

Supplementary to Ipswich Report
No. 91035

Rpt. 4b

REPORT ON OIL ENGINE MACHINERY.

No. 4560

30 MAY 1927

Received at London Office

Date of writing Report 27th May 27 When handed in at Local Office 27/5/27 Port of DUBLIN
No. in Survey held at DUBLIN Date, First Survey Last Survey 5th May 1927
Reg. Book. on the ~~Single~~ ^{Twin} ~~Triple~~ Screw vessels SOUTHLAND Number of Visits 525
Master Built at Dublin By whom built Gullin Dockyard No. 120 When built 1927
Engines made at Ipswich By whom made Dickson, Petter, & Co Engine No. 1058 When made 1927
Donkey Boiler made at Bman, Scotland By whom made Messrs Buchanan & Co Boiler No. 10017 When made 1926
Brake Horse Power 600 (Each Engine) Owners The Bluff Harbour Board N.Z. Port belonging to Invercargill
Nom. Horse Power as per Rule 171 (Each Engine) Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Yes

OIL ENGINES, &c.—Type of Engines Semi-Serial 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 Yes
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
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 Between tubes & brackets protected Yes If without liners, is the shaft arranged to run in oil No
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 Led 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 Live Diameter of ditto 8" Stroke 6"
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 2 off 2 1/2" bore 2 off 1 1/2" bore
and in holds, etc. 9 off 1 1/2" bore 1-2 1/2" bore No. of ballast pumps How driven Sizes of pumps
Is the ballast pump fitted with a direct suction from the engine room bilges yes State size 2 1/2" Is a separate auxiliary pump suction fitted in
Engine Room and size yes Are all the bilge suction pipes fitted with roses 2 1/2" 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 Yes both 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 Under 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 Yes 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
Water Capacity Tons 30.2 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
33.2

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?

Yes

If so, is a report now forwarded?

Yes

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	21/2/27	300	425		
FUEL PIPES					Pneumatics from
FUEL PUMPS					water pumps
SILENCER					See figures & c
" WATER JACKET					water tested
SEPARATE FUEL TANKS					30 lb.

PLANS. Are approved plans forwarded herewith for shafting

Receivers

Separate Tanks

SPARE GEAR 6 per list attached.

The foregoing is a correct description,

Manufacturer.

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

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 12th April / 27 Engines tried under working conditions 2nd May

Completion of fitting sea connections 25th October Stern tube Screw shaft and propeller 28th October

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

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. These engines have now been efficiently installed in the M.V. "SOUTHLAND". They have been examined under working conditions with satisfactory results and are eligible in my opinion to be recorded L.M.C. 5, 27.

The amount of Entry Fee ... £ : : When applied for,
Special ... £ 16 : 6 : 24/5 19 27
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 2 : 0 : 10.9.27 19 27

Chas E Crooksey
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute WED. 8 JUN 1927

Assigned

CERTIFICATE WRITTEN

L.M.C. 5:27
Oil Engines D.B. 100 lb



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