

REPORT ON MACHINERY.

No. 19836

Received at London Office MON MAY 13 1920

Date of writing Report 24 April 1920 When handed in at Local Office 29 April 1920 Port of Harport Mon.
 No. in Survey held at Chipslow Date, First Survey 2nd Nov 1919 Last Survey 22 April 1920
 Reg. Book. S/S Monte Pasubio Ex War Glory. (Number of Visits 12)

Master Chipslow Built at Chipslow By whom built Monmouth Shipbuilding Co When built 1920
 Engines made at Newcastle By whom made Parsons Marine Steam Turbine Co when made 1918-19
 Boilers made at Newport By whom made Baloch, Wilson & Co Ltd when made 1918
 Registered Horse Power 2900 Owners Soc. Nav. Armatori Runiti Port belonging to London
 Shaft Horse Power at Full Power 2900 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

TURBINE ENGINES, &c.—Description of Engines Double reduction Grand turbines No. of Turbines 2
 Diameter of Rotor Shaft Journals, H.P. 4 1/2" L.P. 4 1/2" Diameter of Pinion Shaft 1 1/2" gear 4 1/2" 2nd gear 9"
 Diameter of Journals 1 1/2" 4 1/2" 2nd gear 9" Distance between Centres of Bearings 1 1/2" 2.3" 2.3" 10 1/2" Diameter of Pitch Circle 1 1/2" 6.29" 2nd 13.558"
 Diameter of Wheel Shaft 1 1/2" 9" 2nd 14 1/2" Distance between Centres of Bearings 1 1/2" 2.2" 2nd 3.9 1/2" Diameter of Pitch Circles of Wheels 49.666 + 76.550"
 Width of Face 1 1/2" 2.7 1/2" 2nd 2.7 1/2" Diameter of Thrust Shaft under Collars 1.2 3/4" Diameter of Tunnel Shaft as per rule 1.1 1/2"
 No. of Screw Shafts one Diameter of same as per rule 1.3 1/4" Diameter of Propeller 14.9" Pitch of Propeller 16.6"
 No. of Blades 4 State whether Moveable No Total Surface 100 sq Diameter of Rotor Drum, H.P. 24 1/2" L.P. 22.30" Astern HP 25 + 25 1/2"
 Thickness at Bottom of Groove, H.P. Solid L.P. Solid Astern Solid Revs. per Minute at Full Power, Turbine 3500 Propeller 78 L.P. 20 1/2" + 23 1/2" + 20"

PARTICULARS OF BLADING.

	H.P. Impulsor			L.P. Reaction			H.P. ASTERN. Impulsor		
	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
1ST EXPANSION	1 + 1/4"	29 1/2" + 29 1/2"	2	2 1/2"	26 1/4"	2	1 1/4" + 2"	29 1/2" + 30 1/2"	2
2ND "	3/4"	29"	1	1 1/8"	27 1/2"	2	L.P. Astern		
3RD "	1"	29 1/4"	1	3/4"	28 1/2"	2	Impulsor 2 1/2"	30 1/2"	1
4TH "	1 1/8"	29 3/8"	1	2 3/8"	34 1/2"	1	2 do 4 1/2"	32"	1
5TH "	1 1/8"	30 1/8"	1	2 5/8"	35 1/2"	1	1 st Reaction 1 1/2"	23 1/2"	1
6TH "	2 1/2"	31 1/2"	1	3 1/2"	37"	1	2 nd do 1 1/2"	25"	1
7TH "				4 1/4"	38 1/2"	3	3 do 1 1/2"	27"	3
8TH "									

No. and size of Feed pumps Two 11 1/2" dia Steam 8" dia water 2 1/2" stroke
 No. and size of Bilge pumps One bilge + ballast 10 1/2" dia Steam 14" dia water 2 1/2" stroke, 1 one general Service 7" dia 8" water 12" stroke
 No. and size of Bilge suction in Engine Room Four 3 1/2" 1 Independent 8"
 In Holds, &c. No 1. 1.3 1/2" No 2. 2.3 1/2" Reserve bunker 2.2 1/2" + one
Crate 3 1/2" Drift Tank 1.3 1/2" No 3. 3.3 1/2" No 4. 1.3 1/2" + 2.2 1/2" Tunnel 2.2 1/2" + 1.3" in well.
 No. of Bilge Injections one sizes 1 1/4" Connected to condenser, or to circulating pump in pump Is a separate Donkey Suction fitted in Engine Room & size Yes 8"
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes
 Are all connections with the sea direct on the skin of the ship No 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 Below
 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 Bilge + four fresh water How are they protected Steel covers
 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 Grating at level of upper Deck

