

REPORT ON OIL ENGINE MACHINERY.

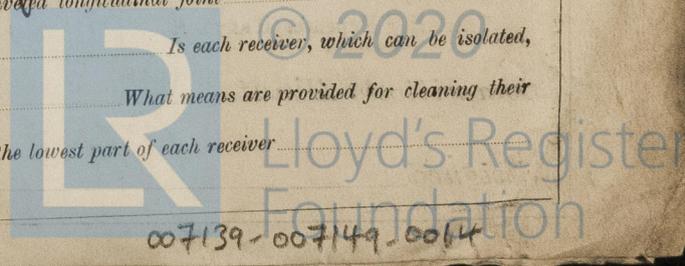
No. 6822

Date of writing Report 24th Jan 1926 When handed in at Local Office 30th Jan 1926 Port of Bilbao Received at London Office 21 EB 1926
 No. in Survey held at Bilbao Date, First Survey July 29, 1924 Last Survey Dec. 30, 1925
 Reg. Book. "C14" Number of Visits 12

✓ on the Single Screw vessels. Tons Gross 39.15
 Master Gijon Built at Gijon By whom built Estilleros de Gijon Yard No. 13 When built 1925
 Engines made at Stockholm By whom made J. & C. G. Bolinder Gijon Engine No. 1516-49 When made 1923
 Donkey Boilers made at home By whom made Boiler No. - When made -
 Brake Horse Power 160 Owners Cia Arrendataria de Tabacos de Espana Port belonging to Valencia
 Nom. Horse Power as per Rule 46 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

MAIN ENGINES, &c. Type of Engines Bolinder oil engine 2 stroke cycle Single or double acting Single
 Maximum pressure in cylinders 12 kg/sq. cm. No. of cylinders 4 No. of cranks 4 Diameter of cylinders 300 mm
 Length of stroke 310 mm Revolutions per minute 350 Means of ignition hot bulb. Kind of fuel used Grade oil
 Is there a bearing between each crank Yes Span of bearings (Page 22, Section 2, par. 2 of Rules) 600 mm
 Distance between centres of main bearings 600 mm Is a flywheel fitted Yes Diameter of crank shaft journals as per Rule 121 mm
 Diameter of crank pins 128 mm as per Rule 161 mm Thickness of ditto as per Rule 6.8 mm
 Diameter of flywheel shaft as per Rule 128 mm Diameter of tunnel shaft as per Rule 140 mm Diameter of thrust shaft as per Rule 116 mm
 Diameter of screw shaft as per Rule 100 mm Is the screw shaft fitted with a continuous liner the whole length of the stern tube no
 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 no joints
 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 no
 If two liners are fitted, is the shaft lapped or protected between the liners no If without liners, is the shaft arranged to run in oil no
 Type of outer gland fitted to stern tube guard ring Length of stern bush 440 mm Diameter of propeller 1200 mm
 Pitch of propeller 1200 mm No. of blades 3 state whether moveable no Total surface 43.4 square feet
 Method of reversing timing Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Thickness of cylinder liners have
 Are the cylinders fitted with safety valves no Means of lubrication pump Are the exhaust pipes and silencers water cooled or lagged led
 Non-conducting material Yes to funnel If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine led
 No. of cooling water pumps 2 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 one Diameter of ditto 100 mm Stroke 50 mm
 Can one be overhauled while the other is at work ✓ No. of auxiliary pumps connected to the main bilge lines two How driven hand
 Sizes of pumps 1 1/2 dia No. and sizes of suction connected to main bilge pumps 1 1/2 dia In engine room 1 1/2 dia
 used in holds, etc. 1 1/2 dia No. of ballast pumps two How driven hand Sizes of pumps ✓
 Is the ballast pump fitted with a direct suction from the engine room bilges ✓ State size 1 1/2 dia Is a separate auxiliary pump suction fitted in ✓
 Engine Room and size ✓ 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 have Are all connections with the sea direct on the skin of the ship Yes
 Are they valves or cocks 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 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 ✓
 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 ✓

