

REPORT ON MACHINERY.

No. 3269

Received at London Office

JUN 23 1919

Report of writing Report May 28 1919 When dictated in at Local Office May 29 1919 Port of Philadelphia
 in Survey held at Wilmington Del Date, First Survey March 20 1918 Last Survey May 23 1919
 eg. Book. on the Steel Screw Steamer "Moline" (Number of Voids 57)
 Master Capt. Penner Built at Wilmington Del By whom built Pusey & Jones Tons { Gross 2967.43
 Engines made at Wilmington Del By whom made Pusey & Jones when made 1918
 Makers made at Sum Ship Bldg Co By whom made Chester Pa when made 1918
 Registered Horse Power _____ Owners United State Shipping Board Port belonging to Washington
 m. Horse Power as per Section 28. 332 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

GINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 a. of Cylinders 19 1/4 - 31 1/2 - 34 1/4 Length of Stroke 36 Revs. per minute 100 Dia. of Screw shaft as per rule 11 1/4 Material of Steel
 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
 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
 ers are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 14-6
 a. of Tunnel shaft as per rule 9.98 Dia. of Crank shaft journals as per rule 10.66 Dia. of Crank pin 11 1/2 Size of Crank webs 23 1/2 x 9 Dia. of thrust shaft under
 lars 10 1/8 Dia. of screw 14-6 Pitch of Screw 10-9 No. of Blades 4 State whether moccable Yes Total surface 60
 of Feed pumps 2 Diameter of ditto 10 x 6 Stroke 18 Can one be overhauled while the other is at work Yes
 of Bilge pumps 2 Diameter of ditto 4 1/2 x 8 1/2 x 10 Stroke 10 x 8 1/2 x 10 Can one be overhauled while the other is at work Yes
 of Donkey Engines 2 Sizes of Pumps 5 1/4 x 4 3/4 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room & Boiler room 4-3 In Holds, &c. Nos 1, 2 & 3 - 2-3
No 4 1-3 1/2 Tunnel well 1-2 1/2
 of Bilge Injections 1 sizes 8 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2
 e 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
 e all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both
 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
 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
 at pipes are carried through the bunkers None How are they protected Yes
 e all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 e the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Engine room platform

ILERS, &c.—(Letter for record R) Manufacturers of Steel Lukens S & L Co
 al Heating Surface of Boilers 5554 Is Forced Draft fitted Yes No. and Description of Boilers 2 SE Scotch
 rking Pressure 190 lbs Tested by hydraulic pressure to 285 lbs Date of test 31-7-18 No. of Certificate 218 A
 e each boiler be worked separately Yes Area of fire grate in each boiler 61.8 No. and Description of Safety Valves to
 boiler 2 Spring loaded Area of each valve 9.62 Pressure to which they are adjusted 190 lbs Are they fitted with easing gear Yes
 29.allest distance between boilers or uptakes and bunkers or woodwork. 18 Mean dia. of boilers 15-4 1/2 Length 11-5 Material of shell plates Steel
 ckness 1 1/32 Range of tensile strength 60000-70000 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams DR.L.
 e seams TR.DBS Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 8 1/16 Lap of plates or width of butt straps 20 3/4
 centages of strength of longitudinal joint 94.6% Working pressure of shell by rules 204 lbs Size of manhole in shell 12 x 16
 of compensating ring Flange No. and Description of Furnaces in each boiler 3 Monson Material Steel Outside diameter 49 1/4
 gth of plain part top Thickness of plates crown 7/8 Description of longitudinal joint Weld No. of strengthening rings Yes
 e of working pressure of furnace by the rules 204 lbs Combustion chamber plates: Material Steel Thickness: Sides 7/8 Back 7/8 Top 7/8 Bottom 1 1/16
 h of stays to ditto: Sides 7/16 x 7/16 Back 7/16 x 7/16 Top 7/16 x 7/16 If stays are fitted with nuts or riveted heads Riveted heads Working pressure by rules 241 lbs
 63.erial of stays W-1 Area at smallest part 1.694 Area supported by each stay 52.54 Working pressure by rules 191.9 End plates in steam space:
 99.erial Steel Thickness 1 1/8 Pitch of stays 16 1/4 x 15 1/2 How are stays secured D. Nuts Working pressure by rules 196 Material of stays Steel
 42. a at smallest part 5.93 Area supported by each stay 259.6 Working pressure by rules 237 Material of Front plates at bottom Steel
 ckness 1 Material of Lower back plate Steel Thickness 1 1/16 Greatest pitch of stays 14 1/4 Working pressure of plate by rules 260
 eter of tubes 2 1/2 Pitch of tubes 3 1/2 x 3 1/4 Material of tube plates Steel Thickness: Front 1 Back 3/4 Mean pitch of stays 10 1/2 x 7 1/2
 h across wide water spaces 13 Working pressures by rules 212 lbs Girders to Chamber tops: Material Steel Depth, and
 5.26.ckness of girder at centre 9 1/4 x 1 3/4 Length as per rule 35 Distance apart 7 3/4 Number and pitch of stays in each 4-7 1/8
 16.1. Working pressure by rules 237 lbs Steam dome: description of joint to shell _____ % of strength of joint _____
 R. 4. eter _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____
 115. of rivets _____ Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

