

REPORT ON OIL ENGINE MACHINERY.

No. 10400⁶

NOV 1926

Date of writing Report 30 Octbr. 1926 When handed in at Local OfficePort of AMSTERDAMNo. in Survey held at AMSTERDAM
Reg. Book.Date, First Survey February 1925 Last Survey June 19 26Number of Visits 22Single
on the Twin } Screw vessels Messrs. Palmer's Shipbuilding & Iron Co's Yard No. 2615 Tons { Gross
Triple } 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
 Donkey Boilers made at - By whom made - Boiler No. - When made -
 Brake Horse Power 50 Owners Anglo-Saxon Petroleum Co., Lim. Port belonging to London.
 Nom. Horse Power as per Rule 14 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -

IL ENGINES, &c.—Type of Engines Three Auxiliary Steel Engines 4 stroke cycle Single or double acting
 Maximum pressure in cylinders 30 1/2 lb. cu. in. No. of cylinders 1 Diameter of cylinders 13 1/2 No. of cranks 1 Length of stroke 4 5/8
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 4 3/8 Is there a bearing between each crank one crank
 Revolutions per minute 150 Flywheel dia. 19 00 Weight 3000 lb. Means of ignition Self-ignition Kind of fuel used Seul oil
 Crank Shaft, dia. of journals as per Rule 1 1/8 Crank pin dia. 1 1/8 Crank Webs Mid. length breadth 1 1/2 Thickness parallel to axis 1 1/2
 as fitted 1 1/8 Mid. length thickness 1 1/2 Thickness around eyehole 1 1/2
 Flywheel Shafts, diameter as per Rule 1 1/8 Intermediate Shafts, diameter as per Rule 1 1/8 Thrust Shaft, diameter at collars as per Rule 1 1/8
 as fitted 1 1/8 as fitted 1 1/8 as fitted 1 1/8
 Tube Shafts, diameter as per Rule 1 1/8 Screw Shaft, diameter as per Rule 1 1/8 Is the { tube { screw } shaft fitted with a continuous liner { 1 1/8
 as fitted 1 1/8 as fitted 1 1/8
 Bronze Liners, thickness in way of bushes as per Rule 1 1/8 Thickness between bushes as per rule 1 1/8 Is the after end of the liner made watertight in the
 as fitted 1 1/8 as fitted 1 1/8
 Propeller boss 1 1/8 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner 1 1/8
 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 1 1/8
 If two liners are fitted, is the shaft lapped or protected between the liners 1 1/8 Is an approved Oil Gland or other appliance fitted at the after
 end of the tube shaft 1 1/8 Length of Bearing in Stern Bush next to and supporting propeller 1 1/8
 Propeller, dia. 1 1/8 Pitch 1 1/8 No. of blades 1 1/8 Material 1 1/8 whether Moveable 1 1/8 Total Developed Surface 1 1/8 sq. feet
 Method of reversing Engines Not available Is a governor or other arrangement fitted to prevent racing of the engine when declutched Governor Means of lubrication
fuel Thickness of cylinder liners 1 1/8 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with
 non-conducting material N.C.M. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine 1 1/8
 Cooling Water Pumps, No. 1 1/8 Is the sea suction provided with an efficient strainer which can be cleared within the vessel 1 1/8
 Bilge Pumps fitted to the Main Engines, No. 1 1/8 Diameter 1 1/8 Stroke 1 1/8 Can one be overhauled while the other is at work 1 1/8
 Pumps connected to the Main Bilge Line { No. and Size 1 1/8
 How driven 1 1/8
 Ballast Pumps, No. and size 1 1/8 Lubricating Oil Pumps, including Spare Pump, No. and size 1 1/8
 Are two independent means arranged for circulating water through the Oil Cooler 1 1/8 Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 Pumps, No. and size:—In Engine and Boiler Room 1 1/8
 in Holds, &c. 1 1/8
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 1/8
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes 1 1/8 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 1 1/8
 Are all Sea Connections fitted direct on the skin of the ship 1 1/8 Are they fitted with Valves or Cocks 1 1/8
 Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates 1 1/8 Are the Overboard Discharges above or below the deep water line 1 1/8
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel 1 1/8 Are the Blow Off Cocks fitted with a spigot and brass covering plate 1 1/8
 What pipes pass through the bunkers 1 1/8 How are they protected 1 1/8
 What pipes pass through the deep tanks 1 1/8 Have they been tested as per Rule 1 1/8
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times 1 1/8
 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 1 1/8 Is the Shaft Tunnel watertight 1 1/8 Is it fitted with a watertight door 1 1/8 worked from 1 1/8
 If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork 1 1/8

Main Air Compressors, No. 1 1/8 No. of stages 1 1/8 Diameters 1 1/8 Stroke 1 1/8 Driven by 1 1/8
 Auxiliary Air Compressors, No. 1 1/8 No. of stages 2 Diameters 5 1/2 - 1 1/2 Stroke 1 3/8 Driven by Crank shaft
 Small Auxiliary Air Compressors, No. 1 1/8 No. of stages 1 1/8 Diameters 1 1/8 Stroke 1 1/8 Driven by 1 1/8
 Scavenging Air Pumps, No. 1 1/8 Diameter 1 1/8 Stroke 1 1/8 Driven by 1 1/8

Auxiliary Engines crank shafts, diameter as per Rule 1 1/8
 as fitted 1 1/8

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 with Steam
 Is there a drain arrangement fitted at the lowest part of each receiver 1 1/8

High Pressure Air Receivers, No. 1 1/8 Cubic capacity of each 30 L. Internal diameter 1 1/2 thickness 1 1/8
 Seamless, lap welded or riveted longitudinal joint 1 1/8 Material Steel Range of tensile strength 30 / 31.5 Working pressure by Rules 1 1/8
 Starting Air Receivers, No. 1 1/8 Total cubic capacity 1 1/8 Internal diameter 1 1/8 thickness 1 1/8
 Seamless, lap welded or riveted longitudinal joint 1 1/8 Material 1 1/8 Range of tensile strength 1 1/8 Working pressure by Rules 1 1/8

IS A DONKEY BOILER FITTED? ☒
HYDRAULIC TESTS:—

If so, is a report now forwarded? ☒

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	14/5/25	38 Atm.	45 Atm.	Lloyd's List	Good
" " COVERS	10/4/25			no. 1496.582.461.	do
" " JACKETS	9/3/26			T.V. 15. 14.5.25	do
" " PISTON WATER PASSAGES	12/5.25	15 lb.	45 lb. 5 Atm.	10.4.25	do
" " PISTON WATER PASSAGES	L	L	L	9.3.26	L
MAIN COMPRESSORS—1st STAGE	28-1.26	65 Atm.	130 Atm.	F.B. 28.1.26	Good
" " 2nd "	28-1.26	8 Atm.	16 Atm.	F.B. 28.1.26	do
" " 3rd "	L	L	L		L
AIR RECEIVERS—STARTING	21/4/25. 15/5/26. 14/25.	65 Atm.	2150 lb.	Lloyd's List	Good
" " INJECTION				2150 lb.	
AIR PIPES	28/1.26	65 Atm.	130 Atm.	W.P. 1065 lb.	do
FUEL PIPES	28/1.26	65 Atm.	130 Atm.	20.8.21.4.25	do
FUEL PUMPS	28/1.26	65 Atm.	130 Atm.	20.8.21.4.25	do
SILENCER	28/1.26	65 Atm.	130 Atm.	20.8.25.2.26	do
" " WATER JACKET	L				
SEPARATE FUEL TANKS	L				

PLANS. Are approved plans forwarded herewith for Shafting *Receiving* Receivers *in London* Separate Tanks *Office*
(If not, state date of approval)
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. 14/5. 31/5. 4/6. 27/6. 10/7. 3/8. 24/9. 3/10. 20/10. 9/11. 14/11 1925
During erection on board vessel - - 6/1. 14/1. 2/2. 10/2. 1/4. 29/4. 12/5. 31/5. 4/6 1926.
Total No. of visits 24.

Dates of Examination of principal parts—Cylinders 9/3.25 - 9/3.26 Covers L Pistons 9/3.25 - 29/10.25 Rods L Connecting rods 11/3.25 - 28/1.26
Crank shaft 12/5.25 - 29/4.26 Flywheel shaft L Thrust shaft L Intermediate shafts L Tube shaft L
Screw shaft L Propeller L Stern tube L Engine seatings L Engines holding down bolts L
Completion of fitting sea connections L Completion of pumping arrangements L Engines tried under working conditions L
Crank shaft, Material *Steel* Identification Mark *M.B. 5848 - 20.25* Flywheel shaft, Material L Identification Mark L
Thrust shaft, Material L Identification Mark *J.B. 1142 - 24.25* Intermediate shafts, Material L Identification Marks L
Tube shaft, Material L Identification Mark L Screw shaft, Material L Identification Mark L

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 L

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 letter, 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 ... £ : *See* : When applied for, ... 19
Special ... £ *Please see* : When received, ... 19
Donkey Boiler Fee ... £ *Account 10408* :
Travelling Expenses (if any) £ *Ref* : 19

Committee's Minute TUES. 14 JUN 1927

Assigned *see minute on hve. Rpt 81433*

F. W. Beemster
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation