

# REPORT ON OIL ENGINE MACHINERY.

No. 90365

12 AUG 1926

Received at London Office

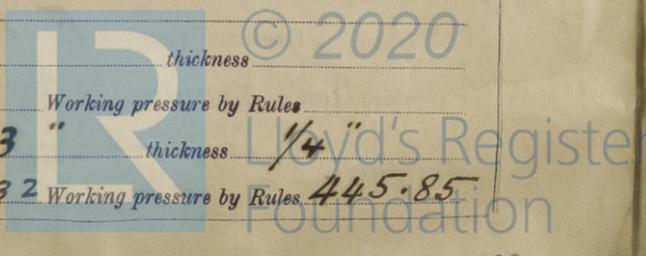
12 AUG 1926

1 SEP 1926

Date of writing Report 12 AUG 1926 When handed in at Local Office 12 AUG 1926 Port of London  
 No. in Survey held at Newbury Date, First Survey April 29<sup>th</sup> Last Survey Aug. 11<sup>th</sup> 1926  
 Reg. Book. 80694 on the Single Screw vessel "PROWESS" Tons Gross 200  
Twin Triple Quadruple  
 Built at Greenock By whom built Messrs. George Brown & Sons Yard No. 154 When built 1926  
 Engines made at Newbury By whom made Messrs. Platt & Sons Ltd. Engine No. 546 When made 1926  
 Donkey Boilers made at Greenock By whom made Greenock Boiler No. ✓ When made ✓  
 Brake Horse Power 200 Owners Messrs. F. J. Swerd & Sons Ltd. Port belonging to Greenock  
 Nom. Horse Power as per Rule 57 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which vessel is intended S.A.P. 50 Grain

**OIL ENGINES, &c.**—Type of Engines Messrs. Platt's I.P. 30 2 or 4 stroke cycle 2 Single or double acting SA  
 Maximum pressure in cylinders 450 lbs/sq. in. Diameter of cylinders 335<sup>7</sup>/<sub>16</sub> Length of stroke 390<sup>7</sup>/<sub>16</sub> No. of cylinders 4 No. of cranks 4  
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 422<sup>7</sup>/<sub>16</sub> Is there a bearing between each crank Yes  
 Revolutions per minute 300 Flywheel dia. 1050<sup>7</sup>/<sub>16</sub> Weight 17 cwt. Means of ignition Electric Spark Kind of fuel used Heavy Oil  
 Crank Shaft, dia. of journals as per Rule 167.5<sup>7</sup>/<sub>16</sub> as fitted 174.0<sup>7</sup>/<sub>16</sub> Crank pin dia. 174<sup>7</sup>/<sub>16</sub> Crank Webs Mid. length breadth 205<sup>7</sup>/<sub>16</sub> Kind of fuel used Heavy Oil  
 Flywheel Shaft, diameter as per Rule 174<sup>7</sup>/<sub>16</sub> as fitted 174<sup>7</sup>/<sub>16</sub> Intermediate Shafts, diameter as per Rule 110.8<sup>7</sup>/<sub>16</sub> as fitted ✓ Thrust Shaft, diameter at collars as per Rule 116<sup>7</sup>/<sub>16</sub> as fitted 130<sup>7</sup>/<sub>16</sub>  
 Tube Shaft, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule 4.4" as fitted 4.98" Is the lubricating shaft fitted with a continuous liner Yes  
 Bronze Liners, thickness in way of bushes as per Rule 4.265" as fitted 4.375" Thickness between bushes as per rule 3.198" as fitted 3.427" Is the after end of the liner made watertight in the propeller boss Yes  
 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 No  
 Propeller, dia. 53" Pitch 4'-2" No. of blades 3 Material Cast Iron whether Moveable No Total Developed Surface 9 sq. feet  
 Method of reversing Engines Clutch Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Grease  
 Thickness of cylinder liners ✓ Are the cylinders fitted with safety valves No Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Non-Conducting of the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Funnel  
 Cooling Water Pumps, No. 3 Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓  
 Bilge Pumps worked from the Main Engines, No. One Diameter 110<sup>7</sup>/<sub>16</sub> Stroke 120<sup>7</sup>/<sub>16</sub> Can one be overhauled while the other is at work ✓  
 Pumps connected to the Main Bilge Line { No. and Size 2 - 1 1/2 in. diam. How driven 1 off main Eng. 1 hand.  
 Ballast Pumps, No. and size ✓ Lubricating Oil Pumps, including Spare Pump, No. and size Mechanical driven from engine  
 Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces 3 @ 2 1/4"  
 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 Spaces 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. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓  
 Auxiliary Air Compressors, No. One No. of stages Two Diameters Perrell Stroke Type SC 3/2 Driven by Aux. Eng.  
 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 139<sup>7</sup>/<sub>16</sub> as fitted 142<sup>7</sup>/<sub>16</sub>

