

REPORT ON MACHINERY.

No. 11266
WFO. 12 APR. 1922

Received at London Office

Date of writing Report 10.4.1922, When handed in at Local Office 11.4.1922 Port of Middlesbrough
 No. in Survey held at Middlesbrough Date, First Survey April 18 1921 Last Survey Apr 3rd 1922
 Reg. Book. 26725 on the Steel screw steamer "P.L.M. 26" (Richardsons Westgarth & Co. Eng. No. 2562) Tons }
 Master ✓ Built at Middlesbrough By whom built Sir Raylton Dixon & Co. Ld. When built 1922
 Engines made at Middlesbrough By whom made Richardsons Westgarth & Co. Ld. when made 1922
 Boilers made at do By whom made do when made
 Registered Horse Power ✓ Owners Societe Nationale d'Appretements Port belonging to Havre
 Nom. Horse Power as per Section 28 532 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Inverted Quadruple expansion No. of Cylinders 4 No. of Cranks 4
 Dia. of Cylinders 23, 32 1/2, 44, 68" Length of Stroke 48" Revs. per minute 69 Dia. of Screw shaft as per rule 14.39 Material of screw shaft } Iron
 as fitted 15 Is 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
 in the propeller boss Yes 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 5'-0"
 Dia. of Intermediate shaft as per rule 12.4 Dia. of Crank shaft journals as per rule 13.33 Dia. of Crank pin 14" Size of Crank webs 26 1/2 x 8 1/2" Dia. of thrust shaft under
 collars 13 3/4 Dia. of screw 14'-9" Pitch of Screw 16'-6" No. of Blades 4 State whether moveable no Total surface 99 sq ft
 No. of Feed pumps 2 Diameter of ditto 9 1/2 x 7" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps 8' x 6" x 21" : 14 1/2" x 16" x 24" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4 of 3 1/2" and 2 1/2" hose connections: In Holds, &c. 2 of 3 1/2" in each hold.
 No. of Bilge Injections two sizes 8" Connected to condenser, or to circulating pump no no a separate Donkey Suction fitted in Engine room & size Yes: 3 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 no
 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 no Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record (S)) Manufacturers of Steel John Spencer & Sons Ld.
 Total Heating Surface of Boilers 4950 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 Single ended Cyl. mult.
 Working Pressure 220 lbs Tested by hydraulic pressure to 380 lbs Date of test 24.1.22 No. of Certificate 6261
 Can each boiler be worked separately Yes Area of fire grate in each boiler 63 sq ft No. and Description of Safety Valves to
 each boiler 2 direct spring loaded Area of each valve 11.04 sq in Pressure to which they are adjusted 225 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 2'-6" Int. dia. of boilers 15'-6" Length 12'-6" Material of shell plates Steel
 Thickness 1 1/2" Range of tensile strength 29/33 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR lap.
 long. seams VR ABS Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 10 3/8" Lap of plates or width of butt straps 22 3/8"
 Per centages of strength of longitudinal joint rivets 85.5 Working pressure of shell by rules 220 lbs Size of manhole in shell 16" x 12"
 plate 84.5 Size of compensating ring 3' x 2'-9" x 1 1/4" No. and Description of Furnaces in each boiler 3 sus. bulb. Material Steel Outside diameter 45 1/2"
 Length of plain part top ✓ Thickness of plates crown 23/32" Description of longitudinal joint Weld No. of strengthening rings ✓
 bottom ✓ Working pressure of furnace by the rules 246 lbs Combustion chamber plates: Material Steel Thickness: Sides 23/32" x 1/16" Back 23/32" Top 23/32" x 1/16" Bottom 15/16"
 Pitch of stays to ditto: Sides 8 1/8" x 9 3/4" Back 8" x 9 3/4" Top 8 1/8" x 9 3/4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 224 lbs
 Material of stays Steel Area at smallest part 2.03 sq in Area supported by each stay 49.2 sq in Working pressure by rules 230 lbs End plates in steam space:
 Material Steel Thickness 1 1/2" Pitch of stays 22" x 14 1/2" How are stays secured Nuts & Washers Working pressure by rules 222 lbs Material of stays Steel
 Area at smallest part 4.24 sq in Area supported by each stay 319 sq in Working pressure by rules 251 lbs Material of Front plates at bottom Steel
 Thickness 29/32" Material of Lower back plate Steel Thickness 29/32" Greatest pitch of stays 15" x 8" Working pressure of plate by rules 233
 Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 3/4" Material of tube plates Steel Thickness: Front 29/32" Back 29/32" Mean pitch of stays 9 1/2" x 11 1/4"
 Pitch across wide water spaces 13 1/2" Working pressures by rules 236 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 9 3/4" x 1 3/4" Length as per rule 2'-10 1/8" Distance apart 9 3/4" Number and pitch of stays in each 3 @ 8 1/8"
 Working pressure by rules 228 lbs 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 ✓

