

REPORT ON OIL ENGINE MACHINERY.

No. 423

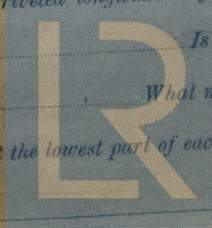
23 JUN 1928

Received at London Office

Date of writing Report 21 May 28 When handed in at Local Office 1928 Port of Cleveland, Ohio
 No. in Survey 9484 Reg. Book 9484 Date, First Survey Mar. 16 Last Survey Apr. 20 1928
 Name of vessel "YUKONDOC" Number of Visits 5
 Type of vessel Single Twin Triple Screw vessels Tons { Gross _____ Net _____
 Built at Port Glasgow By whom built Blyde S.B. & Co. Yard No. 298 When built 1912
 Engines made at Grove City By whom made Bessemer Gas Eng. Co. Engine No. 433 When made 1928-4
 Donkey Boilers made at _____ By whom made _____ Boiler No. _____ When made _____
 Brake Horse Power 925 Owners Patterson Steamships Ltd. Port belonging to Toronto
 Nom. Horse Power as per Rule 189 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

OIL ENGINES, &c. Type of Engines Bessemer Diesel 2 or 4 stroke cycle 4 Single or double acting S
 Maximum pressure in cylinders 550 No. of cylinders 6 No. of cranks 6 Diameter of cylinders 18"
 Length of stroke 22 Revolutions per minute 300 Means of ignition Solid injection Kind of fuel used Diesel oil
 Is there a bearing between each crank yes Span of bearings (Page 92, Section 2, par. 7 of Rules) 22"
 Distance between centres of main bearings 30 1/2" Is a flywheel fitted yes Diameter of crank shaft journals as per Rule 10.30"
 Diameter of crank pins 12 3/4" Breadth of crank webs as per Rule 13.69" Thickness of ditto as per Rule 5.46"
 Diameter of flywheel shaft as per Rule 10.30" Diameter of tunnel shaft as per Rule 12 3/4" Diameter of thrust shaft as per Rule 5"
 Diameter of screw shaft as per Rule 10.30" 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 yes
 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 yes
 If two liners are fitted, is the shaft lapped or protected between the liners yes If without liners, is the shaft arranged to run in oil yes
 Type of outer gland fitted to stern tube Direct Length of stern bush _____ Diameter of propeller _____ square feet
 Pitch of propeller _____ No. of blades _____ state whether moveable _____ Total surface _____
 Method of reversing Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Thickness of cylinder liners 1 1/2"
 Are the cylinders fitted with safety valves yes Means of lubrication Forced feed Are the exhaust pipes and silencers water cooled or lagged with yes
 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 yes
 No. of cooling water pumps _____ Is the sea suction provided with an efficient strainer which can be cleared yes
 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 _____
 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 15 HP Elect. Motor
 No. of main air compressors one No. of stages two Diameters 5 1/2" x 2 3/4" Stroke 5" Driven by Motor
 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 10.30" Are the air compressors and their coolers made so as to be easy of access yes
 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 _____
 Material _____ Working pressure by rules _____ Is each receiver, which can be isolated, _____
 thickness _____ What means are provided for cleaning their _____
 Range of tensile strength _____ Can the internal surfaces of the receivers be examined _____
 fitted with a safety valve as per Rule _____ Is there a drain arrangement fitted at the lowest part of each receiver _____
 Surfaces _____

1020-162M



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If so, is a report now forwarded?

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS		550 [#]	4/5 [#]		The tests were not witnessed by the undersigned
" " COVERS		550 [#]	4/5 [#]		
" " JACKETS.....		15 [#]	4/5 [#]		
" " PISTON WATER PASSAGES.....					
MAIN COMPRESSORS—1st STAGE.....					
" 2nd "					
" 3rd "					
AIR RECEIVERS—STARTING		250 [#]			
" INJECTION		250 [#]			
AIR PIPES		1000 [#]			
FUEL PIPES		4000 [#]			
FUEL PUMPS					
SILENCER					
" WATER JACKET					
SEPARATE FUEL TANKS					

SPARE GEAR

The foregoing is a correct description,
J. K. Bessemer Gas Engine Co
N. J. Okford Diesel Eng. Manufacturer.

Is this machinery duplicate of a previous case

General Remarks (State quality of workmanship, opinions as to class, &c.) The above engines have been built under special survey. The vessel for which they are intended is not classed with this Society. The materials & workmanship were found to be sound & efficient.

Committee's Minute

Assigned *Transmit to London*

G. Drummond

Engineer Surveyor to Lloyd's Register of Shipping.

FR. 10 AUG 1984
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