

REPORT ON OIL ENGINE MACHINERY.

No. 2775.

21 FEB 1927

Received at London Office.

Date of writing Report 17.2. 1927 When handed in at Local Office

Port of Stockholm

No. in Survey held at Stockholm
Reg. Book.

Date, First Survey 30.9.1926

Last Survey 8.2. 1927.

Number of Visits 6

Single
on the Twin } Screw vessels
Triple }Tons } Gross
Net

Built at Bugholmen

By whom built Messrs. Alderson & Co. Ltd.

Yard No. 18719/20 When built

Engines made at Stockholm

By whom made J. & C.G. Bolinder's Co. Ltd.

Engine No. 1927. When made

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 120

Owners Messrs. James Pollock, Sons & Pollock's Order no. 14633/G Co.

Port belonging to London.

Nom. Horse Power as per Rule 34

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

OIL ENGINES, &c. Type of Engines Bolinder Oil Engine

2 stroke cycle

Single or double acting

Maximum pressure in cylinders 18.5 kg/cm²

No. of cylinders 2

Diameter of cylinders 330 mm.

No. of cranks 2

Length of stroke 340 mm.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 387 mm.

Is there a bearing between each crank Yes

Revolutions per minute 375

Flywheel dia. 710 mm.

Weight 385 Kg.

Means of ignition Hot bulb

Kind of fuel used Crude Oil

Crank Shaft, dia. of journals as per Rule 125 mm.

as fitted 125 mm.

Crank pin dia. 125 mm.

Crank Webs

Mid. length breadth 164 mm.

Thickness parallel to axis

The flywheel is fitted at the fore end of the crank shaft

Flywheel Shafts, diameter as per Rule

as fitted 100 mm.

Intermediate Shafts, diameter as per Rule

as fitted 115 mm.

Thrust Shaft, diameter at collars as per Rule

as fitted 115 mm.

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 Timing

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.

1

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps fitted to the Main Engines, No. none

fitted

Diameter

Stroke

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size

How driven

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.

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 Yes

Can the internal surfaces of the receivers be examined Yes

What means are provided for cleaning their inner surfaces

Mudhole /280 x 200 mm/

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

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. 1

Total cubic capacity 286 litres

Internal diameter 434 mm

thickness 8 mm.

Seamless, lap welded or riveted longitudinal joint lap welded

Material S.M. Steel

Range of tensile strength 36 Kg/mm²Working pressure by Rules 18.5 kg/cm²

as a min.

Lloyd's Register

Foundation

W1114 - 0057

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	8. 2. 27.	18,5Kg/cm ²	43 Kg/cm ² ✓	Lloyd's Test 43 Kg. A.I. 8.2.27. A	
" " COVERS	8. 2. 27.	ditto	ditto		
" " JACKETS.....	8. 2. 27.		3,5Kg/cm ² ✓		
" PISTON WATER PASSAGES.....	(Open pistons)				
MAIN COMPRESSORS—1st STAGE.....	None fitted				
" 2nd "					
" 3rd "					
AIR RECEIVERS—STARTING	8. 2. 27.	15 Kg/cm ²	30 Kg/cm ² ✓	No. 2253 Lloyd's Test 30 Kg. A.I. 8.2.27. A W.P. 15 Kg. A.I. 8.2.27. A	
" INJECTION					
AIR PIPES					
FUEL PIPES					
FUEL PUMPS					
SILENCER	8. 2. 27.		3,5 Kg/cm ² ✓	Hydr. Test 3,5 Kg. A. I. 8. 2. 27. A	
" WATER JACKET	8. 2. 27.		ditto ✓		
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for Shafting 16.5.17 & 7.6.21 Receivers E 8.3.16. Separate Tanks
(If not, state date of approval)
Donkey Boilers General Pumping Arrangements Oil Fuel Burning Arrangements

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 - 30/9, 28/10, 31/12 1926, 17/1, 2 & 8 1927.
During erection on board vessel - in shop 6
Total No. of visits

Dates of Examination of principal parts—Cylinders 2 & 8 27 Covers 2 & 8 27 Pistons 8 27 Rods ✓ Connecting rods 30, 28, 26, 17, 8 27
Crank shaft 26, 17, 8 27 Flywheel shaft ✓ Thrust shaft 30, 28, 26, 17, 8 27 Intermediate shafts Tube shaft
Screw shaft S.M. Steel Propeller Stern tube Engine seatings Engines holding down bolts in shop 2/2 1927.

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions

Crank shaft, Material S.M. Steel Identification Mark Lloyd's No. 3361 A.I. 17.1.27. A Flywheel shaft, Material Identification Mark
Thrust shaft, Material S.M. Steel Identification Mark Lloyd's No. 3332 A.I. 17.1.27. A 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 Yes If so, state name of vessel See Skm. Report no. 2428.

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 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.

The amount of Entry Fee ... Kr. 273:00 : When applied for, 12. 2. 1927.
Special ... £ : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : : Mar. 27 1927

Committee's Minute FRL 2 SEPI927

Assigned

see minute on

Lon Rps 91743

H. J. Andersson
Acting Engineer Surveyor to Lloyd's Register of Shipping.



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