

Rpt. 4.

REPORT ON MACHINERY.

No. 363
TUE. 18 JAN. 1921

Received at London Office

Date of writing Report 24th Dec 1920 When handed in at Local Office 24th Dec 1920 Port of Jacksonville, Fla.
 No. in Survey held at Savannah, Ga. Date, First Survey 23 October Last Survey 11th Dec 1920
 Reg. Book. on the Single Screw Steel Steamer "PEARLDON" (Number of Visits)
 Master W. E. Kella Built at Savannah By whom built Jerry S. B. Corp. Tons { Gross 5186.97
 Engines made at Baden By whom made Baden when made 1919 Net 3186
 Boilers made at Chester, Pa. By whom made Jerry S. B. Corp. when made 1919
 Registered Horse Power 562 Owners U. S. Mex Oil Corp. Port belonging to New York
 Nom. Horse Power as per Section 28 562 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Single Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 24¹/₂ x 41¹/₂ x 78 Length of Stroke 48 Revs. per minute 80 Dia. of Screw shaft as per rule 14.86 Material of O. H. Steel
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube in 2 piece 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 Yes If two
 liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 5'-0³/₄"
 Dia. of Tunnel shaft as per rule 13.98 Dia. of Crank shaft journals as per rule 14 Dia. of Crank pin 14³/₈" Size of Crank webs 27x27³/₄" Dia. of thrust shaft under
 collars 14" Dia. of screw 16'-9" Pitch of Screw 14'-10" No. of Blades 4 State whether moveable Yes Total surface 90.9 ft
 No. of Feed pumps 2 Diameter of ditto 12x8 Stroke 18 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 5" Stroke 21" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 1 Sizes of Pumps 14x10¹/₄x12 x 6x5³/₄x6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 5'-3¹/₂" Bilge In Holds, &c. 2'-3¹/₂"

No. of Bilge Injections 1 sizes 10" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3¹/₂"
 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 Yes
 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 suction pipes for feed & off-dam How are they protected wood covering
 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 Yes

BOILERS, &c.—(Letter for record Yes) Manufacturers of Steel See separate report
 Total Heating Surface of Boilers 8331 Is Forced Draft fitted yes No. and Description of Boilers 3 SSB
 Working Pressure 210 Tested by hydraulic pressure to 210 Date of test 18 Jan 1921 No. of Certificate 3 SSB
 Can each boiler be worked separately Yes Area of fire grate in each boiler 100 sq ft No. and Description of Safety Valves to
 each boiler 1 Area of each valve 100 sq ft Pressure to which they are adjusted 210 Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 36" Length 12' Material of shell plates Steel
 Thickness 1/2" Range of tensile strength 50,000 Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams Yes
 long. seams Yes Diameter of rivet holes in long. seams 1/4" Pitch of rivets 4" Lap of plates or width of butt straps 1"
 Per centages of strength of longitudinal joint 85% Working pressure of shell by rules 210 Size of manhole in shell 18"
 Size of compensating ring 12" No. and Description of Furnaces in each boiler 1 Material Steel Outside diameter 36"
 Length of plain part 12' Thickness of plates 1/2" Description of longitudinal joint Butt No. of strengthening rings 1
 Working pressure of furnace by the rules 210 Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 1/2"
 Pitch of stays to ditto: Sides 12" Back 12" Top 12" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 210
 Material of stays Steel Area at smallest part 100 sq ft Area supported by each stay 100 sq ft Working pressure by rules 210 End plates in steam space: Yes
 Material Steel Thickness 1/2" Pitch of stays 12" How are stays secured By nuts Working pressure by rules 210 Material of stays Steel
 Area at smallest part 100 sq ft Area supported by each stay 100 sq ft Working pressure by rules 210 Material of Front plates at bottom Steel
 Thickness 1/2" Material of Lower back plate Steel Thickness 1/2" Greatest pitch of stays 12" Working pressure of plate by rules 210
 Diameter of tubes 12" Pitch of tubes 12" Material of tube plates Steel Thickness: Front 1/2" Back 1/2" Mean pitch of stays 12"
 Pitch across wide water spaces 12" Working pressures by rules 210 Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 12" Length as per rule 12' Distance apart 12' Number and pitch of stays in each 12"
 Working pressure by rules 210 Steam dome: description of joint to shell Butt % of strength of joint 85%
 Diameter 12" Thickness of shell plates 1/2" Material Steel Description of longitudinal joint Butt Diam. of rivet holes 1/4"
 Pitch of rivets 4" Working pressure of shell by rules 210 Crown plates Yes Thickness 1/2" How stayed By nuts

