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15818

REPORT ON OIL ENGINE MACHINERY

No. 69
3 AUG 1926

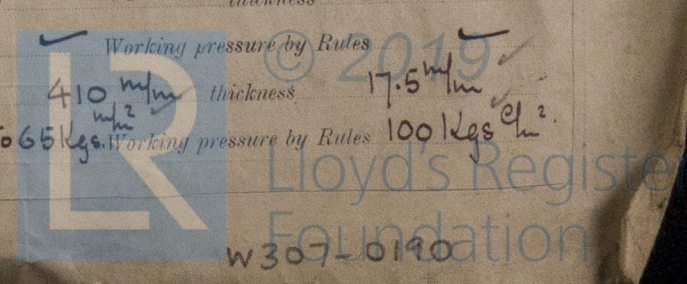
Rpt. 4b

Date of writing Report 18th June 1926 When handed in at Local Office 18th June 1926 Port of Winterthur & Southampton
No. in Survey held at Winterthur & Gosport Date, First Survey 10th February 1926 Last Survey 16th June 1926
Reg. Book.

on the ^{Single} Twin Screw ~~Triple~~ M.Y. "VITA" Tons ^{Gross} ~~Net~~
Built at Gosport By whom built Messrs. Camper & Nicholson Yard No. 337 When built 1926
Engines made at Winterthur By whom made Messrs. Sulzer Bros. Engine No. 14551 When made 1926
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 600 (Two Engs.) Owners T. Sopwith Esq. Port belonging to
Nom. Horse Power as per Rule 171.5 (Two Engs.) Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes.

OIL ENGINES, &c. Type of Engines Internal Combustion Engines 2 or 4 stroke cycle 2 Single or double acting single
Maximum pressure in cylinders 550 lbs per sq. in. No. of cylinders 12 Diameter of cylinders 300 mm. No. of cranks 12 Length of stroke 400 mm.
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 345 mm.
Revolutions per minute 300 Flywheel dia. 900 mm. Weight 780 Kgs. Means of ignition Compression Kind of fuel used heavy fuel oil.
Crank Shaft, dia. of journals as per Rule 158.8 mm. as fitted 160 Crank pin dia. 160 mm. Crank Webs Mid. length breadth 215 mm. Mid. length thickness 90 mm. Is there a bearing between each crank yes.
Flywheel Shafts, diameter as per Rule 158.8 mm. as fitted 160 Intermediate Shafts, diameter as per Rule 120 mm. as fitted 5" Thrust Shaft, diameter at collars as per Rule 126 mm. as fitted 140/135 mm.
Tube Shafts, diameter as per Rule 5 1/2" as fitted 5 1/8" Is the tube screw shaft fitted with a continuous liner yes.
Bronze Liners, thickness in way of bushes as per Rule 2" as fitted 1 1/2" Thickness between bushes as per rule 7/16" 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 junctions made by fusion through the whole thickness of the liner
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 Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft
Propeller, dia. 5'-3" Pitch 5'-3" No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 11 sq. feet
Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when disclutched yes. Means of lubrication forced. Thickness of cylinder liners 30 mm. Are the cylinders fitted with safety valves yes 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
Cooling Water Pumps, No. 1 on each engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
Bilge Pumps fitted to the Main Engines, No. 1 SA each Diameter 125 mm. Stroke 56 mm. Can one be overhauled while the other is at work yes.
Pumps connected to the Main Bilge Line No. and size 2 @ 125 mm. x 56 mm. One 2" London Rotary Electric. How driven Main Engines Electric Motors.
Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size 1 Geared pump on each Eng.
Are two independent means arranged for circulating water through the Oil Cooler yes. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Engine and Boiler Room 2 @ 2" and 1 @ 2 1/2"
In Holds, &c. 1 @ 2" in each compartment.
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 2 1/2"
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes.
Are they fitted with Valves or Cocks No.
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates yes.
Are the Overboard Discharges 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
How are they protected
Have they been tested as per Rule
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes.
Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another yes.
Is the 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
Main Air Compressors, No. One No. of stages 2 Diameters 18 5/8" Stroke 4" Driven by Electric Motor.
Auxiliary Air Compressors, No. 1 on each eng. No. of stages 2 Diameters 120/100 mm. Stroke 120 mm. Driven by Main shaft.
Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
Serving Air Pumps, No. Diameter Stroke Driven by
Auxiliary Engines crank shafts, diameter as per Rule as fitted

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes.
Are the internal surfaces of the receivers be examined yes.
Is there a drain arrangement fitted at the lowest part of each receiver yes.
High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness
Unless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules
Storing Air Receivers, No. G Total cubic capacity 6 x 425 = 2550 litres Internal diameter 410 mm. thickness 17.5 mm.
Unless, lap welded or riveted longitudinal joint Material S.M. Steel Range of tensile strength 60 to 65 Kgs. Working pressure by Rules 100 Kgs. cm².



