

Rpt. 4b.  
RECEIVED

# REPORT ON OIL ENGINE MACHINERY.

No 102268

16 AUG 1944

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Date of writing Report 19 When handed in at Local Office 9. 8. 44 Port of NEWCASTLE-ON-TYNE  
No. in Survey held at Newcastle Date, First Survey (1943) Apr. 20 Last Survey 31 July, 1944  
Reg. Book. Number of Visits 74

Single on the Twin Triple Quadruple Screw vessel "NEVERITA."  
Built at Newcastle (Wallasey) By whom built Sarah, Hunter & Wigham Richardson Ltd Yard No 1687 When built 1944-7  
Engines made at " (St Peters) By whom made Bro. Hawthorn, Leslie & Co Ltd Engine No 3999 When made 1944  
Donkey Boilers made at " (Wallasey) By whom made N. E. Mar. Eng. Co (1938) Ltd Boiler No 3051 When made 1944  
Brake Horse Power 3500. Owners Anglo Saxon Petroleum Co Ltd Port belonging to London  
Nom. Horse Power as per Rule 502 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
Trade for which vessel is intended Ocean going, Carrying Petroleum in bulk.

IL ENGINES, &c. Type of Engines Hawthorn - Worksport. Supercharged 2 or 4 stroke cycle 4. Single or double acting Single  
Maximum pressure in cylinders 700 lbs/sq in 259/16 650 m/m 55 1/8 1400 m/m No. of cylinders 8 No. of cranks 8  
Mean Indicated Pressure 135. Diameter of cylinders 650 m/m Length of stroke 1400 m/m No. of cylinders 8 No. of cranks 8  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 844 m/m Is there a bearing between each crank Yes  
Revolutions per minute 120 Flywheel dia. 2260 m.m. Weight 6000 kg Means of ignition Heat of Compression Kind of fuel used Heavy oil fuel  
Crank Shaft, Solid forged dia. of journals as per Rule 448 m/m as fitted 460 Crank pin dia. 460 m/m Crank Webs Mid. length breadth 870 m/m Thickness parallel to axis 267 + 290 m/m  
All built as fitted 460 Mid. length thickness 267 shrunk Thickness around eye hole 203. 204  
Flywheel Shaft, diameter as per Rule 448 m/m Intermediate Shafts, diameter as per Rule 325 m/m Thrust Shaft, diameter at collars as per Rule 341.  
as fitted 460 fitted 470 at ends 575 at middle body. as fitted 460  
Tube Shaft, diameter as per Rule } bil Screw Shaft, diameter as per Rule 358 m/m Is the shaft fitted with a continuous liner Yes  
as fitted } 400  
Bronze Liners, thickness in way of bushes as per Rule 18.55 m/m Thickness between bushes as per Rule 13.9 m/m Is the after end of the liner made watertight in the  
as fitted 20. as fitted 15.  
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 in one length. Yes  
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 a tight fit. Yes  
If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube  
No If so, state type No Length of Bearing in Stern Bush next to and supporting propeller 1585 m.m.  
propeller, dia. 15'-0" Pitch 12'-0" No. of blades 4. Material Mang. Brz Whether Moveable No Total Developed Surface 72 sq. feet  
Method of reversing Engines Air Servo-motor Is a governor or other arrangement fitted to prevent racing of the engine when detached Yes Means of lubrication  
Forced. Thickness of cylinder liners 55 m/m Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with  
conducting 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 led up  
cooling Water Pumps, No. FW in ME Packets 2 Rotary on 44 in. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes in SW  
+ Pistons 2 Standby Steam driven Yes in SW  
Large Pumps worked from the Main Engines, No. one Diameter Rotary Stroke Can one be overhauled while the other is at work Yes  
Pumps connected to the Main Bilge Line No. and Size Three 3 in. 1 Rotary 32 tons/hr; one 6 x 6 x 6 duplex & one GSP 12 x 8 1/2 x 12 duplex  
How driven by m. eng. 32 tons/hr by Indpt. Steam. 120 tons/hr  
the cooling water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping  
arrangements

Fast Pumps, No. and size one 12 x 8 1/2 x 12 duplex Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1-40 ton/hr Rotary on 44 in. Eng  
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 3 3 1/2 In Pump Rooms 1 1 1/4 in each  
Holds, &c. 2 2nd Hold 2 1/2 in 3rd Hold Pump Rm, 1 1/2 in; 2 2nd Store 2 1/2 in; 2 2nd A. Cofferdams 1 1/4 in each.  
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Two:— 1 1/5 in & 1 1/6 in.  
all the Bilge Suction pipes in Holds and Turret Well fitted with strum-boxes Yes 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  
all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks both  
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 & below  
they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes  
pipes pass through the bunkers 1 1/4 in Suction from aft Cofferdam. How are they protected none necessary  
pipes pass through the deep tanks nil Have they been tested as per Rule Yes  
all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
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  
partment to another Yes Is the Shaft Tunnel watertight No shaft tunnel Is it fitted with a watertight door worked from Yes  
good vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Yes  
Air Compressors, No. NIL No. of stages 1 Diameters 90 min of free air to 350 lbs/sq Driven by oil eng.  
Auxiliary Air Compressors, No. Two No. of stages 2 { one of 90 min of free air to 350 lbs/sq Driven by oil eng.  
all Auxiliary Air Compressors, No. NIL No. of stages 1 { one of 120 " " " Driven by steam eng.  
provision is made for first Charging the Air Receivers Steam or Oil Eng driven Air Compressors.  
enging Air Pumps, No. Nil Diameter Stroke Driven by  
Auxiliary Engines crank shafts, diameter as per Rule Ruston & Hornsby No. one 4 1/2 in Oil Eng. driving an Air Compr  
as fitted 226877 Position Starboard side in E. Rm. and a 30 Kw. Ele. Gen.  
the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith Yes Nottingham  
Ctry. C. 2346  
Contr. P.T.O.

