

REPORT ON MACHINERY

No. 115

REC'D NEW YORK

Nov. 15. 1917

Received at London Office

CLEVELAND, OHIO.

Date of writing Report 24 Oct 1917

Port of

No. in Survey held at Astoria Ohio

Date, First Survey 12. Jan. 1917 Last Survey 22. Oct 1917

on the Screw Steamer, SIDI MABROUK

Master Built at Astoria By whom built G.T. Loken Eng. Works (No. 172) When built 1917.10

Engines made at Astoria By whom made G.T. Loken Eng. Works (No. 172) when made 1917.10

Boilers made at Detroit By whom made John Brunner & Co. when made 1917.

Registered Horse Power Owners U.S. Shipping Board Emergency Port belonging to Washington D.C.

Nom. Horse Power as per Section 28 284 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines Triple Compound No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 21" - 34 1/2" - 57" Length of Stroke 42" Revs. per minute 83 Dia. of Screw shaft as per rule 1 1/4" Material of screw shaft Steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube 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 51"

Dia. of Tunnel shaft as per rule 1 3/4" Dia. of Crank shaft journals as per rule 1 1/4" Dia. of Crank pin 1 1/4" Size of Crank webs 21" x 8" Dia. of thrust shaft under

collars 1 1/4" Dia. of screw 1 3/4" Pitch of Screw 14" - 6" No. of Blades 4 State whether moveable Total surface 64.5 sq. ft.

No. of Feed pumps 2 Diameter of ditto 4" Stroke 12" Can one be overhauled while the other is at work

No. of Bilge pumps 2 Diameter of ditto 3 1/2" Stroke 12" Can one be overhauled while the other is at work

No. of Donkey Engines 3 Sizes of Pumps 10x12x12, 10x5x12, 6x4x6 and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2-4" 3m. 1-3" 3m. In Holds, &c. 2-1" - 2-3" 3m.

No. of Bilge Injections 0 Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size 1-3" 3m.

Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks Both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates 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 Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers How are they protected Under Deck & clear of Runge's

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Dates of examination of completion of fitting of Sea Connections 20. 7. 17 of Stern Tube 20. 7. 17 Screw shaft and Propeller 20. 7. 17.

Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

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

Total Heating Surface of Boilers 4160 sq. ft. Is Forced Draft fitted Yes No. and Description of Boilers Two Single end DETROIT

Working Pressure 175 lb. Tested by hydraulic pressure to 265 lb. Date of test 27. 7. 17 No. of Certificate 52453.

Can each boiler be worked separately Area of fire grate in each boiler 52 sq. ft. No. and Description of Safety Valves to

each boiler 2 Spring Area of each valve 11 sq. in. Pressure to which they are adjusted 175 lb. Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers 7" Mean dia. of boilers 13'-6" Length 11'-0" 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 Working pressure of shell by rules Size of manhole in shell

Size of compensating ring No. and Description of Furnaces in each boiler 3. Cast Iron Material Outside diameter 44 1/4"

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

Lloyd's Register
WASS - 0018
Foundation

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied: - 2. 7 in bearing bolts, 2. bottom end bolts, set of coupling bolts, one wooden wedge, set of fast and big pump valves, set of piston springs, smaller bolts and nuts.

The foregoing is a correct description,

Great Lakes Engineering Works.

John Russell

Manufacturer.

Dates of Survey while building: During progress of work in shops - - - 1917. Apr. 12, 17, May 2, 11, 21, June 7, 15, 21, July 2, 9, 20, 28. During erection on board vessel - - - Aug. 6, 14, 27, Sept. 6, 13, 18, 27, Oct. 3, 16, 22. Total No. of visits 21.

Is the approved plan of main boiler forwarded herewith ✓

" " " donkey " " " ✓

Dates of Examination of principal parts - Cylinders 20.7.17 Slides 28.7.17 Covers 28.7.17 Pistons 28.7.17 Rods 20.7.17 Connecting rods 20.7.17 Crank shaft 7.6.17 Thrust shaft 2.7.17 Tunnel shafts ✓ Screw shaft 2.7.17 Propeller 2.7.17 Stern tube 2.7.17 Steam pipes tested 6.9.17 Engine and boiler seatings 28.5.17 Engines holding down bolts 27.8.17 Completion of pumping arrangements 22.10.17. Boilers fixed 27.8.17. Engines tried under steam 22.10.17. Main boiler safety valves adjusted 22.10.17. Thickness of adjusting washers Lock nut fitted.

Material of Crank shaft S. Identification Mark on Do. 172 LLOYDS. Material of Thrust shaft S. Identification Mark on Do. 172 LLOYDS.

Material of Tunnel shafts Iron Identification Marks on Do. ✓ Material of Screw shafts S. Identification Marks on Do. 172 LLOYDS.

Material of Steam Pipes Steel ✓ Test pressure 525 lb. ✓

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 S/S BEGNA

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

The above engines have been constructed under Special Survey. The materials and workmanship employed in their manufacture so far as can be seen, are sound and good, together with the boiler (built in Detroit) they have been fitted on board the above vessel in a satisfactory manner and found satisfactory under steam. The vessel is eligible in my opinion for record + LMC 10.17.

It is submitted that this vessel is eligible for THE RECORD + LMC 10.17. F.D.

J.M. H.W.D. 8/12/17

The amount of Entry Fee ... \$ 10 : 00 : When applied for, 2/3. Special ... \$ 114.00 : When received, 3.1.19. Forgings. Donkey Boiler Fee ... \$ 45.00 : Travelling Expenses (if any) \$ 35.50 :

W. Lane Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute New York NOV 20 1917

Assigned + LMC 10.17 Elec. Light

