

# REPORT ON OIL ENGINE MACHINERY.

No. 89050

6 JUN 1925

20 JUN 1925

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Received at London Office

Date of writing Report

19

When handed in at Local Office

Port of London

No. in Survey held at

Rochester

Date, First Survey 31<sup>st</sup> MARCH 1925

Last Survey 5<sup>th</sup> June 1925

By Book.

on the <sup>Single</sup> ~~Twin~~ ~~Triple~~ Screw vessels "Rochester Castle"

Number of Visits 4

Tons { Gross 167.07  
Net 94.02

Master

Built at Rochester

By whom built Short Bros 2<sup>nd</sup> Yard No.

When built 1925

Engines made at Manchester

By whom made L. Gardner & Sons 2<sup>nd</sup>

Engine No. 30617 When made 1925

Monkey Boilers made at none

By whom made

Boiler No. 7 When made

Indicated Horse Power 192 (Total)

Owners The Channel Coasting & Trading Co Ltd Port belonging to Rochester

Net Horse Power as per Rule 55

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted

**L ENGINES, &c.**—Type of Engines Vertical Semi-Diesel 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 300 No. of cylinders 4 No. of cranks 4 Diameter of cylinders 9 1/2

Length of stroke 10 3/4" Revolutions per minute 370 Means of ignition Hot bulb Kind of fuel used Heavy Oil

Is there a bearing between each crank Span of bearings (Page 92, Section 2, par. 7 of Rules)

Distance between centres of main bearings Is a flywheel fitted Diameter of crank shaft journals as per Rule as fitted

Diameter of crank pins Breadth of crank webs as per Rule as fitted Thickness of ditto as per Rule as fitted

Diameter of flywheel shaft as per Rule as fitted Diameter of tunnel shaft as per Rule as fitted Diameter of thrust shaft as per Rule as fitted

Diameter of screw shaft as per Rule as fitted Is the screw shaft fitted with a continuous liner the whole length of the stern tube no

Is the after end of the liner made watertight in the propeller boss yes If the liner is in more than one length are the joints burned

Does the liner do 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

Are two liners fitted, is the shaft lapped or protected between the liners If without liners, is the shaft arranged to run in oil yes

Type of outer gland fitted to stern tube Jarwood Length of stern bush 16" x 21" Diameter of propeller 41"

Pitch of propeller 35" No. of blades 4 state whether moveable no Total surface 42.8 ft<sup>2</sup> square feet

Method of reversing Is a governor or other arrangement fitted to prevent racing of the engine when declutched Thickness of cylinder liners

Are the cylinders fitted with safety valves Means of lubrication Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Up funnel No. of cooling water pumps Is the sea suction provided with an efficient strainer which can be cleared

within the vessel yes No. of bilge pumps fitted to the main engines One each Diameter of ditto 1 3/4" Stroke 2"

Can one be overhauled while the other is at work yes No. of auxiliary pumps connected to the main bilge lines One How driven Aux. Engine

Size of pumps Rotary No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room 2 at 2"

Used in holds, etc. 2 - 2" No. of ballast pumps How driven Sizes of pumps

Is the ballast pump fitted with a direct suction from the engine room bilges State size Is a separate auxiliary pump suction fitted in

Engine Room and size yes - 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 Are all connections with the sea direct on the skin of the ship yes

Are they valves or cocks Ball Are they fitted sufficiently high on the ship's side to be seen without lifting the floor 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

Are all pipes, cocks, valves and pumps in connection with the machinery 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 Is it fitted with a watertight door

Worked from If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Trays

No. of main air compressors No. of stages Diameters Stroke Driven by

No. of auxiliary air compressors No. of stages Diameters Stroke Driven by

No. of small auxiliary air compressors No. of stages Diameters Stroke Driven by

No. of scavenging air pumps Diameter Stroke Driven by

Diameter of auxiliary Diesel Engine crank shafts as per Rule as fitted Are the air compressors and their coolers made so as to be easy of access

**R RECEIVERS:**—No. of high pressure air receivers Internal diameter Cubic capacity of each

Material Seamless, lap welded or riveted longitudinal joint Range of tensile strength

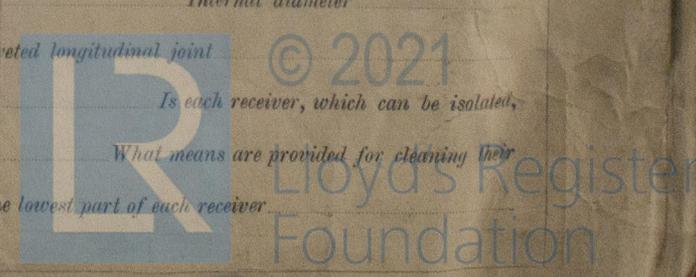
Thickness working pressure by Rules No. of starting air receivers Internal diameter

Total cubic capacity Material Seamless, lap welded or riveted longitudinal joint Is each receiver, which can be isolated,

Range of tensile strength thickness Working pressure by rules What means are provided for cleaning their

Are they fitted with a safety valve as per Rule Can the internal surfaces of the receivers be examined What means are provided for cleaning their

Are the inner surfaces inner surfaces Is there a drain arrangement fitted at the lowest part of each receiver



W1118-0183

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS .....					<i>See Manchester Report 7-5591</i>
" " COVERS .....					
" " JACKETS.....					
" PISTON WATER PASSAGES.....					
MAIN COMPRESSORS—1st STAGE.....					
" 2nd " .....					
" 3rd " .....					
AIR RECEIVERS—STARTING .....					
" INJECTION .....					
AIR PIPES .....					
FUEL PIPES .....					
FUEL PUMPS .....					
SILENCER .....					
" WATER JACKET .....					
SEPARATE FUEL TANKS .....					

PLANS. Are approved plans forwarded herewith for shafting  Receivers  Separate Tanks   
(If not, state date of approval)

SPARE GEAR

The foregoing is a correct description,  
SHORT BROS. (ROCHESTER) LTD.

*H. Wood*

Secretary

Manufacturers. Installers

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

1925 MAR 31 MAY 6.13 JUNE 2.5  
5

Dates of Examination of principal parts—Cylinders  Covers  Pistons  Rods  Connecting rods   
 Crank shaft  Thrust shaft  Tunnel shafts  Screw shaft  Propeller  Stern tube  Engine seatings 6/5/25  
 Engines holding down bolts 2/6/25 Completion of pumping arrangements 2/6/25 Engines tried under working conditions 5/6/25  
 Completion of fitting sea connections 13/5/25 Stern tube 13/5/25 Screw shaft and propeller 2/6/25  
 Material of crank 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.   
 Is the flash point of the oil to be used over 150° F. *Yes. 188.6.5.*  
 Is this machinery duplicate of a previous case  If so, state name of vessel

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

The machinery described Manchester Report 7-5591 has been securely fitted on board & satisfactorily tried under working conditions.

This vessel is in my opinion eligible to have notation L.M.C. 6, 25 without class, as recommended Manchester Report.

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

The amount of Entry Fee ... £ : :  
 Special ... £ 3-8-0  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ 3-9-4  
 When applied for, 24 JUN 1925  
 When received, 1925

*H. Gardner-Smith*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **TUES. 7 JUL 1925**  
Assigned *L.M.C. 6.25 O.S.*  
*oil engines*



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Foundation