03838-00845-0276



AIR RECEIVERS: - Have they been made under survey ☒ State No. of Report or Certificate ☒  
Is each receiver, which can be isolated, fitted with a safety valve as per Rule ☒  
Can the internal surfaces of the receivers be examined and cleaned ☒ Is a drain fitted at the lowest part of each receiver ☒  
Injection Air Receivers, No. NIL Cubic capacity of each ☒ Internal diameter ☒ thickness ☒  
Seamless, lap welded or riveted longitudinal joint ☒ Material ☒ Range of tensile strength ☒ Working pressure by Rules ☒ Actual ☒  
Starting Air Receivers, No. ONE: T.R. DR. But straps Total cubic capacity 500 cub. ft Internal diameter 5'6 1/2" thickness 15/16  
Seamless, lap welded or riveted longitudinal joint ☒ T.R. DR. Material M. Stl. Range of tensile strength 28-32 tons Working pressure by Rules 37 1/2 lb Actual 350 lb.  
IS A DONKEY BOILER FITTED? ☒ Two B.L.R.S. ☒ If so, is a report now forwarded? ☒  
Is the donkey boiler intended to be used for domestic purposes only ☒ No. Also for Steam Auxys.  
PLANS. Are approved plans forwarded herewith for Shafting 7-11-42 216-6-42 Receivers 1-9-43 Separate Fuel Tanks ☒  
Donkey Boilers General Pumping Arrangements Pumping Arrangements in Machinery Space 25-6-42.  
Oil Fuel Burning Arrangements 21-8-42 SPARE GEAR.  
Has the spare gear required by the Rules been supplied ☒  
State the principal additional spare gear supplied as per attached list.

The foregoing is a correct description.

Manufacturer,

Dates of Survey while building { During progress of work in shops - (1943) Apr. 20, May 22, 26, 31, June 25, July 20, 22, 26, 30, Aug. 6, 13, 17, 20, 25, 27, 30, 31 Sept. 2, 7, 10, 15, 22, 25, 29  
During erection on board vessel - Oct. 4, 8, 11, 14, 18, 21, 29, Nov. 4, 9, 10, 17, 19, 22, 29 Dec. 2, 8, 17, 20, 22, 23, 29 (1944) Jan. 6, 7, 19, 24, 29 Feb. 17, 18, 19, 21, 26, March 3, 11, 17, 24, 28, April 14, May 5, 9, 24, June 14, 21, 22, 30, July 4, 5, 11, 31  
Total No. of visits 74  
Dates of Examination of principal parts - Cylinders 31-8-43 Covers as Gln Pistons 7-9-43 Rods 7-9-43 Connecting rods 28-9-43  
Crank shaft 17-12-43 Flywheel shaft 14-2-44 Thrust shaft 4-11-43 Intermediate shafts 21-2-44 Tube shaft ☒  
Screw shaft 17-11-43 Propeller 3-3-44 Stern tube 1-3-44 Engine seatings 12-2-44 Engines holding down bolts 9-5-44  
Completion of fitting sea connections 26-2-44 Completion of pumping arrangements 5-7-44 Engines tried under working conditions 5-7-44  
Crank shaft, Material M. Stl Identification Mark 13109 HAL. Flywheel shaft, Material M. Stl Identification Mark 12600 HAL.  
Thrust shaft, Material " Identification Mark 12600 HAL. Intermediate shafts, Material M. Stl Identification Marks 23175 W.  
Tube shaft, Material Identification Mark Screw shaft, Material M. Stl Identification Mark 2,5809 W.  
Identification Marks on Air Receiver: Starting one only. LLOYD'S TEST. 550 LBS WP 350 LBS 1-10-43 ANON

Is the flash point of the oil to be used over 150° F. ☒  
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with ☒  
Description of fire extinguishing apparatus fitted 2-10 gall. Foamite 7-2 gall. " 4- Fire guns. 2-60ft lengths of Fire Hose.  
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 ☒  
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with ☒ Not desired  
Is this machinery duplicate of a previous case ☒ If so, state name of vessel Empire MacMahon S.H.W.R. Yard no 1677 H.L. Eng. no 3992.

General Remarks (State quality of workmanship, opinions as to class, &c.)  
The Machinery of this Vessel has been constructed and fitted on board under Special Survey, and the materials and workmanship are good. The machinery was tried under working conditions with satisfactory results and is eligible, in my opinion, for record + LMC 7.44.

The amount of Entry Fee .. £ 6 : - : When applied for, 14 AUG 1944  
Special ... £ 100 : 2 :  
Donkey Boiler Fee See Sep. Rpt  
Starting Air Recd £ 4 : 4 :  
Travelling Expenses (if any) £ : :  
When received, 19  
FRI. 18 AUG 1944

Committee's Minute

Assigned

A Watt

Engineer Surveyor to Lloyd's Register of Shipping.



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