

REPORT ON MACHINERY.

No. 81376

WED. OCT. 20 1920

Received at London Office

Date of writing Report

10

When handed in at Local Office

10

Port of Liverpool

No. in Survey held at Queensferry
Reg. Book. 58137 on the Steam Drifter "Foam"

Date, First Survey Jan 22 1920 Last Survey Oct 12 1920

(Number of Visits)

Gross 94.57
Net 39.44

Master

Built at Queensferry

By whom built Abdel & Mitchell Ltd.

When built 1920

Engines made at Brimscombe Glos.

By whom made Abdel & Mitchell Ltd.

when made 1920

Boilers made at Stockton

By whom made Thos. Ludlow & Co. Ltd.

when made 1919

Registered Horse Power

Owners The Admiralty

Port belonging to

Nom. Horse Power as per Section 28 43

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted no

ENGINES, &c.

Description of Engines See Bristol Report No. 10423. Triple Expansion S. Condensing.

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 9 1/2 . 15 1/2 . 26 Length of Stroke 18 Revs. per minute 140 Dia. of Screw shaft as per rule 5 7/8 Material of screw shaft steel
as fitted 7 1/2

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 2'-1"

Dia. of Tunnel shaft as per rule 4.79 Dia. of Crank shaft journals as per rule 5.03 Dia. of Crank pin 5 1/2 Size of Crank webs 3 1/2 x 10 1/2 Dia. of thrust shaft under collars 5 1/4 Dia. of screw 6'-9" Pitch of Screw 8'-6" No. of Blades 4 State whether moveable no Total surface 18 1/2

No. of Feed pumps 1 Diameter of ditto 2" Stroke 9" Can one be overhauled while the other is at work ✓

No. of Bilge pumps 1 Diameter of ditto 2" Stroke 9" Can one be overhauled while the other is at work ✓

No. of Donkey Engines 1 Sizes of Pumps 5 1/2 . 3 1/2 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2 - 2" 1 Ejector - 2" 5" In Holds, &c. 1 - 2" steam ejector connection.

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

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 See Middlesbrough Report No. 10503. Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.

(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers 814 1/2 Is Forced Draft fitted no No. and Description of Boilers One single Ended.

Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 4.9.19. No. of Certificate 6031.

Can each boiler be worked separately ✓ Area of fire grate in each boiler 30 1/2 1/2 No. and Description of Safety Valves to each boiler 2 Direct Spring Area of each valve 3.98 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 6 1/2 Mean dia. of boilers 10'-0" Length 9'-6" 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 End plates in steam space:

Material of stays Area at smallest part Area supported by each stay Working pressure by rules Material of stays

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom

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 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 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

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

3/6

Lloyd's Register Foundation

007590-007607-0058

IS A DONKEY BOILER FITTED? *no.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Connecting rod bolts & nuts for top & bottom ends. 2 main bearing bolts & nuts. 1 set of coupling bolts & nuts 1 set each of valves for feed, bilge, air & circulating pumps 6 Condenser tubes, 12 ferrules & tape packing. Assortment of bolts, nuts, iron of various sizes, studs & tools. 1 Safety valve spring. 1 (each) main & donkey check valve. 3 boiler tubes. 1 set of firebrass.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building: During progress of work in shops - 1919. During erection on board vessel - Jun 28. Total No. of visits 18. Is the approved plan of main boiler forwarded herewith? *no.*

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, Engines holding down bolts, Completion of pumping arrangements, Boilers fixed, Engines tried under steam, Completion of fitting sea connections, Stern tube, Screw shaft and propeller, Main boiler safety valves adjusted, Thickness of adjusting washers.

Material of Crank shaft: *steel*. Identification Mark on Do. *LLOYDS 4305 J.R.W.* Material of Thrust shaft: *steel*. Identification Mark on Do. *LLOYDS 265 J.M. LLOYDS R.F.M.* Material of Tunnel shafts: —. Identification Marks on Do. —. Material of Screw shafts: *steel*. Identification Marks on Do. —. Material of Steam Pipes: *Copper*. Test pressure: *36 lbs.*

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? If so, state name of vessel.

General Remarks (State quality of workmanship, opinions as to class, &c. *This machinery - Engines - Bristol Rpt. No 10423. Boiler - Middlesbrough Rpt. No 10503. has been securely fitted on board, and tried under steam with satisfactory results. This machinery is eligible for classification with records of Club 10.30. 1 SB. 180 lbs. GS. 30. HS. 814.*

It is submitted that this vessel is eligible for THE RECORD. + LMC. 10. 20.

Ret. 22/10/20. *APR*

The amount of Entry Fee ... £ : : When applied for, 19 OCT 1920. Special Donkey Boiler Fee ... £ 4 : 10. : When received, 29. 1. 1921. Travelling Expenses (if any) £ *18/4* (Inclusive fee).

A. J. Barrett
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 19 OCT 1920. Assigned *L.M.C. 10.30* MACHINERY CERT WRITTEN 2/2/21 dated 20.10.20



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