER.

Dates of Survey while building	During progress of work in shops --	1917	1918
		May 7, Jul. 13, 26, Sep. 10, 25, Oct. 2, 10, 23, Aug. 7, 13, 26, Sep. 4, 16, 23, Oct. 2, 16, 23, 29, Nov. 4, 21, 27, Dec. 10, 17, 19, 24, 30, 1920	Jan. 5, 18, 25, Apr. 3, 9, 16, 23, 26, May 1, 21, 24, 28, Jun. 4, 11, 17, Jan. 3, 7, 21, Feb. 26, Apr. 11, May 20, 1921
		During erection on board vessel ---	Oct. 21, Nov. 19, 21, 24, 26, Dec. 4, 9, 11, 22, Mar. 29, 30, Apr. 13, 27, 28, May 3, 5, 10.

Total No. of visits 75 Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 5/5/20 Slides 2/4/19 Covers 5/5/20 Pistons 5/14/19 Rods 2/4/19
 Connecting rods 2/4/19 Crank shaft 2/4/19 Thrust shaft 2/2/18 Tunnel shafts 2/2/18 Screw shaft 26/11/19 Propeller 2/4/19
 Stern tube 2/11/19 Steam pipes tested 28/4/20 Engine and boiler seatings 2/7/4/20 Engines holding down bolts 28/4/20
 Completion of pumping arrangements 28/4/20 Boilers fixed 5/5/20 Engines tried under steam 5/5/20
 Completion of fitting sea connections Stern tube Screw shaft and propeller
 Main boiler safety valves adjusted 5/5/20 Thickness of adjusting washers Pl. 3 3 1/2 3 1/2 3 1/2 Part Boiler. Start Boiler.
 Material of Crank shaft Steel Identification Mark on Do. 2649 Material of Thrust shaft Iron Identification Mark on Do. 2649
 Material of Tunnel shafts Iron Identification Marks on Do. 2649 Material of Screw shafts Iron Identification Marks on Do. 2649
 Material of Steam Pipes Copper Test pressure 260 lb
 Is an installation fitted for burning oil fuel no 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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)
 The Engines and Boilers of this vessel were built in Special Survey and the materials and workmanship are good. After fitting in place on board they were examined and found to work satisfactorily. The machinery throughout is now in good and condition and eligible in our opinion to have the record marked in the Society's Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 5-20 14/5/20

The amount of Entry Fee ...	£ 2 : 0 : 0	When applied for,	12 MAY 1920
Special Donkey Boiler Fee ...	£ 29 : 17 : 0	When received,	24/5/20
Travelling Expenses (if any) £	19 : 2 : 0		

Committee's Minute
 Assigned + L.M.C. 5.20



NEWCASTLE-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.

CERTIFICATE WRITER.