

REPORT ON MACHINERY.

No. 79546

Received at London Office

Date of writing Report

When handed in at Local Office

9 SEP 1919 Port of Liverpool

No. in Survey held at
Reg. Book.

Lytham

Date, First Survey March 26/18 Last Survey Sept 1st 1919

(Number of Visits 38)

on the steel screw tug 'St Faith'

Tons } Gross 413.9
Net 11.3

Master

Built at Lytham

By whom built Lytham S. & Eng. Co.

When built 1919

Engines made at

Lytham

By whom made

Do

when made 1919

Boilers made at

Do

By whom made

Do

when made 1919

Registered Horse Power

10

Owners

Admiralty

Port belonging to London

Nom. Horse Power as per Section 28

208

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

ENGINES, &c.—Description of Engines Vertical Triple

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 18 1/4 + 28 1/2 + 48 1/4 Length of Stroke 28" Revs. per minute 124 Dia. of Screw shaft as per rule 9.64 Material of screw shaft as fitted 10" M.S.

Is the screw shaft fitted with a continuous liner the whole length of the stern tube no liners Is the after end of the liner made water tight in the propeller boss If the liner is in more than one length are the joints burned 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 3'-6"

Dia. of Tunnel shaft as per rule 6.53 Dia. of Crank shaft journals as per rule 8.96 Dia. of Crank pin 9" Size of Crank webs 16 1/2 x 6 1/2 Dia. of thrust shaft under collars 9 Dia. of screw 10'-7" Pitch of Screw 12'-0" No. of Blades 4 State whether moceable no Total surface 340'

No. of Feed pumps 2 Diameter of ditto 3/8 Stroke 13 1/2 Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 3/8 Stroke 13 1/2 Can one be overhauled while the other is at work yes

No. of Donkey Engines 2 Sizes of Pumps 7 1/2 x 5 1/2 x 15 Wier; 6 x 4 1/2 x 6 dky. No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room three-2 1/2"

In Holds, &c. AP 3", FP 3", chain locker 2", fore hold 2"

No. of Bilge Injections 1 sizes 6" Connected to condenser or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes, 2 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

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 none Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Beardmore & Co.

Total Heating Surface of Boilers 3380 Is Forced Draft fitted yes No. and Description of Boilers Two S.E. cylindrical

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 14.19, 1.5.19 No. of Certificate 2067/8

Can each boiler be worked separately yes Area of fire grate in each boiler 424 sq ft No. and Description of Safety Valves to each boiler 2, spring loaded Area of each valve 7.07 sq ft Pressure to which they are adjusted 183 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 1-2 Mean dia. of boilers 12-6 Length 11-0 Material of shell plates steel

Thickness 1/32 Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R. lap

long. seams T.R. butt Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 7/8 Lap of plates or width of butt straps 16"

Per centages of strength of longitudinal joint rivets 87.5 Working pressure of shell by rules 182 Size of manhole in shell 16 x 12

plate 85.5 No. and Description of Furnaces in each boiler 3, corrugated Material M.S. Outside diameter 3-3/4

Length of plain part top 3/4 Thickness of plates crown 3/4 Description of longitudinal joint lap weld No. of strengthening rings

bottom 3/4 Working pressure of furnace by the rules 192 lbs Combustion chamber plates: Material M.S. Thickness: Sides 2/32 Back 2/32 Top 2/32 Bottom 3/4

Pitch of stays to ditto: Sides 8 x 9 Back 8 1/8 x 9 1/8 Top 8 3/4 x 8 1/2 If stays are fitted with nuts or riveted heads yes Working pressure by rules 200 lbs

Material of stays M.S. Area at smallest part 1.73 sq ft Area supported by each stay 74 1/2 sq ft Working pressure by rules 200 End plates in steam space:

Material M.S. Thickness 1/8 Pitch of stays 18 x 16 How are stays secured 2 nuts & washers Working pressure by rules 185 lbs Material of stays M.S.

Area at smallest part 6.33 Area supported by each stay 324 sq ft Working pressure by rules 200 Material of Front plates at bottom M.S.

Thickness 15/16 Material of Lower back plate M.S. Thickness 27/32 Greatest pitch of stays as per plan Working pressure of plate by rules 185

Diameter of tubes 2 1/2 Pitch of tubes 3 3/4 x 3 5/8 Material of tube plates M.S. Thickness: Front 15/16 Back 23/32 Mean pitch of stays 7.68

Pitch across wide water spaces 13 1/2 x 8 1/8 Working pressures by rules 185 lbs Girders to Chamber tops: Material M.S. Depth and

thickness of girder at centre 7 1/2 x 2 @ 7/8 Length as per rule 2-6 1/8 Distance apart 8 3/4 Number and pitch of stays in each 2 @ 8 1/2

Working pressure by rules 182 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

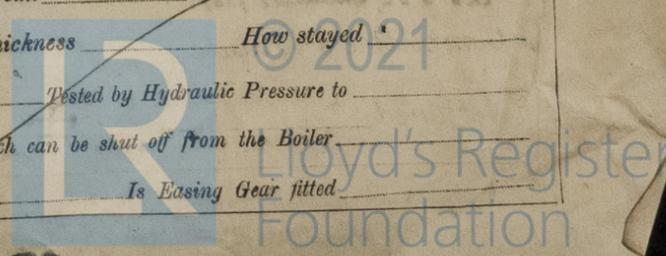
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

Tested by Hydraulic Pressure to

SUPERHEATER. Type Date of Approval of Plan

Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve 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 top end, 2 bottom end, 1 2 main bearing bolts & nuts; 1 pair eccentric strap bolts, 6 coupling bolts, 2 bridge & 2 feed pump valves, 1 air pump rod & set of valves, 1 piston rod, 1 slide rod, & piston rings for each type, 1 pair connecting rod brasses, 1 pair main bearing brasses, spare parts for auxiliaries & other items as per specification.

The foregoing is a correct description,

PER PRO THE LYTHAM SHIPBUILDING & ENGINEERING CO. LTD.

W. Lumsden

Manufacturer.

Dates of Survey while building: During progress of work in shops (1918) Mar 26, Apr 10, 23, May 16, 23, June 3, 13, July 1, 18, 29, Aug 8, Sept 12, 20, 30, Oct 11, 21, 30, Nov 9, 27, Dec 16, 31 (1919) Jan 20, Feb 19, 28, Mar 11, 25, Apr 9, May 8, 23, June 6, 23, July 11, 17, 25, Aug 8, 21, 28, Sept 1. Total No. of visits 38.

Is the approved plan of main boiler forwarded herewith? no

Dates of Examination of principal parts: Cylinders 18/7/18, Slides 20/11/19, Covers 8/8/18, Pistons 8/8/19, Rods 18/7/18, Connecting rods 18/7/18, Crank shaft 30/9/18, Thrust shaft 8/8/18, Tunnel shafts 8/8/18, Screw shaft 27/11/18, Propeller 27/11/18, Stern tube 27/11/18, Steam pipes tested 8.8.19, Engine and boiler seatings 6.6.19, Engines holding down bolts 11.7.19, Completion of pumping arrangements 21.8.19, Boilers fixed 6.6.19, Engines tried under steam 21.8.19, Completion of fitting sea connections 16/12/18, Stern tube 16/12/18, Screw shaft and propeller 16/12/18, Main boiler safety valves adjusted 21.8.19, Thickness of adjusting washers 400d P 7/16, S 3/8, aft 3/8. Material of Crank shaft M.S. Identification Mark on Do. 1187, Material of Thrust shaft M.S. Identification Mark on Do. 1187, Material of Tunnel shafts M.S. Identification Marks on Do. 1187, Material of Screw shafts M.S. Identification Marks on Do. 1187, Material of Steam Pipes solid drawn copper & steel, Test pressure 360 + 540 lbs.

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? yes, If so, state name of vessel: Resure Eng 'S' Yagan.

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. The machinery & boilers have been fitted on board in an efficient manner, & tried under steam with satisfactory results, and are now eligible for record of + LMC 9.19.

It is submitted that this vessel is eligible for THE RECORD + LMC 9.19. F.D.

J.W.D. 15/9/19, J.P.R.

The amount of Entry Fee ... £ 4 : : Special ... £ 60 : 16 : Donkey Boiler Fee ... £ : : Travelling Expenses (if any) £ : : (£8.8.3. Inclusive fee). Committee's Minute LIVERPOOL - 9 SEP 1919

Assigned L 166 9:19 MACHINERY CERTIFICATE SIGNED 10.9.19

