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Rpt. 4.

REPORT ON MACHINERY.

No. 15952

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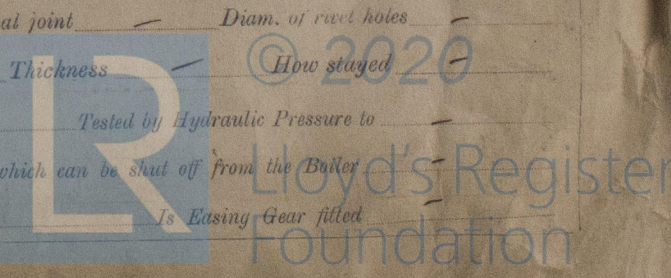
Date of writing Report 20 October 1922 When handed in at Local Office 20 Oct 1922 Port of Swansea
No. in Survey held at Pembroke Dock Date, First Survey 3rd May 1921 Last Survey 18 October 1922
Reg. Book. on the "A. S. OLEANDER" (Number of Visits 39)

Master Built at Pembroke Dock By whom built H. M. Dockyard Tons { Gross Net }
Engines made at Chatham By whom made H. M. Dockyard when made 1922
Boilers made at Chatham 3 By whom made H. M. Dockyard when made 1922
Registered Horse Power Owners The Admiralty Port belonging to
Nom. Horse Power as per Section 28 644 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

10 **ENGINES, &c.**—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
10 Dia. of Cylinders 27"-45"-74" Length of Stroke 54" Revs. per minute 68 Dia. of Screw shaft as per rule as fitted 16" Material of screw shaft Iron
10 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'-5"
10 Dia. of ~~Tunnel~~ shaft as per rule as fitted 14 1/2" Dia. of Crank shaft journals as per rule as fitted 15" Dia. of Crank pin 15" Size of Crank webs 9 5/16" Dia. of thrust shaft under
collars - Dia. of screw 18'-9" Pitch of Screw 18'-0" No. of Blades 4 State whether moveable yes Total surface 110 sq ft
No. of Feed pumps 2 Diameter of ditto 4 1/2" Stroke 30" Can one be overhauled while the other is at work yes
No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 30" Can one be overhauled while the other is at work yes
No. of Donkey Engines 5 Sizes of Pumps 8'-8"-10-8'-5 1/2"-12-8'-6"-16 No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 3 at 3 1/2" In Holds, &c. For Ballast pump: 2-6" in deep Tank forward; 2-4" in fore hold; 1-4" in fore peak; 2-2 1/2" in fore hold; 2-3" (ejector) in aft hold; 1-3 1/2" in aft peak (E.R. bottom pump)
No. of Bilge Injections one size 10" Connected to circulating pump Is 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 yes
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 2nd deck service tank oil filling; telemotor How are they protected steel casing
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 none Is it fitted with a watertight door - worked from -

BOILERS, &c.—(Letter for record (S)) Manufacturers of Steel
Total Heating Surface of Boilers 10224 Is Forced Draft fitted yes No. and Description of Boilers 4 single ended
Working Pressure 180 lbs Tested by hydraulic pressure to - Date of test - No. of Certificate -
Can each boiler be worked separately yes Area of fire grate in each boiler 63.3 sq ft No. and Description of Safety Valves to
each boiler two spring loaded Area of each valve 9.6 sq in Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes
Smallest distance between boilers or uptakes and bunkers or woodwork no side bunkers 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 - Thickness of plates crown - Description of longitudinal joint - No. of strengthening rings -
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 - Area 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 -
Area 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 - Diam. 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 -



W63-0065

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IS A DONKEY BOILER FITTED?

NO

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— one propeller shaft, one pair of crank pin brasses, two eccentric sheaves, one eccentric strap, two slide valve spindles, 24 junk ring bolts, one set of rings and springs for each piston + H.P. piston valve; 1 air pump rod, one set of air pump valves, 24 condenser tubes + 50 galleys, 2 C.I. propeller blades, one set of feed + bilge pump valves, 2 connecting rods top and bottom + 2 bottoms and bolts, 4 main bearing bolts; set of coupling bolts, six plain boiler tubes + one stay tube, set of piston rod + valve rod metal packing, assorted bolts + nuts + iron of various sizes

The foregoing is a correct description,

H. Falloot.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - During erection on board vessel - - - Total No. of visits 39

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft 23.1.22 Propeller 3.3.22 Stern tube 23.1.22 Steam pipes tested 13.7.22 Engine and boiler seatings 1-5-22 Engines holding down bolts 7.9.22 Completion of pumping arrangements 1.8.22 Boilers fixed 19.6.22 Engines tried under steam 21.9.22 Completion of fitting sea connections 3.3.22 Stern tube 3.3.22 Screw shaft and propeller 22.4.22 Main boiler safety valves adjusted 15.9.22 Thickness of adjusting washers 19.10.21 Material of Thrust shaft steel Identification Mark on Do. H.G.S. Material of Screw shafts Iron Identification Marks on Do. 23.1.22 Material of Crank shaft steel Identification Marks on Do. 23.1.22 Material of Tunnel shafts steel Identification Marks on Do. 23.1.22 Material of Steam Pipes steel Test pressure 540 lbs Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes Have the requirements of Section 49 of the Rules been complied with Yes If so, state name of vessel "OLNA" Is this machinery duplicate of a previous case Yes

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

These engines and boilers have now been efficiently fitted on board The machinery has been tried under full working conditions and proved satisfactory The machinery is eligible, in our opinion, for the notation L.M.C. 10-22. Fitted for oil fuel 10-22 F.P. above 150°F

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 10.22. F.D. C.L.

Fitted for oil fuel 10.22. F.P. above 150°F.

H.A.D.
4/11/22

The amount of Entry Fee Installation (1/2 total fee) £ 22 : 12 : 10 Special ... £ 19 : 11 : 19 1/2 Donkey Boiler Fee ... £ 91 : 18 : 4 Travelling Expenses (if any) £ 30 : 0 : 0

Committee's Minute FRI. NOV. 17 1922 Assigned + L.M.C. 10.22 F.D. C.L.

L. Evans & H. Gilby
Engineer Surveyor to Lloyd's Register of Shipping.
TUE. OFC. + 5 1922
TUE. JUN. 26 1923

Ltd for oil fuel 10.22 F.P. above 150°F.