

Rpt. 4.

REPORT ON MACHINE

No. 10552
MON. MAY 3 1920

Received at L.O. Office

Date of writing Report 1/5/20 When handed in at Local Office 1/5/20 Port of Southampton

No. in Survey held at Southampton Date, First Survey 8.12.19 Last Survey 28-4-20 1920

Reg. Book. 19665 on the Steam Tug "Foremost" ex. "M. Moran" (Number of Visits 19)

Master Built at Camden N.J. U.S.A. By whom built J. H. Dialogue & Son. Tons Gross 315
Net 111

Engines made at Camden N.J. U.S.A. By whom made J. H. Dialogue & Son. when made 1912

Boilers made at Camden N.J. U.S.A. By whom made J. H. Dialogue & Sons when made 1912

Registered Horse Power 54 Owners Janus Dredging Towing & Transport Coy Port belonging to Southampton

Nom. Horse Power as per Section 28 110 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes.

ENGINES, &c.—Description of Engines Compound Surface Condensing No. of Cylinders 2 No. of Cranks 2

Dia. of Cylinders H.P. 16" L.P. 36" Length of Stroke 26" Revs. per minute 110 Dia. of Screw shaft 8" Material of screw shaft steel

Is the 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 in the propeller boss yes If the liner is in more than one length are the joints burned no 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 lapped

Dia. of Tunnel shaft 7.735" Dia. of Crank shaft journals 8" Dia. of Crank pin 8" Length of stern bush 2' 7 3/4"

Collars 7 3/4" Dia. of screw 9-8" Pitch of Screw 9' 9" No. of Blades 4 State whether moveable no Total surface 45-32 sq

No. of Feed pumps 1 duplex Diameter of ditto 5" Stroke 6" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 2 5/8" Stroke 13" Can one be overhauled while the other is at work yes (fitted on main engines)

No. of Donkey Engines 2 Sizes of Pumps General Service 10 1/2 x 10" dup. 1 Boiler circulating pump No. and size of Suctions connected to both Bilge and Donkey pumps 2 1/2 x 2 3/4 x 4"

In Engine Room two 2" dia, one 2" ejector, one 2" dia direct suction In Holds, &c. two, 2" dia chain locker, one 2 1/2" dia trimming tank

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 one, 2" dia

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 Valves & cocks

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

How are they protected wood casings

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 packing flange bolted from engine room.

DILERS, &c.—(Letter for record (S)) Manufacturers of Steel Hukens Iron & Steel Coy. Coatesville Pa. U.S.A.

Heating Surface of Boilers 2437 sq Is Forced Draft fitted no No. and Description of Boilers One, Cyl. Multitubular, single end.

Working Pressure 150 lbs Tested by hydraulic pressure to 300 lbs Date of test 31-1-20 No. of Certificate ✓

Is each boiler worked separately one boiler Area of fire grate in each boiler 81 sq No. and Description of Safety Valves to each boiler one, spring loaded Area of each valve 18-66 sq Pressure to which they are adjusted 150 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean dia. of boilers 15'-0" Length 10'-9" Material of shell plates steel

Thickness 1 1/4" Range of tensile strength not known Are the shell plates welded or flanged ✓ Descrip. of riveting: cir. seams D.R. Zig, 309.

Long. seams T.R. butt shop Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 9 1/2" Lap of plates or width of butt straps 1'-6 1/2"

Percentages of strength of longitudinal joint 76.87% Working pressure of shell by rules 169.1 lbs Size of manhole in shell 15" x 11"

Size of compensating ring 2'-8 1/2" x 2'-4 1/4" No. and Description of Furnaces in each boiler 3, Merson Material Steel Outside diameter 4'-3 1/4"

Length of plain part now Thickness of plates 19" Description of longitudinal joint weld No. of strengthening rings 9/16, 4

Working pressure of furnace by the rules 184.2 Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 1/2" Top 15" Bottom 9/16 double

Pitch of stays to ditto: Sides 7 1/2" x 7" Back 7 1/2" x 7 3/8" Top 7 1/2" x 7" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 139

Material of stays Steel Area at smallest part 1.19 sq Area supported by each stay 55-32 sq Working pressure by rules 172 End plates in steam space: 165 sq

Material Steel Thickness 7/8" Pitch of stays 14 1/4" x 13 1/2" How are stays secured double nuts Working pressure by rules 178.5 Material of stays Steel

Area at smallest part 3.43 sq Area supported by each stay 192.37 sq Working pressure by rules 184.8 Material of Front plates at bottom Steel

Thickness 3/4" Material of Lower back plate Steel Thickness 5/8" Greatest pitch of stays 14" x 15" Working pressure of plate by rules 212 lbs

Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 1/4" Material of tube plates Steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 13 1/2" x 8 1/2"