IS A DONKEY BOILER FITTED?
HYDRAULIC TESTS:-

No

If so, is a report now forwarded?

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS LINERS.....	13-4-26, 14-4-26	38 Kgs. cm^2	80 Kgs. cm^2	R	Test satisfactory
" " COVERS.....	21-4-26, 22-4-26	" " "	" " "	R	" "
" " JACKETS.....	13-4-26, 14-4-26	" " "	" " "	R	" "
" " PISTON WATER PASSAGES.....	✓	✓	✓	✓	✓
MAIN COMPRESSORS—1st STAGE.....	✓	✓	✓	✓	✓
" 2nd ".....	✓	✓	✓	✓	✓
" 3rd ".....	✓	✓	✓	✓	✓
AIR RECEIVERS—STARTING.....	13-4-26	428 LBS. sq	856 LBS. sq	R	Test satisfactory
" INJECTION.....	✓	✓	✓	✓	✓
AIR PIPES.....	7-5-26, 10-5-26	30 Kgs. cm^2	60 Kgs. cm^2	R	Test satisfactory
FUEL PIPES.....	15-5-26, 25-5-26	100 " "	200 " "	R	" "
FUEL PUMPS & VALVES.....	5-5-26	" " "	" " "	R	" "
SILENCER.....	16-6-26	0.02 " "	2 " "	R	" "
" WATER JACKET.....	31-5-26	0.1 " "	0.5 " "	R	" "
SEPARATE FUEL TANKS.....					

PLANS. Are approved plans forwarded herewith for Shafting 16-12-25 7-5-26. Receivers 30-8-20 Separate Tanks 7-6-26.
(If not, state date of approval)
Donkey Boilers ✓ General Pumping Arrangements Yes Oil Fuel Burning Arrangements ✓

SPARE GEAR

See list attached.

The foregoing is a correct description.

Patrol

Dates of Examination of principal parts—Cylinders 5-6-26, 9-6-26 Covers 5-6-26, 9-6-26 Pistons 5-6-26, 9-6-26 Rods 5-6-26, 9-6-26 Connecting rods 5-6-26, 9-6-26
Crank shaft 5-6-26, 9-6-26 Flywheel shaft 5-6-26, 9-6-26 Thrust shaft 5-6-26, 9-6-26 Intermediate shafts 23-3-26 Tube shaft 21-7-26
Screw shaft 23-3-26 Propeller 14-4-26 Stern tube 31-3-26 Engine sealings 14-4-26 Engines holding down bolts 21-7-26
Completion of fitting sea connections 14-4-26 Completion of pumping arrangements 7-7-26 Engines tried under working conditions
Crank shaft, Material Ann. S.M. Eng. S.M. Identification Mark 14551 " M.B. 6617, 19-5-26 R " Identification Mark 12-3-26
Thrust shaft, Material " " " " Identification Mark 6551 Lloyd's 222 R, 14-4-26 Identification Mark A.T.T.
Tube shaft, Material " " " " Identification Mark " " " " Identification Mark " " " " Identification Mark

Is the flash point of the oil to be used over 150° F. yes.
Is this machinery duplicate of a previous case no If so, state name of vessel
General Remarks (State quality of workmanship, opinions as to class, &c.) This machinery has been constructed under Special Survey in accordance with the requirements of the Rules, the Secretary's letters, and the approved plans. Materials and workmanship are satisfactory. The above machinery has been fitted on board the vessel in accordance with the Rule requirements and on trial proved P.P. the machinery is eligible in my opinion to have the record + L.M.C. 8

The amount of Entry Fee ... £ 3-0-0 When applied for, June monthly acc. A.K. Boyle W.S. Hallis.
Special 1/5 Installing 9-3-26 When received, 28/8/26
Donkey Boiler Fee 42 17-6
Travelling Expenses (if any) 2-1-0
TUE 8. 31 AUG 1926
Assigned Thine 8-26
Oil Engines

Committee's Minute

*This should not have been applied for by Southampton. The surveyors at that port are being asked to refund it being in correspondence with T. Dept.