UPERHEATER. 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 ✓

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Screw shaft and propeller, 2 Top end bolts + nuts, 2 Bottom end bolts + nuts, 2 main bearing bolts + nuts, 1 set of Coupling bolts + nuts, 12 Inducers tubes, 20 Boiler tubes, 1 set of Feed pump valves, 1 set of Bilge pump valves, 2 Safety valve springs, 1 main and 1 Auxiliary feed check valve, 1 pair of Bottom end bushes, 1 Eccentric strap, ring + spring for H.P. piston, 1 set of Yilder buckets, 1/2 set of Air pump valves. Assorted bolts + nuts. Sheet and rod steel.*

The foregoing is a correct description,

For and on behalf of

RICHARDSONS, WESTGARTH & Co., Ltd.

[Signature]

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1921. April 8. Sept. 6. 9. 12. 16. 20. 28. Oct. 1. 3. 10. 12. 21. 25. 28. Nov. 2. 10. 14. 15. 21. 23. 30. Dec. 5. 7. 9. 13. 14. 20.
During erection on board vessel --- 1922. Jan. 10. 11. 13. 14. 20. 24. 25. 30. 31. Feb. 3. 4. 10. 15. 16. 17. Mar. 9. 15. 20. April 3
Total No. of visits *46*

Is the approved plan of main boiler forwarded herewith

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 5.1.22 Slides 5.1.22 Covers 5.1.22 Pistons 5.1.22 Rods 10.1.22
Connecting rods 10.1.22 Crank shaft 26.10.21 Thrust shaft 12.10.21 ^{Intermediate} ~~Intermediate~~ shafts 30.1.22 Screw shafts 10.1.22 Propeller 31.1.22
Stern tube 24.1.22 Steam pipes tested 15.7.22 Engine and boiler seatings 31.1.22 Engines holding down bolts 14.2.22
Completion of pumping arrangements 3.4.22 Boilers fixed 14.2.22 Engines tried under steam 14.2.22
Completion of fitting sea connections 13.12.21 Stern tube 31.1.22 Screw shaft and propeller 3.2.22
Main boiler safety valves adjusted 14.2.22 Thickness of adjusting washers ^{Port Hk.} PV 3/8 SV 3/8 ^{Centre Hk.} PV 1/2 SV 1/2 ^{Starboard Hk.} PV 3/8 SV 1/2

Material of Crank shaft *Smart Steel* Identification Mark on Do. *6248 RDS* Material of Thrust shaft *hyatt steel* Identification Mark on Do. *5556N*
Material of ^{Intermediate} ~~Intermediate~~ shafts *Smart Steel* Identification Marks on Do. *5556N* Material of Screw shafts *Iron* Identification Marks on Do. *6248 DDW*
Material of Steam Pipes *harp welded steel* Test pressure *660 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 *Yes* If so, state name of vessel *Hs. P. L. M. 25 (Ind. Vot No 11236)*

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

The machinery of this vessel has been built under Special Survey. The workmanship and materials are good. It has been efficiently fitted on board and proved satisfactory under working conditions.

*The vessel is eligible in my opinion to have the notation of *P.L.M.C. 4.22* made in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD. *F.L.M.C. - 4.22 F.D. C.L.*

[Signature] 13/4/22.

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

The amount of Entry Fee ... £ 6 : 0 :
Special ... £ 107 : 78 :
Donkey Boiler Fee ... £ : 12 :
Travelling Expenses (if any) £ : :
When applied for. 4.4.1922.
When received, 18/4/22 JWH

W. Couris
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *THU. 13 APR. 1922*
Assigned *MACHINERY DEPT + L.M.C. 4.22*
F.D. C.L.



© 2021

Lloyd's Register Foundation