Pitch across wide water spaces 14" x 8 1/2" Working pressures by rules 170 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9 5/8" 2 5/8" length as per rule 3'-0" Distance apart 7" Number and pitch of stays in each 3, 7 1/4"

Working pressure by rules 181.5 Steam dome: description of joint to shell None % 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 None 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 ✓

THIS TELEGRAM.
Acts and Regulations made thereon.
the usual Delivery Office;—
Delivery Office, or within the limits
at delivery extends to more than three
the Terminal Telegraph Office at
the address the name of the Office
hours at any address beyond the limits
free delivery, any fraction of a
payable by the Sender, and if
length. A Reply Paid Form
its date to frank an Inland
Form is not used, its value will
being made within twelve months
the application for the
course of transmission if the
paid when the Telegram is
reckoned as 1/4d. If containi
may be incurred or sustained
this from the date of its transmi

2010-906210-865210



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Connecting rod top end bolts; 2 connecting rod bottom bolts; 2 main bearing bolts; 1 set of coupling bolts; 1 set of bilge & feed pump valves; 1 set of piston rings; a quantity of assorted bolts & nuts; iron of various sizes ✓

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops -- ✓
During erection on board vessel --- 8.9.16.18.22/12/19 - 1.8.16.20.30.31/1/20 - 4.9.23-26/2/20 - 18.19.23.31/3/20 - 1.3.24 28/4
Total No. of visits 22

Is the approved plan of main boiler forwarded herewith ✓

Dates of Examination of principal parts—Cylinders 16.1.20. Slides 16.1.20. Covers 16.1.20. Pistons 16.1.20. Rods 16.1.20. Connecting rods 16.1.20. Crank shaft 26.2.20. Thrust shaft 26.2.20. Tunnel shafts 26.2.20. Screw shaft 5.12.19. Propeller 5.12.19. Stern tube ✓. Steam pipes tested 22.12.19. Engine and boiler seatings ✓. Engines holding down bolts ✓.

Completion of pumping arrangements ✓. Boilers fixed ✓. Engines tried under steam 28-4-20. Completion of fitting sea connections ✓. Stern tube ✓. Screw shaft and propeller ✓.

Main boiler safety valves adjusted 28-4-20. Thickness of adjusting washers 3/8" from top of compression screw to top of valve.

Material of Crank shaft Steel ✓. Identification Mark on Do. ✓. Material of Thrust shaft ✓. Identification Mark on Do. ✓. Material of Tunnel shafts Steel ✓. Identification Marks on Do. ✓. Material of Screw shafts ✓. Identification Marks on Do. ✓.

Material of Steam Pipes Copper ✓. Test pressure 400 lbs sq. 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 ✓.

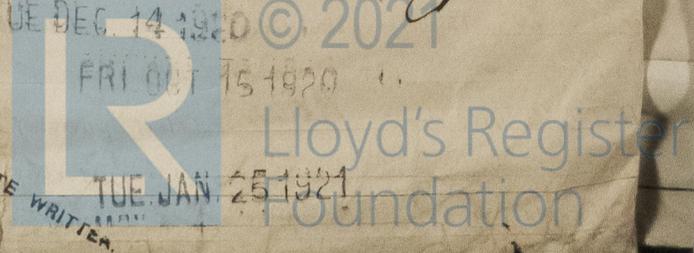
General Remarks (State quality of workmanship, opinions as to class, &c.)
This vessel was placed in dry dock, propeller, sea connections & their fastenings examined. Cylinders, pistons, slide valves, shafting, pumps, Condenser and all auxiliary machinery were opened out, examined, and now in good condition. Condenser was satisfactorily tested. The propeller shaft was drawn inboard and examined. 5.12.19. The main boiler was examined internally & externally with mountings, and tested satisfactorily to 300 lbs per sq inch hydrostatically. The safety valve was adjusted under steam to 150 per sq inch and worked satisfactorily. Machinery tried under working conditions & proved satisfactory. The recommendations made in Secretary's letters dated Feb 16th & March 5th 19 have been satisfactorily carried out. It is recommended this vessel's machinery be classed in the Register Book with the record L.M.C. 4-20 and Tail shaft seen 12-19.

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

Table with 4 columns: Fee Name, Amount (£), When applied for, When received. Includes Entry Fee, Special Fee (£10), Donkey Boiler Fee, Travelling Expenses.

Yhos. R. N. Morrison, Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. MAY. 14 1920
Assigned L.M.C. 4. 20 subject



Southampton

Continuation of Report No. 10552 dated

1/5/20.

on the

Steam Tug "Foremost" ex "M. Moran"

Repairs effected: Thrust shoes renewed; condenser tube plates repaired; new internal feed pipe fitted in boiler; main steam pipes expanded, annealed, and tested; stern bush renewed; condenser discharge valve fitted to ship's side; boiler blow-down cock fitted under water line; relief valve on feed pump discharge fitted; 10 additional stay tubes have been fitted in boiler as per plan.

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