AIR RECEIVERS: No. of high pressure air receivers one Internal diameter 3 1/2" Cubic capacity of each ✓
 Material Seamless, lap welded or riveted longitudinal joint Range of tensile strength ✓
 Thickness See First entry report No. of starting air receivers two Internal diameter 3 1/2"
 Total cubic capacity ✓ Material Seamless, lap welded or riveted longitudinal joint Is each receiver, which can be isolated, ✓
 Range of tensile strength ✓ thickness ✓ Working pressure by rules ✓ What means are provided for cleaning their ✓
 fitted with a safety valve as per Rule ✓ Can the internal surfaces of the receivers be examined ✓
 Inner surfaces ✓ Is there a drain arrangement fitted at the lowest part of each receiver ✓



007139-007149-0074

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					
" " COVERS					
" " JACKETS.....					
" PISTON WATER PASSAGES.....					
MAIN COMPRESSORS—1st STAGE.....					See Inst Entry Report on Engines
" 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 To. 25.6.25 Receivers To. - Separate Tanks To. -

SPARE GEAR 2 top end bolts and nuts, 2 main bearing studs and nuts, one disc for high pump. 1 one suction valve: 3 studs for injection valves; one stud for cylinder; one bolt for thrust bearing; one bolt for lubricating apparatus; one bolt for fuel pump eccentric; one bolt for oscillating lever; one governor weight; 2 sup. and two discharge valves for circulating pump and two coupling bolts and nuts.

The foregoing is a correct description.
 EL DIRECTOR
 Manufacturer.

Dates of Survey while building: During progress of work in shops - 1924; During erection on board vessel - 1924: July 29, Aug. 30, 1925: Jan 30, July 6, 7, 8, Aug. 11, Sep 29, Oct 20, Dec. 14, and Dec. 20. Total No. of visits twelve.

Dates of Examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓ Crank shaft ✓ Thrust shaft ✓ Tunnel shafts ✓ Screw shaft 29-9-25 Propeller 29-9-25 Stern tube 29-9-25 Engine seatings 11-8 Engines holding down bolts 30-12-25 Completion of pumping arrangements 30-12-25 Engines tried under working conditions 30-12-25 Completion of fitting sea connections 5-11-25 Stern tube 5-11-25 Screw shaft and propeller 5-11-25 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 Steel Identification Marks on Do. No. 14 29-9-25

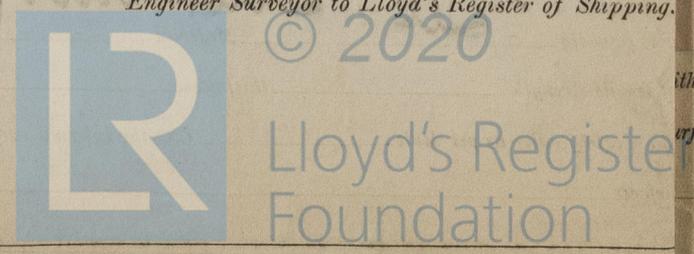
Is the flash point of the oil to be used over 150° F. Yes. Is this machinery duplicate of a previous case Yes. If so, state name of vessel "Cy" "Co."

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been securely fitted on board in accordance with the approved plans and instructions. The workmanship and materials, and on trial under working conditions, were found satisfactory and eligible in my opinion to be classed in the record of D.S. L.M.C. 12-25.

The amount of Entry Fee ... £ 65/6d When applied for, 30/11 1926
 Special /64 ... £ 300/6d
 Donkey Boiler Fee ... £
 Travelling Expenses (if any) £ 34/6d When received, 30/11/26

Committee's Minute TUES. 9 FEB 1926
 Assigned +d M.C. 12.25 Oil Engines

Thomas Miller
 Engineer Surveyor to Lloyd's Register of Shipping.



Certificate (if required) to be sent to (The Surveyors are requested not to write on or below the space for Committee's Minute.)

CERTIFICATE WRITTEN