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Johns, Steel Co of Scotland, Glasgow + Clyde
 Total Heating Surface of Boilers 9636 sq Is Forced Draft fitted Yes No. and Description of Boilers 3 Babcock + Wilcox marine W.T.
 Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 15.9.1920 Under 2.2.200. of Certificates 9.10.11. h.p.
 Can each boiler be worked separately Yes Area of fire grate in each boiler 87.75 sq No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 3 1/2" Pressure to which they are adjusted 200 Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 6.0" Mean dia. of boilers 4.0" Length 15.1 1/4" Material of shell plates S
 Thickness 9/16" + 1 1/8" Range of tensile strength 28/32 Are the shell plates welded or flanged ✓ Descrip. of riveting: cir. seams S.R.
 long. seams T.R. + S.B.S Diameter of rivet holes in long. seams 29" Pitch of rivets 3.539 Lap of plates or width of butt straps 7 1/4"
 Per centages of strength of longitudinal joint 76.7 Working pressure of shell by rules 238 Size of manhole in shell 15" x 11"
 Size of compensating ring 7 1/2" x 4 3/8" No. and Description of Furnaces in each Boiler ✓ Material ✓ Outside diameter ✓
 Length of plain part top Thickness of plates bottom 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 S Thickness 13/16" Pitch of stays 12" How are stays secured ✓ Working pressure by rules 240 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 S Thickness 12" Greatest pitch of stays ✓ Working pressure of plate by rules ✓
 Diameter of tubes 1 1/2" + 1 3/8" Pitch of tubes 2 1/4" + 2 3/8" Material of tube plates S Thickness: Front 1 1/8" 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 5 1/2" thick Length as per rule Unided Distance apart ✓ Number and pitch of stays in each ✓
 Working pressure by rules ✓ Steam dome: description of joint to shell ✓ % of strength of joint ✓ Diameter of rivet holes ✓ Pitch of rivets ✓
 Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diameter of rivet holes ✓ Pitch of rivets ✓
 Working pressure of shell by rules ✓ Crown plates: Thickness ✓ How stayed ✓

SUPERHEATER.

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:—

1 Screw shaft (Lloyds No 3885 P. 29.10.19) 1 Propeller.

Spare set of coupling bolts runs for shafting & gear shafting & spare gear as per Rules & in accordance with Specification

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

During progress of work in shops --

During erection on board vessel ---

Total No. of visits

1918. See Gls Reports No 38228 & New Rpt No 71.532

6 Nov 1919. Dec 15 - 1920. Jan 9. Feb 2. 10. March 1. 4. 10. 24. 31. April 1. 9. 22. 22

14.

Is the approved plan of main boiler forwarded herewith

No

" " " donkey " " "

Dates of Examination of principal parts—Casings 23. 9. 18. Rotors 23. 9. 18. Blading 11. 10. 18. Gearing 23. 9. 18.

Rotor shafts 23. 9. 18. Thrust shaft 22. 8. 18. Tunnel shafts 22. 8. 18. Screw shaft 26. 5. 19. Propeller 31. 4. 20

Stern tube 15/12/19. Steam pipes tested 19. 2. 20. Engine and boiler seatings 6. 11. 19. Engines holding down bolts 4. 3. 20

Completion of pumping arrangements 4. 3. 20. Boilers fired 19. 2. 20. Engines tried under steam 14. 4. 20

Main boiler safety valves adjusted 31. 3. 20. Thickness of adjusting washers 5 B S $\frac{1}{2}$ P $\frac{1}{2}$ Cuh S $\frac{1}{2}$ P $\frac{1}{2}$ P S $\frac{1}{2}$ P $\frac{1}{2}$

Material and tensile strength of Rotor shaft Steel 35. 38.2 hrs Identification Mark on Do. 74 9.18

Material and tensile strength of Pinion shaft Nickel Steel 42.8 to 47.2 tons Identification Mark on Do. 74 9.18

Material of Wheel shaft Steel Identification Mark on Do. 74 9.18. Material of Thrust shaft Steel Identification Mark on Do. Lloyds 63. 14

Material of Tunnel shafts Steel Identification Marks on Do. J R W. Material of Screw shafts Steel Identification Marks on Do. " 367 P

Material of Steam Pipes Lap welded W. J. 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 a duplicate of a previous case No. If so, state name of vessel

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

The boilers of this vessel made by

Messrs Babcock, Wilcox & Co Ltd see Gls Rpt No 38228. have been tested by hydraulic pressure to 400 lbs per sq. in. examined under steam & safety valves adjusted to 200 lbs per sq. in.

The Turbine machinery built by The Parsons Marine Steam Turbine Co see Gls Rpt No 71532. has been securely fitted on board & tried under steam. On the trial trip the machinery worked well with no undue heating of any part & with satisfactory results. & is eligible for the Record of LMC 4.20

The amount of Entry Fee ... £

Fitting on Board

Special ... £

Donkey Boiler Fee ... £

Travelling Expenses (if any) £

When applied for.

25/5 1920

When received.

16/6/20

Thos. M. Gibson, John B. Common

Engineer Surveyor to Lloyd's Register of Shipping.

FRI. MAY. 14 1920

Committee's Minute

Assigned

+ LMC 4.20 7D

Subject

CERTIFICATE WRITTEN



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