

Rpt. 4a.  
000 LBS/50.  
YES.  
YES

Fitted on Board Rhine main  
De. Rhine Rpt. Kobe 3920  
**REPORT ON MACHINERY.**

No. 41576.

Received at London Office WED. DEC. 14 1921

Date of writing Report 9. 12. 21 When handed in at Local Office 9. 12. 21 Port of Glasgow  
No. in Survey held at Clydebank Date, First Survey 21 Sep 1920 Last Survey 22 Dec 1920  
Reg. Book. on the S.S. No 486 (Number of Visits 22)

Master 6<sup>th</sup> Lt. Built at By whom built Kawasaki Dock Co. Ltd. When built  
Engines made at Clydebank By whom made John Brown & Co. Ltd. (50 33 20) when made 1921  
Boilers made at By whom made when made  
Registered Horse Power Owners Port belonging to  
Shaft Horse Power at Full Power 5100 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

**TURBINE ENGINES, &c.**—Description of Engines *Gears only* No. of Turbines  
Diameter of Rotor Shaft Journals, H.P. L.P. Diameter of Pinion Shafts 5 1/2 with 2 3/4 hole 7 with 3 1/2 hole 15 with 7 1/2 hole  
Diameter of Journals 5 1/2 7 15 Distance between Centres of Bearings H.P. 24 L.P. 24 Diameter of Pitch Circle H.P. 11.7 L.P. 13.7  
Diameter of Wheel Shaft 20 18 Distance between Centres of Bearings L.P. 3 3/2 8 8 1/2 Diameter of Pitch Circle of Wheel 123.418  
Width of Face 50 Diameter of Thrust Shaft under Collars Diameter of Tunnel Shaft as per rule as fitted  
No. of Screw Shafts Diameter of same as per rule as fitted Diameter of Propeller Pitch of Propeller  
No. of Blades State whether Moveable Total Surface Diameter of Rotor Drum, H.P. L.P. Astern  
Thickness at Bottom of Groove, H.P. L.P. Revs. per Minute at Full Power, Turbine H.P. 1890 L.P. 1890 Propeller 85

**ARTICULARS OF BLADING.**

	H. P.			L. P.			ASTERN.		
	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									
2ND									
3RD									
4TH									
5TH									
6TH									
7TH									
8TH									

No. and size of Feed pumps  
No. and size of Bilge pumps  
No. and size of Bilge suction in Engine Room  
In Holds, &c.  
No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine Room & size  
Are all the bilge suction pipes fitted with roses Are the roses in Engine Room always accessible  
Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks  
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  
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  
Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

**BOILERS, &c.**—(Letter for record) Manufacturers of Steel  
Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers  
Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate  
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to  
each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear  
Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length 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 rivets Working pressure of shell by rules Size of manhole in shell  
Size of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter  
Length of plain part top crown Thickness of plates Description of longitudinal joint No. of strengthening rings  
bottom bottom 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 Steam dome: description of joint to shell % of strength of joint Diameter  
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?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

John Brown & Company, Limited.

Manufacturers.

Glydebank Secretary.

Dates of Survey while building

During progress of work in shops - -  
During erection on board vessel - - -  
Total No. of visits

1920 Sep 21 Nov 22 Dec 9 (1921) Jan 24 Feb 10. 17 Mar 9. 17. 21. 24 Apr 6. 18 May 6. 17  
Jun 6. 16 Aug 11. 23 Oct 24 Nov 14 Dec 2  
22

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Casings

Rotors

Blading

Gearing 14/11/21

Rotor shaft

Thrust shaft

Tunnel shafts

Screw shaft

Propeller

Stern tube

Steam pipes tested

Engine and boiler seatings

Engines holding down bolts

Completion of pumping arrangements

Boilers fixed

Engines tried under steam

Main boiler safety valves adjusted

Thickness of adjusting washers

Material and tensile strength of Rotor shaft

Identification Mark on Do.

Material and tensile strength of Pinion shafts Nickel steel notations

Identification Mark on Do.

Material of Wheel shaft 5 1/2" steel Identification Mark on Do.

Material of Thrust shaft

Identification Mark on Do.

Material of Tunnel shafts

Identification Marks on Do.

Material of Screw shafts

Identification Marks on Do.

Material of Steam Pipes

Test pressure

Is an installation fitted for burning oil fuel

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

If so, state name of vessel 50 20 (5 sets.)

General Remarks

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

These gears have been built under special survey the materials and workmanship are of good description. They have now been forwarded to Kovic and are intended for the vessel mentioned on the other side

The amount of Entry Fee

£

Special

£

Donkey Boiler Fee

£

Travelling Expenses (if any)

£

When applied for,

13/12/21

When received,

31.12.21

A. M. McLeod

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW

13 DEC 1921

Assigned

No action.



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