

REPORT ON OIL ENGINE MACHINERY, No. 2863

8 SEP 1927

Received at London Office

Date of writing Report 5 Sept. 1927 When handed in at Local Office

in Port of Stockholm

No. in Survey held at Stockholm

Date, First Survey 11 Aug. 1927 Last Survey 30 Aug. 1927

Reg. Book

Number of Visits 4.

on the

Single	{	Screw vessels
Twin		
Triple		

Tons

Gross
Net

Built at _____ By whom built _____ Yard No. _____ When built _____
Engines made at Stockholm By whom made J. & C.G. Bolinder's Co. Ltd Engine No. 18488 When made 1927
Donkey Boilers made at _____ By whom made _____ Boiler No. _____ When made _____
Brake Horse Power 15 Owners Messrs. James Pollock, Sons & Co. Port belonging to London
Nom. Horse Power as per Rule 4.3 Is Refrigerating Machinery fitted for cargo purposes Pollocks Order no. 15411/G. Is Electric Light fitted

OIL ENGINES, &c. Type of Engines Aux. Bolinder Oil Engine 2 ~~or~~ stroke cycle Single ~~or~~ double acting
Maximum pressure in cylinders 21 kg./cm² No. of cylinders 1 Diameter of cylinders 170 mm. No. of cranks 1 Length of stroke 190 mm.
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 160 mm. Is there a bearing between each crank -
Revolutions per minute 625 Flywheel dia. 900 mm. Weight 130 kg. Means of ignition Hot bulb Kind of fuel used Crude oil
Crank Shaft, dia. of journals as per Rule 61 mm. Crank pin dia. 65 mm. Crank Webs Mid. length breadth 84 mm. Thickness parallel to axis -
as fitted 65 " Mid. length thickness 39 " Thickness around eye hole -
The flywheel is fitted at the fore end of the crank shaft Thrust Shaft, diameter at collars as per Rule -
Flywheel Shafts, diameter as fitted Intermediate Shafts, diameter as fitted as fitted

Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the { tube screw } shaft fitted with a continuous liner {
Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per rule as fitted Is the after end of the liner made watertight in the

propeller boss 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 Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication
pumps Thickness of cylinder liners none fitted Are the cylinders fitted with safety valves no 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

Cooling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps fitted to the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and Size
How driven

27 Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Engine and Boiler Room

In Holds, &c.

2 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Space
led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the Overboard Discharges above or below the deep water line
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate
What pipes pass through the bunkers How are they protected
What pipes pass through the deep tanks 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

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 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. none fitted No. of stages Diameters Stroke Driven by

Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Scavenging Air Pumps, No. none fitted Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule none ordered.

Can the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

Is there a drain arrangement fitted at the lowest part of each receiver

High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Starting Air Receivers, No. Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

If so, is a report now forwarded?

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	20.8.27	21 kg./cm. ²	43 kg./cm. ²	<div style="border: 1px solid black; padding: 5px;"> LLOYD'S TEST 42.Kg. AI. 20.8.27 <i>A</i> </div>	
" " COVERS	20.8.27	ditto	ditto		
" " JACKETS.....	20.8.27	-	3,5 kg./cm. ²		-
" PISTON WATER PASSAGES.....	/open pistons/				
MAIN COMPRESSORS—1st STAGE.....	} none fitted				
" 2nd "					
" 3rd "					
AIR RECEIVERS-STARTING	} none ordered				
" INJECTION					
AIR PIPES					
FUEL PIPES					
FUEL PUMPS					
SILENCER					
" WATER JACKET					
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for Shafting..... E. 31.8.27
(If not, state date of approval)

General Pumping Arrangements

Receivers

Separate Tanks

SPARE GEAR to be supplied and inspected when motor is being fitted on board.

Manufacturer.

Dates of Examination of principal parts—Cylinders 20.8.27 Covers 20.8.27 Pistons 20.8.27 Rods - Connecting rods 11, 12 & 20

Completion of fitting sea connections Completion of running arrangements Engines tried under working conditions **in shop 20 27**
8

Crank shaft, Material **S.M.Steel** Identification Mark **4400'S No 3451** Flywheel shaft, Material Identification Mark **AI. 20-8-27 A**

Thrust shaft, Material	Identification Mark	Intermediate shafts, Material	Identification Marks

Tube shaft, Material	Identification Mark	Screw shaft, Material	Identification Mark

Is the flash point of the oil to be used over 150° F.

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.)

I am of opinion that this engine is of superior material and workmanship, and as it has been designed and constructed under special survey, I have respectfully to submit that it be approved as auxiliary to a classed main engine.

The amount of Entry Fee	...	£	:	:	When applied for,
Special	...	Rs. 182; 00.	:	:	5 Sept. 1927
Donkey Boiler Fee	...	£	:	:	When received,
Travelling Expenses (if any)	£	:	:	:	30.9.27

Committee's Minute

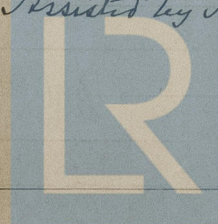
FRI. 27 JAN 1928

Assigned

A. Bakson

Engineer Surveyor to Lloyd's Register of Shipping.

Assisted by Mr. K. J. Andersson.



Lloyd's Register
Foundation