49 SUPERHEATER. Type Horizontal Date of Approval of Plan 18 Jan 1921 Tested by Hydraulic Pressure to 210
 Date of Test 18 Jan 1921 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes
 Diameter of Safety Valve 12" Pressure to which each is adjusted 210 Is Easing Gear fitted Yes

IS A DONKEY BOILER FITTED?

Yes.

If so, is a report now forwarded?

Yes.

SPARE GEAR. State the articles supplied:—

2 Connecting rod lift ends, bolts & nuts: 2 connecting rod bolts & nuts: 2 main bearing bolts: 1 set of coupling bolts: 1 set of feed sledge pump valves: A quantity of assorted bolts & nuts: Iron of various sizes: Propeller blades: 6 cylinder cover bolts: 6 guide ring bolts: 3 dry condenser tubes: 1 set safety valve springs.

The foregoing is a correct description,

Tony Shepharding Corp. Manufacturer.
Geo. B. Butler Sen. Engt.

Dates of Survey while building
During progress of work in shops --
During erection on board vessel --
Total No. of visits

Oct. 23, 26 Nov. 1, 8, 10, 11, 12, 13, 16, 22 Dec. 4, 10, 13, 18, 21.
15.

Is the approved plan of main boiler forwarded herewith No.

Is the approved plan of donkey boiler forwarded herewith Yes.

Dates of Examination of principal parts—Cylinders 23 Oct. Slides 23 Oct. Covers 23 Oct. Pistons 23 Oct. Rods 23 Oct.

Connecting rods 1 Nov. Crank shaft 1 Nov. Thrust shaft 1 Nov. Tunnel shafts 23 Oct. Screw shaft 23 Oct. Propeller 29 Oct.

Stern tube 23 Oct. Steam pipes tested 1 Nov. Engine and boiler seatings 23 Oct. Engines holding down bolts 10 Nov.

Completion of pumping arrangements 23 Oct. Boilers fixed Nov. 10. Engines tried under steam 21st Dec.

Completion of fitting sea connections 10 Nov. Stern tube 23 Oct. Screw shaft and propeller 26 Oct.

Main boiler safety valves adjusted 21st Dec. Thickness of adjusting washers

Material of Crank shaft A.H. Steel Identification Mark on Do. A.B. 148. Material of Thrust shaft A.H. Steel Identification Mark on Do. A.B. 148

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts A.H. Steel Identification Marks on Do. A.B. 70

Material of Steam Pipes Steel Test pressure 570 lbs.

Is an installation fitted for burning oil fuel Yes. Is the flash point of the oil to be used over 150°F. Yes.

Have the requirements of Section 49 of the Rules been complied with Yes.

Is this machinery duplicate of a previous case Yes. If so, state name of vessel S.S. "Lilmar"

General Remarks (State quality of workmanship, opinions as to class, &c. Workmanship good throughout.

The above machinery was built under the supervision of the American Bureau Surveyors.

It has been satisfactorily installed & on completion was tried under working conditions & found satisfactory.

Safety valves were adjusted under steam to 190 lbs. pressure.

The machinery of this vessel, as now seen, is eligible, in my opinion to be classed LMC. (will date)

It is submitted that
this vessel is eligible for
THE RECORD. LMC. 12.20 FD

FITTED FOR OIL FUEL. 12.20 FP ABOVE 150°F

Recd
26/1/21

MACHINERY CERT
WRITTEN 24/2/21
dated 18/1/21

The amount of Entry Fee ... £ :
Special ... £ :
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ :
When applied for, 24 Dec 1920.
When received, 24/1/21

William Hamilton & S. H. Boyle.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York JAN - 4 1921

Assigned LMC 12.20



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Foundation