

REPORT ON OIL ENGINE MACHINERY.

No. 1627

Date of writing Report June 17 1926 When handed in at Local Office June 17 1926 Port of Vancouver Received at London Office JUL 1926

No. in Survey held at N. Vancouver Date, First Survey Feb 15 26 Last Survey June 16 1926
 Reg. Book. 27/67 on the Single Twin Triple Wood. Ake 3rd Schoon. 'BAYNALD' Number of Visits 24

Master E. Fullmer Built at Aker By whom built An Jensen Yard No. 1917
 Engines made at Stockholm By whom made J. C. E. Bollinder Co. Engine No. 1917
 Donkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓
 Brake Horse Power 200 Owners Hudson Bay Co. Port belonging to London
 Nom. Horse Power as per Rule 51 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted Yes

OIL ENGINES, &c.—Type of Engines Steam Diesel Oil Engines 2 stroke cycle Single acting

Maximum pressure in cylinders 285 No. of cylinders 4 No. of cranks 4 Diameter of cylinders 15"
 Length of stroke 16 1/2" Revolutions per minute 240 Means of ignition Electric Spark Kind of fuel used Light diesel oil
 Is there a bearing between each crank Yes Span of bearings (Page 92, Section 2, par. 7 of Rules) 14.75
 Distance between centres of main bearings 2-7 Is a flywheel fitted Yes Diameter of crank shaft journals as per Rule 6-3
 Diameter of crank pins 6 3/2 Breadth of crank webs as per Rule 8-379 Thickness of ditto as per Rule 3-528
 Diameter of flywheel shaft as per Rule 6-32 Diameter of tunnel shaft as per Rule 4-6 Diameter of thrust shaft as per Rule 4-83
 Diameter of screw shaft as per Rule 6-5 Is the screw shaft fitted with a continuous liner the whole length of the stern tube No liner
 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 Asb. packed
 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 run in grease
 Type of outer gland fitted to stern tube ✓ Length of stern bush 7-6" Diameter of propeller 6-3
 Pitch of propeller 4-6 No. of blades 2 state whether moveable No Total surface 8.75 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 ✓
 Are the cylinders fitted with safety valves No Means of lubrication forced 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 Exhaust led up beside mast outside drain with air connection
 No. of cooling water pumps 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓ Diameter of ditto 3 1/2 Stroke 2 1/2
 Can one be overhauled while the other is at work Yes No. of auxiliary pumps connected to the main bilge lines Hand 1 pump How driven Aux. direct
 Sizes of pumps 2 suction No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room Two - 2" & 1 1/2"
 and in holds, etc. 2" suction - p.s. & Kulkora 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 None Are all connections with the sea direct on the skin of the ship Yes
 Are they valves or cocks cocks 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 above 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 Yes
 Is the screw shaft tunnel watertight ✓ Is it fitted with a watertight door No tunnel
 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 Diameter 9 1/2 3 1/2 Stroke 8 1/4 Driven by main Eng.
 No. of auxiliary air compressors one No. of stages two Diameters 4 - 1 1/2 Stroke 3 Driven by Aux. Eng. & belt
 No. of small auxiliary air compressors ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓
 No. of scavenging air pumps two Diameter ✓ Stroke ✓ Driven by ✓
 Diameter of auxiliary Diesel Engine crank shafts as per Rule 3 1/2 as fitted 3 1/2 Are the air compressors and their coolers made so as to be easy of access Yes

IR RECEIVERS:—No of high pressure air receivers one Internal diameter 5 1/2 - 4' long Cubic capacity of each 1140 cu. ins.
 material steel Seamless, lap welded or riveted longitudinal joint Seamless Range of tensile strength ✓
 thickness 3/8 working pressure by Rules ✓ No. of starting air receivers one Internal diameter 19' 5' long.
 Total cubic capacity 17010 cu. ins. Material steel Seamless, lap welded or riveted longitudinal joint Seamless
 Range of tensile strength ✓ thickness 3/8 Working pressure by rules ✓ Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes
 Can the internal surfaces of the receivers be examined Large only What means are provided for cleaning their inner surfaces Hand hole in large one - drains to each
 Is there a drain arrangement fitted at the lowest part of each receiver Yes

IS A DONKEY BOILER FITTED?

20.

