

REPORT ON OIL ENGINE MACHINERY.

No. 303

19 OCT 1929

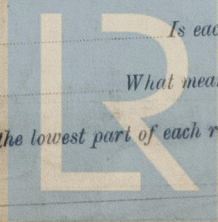
Received at London Office

Date of writing Report 19 When handed in at Local Office 19 Port of CHICAGO, ILL.
No. in Survey held at BELoit Date, First Survey AUG. 21, Last Survey AUG. 29, 1929.
Reg. Book. on the Single } Screw vessels M. V. "Port Waikato" Tons { Gross ✓
Triple } Net ✓
Master Built at Leith By whom built H. Robb Ltd Yard No. 113 When built 1929
Engines made at BELOIT, WIS. By whom made FAIRBANKS, MORSE & CO. Engine No. 734859 When made 1929
Donkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓
Brake Horse Power 520 Owners CAPT. W. WATCHLIN, LEITH Port belonging to
Nom. Horse Power as per Rule 180 Is Refrigerating Machinery fitted for cargo purposes SCOTLAND Is Electric Light fitted 20 KW. 55+

OIL ENGINES, &c.—Type of Engines MARINE DIESEL 2 or 4 stroke cycle 2 Single or double acting SINGLE
Maximum pressure in cylinders 420 lbs. 0" No. of cylinders 4 No. of cranks 4 Diameter of cylinders 16"
Length of stroke 20" Revolutions per minute 250 Means of ignition COMPRESSION Kind of fuel used BAUME 24° to 38°
Is there a bearing between each crank YES Span of bearings (Page 92, Section 2, par. 7 of Rules) 10 5/16" 19 3/4"
Distance between centres of main bearings 30" Is a flywheel fitted YES Diameter of crank shaft journals as per Rule 10" ✓
Diameter of crank pins 10" ✓ Breadth of crank webs as per Rule 13" as fitted 13 Thickness of ditto as per Rule 70" as fitted 5 1/2"
Diameter of flywheel shaft as per Rule 9" as fitted Diameter of tunnel shaft as per Rule 9 1/2" as fitted 9" as fitted
Diameter of screw shaft as per Rule 6 9/16" 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 87" app.
Pitch of propeller No. of blades state whether moveable Total surface square feet
Method of reversing DIRECT Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES Thickness of cylinder liners 2" MEAN
Are the cylinders fitted with safety valves NO Means of lubrication CYLS. MADRON KIPPA LUBRICATION FORCE FEED ELSEWHERE Are the exhaust pipes and silencers water cooled or lagged with
non-conducting material COOLED 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 ONE 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 ONE Diameter of ditto 3 1/4" Stroke 4 1/4"
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
Are they valves or cocks Are they fixed sufficiently high on the ship's side to be seen without lifting the floor 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 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 ONE No. of stages TWO Diameters 9 3/4" & 8 1/2" Stroke 4 1/4" Driven by ENGINE
No. of auxiliary air compressors ONE No. of stages TWO Diameters 3 3/4" & 2 3/4" Stroke 3 3/8" & 2 3/8" Driven by ELECT MOTOR
No. of small auxiliary air compressors No. of stages Diameters Stroke Driven by
No. of scavenging air pumps ONE Diameter 32" Stroke 14" Driven by ENGINE
Diameter of auxiliary Diesel Engine crank shafts as per Rule 3 1/2" as fitted Are the air compressors and their coolers made so as to be easy of access YES
FAIRBANKS, MORSE ENGR. REMOVED A BLACKSTONE 3 cyl. Air Compressor.
2 7/8" Dia Crankshaft. 4 5/8" Dia Cyl x 6" stroke fitted Dorr 2638. 10-46.

AIR RECEIVERS:—No. of high pressure air receivers
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

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Foundation

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			CYL. WALLS MEASURED		
" " COVERS			125		
" " JACKETS.....			125		
" 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)

YES

Receivers

Separate Tanks

SPARE GEAR Actual items as listed in Rules are attached herewith.

The foregoing is a correct description,

CERTIFIED CORRECT
FAIRBANKS, MORSE & CO.,
PER

Manufacturer.

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

THREE (3)

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
Engines holding down bolts Completion of pumping arrangements Engines tried under working conditions
Completion of fitting sea connections Stern tube 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. This engine has been built under Special Survey with the rules and approved plans, and the workmanship and materials, in my opinion, are satisfactory. If installed in a vessel classed by this Society it may be given the notation of LMC (LLOYD'S MACHINERY CERTIFICATE) 6/29.

The amount of Entry Fee ... £ 225.00 : When applied for, SEPT. 1929
Special ... £ : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) ... £ 46.68 : When received, 14.12.29
NEW YORK OCT 9 - 1929

Committee's Minute

Assigned

Transmit to London

TUE. 10 DEC 1929

Engine Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation