

REPORT ON MACHINERY.

Wab. 6718. No. 59873

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Date of writing Report 19 When handed in at Local Office MAR 3 1910 Port of NEWCASTLE ON TYNE

No. in Survey held at North Shields Date, First Survey 5th Oct. 1910 Last Survey 23rd March 1911
 Reg. Book. (Number of Visits 22)

on the Machinery of S. S. "Wyre"

Master H. Robinson Built at Middlesbrough By whom built Smiths Dock Co. Ltd When built 1911

Engines made at S. Shields By whom made Shields Engineering Co. Ltd When made 1911

Boilers made at S. Shields By whom made J. T. Edgingham & Co. when made 1911

Registered Horse Power _____ Owners Wyre Steam Trawling Co. Ltd Port belonging to Herwood

Nom. Horse Power as per Section 28 91 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 13 1/4", 23", & 37" Length of Stroke 27 Revs. per minute 110 Dia. of Screw shaft 7.88" Material of screw shaft Steel
 as per rule 7.12" as fitted 8 1/8"

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 39"

Dia. of Tunnel shaft 6.94" Dia. of Crank shaft journals 7.28" Dia. of Crank pin 7 1/2" Size of Crank webs 11 1/4" x 4 1/2" Dia. of thrust shaft under collars 7 1/2" Dia. of screw 9-9" Pitch of Screw 10-6" No. of Blades 4 State whether moveable solid Total surface 31.5 sq ft

No. of Feed pumps 2 Diameter of ditto 2 3/4" Stroke 13 1/2" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 2 3/4" Stroke 13 1/2" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 6" x 6" x 6" & 6" x 4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room two 2" dia. In Holds, &c. two forward 2" dia.

No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 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 none How are they protected Yes

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 3. 2. 11. of Stern Tube 7. 2. 11 Screw shaft and Propeller 9. 2. 11

Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c.—(Letter for record _____) Manufacturers of Steel See report on boiler attached

Total Heating Surface of Boilers 1640 Is Forced Draft fitted no No. and Description of Boilers _____

Working Pressure _____ Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____

Can each boiler be worked separately Yes Area of fire grate in each boiler 51 sq ft No. and Description of Safety Valves to each boiler 2 direct spring Area of each valve 4.9 sq in 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 9" 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 _____ 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 _____

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 _____

If 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 _____

VERTICAL DONKEY BOILER— Manufacturers of Steel

Form with fields: No., Description, Made at, By whom made, When made, Where fixed, Working pressure, tested by hydraulic pressure to, Date of test, No. of Certificate, Fire grate area, Description of Safety Valves, No. of Safety Valves, Area of each, Pressure to which they are adjusted, Date of adjustment, 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, Rivets, Dia. of rivet holes, Whether punched or drilled, Pitch of rivets, Lap of plating, Per centage of strength of joint, Plates, Working pressure of shell by rules, 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, Working pressure of furnace by rules, Thickness of furnace crown plates, Radius of do., Stayed by, Diameter of uptake, Thickness of uptake plates, Thickness of water tubes, Dates of survey

SPARE GEAR. State the articles supplied:— Two top & two bottom end connecting rod bolts & nuts. Two main bearing bolts & nuts. One set of coupling bolts & nuts. One set of feed & bilge pump valves. Main & donkey feed check valves. Assorted bolts & nuts etc.

The foregoing is a correct description,

Jno. Blakey Manufacturer.

Dates of Survey while building: During progress of work in shops, During erection on board vessel, Total No. of visits. Is the approved plan of main boiler forwarded herewith Yes.

Dates of Examination of principal parts: Cylinders, Slides, Covers, Pistons, Rods, Connecting rods, Crank shaft, Thrust shaft, Tunnel shafts, Screw shaft, Propeller, Stern tube, Steam pipes tested, Engine and boiler seatings, Engines holding down bolts, Completion of pumping arrangements, Boilers fixed, Engines tried under steam, Main boiler safety valves adjusted, Thickness of adjusting washers, Material of Crank shaft, Identification Mark on Do., Material of Thrust shaft, Identification Mark on Do., Material of Tunnel shafts, Identification Marks on Do., Material of Screw shafts, Identification Marks on Do., Material of Steam Pipes, Solid drawn copper, Test pressure.

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

The machinery of this vessel has been built under special survey, the materials used are good, and the workmanship is satisfactory, the boiler and machinery have been properly fitted on board and secured. They are now in good working condition and in our opinion eligible to have the notation of +LMC 3.11. in the Register Book.

This vessel was placed in Smith's dry dock & the propeller, stern bush & sea connection fastenings ex-d & found good on 1st March 1911.

It is submitted that this vessel is eligible for THE RECORD, +LMC 3.11.

APR 20/3/11

The amount of Entry Fee, Special, Donkey Boiler Fee, Travelling Expenses (if any)

Charles Cooper & Sons Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute FRI. 31 MAR 1911

Assigned + Lmb 3.11