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	10. 5. 26	400 and 200	800 and 400	LLOYD'S 10. 5. 26 AS	LLOYD'S 10. 5. 26 AS
" INJECTION	{high & low pressure}				
AIR PIPES	✓				
FUEL PIPES	✓				
FUEL PUMPS	✓				
SILENCER	✓				
" WATER JACKET	✓				
SEPARATE FUEL TANKS	27. 5. 26.		9 ft head.		

PLANS. Are approved plans forwarded herewith for shafting screw shaft.

Receivers

Separate Tanks 9 ft.

SPARE GEAR one cylinder cover with all fittings. 1 piston complete with rings, skirts, nuts etc. One piston & rings for Aux. Engine. Spare pistons for main and aux engine. Spare top end brasses for both. 3 spare bottom ends with bolts and nuts. 2 spare main bearings with bolts and nuts for each engine. Two sets coupling bolts. 1 set piston rings for main & aux compressors. 1 set fabric for both compressors. 1 complete spare fuel pump for both engines. 1 set valve for circulating, bilge and lubricating oil pumps. Assorted bolts, nuts & piping of suitable dimensions.

The foregoing is a correct description.

A. Scott.

Manufacturer.

Dates of Survey: During progress of work in shops - 15. 16. 17. 23. 25. 26. Ap. 1. 20. 22. May 9. 10. 14. 17. 18. 20. 22. 27. June 3. 8. 10. 12. 14. 15. 16. During erection on board vessel - 24. Total No. of visits 24.

Dates of Examination of principal parts—Cylinders 20. 4. 26 Covers 20. 4. 26 Pistons 20. 4. 26 Rods 20. 4. 26 Connecting rods 20. 4. 26 Crank shaft 20. 4. 26 Thrust shaft 20. 4. 26 Tunnel shafts 27. 3. 26 Screw shaft 27. 3. 26 Propeller 20. 4. 26 Stern tube 20. 4. 26 Engine seatings 20. 4. 26 Engines holding down bolts 22. 4. 26 Completion of pumping arrangements 22. 4. 26 Engines tried under working conditions 22. 5. 26 Completion of fitting sea connections 25. 4. 26 Stern tube 20. 4. 26 Screw shaft and propeller 20. 4. 26

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 D.H.S. Identification Marks on Do. 25. 8. 27. 3. 26

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.) The machinery of this vessel is suitable in my opinion for the purpose of an auxiliary schooner. The engine has been dismantled, overhauled & replaced and has been given a satisfactory trial at quay and under full power conditions. The screw shaft and tube shaft are new. All parts have been examined, including cylinders, pistons, crossheads, crank pins, main bearings, thrust and stern tube & other propeller shaft bearings. The outer shaft & propeller are arranged to lift on deck, there being two outer bearings lubricated by grease. All air connections and receivers and oiling arrangements have been examined. Fuel pumps, circulating pumps & bilge pumps examined. An auxiliary engine is used to drive one compressor and separate pump. The fuel storage is in separate tanks in lower hold and 2 separate tanks in Eng. room. The transfer from storage to working tanks is by hand pump.

The amount of Entry Fee ... £ 15. 00 : When applied for, June 17. 1926
Special ... £ 75. 00 :
Donkey Boiler Fee ... £ 30. 00 :
Travelling Expenses (if any) £ 1 : When received, 25/6/26

Committee's Minute

TUE. 13 JUL 1926

Assigned

L.M.S. 6:26

Oil Engines

A. Scott.

Engineer Surveyor to Lloyd's Register of Shipping.



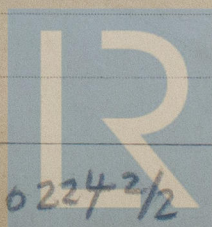
© 2021

Lloyd's Register Foundation

Wood. Que. 3rd Scheme. 'BAYMAID'

During power trials the Engines were manoeuvred, and the air capacity found to be ample. The vessel was examined in dry dock - Sea connections opened up & examined & the fastenings of Sea connections, stern truss & tube and of propeller found satisfactory. The arrangements for pumping the vessel are satisfactory. The general condition of the machinery is good and eligible, in my opinion to be classed L.M.C. 6.26.

A. Scott.



© 2021

Lloyd's Register
Foundation

W1097 - 02242 1/2