

# REPORT ON OIL ENGINE MACHINERY.

No. 82814

Received at London Office

31 MAY 1928

Date of writing Report

When handed in at Local Office

30/5/28 Port of

NEWCASTLE-ON-TYNE

No. in Survey held at Reg. Book.

Date, First Survey 11 July 1927 Last Survey 23 May 1928 Number of Visits 79

Single Triple Quadruple

Screw vessel MOTOR SHIP JENNY

Tons Gross 4706 Net 2682

at Wallsend By whom built S. Hunter, W. Richardson & Co. Ltd Yard No. 1325 When built 1928-5

Engines made at Walker, on Tyne By whom made S. Hunter, W. Richardson & Co. Ltd Engine No. 1252 When made 1928-5

Boilers made at Auxiliary S.E.B. By whom made Messrs Riley Bros Suran, Hunters & Richardson & Co. Ltd Boiler No. 1252 When made 1928-5

Horse Power 2100 Owners A/S Oljefart Port belonging to Oslo

Horse Power as per Rule 578 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

for which vessel is intended Foreign

ENGINES, &c.—Type of Engines Polar Atlas Diesel patents 2 or 4 stroke cycle 2 Single or double acting Single

Working pressure in cylinders 500 lb sq. in Diameter of cylinders 600 mm Length of stroke 1200 mm No. of cylinders 6 No. of cranks 6

Distance between bearings, adjacent to the Crank, measured from inner edge to inner edge 918 mm Is there a bearing between each crank yes

Revolutions per minute 100 Flywheel dia 2190 mm Weight 8450 kg Means of ignition Compression Kind of fuel used Fuel oil

Shaft, dia. of journals as per Rule 402 mm as fitted 405 mm Crank pin dia. 405 mm Crank Webs Mid. length breadth 645 mm Mid. length thickness 262 mm Thickness parallel to axis 262 mm Thickness around eye-hole 179 mm

Intermediate Shafts, diameter as per Rule 308 mm as fitted 330 mm Thrust Shaft, diameter at collars as per Rule 323 mm as fitted 405 mm

Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 13.39" as fitted 13 3/4" Is the shaft fitted with a continuous liner yes

Liners, thickness in way of bushes as per Rule .407" as fitted 23/32" Thickness between bushes as per rule .53" as fitted 21/32" Is the after end of the liner made watertight in the stern boss yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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 yes

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 4'-6"

Propeller, dia. 15'-3" Pitch 12'-9" No. of blades 4 Material Bronze whether Moveable no Total Developed Surface 75 sq. feet

Method of reversing Engines Moving Cam Shaft and admitting air Is a governor or other arrangement fitted to prevent racing of the engine when disconnected yes Means of lubrication oil

Thickness of cylinder liners 60 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with insulating material Lagged

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Water Pumps, No. 2 of 6" bore Centrifugal Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Pumps worked from the Main Engines, No. 1 D.A. Diameter 180 mm Stroke 300 mm Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line No. and Size one Centrifugal General Service pump 4 1/2" bore one duplex 9" S.P. 8 x 8 1/2 x 8" How driven Electric Motor Driven Steam Driven

Independent Pumps, No. and size G.S.P. 8 x 8 1/2 x 8" Lubricating Oil Pumps, including Spare Pump, No. and size two 3" pumps 2 Centrifugal Circulating and Lubricating pumps

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 one 4 1/2" three 3"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one 4 1/2"

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

Are all Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks both

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates yes Are the Overboard Discharges above or below the deep water line above

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 yes

Do all pipes pass through the bunkers none How are they protected

Do all pipes pass through the deep tanks none 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 yes

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 yes Is the Shaft Tunnel watertight none 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

Auxiliary Air Compressors, No. one No. of stages 4 Diameters LP 560 mm x 880 mm Stroke 420 mm Driven by Main Engines

Auxiliary Air Compressors, No. No. of stages Diameters MI 500 MIP 2 445 mm Driven by

All Auxiliary Air Compressors, No. 1 Meir No. of stages 3 Diameters Stroke 8" Driven by Steam

