

REPORT ON MACHINERY.

No. 19990.

Received at London Office

31 JUL 1935

Date of writing Report 20-7-1935 When handed in at Local Office 26-7-1935 Port of Greenock
 No. in Survey held at Port Glasgow Date, First Survey 14 July 1935
 Reg. Book. "MARWARR" (Number of Visits) Gross 8030.75
 on the "MARWARR" Tons { Net 4803.68

Master Glasgow Built at Glasgow By whom built W. Hamilton & Co. Ltd When built 1935
 Engines made at Glasgow By whom made D. Rowan & Co. Ltd when made 1935
 Boilers made at " By whom made " when made "
 Registered Horse Power ✓ Owners " Port belonging to Glasgow
 Shaft Horse Power at Full Power ✓ Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted Yes

TURBINE ENGINES, &c.—Description of Engines Single reduction geared turbine No. of Turbines 3

Diameter of Rotor Shaft Journals, H.P. ✓ L.P. ✓ Diameter of Pinion Shaft ✓
 Diameter of Journals ✓ Distance between Centres of Bearings ✓ Diameter of Pitch Circle ✓
 Diameter of Wheel Shaft ✓ Distance between Centres of Bearings ✓ Diameter of Pitch Circle of Wheel ✓
 Width of Face ✓ Diameter of Thrust Shaft under Collars ✓ Diameter of Tunnel Shaft as per rule
 No. of Screw Shafts 6 me Diameter of same 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. ✓ Astern ✓ Revs. per Minute at Full Power, Turbine ✓ Propeller ✓

PARTICULARS 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. Nos. 1, 2, 3, 4 & 5 Holds & Deep Tank.

each 2-3 1/2" Tunnel Well 1-3 1/2"

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 Yes Are the roses in Engine room always accessible ✓
 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 ✓
 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 ✓
 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 ✓ 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 ✓ Thickness of plates ✓ Description of longitudinal joint ✓ No. of strengthening rings ✓
 Working pressure of furnace by the rules ✓ Combustion chamber plates ✓ 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 ✓ End plates in steam space ✓
 Material of stays ✓ Diameter at smallest part ✓ Area supported by each stay ✓ Working pressure by rules ✓ Material of stays ✓
 Material ✓ Thickness ✓ Pitch of stays ✓ How are stays secured ✓ Working pressure by rules ✓ Material of Front plates at bottom ✓
 Diameter at smallest part ✓ Area supported by each stay ✓ Working pressure by rules ✓ Working pressure of plate by rules ✓
 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 ✓ 10% 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 ✓

005436-005442-0035

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

IS A DONKEY BOILER FITTED? ☒

SPARE GEAR. State the articles supplied:— ☒

See Glasgow Report No. 55954
The foregoing is a correct description, Manufacturer.

Dates of Survey while building
During progress of work in shops --
During erection on board vessel --- 1935 H/E 23 July 14
Total No. of visits 2

Is the approved plan of main boiler forwarded herewith
" " " donkey " " "

Dates of Examination of principal parts—Casings ☒ Rotors ☒ Blading ☒ Gearing ☒
Rotor shaft ☒ Thrust shaft ☒ Tunnel shafts ☒ Screw shaft ☒ Propeller ☒
Stern tube ☒ Steam pipes tested ☒ Engine and boiler seatings 23-4-35 Engines holding down bolts ☒
Completion of pumping arrangements 14-4-35 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 shaft ☒ Identification Mark on Do. ☒
Material of Wheel shaft ☒ 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 ☒

General Remarks (State quality of workmanship, opinions as to class, &c.) The propeller, tail shaft, stern tube & sea connections have been satisfactorily fitted on board.
The bilge pumping arrangements in the Holds, has been fitted in accordance with the Rules & approved plans, tried & found satisfactory.

The amount of Entry Fee	£	:	:	When applied for,
Special	£	:	:	19
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	£	:	:	19

J. D. Avey
Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 3 JAN 1936

Committee's Minute GLASGOW 30 JUL 1935

Assigned + L.M.C. 7.35
on G.L. Rpt. 55954