

REPORT ON OIL ENGINE MACHINERY.

No. 18423

Date of writing Report 25.3.1925 When handed in at Local Office 25.3.1925 Port of Greenock
No. in Survey held at Port Glasgow Date, First Survey 4th December, 1925 Last Survey 13th May 1925
Reg. Book. Single Twin Triple Screw vessels 2. "LIMERICK" Number of Visits 8
Master _____ Built at Port Glasgow By whom built W^m Hamilton & Co Yard No. 389 When built 1925
Engines made at Glasgow By whom made J. Brown & Co Ltd. Engine No. _____ When made _____
Donkey Boilers made at _____ By whom made _____ Boiler No. _____ When made _____
Brake Horse Power _____ Owners _____ Port belonging to _____
Nom. Horse Power as per Rule _____ Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____

OIL ENGINES, &c.—Type of Engines Brown-Sulzer Diesel 2 or 4 stroke cycle _____ Single or double acting _____
Maximum pressure in cylinders _____ No. of cylinders _____ No. of cranks _____ Diameter of cylinders _____
Length of stroke _____ Revolutions per minute _____ Means of ignition _____ Kind of fuel used _____
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 _____
Is the after end of the liner made watertight in the propeller boss _____ 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 _____ If without liners, is the shaft arranged to run in oil _____
Type of outer gland fitted to stern tube _____ Length of stern bush _____ Diameter of propeller _____
Pitch of propeller _____ No. of blades _____ state whether moveable _____ Total surface _____ 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 _____
If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine _____
No. of cooling water pumps _____ Is the sea suction provided with an efficient strainer which can be cleared within the vessel _____
No. of bilge pumps fitted to the main engines _____ Diameter of ditto _____ Stroke _____
Can one be overhauled while the other is at work _____ No. of auxiliary pumps connected to the main bilge lines _____ How driven _____
Sizes of pumps _____ No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room _____
and in holds, etc. _____ 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 _____ Are all the bilge suction pipes fitted with roses _____ Are the roses in Engine Room always accessible _____
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 yes. _____ Are they fixed 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 _____ Are they each fitted with a discharge valve always accessible on the plating of the vessel yes. _____
Are all pipes, cocks, valves and pumps in connection with the machinery 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 _____ If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork _____
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 _____
AIR 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 _____
Range of tensile strength _____ thickness _____ Working pressure by rules _____ Is each receiver, which can be isolated, fitted with a safety valve as per Rule _____ Can the internal surfaces of the receivers be examined _____ What means are provided for cleaning their inner surfaces _____ Is there a drain arrangement fitted at the lowest part of each receiver _____

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS					
" " 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
(If not, state date of approval)

Receivers

Separate Tanks

SPARE GEAR

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - { (1924) Dec. 4 (1925) Jan 13-16 Feb 5-27 Mar 1-9-10 May 13.
During erection on board vessel - - -
Total No. of visits 8

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 9/3/25.
Engines holding down bolts Completion of pumping arrangements Engines tried under working conditions
Completion of fitting sea connections: 10/3/25 Stern tube 10/3/25 24/2/25 Screw shaft and propeller ✓
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.

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 engine seating and auxiliary boiler seatings, and sea connections and stern tubes have been securely fitted on board the vessel.

The heating coils in the double bottom oil fuel tanks have been tested by hydraulic pressure to 200 lbs. □

The vessel has now left for Glasgow where the machinery will be fitted on board. Glasgow Surveyors notified.

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

Committee's Minute

GLASGOW 4-AUG 1925

Assigned See Glasgow Rpt No 44830 JLB

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



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Foundation