

4b.

—COPY—
REPORT ON OIL ENGINE MACHINERY.

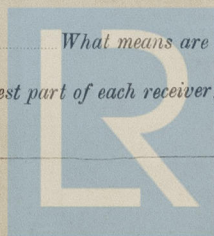
No. 2306

1 MAR 1926

Writing Report 11 June 1923 When handed in at Local Office 10 Port of Stockholm
Survey held at Stockholm Date, First Survey 17 Jan Last Survey 5 June 1923
Number of Visits 9
on the Single } Screw vessels
 Twin }
 Triple }
Built at Stockholm By whom built J. & C. G. Bolinderis Co. Ltd. Yard No. 15192 When built 1923
Boilers made at Stockholm By whom made Boilers de Tarragona S. A. Engine No. 45 When made 1923
Horse Power 160 Owners (Mollins order No. 201) Boiler No. 45 When made 1923
Horse Power as per Rule 46 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Type of Engines Bolinder Oil Engine 2 stroke cycle Single or double acting
Pressure in cylinders 17 kg/cm. No. of cylinders 4 No. of cranks 4 Diameter of cylinders 300 mm
Stroke 310 mm Revolutions per minute 350 Means of ignition hot bulb Kind of fuel used brude oil
Bearing between each crank Yes Span of bearings (Page 87, Section 3, par. 1 of Rules) 600 mm
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. Breadth of crank webs as per Rule 161 mm. Thickness of ditto as per Rule 68 mm.
Wheel is fitted at fore end of the crank shaft as fitted 170 mm. as fitted 71.5 mm.
Diameter of tunnel shaft as per Rule 116 mm. Diameter of thrust shaft as per Rule 118 mm.
Is the screw shaft fitted with a continuous liner the whole length of the stern tube
If the liner is in more than one length are the joints burned
If without liners, is the shaft arranged to run in oil
If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine
No. of cooling water pumps 2 Is the sea suction provided with an efficient strainer which can be cleared
No. of bilge pumps fitted to the main engines 1 Diameter of ditto 100 mm. Stroke 50 mm.
No. of auxiliary pumps connected to the main bilge lines How driven
No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room
No. of ballast pumps How driven Sizes of pumps
Is a separate auxiliary pump suction fitted in
Are all the bilge suction pipes fitted with roses
Are the roses in Engine Room always accessible
Are all connections with the sea direct on the skin of the ship
Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates
Are they each fitted with a discharge valve always accessible on the plating of the vessel
Are the bilge suction pipes, cocks and valves arranged so as to prevent any
Is the screw shaft tunnel watertight
Is it fitted with a watertight door
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 stages Diameters Stroke Driven by
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Are the air compressors and their coolers made so as to be easy of access

RECEIVERS:—No. of high pressure air receivers 1 Internal diameter 434 mm. Cubic capacity of each 280 litres
Seamless, lap welded or riveted longitudinal joint lap welded Range of tensile strength 23 tons
Working pressure by Rules 257 lb Internal diameter 434 mm.
Material 8 mm. Seamless, lap welded or riveted longitudinal joint lap welded
Is each receiver, which can be isolated,
Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their
Is there a drain arrangement fitted at the lowest part of each receiver Yes
manhole door



Lloyd's Register
Foundation

007100-007115-0079

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	1.6.23	17 kg/sq. cm.	37 kg/sq. cm.	LLOYDS TEST 37 kg. A1. 1.6.23 A	
COVERS	1.6.23	ditto	ditto		
JACKETS	1.6.23	-	3.5 kg/sq. cm.		
PISTON WATER PASSAGES	(Open pistons)				
MAIN COMPRESSORS—1st STAGE	none fitted				
2nd					
3rd					
AIR RECEIVERS—STARTING	1.6.23	15 kg/sq. cm.	30 kg/sq. cm.	No. 2237 LLOYDS TEST 30 KG W.P. 15 KG A1. 1.6.23 A	
INJECTION					
AIR PIPES					
FUEL PIPES					
FUEL PUMPS					
SILENCER	1.6.23	-	3.5 kg/sq. cm.	HYDR. TEST 3.5 kg A1. 1.6.23 A	
WATER JACKET	1.6.23	-	ditto		
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for shafting *Secretary's letter E 7.11.22* Receivers starting *E. 8.3.16* Separate Tanks -
 SPARE GEAR *to be supplied and inspected on delivery*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - 17.31. 16.21.26. 7 30 1.5 23
 During erection on board vessel - - -
 Total No. of visits 9 in shops

Dates of Examination of principal parts—Cylinders 30.1.23 Covers 30.1.23 Pistons 30.1.23 Rods ✓ Connecting rods 31.16.26.7.1.5.23
 Crank shaft 31.16.26.7.23 Thrust shaft 17.16.21.1.23 Tunnel shafts Screw shaft Propeller Stern tube Engine seatings
 Engines holding down bolts Completion of pumping arrangements Engines tried under working conditions in shops 30.23

Completion of fitting sea connections Stern tube Screw shaft and propeller
 Material of crank shaft *Sm. Steel* Identification Mark on Do. *LLOYDS No. 3238 A1. 1.6.23 A* Material of thrust shaft *Sm. Steel* Identification Mark on Do. *LLOYDS No. 3233 A1. 1.6.23 A*
 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.

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *see Skm. report no 2247*

General Remarks (State quality of workmanship, opinions as to class, &c.)

I am of opinion that this motor is of superior material and workmanship, and as it has been designed and constructed under my special survey, I have respectfully to submit that it will be eligible to be classed LMC as soon as it has been fitted in a classed vessel to the satisfaction of the Society's Surveyors

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

The amount of Entry Fee ... £	:	:	When applied for,
Special ... £	:	:	19.
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	:	:	19.

Committee's Minute

TUES. 2 MAR 1926

Assigned

See Rec. F. 6 p. 1 No 2626

(signed) *A. Isakson*
 Engineer Surveyor to Lloyd's Register of Shipping.
 Assisted by *Mr. K. J. Anderson*



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