ERHEATER. Type _____ Date of Approval of Plan _____ Tested by Hydraulic Pressure to _____
 of Test _____ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler _____
 r of Safety Valve _____ Pressure to which each is adjusted _____ Is Easing Gear fitted _____

W1532-0140

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Main bearing bolts & nuts, 2 connecting rod bolts & nuts for top and bottom ends. 1 set piston rings for M.P. & L.P. pistons. 7 32 & 48 springs for M.P. & L.P. pistons. 1 set valves for all pumps. 12 condenser tubes, 25 ferrules, a quantity of assorted bolts, nuts & studs. 1 set coupling bolts. Tons of various sizes.

The foregoing is a correct description,

The Pusey & Jones Company
per H. Q. Raymond, C.E. Manufacturer.

Dates of Survey while building
During progress of work in shops -- March 20-24 April 10-18 25 May 6-24 June 5-11 19-27 July 7-8 9-16 17-31 Aug 1-13 22 Sept 9-16 Oct 22-31 1918.
During erection on board vessel -- Dec 9-12-18 Jan 3-17-20 Feb 4-10-15 20-25 March 11-18 24 April 2-9 10-15 23 May 1-7 14-15-23 1919.
Total No. of visits 24

Is the approved plan of main boiler forwarded herewith No.

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 22-8-18 Slides 13-8-18 Covers 13-8-18 Pistons 9-9-18 Rods 9-9-18
Connecting rods 22-8-18 Crank shaft 16-9-18 Thrust shaft 9-12-18 Tunnel shafts 9-12-18 Screw shaft 3-12-18 Propeller 3-12-18
Stern tube 18-11-18 Steam pipes tested 10-11-19 Engine and boiler seatings 20-2-19 Engines holding down bolts 3-4-19
Completion of pumping arrangements 14-5-19 Boilers fixed 23-4-19 Engines tried under steam 15-5-19
Completion of fitting sea connections 6-12-18 Stern tube 18-11-18 Screw shaft and propeller 6-12-18
Main boiler safety valves adjusted 14-5-18 Thickness of adjusting washers Locknuts.

Material of Crank shaft Steel Identification Mark on Do. 2450 ON. Material of Thrust shaft Steel Identification Mark on Do. 107 FA.

Material of Tunnel shafts Steel Identification Marks on Do. 912-463 FA. Material of Screw shafts Steel Identification Marks on Do. 115 FA.

Material of Steam Pipes Lap welded steel Test pressure 600 lbs. ✓

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 machinery of this vessel has been constructed under Special Survey, in accordance with the rules. It has been securely fitted on board the vessel and tried under steam, with satisfactory results.
It is submitted that the vessel be eligible for record of +LMC 5-19 in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD +LMC 5-19 FII.

Recd. 30.6.19. JWR. JRR

The amount of Entry Fee ... £ \$:15.00:
Special ... £ \$:183.00:
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ \$:24.75:

When applied for,

19.

When received,

19/11/19

Wm. R. R. Ham
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

New York JUN - 3 1919

Assigned

+LMC 5-19
MACHINERY CERTIFICATE
WRITTEN
27/19



© 2021

Lloyd's Register
Foundation