Reversing Air Pumps, No. 6 Diameter 600 mm Stroke 1200 mm Driven by Main Engines

Auxiliary Engines crank shafts, diameter as per Rule as fitted

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes

Are the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces Manhole

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

High Pressure Air Receivers, No. 3 Cubic capacity of each 11.3 c. ft. Internal diameter 4.50 mm Thickness 2 1/2 mm

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 50/60 Kg Working pressure by Rules 154 lb sq. in

Starting Air Receivers, No. 2 Total cubic capacity 840 c. ft. Internal diameter 6'-6" Thickness 2 3/32"

Seamless, lap welded or riveted longitudinal joint Riveted Material Steel Range of tensile strength 30/34 ton shell Working pressure by Rules 22 1/2 lb

IS A DONKEY BOILER FITTED? *Yes (1) (1) aux. chassis* <sup>Boiler</sup> If so, is a report now forwarded? *Yes*  
 PLANS. Are approved plans forwarded herewith for Shafting *Yes* Receivers *Yes* Separate Tanks *Yes*  
 (If not, state date of approval) Donkey Boilers *Yes* General Pumping Arrangements *Yes* Oil Fuel Burning Arrangements *Yes*  
 SPARE GEAR in accordance with rule requirements and as per appended list of spares supplied.

The foregoing is a correct description,  
 SWAN, HUNTER & WIGHAM RICHARDSON, LTD.

*G. J. Tweedy* Manufacturer.

Dates of Survey while building  
 During progress of work in shops -- 1927 JULY 11 SEP 2 9 12 30 OCT 6 14 18 26 27 28 31 NOV 1 2 11 16 DEC 5 6 7 8 29 1928 JAN 5 6 9 11 18 19 20 23 25  
 During erection on board vessel -- FEB 1 2 6 8 9 10 14 15 16 17 20 27 28 29 MAR 1 7 8 12 13 14 16 18 20 21 23 26 APR 2 3 5 11 16 17 18 23 26 27 30  
 Total No. of visits *79*

Dates of Examination of principal parts—Cylinders *29.2.28* Covers *29.2.28* Pistons *March 28* Rods *7.3.28* Connecting rods *7.3.28*

Crank shaft *25.1.28* Flywheel shaft *19.1.28* Thrust shaft *19.1.28* Intermediate shafts *March 28* Tube shaft *✓*

Screw shaft *18.1.28* Propeller *13.3.28* Stern tube *7 March 28* Engine seatings *18.4.28* Engines holding down bolts *23/4/28/6*

Completion of fitting sea connections *18.4.28* Completion of pumping arrangements *22.5.28* Engines tried under working conditions *22.5.28*

Crank shaft, Material *Steel S.M.* Identification Mark *LR 169 MR* Flywheel shaft, Material Identification Mark *4638 13.12*

Thrust shaft, Material *Steel S.M.* Identification Mark *LR 2420 HK* Intermediate shafts, Material *S.M. Steel* Identification Marks *LR 2420*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *Steel S.M.* Identification Mark *LR 2420*

Is the flash point of the oil to be used over 150° F. *Yes* <sup>7659/485. 15.12.27</sup> <sup>L.G.S 18.1.28</sup>

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Yes*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *✓* If so, have the requirements of the Rules been complied with *✓*

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 machinery built under special survey the material and workmanship found good and efficient.*

*The machinery satisfactorily fitted up on board the vessel, tested under working conditions (vessel at moorings) and during sea trials and found to work satisfactorily. Class*

*The donkey boiler and the aux. chassis boiler, fitted up in the engine room on platform of fitted up for burning oil fuel under flash point above 150° F.*

The amount of Entry Fee ... £6 :  
 Special ... £103 : 18  
 Donkey Boiler Fee ... £ 9 : 10  
 Travelling Expenses (if any) £ : :  
 When applied for *30. MAY 1928*  
 When received, *1.6. 1928*

*L. G. Shallcross*  
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute *FRI. 8 JUN 1928*  
 Assigned *Thurs 5.28 CL*  
*Oil Engines 2 DB-15016*



NEWCASTLE-ON-TYNE

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