

REPORT ON OIL ENGINE MACHINERY.

No. 10408

received at London Office

4 - NOV. 1926

Date of writing Report 30 October 1926 When handed in at Local Office

Port of AMSTERDAM

Name of vessel in Survey held at AMSTERDAM

Date, First Survey February 1925 Last Survey June 1926

PECTEN

Number of Visits 16

Builder on the Twin Screw vessels Messrs. Palmer's Shipbuilding & Iron Co's Yard No. 2615 Tons Gross Net

Built at Newcastle on Tyne By whom built Palmer's S.B. & I. Co. Yard No. When built

Engines made at Amsterdam By whom made Werkspoor Engine No. - When made 1926

Monkey Boilers made at - By whom made - Boiler No. - When made -

Indicated Horse Power 150 Owners Anglo-Saxon Petroleum Co., Lim. Port belonging to London

Net Horse Power as per Rule 42. Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -

MAJOR ENGINES, &c. Type of Engines One auxiliary Diesel Engine 4 stroke cycle Single or double acting

Maximum pressure in cylinders 38 1/2 No. of cylinders 3 Diameter of cylinders 320 mm No. of cranks 3 Length of stroke 450 mm

Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 480 mm Is there a bearing between each crank Yes

Revolutions per minute 250 Flywheel dia. 1400 mm Weight 36 1/2 cwt Means of ignition Self ignition Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule 185 mm as fitted 185 mm Crank pin dia. 185 mm Crank Webs Mid. length breadth 290 mm shrunk Thickness parallel to axis 100 mm Mid. length thickness 100 mm Thickness around eye-hole solid

Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars 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 Not reversible Is a governor or other arrangement fitted to prevent racing of the engine when declutched Governor Means of lubrication

forced Thickness of cylinder liners Are the cylinders fitted with safety valves 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

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

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

protected 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

How are they protected

Are that 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

On 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. No. of stages Diameters Stroke Driven by

Auxiliary Air Compressors, No. No. of stages 2 Diameters 60/100 mm Stroke 210 Driven by Shaft

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

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted Ad above

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 with Steam

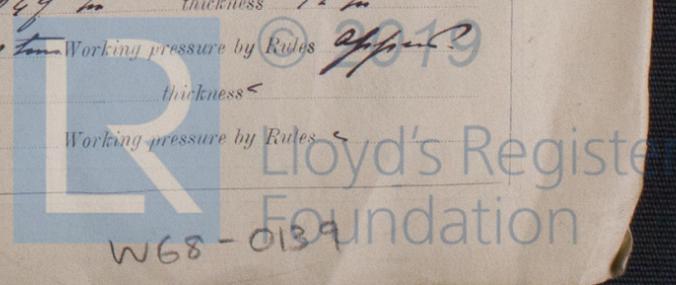
Is there a drain arrangement fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. 1 Cubic capacity of each 60 L Internal diameter 244 mm thickness 12 mm

Seamless, lap welded or riveted longitudinal joint Material Steel Range of tensile strength 20/52 mm Working pressure by Rules 200 lb

Starting Air Receivers, No. Total cubic capacity Internal diameter thickness Working pressure by Rules

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



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded? 6

Rpt. 4b

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	12.5.25	38	45	Lloyd's	✓
" " COVERS	✓	✓	✓	R.W.H. 12.5.25	✓
" " JACKETS	12.5.25	15 lbs	45 lbs	R.W.H. 12.5.25	✓
" PISTON WATER PASSAGES	✓	✓	✓	R.W.H. 12.5.25	✓
MAIN COMPRESSORS—1st STAGE	28.1.26	135 atm	180	T.B.	✓
" 2nd "	28.1.26	8 atm	16	28.1.26	✓
" 3rd "	✓	✓	✓	✓	✓
AIR RECEIVERS—STARTING	✓	✓	✓	✓	✓
" INJECTION	21.4.25	65 atm	130 atm	Lloyd's	✓
AIR PIPES	28.1.26	15 atm	20	21.3.26	✓
FUEL PIPES	28.1.26	15 atm	20	W.P. 1.10.26	✓
FUEL PUMPS	28.1.26	15 atm	20	H.Y. 21.4.25	✓
SILENCER	28.1.26	✓	✓	✓	✓
" WATER JACKET	✓	✓	✓	✓	✓
SEPARATE FUEL TANKS	✓	✓	✓	✓	✓

PLANS. Are approved plans forwarded herewith for Shafting *Receivers* *to London* Separate Tanks *✓*
 Donkey Boilers *✓* General Pumping Arrangements *✓* Oil Fuel Burning Arrangements *✓*

SPARE GEAR *Please See List Attached to Report.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building	During progress of work in shops--	11/2, 9/3, 12/3, 24/3, 12/5, 31/5, 4/6, 24/6, 24/3, 3/9, 24/9, 2/10, 20/10, 9/11, 14/11, 21/11
	During erection on board vessel--	6/1, 14/2, 10/3, 1/4, 29/4, 12/5, 31/5, 4/6
	Total No. of visits	24

Dates of Examination of principal parts—Cylinders	4/3, 12/5, 15/5	Covers	✓	Pistons	9/3, 20/10, 15/5	Rods	✓	Connecting rods	11/2, 15/5, 20/10
Crank shaft	12/5, 15/5, 29/4, 26	Flywheel shaft	✓	Thrust shaft	✓	Intermediate shafts	✓	Tube shaft	✓
Screw shaft	✓	Propeller	✓	Stern tube	✓	Engine seatings	✓	Engines holding down bolts	✓
Completion of filling sea connections	✓	Completion of pumping arrangements	✓	Engines tried under working conditions	✓				
Crank shaft, Material	Steel	Identification Mark	243, Pk. 11425	Flywheel shaft, Material	✓	Identification Mark	✓		
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. *Yes*

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.)

The Engines have been built under Special Survey, in accordance with the Rules and Secretary's Pattern workmanship good, machinery tested under full working conditions and good.

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	£ 7.20	When applied for,	
Special	£		19
Donkey Boiler Fee	£	When received,	
Travelling Expenses (if any)	£ 6.		20/4 1926

P. N. Newman
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 14 JUNI 1927

Assigned *see Minute on Inve Rpt 81433*



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