**AIR RECEIVERS:**—Is each receiver, which can be isolated, fitted with a safety valve as per Rule ✓  
 Are 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. Three Cubic capacity of each 15 cu. ft. Internal diameter 13" thickness 1/4"  
 Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 28/32 Working pressure by Rules 445.85  
 Working Air Receivers, No. Three Total cubic capacity 15 cu. ft. Internal diameter 13" thickness 1/4"  
 Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 28/32 Working pressure by Rules 445.85



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

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

Receivers *No*

Separate Tanks *Yes*

Donkey Boilers

General Pumping Arrangements *No*

Oil Fuel Burning Arrangements

SPARE GEAR

*One Cylinder head; One Piston; Six crankcase door valves  
Four leathers for Bilge & circulating pumps; One set of valve springs  
One set of balls for fuel pump; One set of fuel pipes; One Journal  
brass; Four main jets; Four Electric starting plugs.*

The foregoing is a correct description.

FOR AND ON BEHALF OF

**LENTY & SON, LIMITED.**

Manufacturer.

SECRETARY.

Dates of Survey while building

During progress of work in shops -  
During erection on board vessel - -  
Total No. of visits

*April 29 June 1. 3. 28. July 2. 9. Aug. 11.*

*7+*

Dates of Examination of principal parts—Cylinders *29-4-26* Covers *1-6-26* Pistons *1-6-26* Rods *1-6-26* Connecting rods *1-6-26*

Crank shaft *1-6-26* Flywheel shaft *29-4-26* Thrust shaft *29-4-26* Intermediate shafts *✓* Tube shaft *✓*

Screw shaft *29-4-26* Propeller *9-7-26* Stern tube *29-4-26* Engine seatings *✓* Engines holding down bolts *✓*

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

Crank shaft, Material *Steel* Identification Mark *LLOYD'S N° 124 22-2-26* Flywheel shaft, Material *✓* Identification Mark *✓*

Intermediate shafts, Material *Steel* Identification Marks *✓* Identification Marks *✓*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *Steel* Identification Mark *N° 7049 29-4-26*

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.)

*This machinery, consisting of Main Engine Type 4P.50 and Auxiliary Engine 1P.30 has been constructed under survey to approved plans and has run satisfactory bench trials. The material used in the construction has been tested & conforms with Rule requirements and the workmanship is good.*

*The Main & Auxiliary Engines and gear have been despatched to Greenock where they are to be installed and when this has been done under the supervision of the Society's Surveyors and the machinery has been tried under working conditions it will be eligible, in my opinion, for classification with the record of +LMC and date!*

The amount of Entry Fee ... £ *2 : 0 : 0* When applied for, *12 AUG. 1926*  
Special ... £ *15 : 0 : 0*  
Donkey Boiler Fee ... £ : : :  
Travelling Expenses (if any) £ *5 4 9* When received, *30.11.1926*

Committee's Minute *GLASGOW 31 AUG 1926*

Assigned *+ L.M.C.P. Re subject re on L.P.K. Rpt 18598.*

*Arthur R. Palmer*  
Engineer Surveyor to Lloyd's Register of Shipping.



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