

REPORT ON MACHINERY.

Received at London Office TUE. 25 OCT. 1921

Date of writing Report 26 Sept 1921 When handed in at Local Office

10 Port of PLYMOUTH

No. in Survey held at PLYMOUTH

Date, First Survey 18 June 1920 Last Survey 6 Sept 1921

Reg. Book.

(Number of Visits 13)

19753 on the Steel S.S. "James H. Beasley" (Pilot Boat No. 3)

Tons { Gross 458.87 Net 187.75

Master

Built at Dartmouth

By whom built Philip & Son Ltd

When built 1921

Engines made at Dartmouth

By whom made Philip & Son Ltd

when made 1921-9

Boilers made at Paisley

By whom made A. F. Craig & Co Ltd

when made 1921

Registered Horse Power

Owners The Mersey Docks & Harbour Board

ort belonging to Liverpool

Nom. Horse Power as per Section 28 95.68

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines *Vert Inverted Triple Exp. S.C.* No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 13 1/2 - 22 & 36 Length of Stroke 24 Revs. per minute 130 Dia. of Screw shaft as per rule 7.43 as fitted 7 3/4 Material of screw shaft Mild steel

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

Length of stern bush 2'-7" If two liners are fitted, is the shaft lapped or protected between the liners

Dia. of Tunnel shaft as per rule 6.66 as fitted 7" Dia. of Crank shaft journals as per rule 6.99 as fitted 7 1/4 Dia. of Crank pin 7 1/4 Size of Crank webs 11 x 4 3/4 Dia. of thrust shaft under collars 7 1/4 Dia. of screw 9'-0" Pitch of Screw 10'-6" No. of Blades 4 State whether moveable No Total surface 30 ft

No. of Feed pumps 2 min Diameter of ditto 4 1/2 Stroke 10" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 on main pump Diameter of ditto Stroke Can one be overhauled while the other is at work

No. of Donkey Engines 1 No Sizes of Pumps one "Veins" 4 1/2 x 10" one "Lemons" 4 x 5" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room One - 2" In Holds, &c. Two - 2"

No. of Bilge Injections 1 sizes 4" 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 None

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 3" Bilge Suction & Sud from fore tank How are they protected Rest on Centre keelson, caulk with rosin

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 deck.

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

Total Heating Surface of Boilers 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 Area of fire grate in each boiler No. and Description of Safety Valves to each boiler 2 in one box Vert. Spring load Area of each valve 15.94 Pressure to which they are adjusted 180 lb/sq in Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 5" 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 bottom 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 cast or riveted heads Working pressure by rules

Material of stays Area 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

Area 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 pressure 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 Steam joint: description of joint to shell % of strength of joint

Diameter Thickness of shell 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

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:— Bolts & Nuts for Piston Rod 2 in. N^o. Bolts & Nuts for Connecting Rod 2 in. N^o. Bolts for Main Bearings, 2 in. N^o. Coupling Bolts 1 Set. Fuel pump valves 1 Set. Bridge Pump valves 1 Set. Air pump valves 1 Set. Bolts & nuts assorted Iron of various sizes. Tubes boiler 6 in. N^o. Tubes Condenser, 5/8 in. N^o. Ferrules for D^o 12 in. N^o. Fire bars 60 in. N^o. Propeller 1 in. N^o. Brasses for Connecting Rod, Top and 1 pair. Bottom end 1 pair.

The foregoing is a correct description, For PHILIP & SON, LIMITED.

J. E. Turner Secretary, Sep 27/21 Manufacturer.

Dates of Survey while building: During progress of work in shops -- June 18-24 Sept 3-30 Oct 19 Nov 18 1921 Jan 3-17 Mar 3-17. During erection on board vessel -- April 28 July 5 Sept 6. Total No. of visits 13. Is the approved plan of main boiler forwarded herewith Yes. " " " donkey " " " None.

Dates of Examination of principal parts: Cylinders 7.2.21 Slides 7.2.21 Covers 7.2.21 Pistons 7.2.21 Rods 7.2.21 Connecting rods 3.2.21 Crank shaft 3.2.21 Thrust shaft 3.2.21 Tunnel shafts 3.2.21 Screw shaft 3.2.21 Propeller 28.4.21 Stern tube 3.2.21 Steam pipes tested 5.7.21 Engine and boiler seatings 28.4.21 Engines holding down bolts 5.7.21 Completion of pumping arrangements 28.4.21 Boilers fixed 5.7.21 Engines tried under steam 6.9.21 Completion of fitting sea connections 7.6.21 Stern tube 14.4.21 Screw shaft and propeller 7.6.21 Main boiler safety valves adjusted 6.9.21 Thickness of adjusting washers 57P-5/16f. Material of Crank shaft Steel Identification Mark on Do. ✓ Material of Thrust shaft Steel Identification Mark on Do. ✓ Material of Tunnel shafts Steel Identification Marks on Do. ✓ Material of Screw shafts M-Steel Identification Marks on Do. ✓ Material of Steam Pipes Copper Test pressure 360 lbs per sq. in. 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 No. If so, state name of vessel.

General Remarks (State quality of workmanship, opinions as to class, &c.) The Main Engines of this vessel were surveyed during construction at Dartmouth in accordance with the Rules. The auxy. Machinery and Boiler were surveyed during fitting up on board and at the steam trial under sea going conditions. The boiler was made at Paisley under special supervision. The material & workmanship are good and efficient and the Boiler & Machinery are in my opinion satisfactory and eligible to be classed with this Society with record of + L.M.C. 9.21.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. - 9.21. C.L.

L. J. 27/10/21. ARS

The amount of Entry Fee ... £ 2 : - : When applied for, 24.10.1921. Special ... £ 24 : - : Donkey Boiler Fee ... £ - : - : Travelling Expenses (if any) £ 6 : 10 : 7 10.11.21

J. L. Lard Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. NOV. 11 1921 Assigned + L.M.C. 9.21



Messrs Philip & Son Ltd - Dartmouth

Certificate (if required) to be sent to... The Surveyors are requested not to write on or below the space for Committee's Minutes.

Rpt. 5a. Date of writing No. in Reg. Book. Master Engines ma Boilers ma Registered MULTI (Letter for Boilers No. of Ce safety val Are they f Smallest d Material o Descrip. o Top of pl rules boiler 3 Description plates: M Top 10 x over three smallest p Pitch of s Area supp Lower bac Pitch of t water spa No. 254 Philip & may be Specio 4 a t oiler No. This req which provide While the derstood that n any report or a dety, or for an the Secret Lloy Mat Trav Comm Assign