

# REPORT ON OIL ENGINE MACHINERY.

No. 23417

Date of writing Report 4<sup>th</sup> Nov. 1946. When handed in at Local Office 8<sup>th</sup> Nov. 1946. Port of GREENOCK Received at London Office 13 NOV 1946

No. in Survey held at GREENOCK Date, First Survey 7<sup>th</sup> Aug. 1945. Last Survey 26<sup>th</sup> October 1946. Reg. Book. Number of Visits 66

Single on the Turn Triple Quadruple Screw vessel "NERITOPSIS" TANKER Tons Gross 8200 Net 4700

Built at GLASGOW By whom built BLYTHSWOOD SHIP CO LTD Yard No. When built 1946

Engines made at GREENOCK By whom made JOHN G. KINCAID & CO LTD Engine No. K169 When made 1946

Donkey Boilers made at do By whom made do Boiler No. K169 When made 1946

Brake Horse Power 3600 Owners ANGLO SAXON PETROLEUM CO LTD Port belonging to LONDON

Net Horse Power as per Rule 502.754 HP. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

Trade for which vessel is intended OPEN SEA SERVICE

OIL ENGINES, &c. — Type of Engines KINCAID'S B.W. UNDER PISTON SUPERCHARGE 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 650 lb. Diameter of cylinders 650.7 Length of stroke 1400.7 No. of cylinders 8 No. of cranks 8

Mean Indicated Pressure 135 lb. Span of bearings, adjacent to the crank, measured from inner edge to inner edge 844.7 Is there a bearing between each crank YES

Revolutions per minute 120 Flywheel dia. 2218.7 Weight 2.19 tons Means of ignition Compression Kind of fuel used Heavy Oil

Crank Shaft, Solid forged dia. of journals as per Rule 460.7 Crank pin dia. 460.7 Crank webs Mid. length breadth 730.7 Thickness parallel to axis 267.7

Flywheel Shaft, diameter as per Rule 290 as fitted 290 as per Rule 290 as fitted 290 Thrust Shaft, diameter at collars as per Rule 18 1/4

Tube Shaft, diameter as per Rule 18 as fitted 18 Is the tube shaft fitted with a continuous liner YES

Bronze Liners, thickness in way of bushes as per Rule .723 as fitted .875 Thickness between bushes as per Rule .522 as fitted .716

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 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 YES

If two liners are fitted, is the shaft lapped or protected between the liners NO Is an approved Oil Gland or other appliance fitted at the after end of tube shaft NO

Propeller, dia. 15'-0" Pitch 12'-0" No. of blades 4 Material MB whether moveable NO Total developed surface 72 sq. feet

Method of reversing Engines Compressed Air Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES

Lubrication Forced Thickness of cylinder liners 487.69 Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled YES

Are the exhaust pipes and silencers water cooled YES If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine YES

Cooling Water Pumps, No. 4-2 Steam, 2 main engine FW, also 2 Circ pumps S.W. Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES

Bilge Pumps worked from the Main Engines, No. One Rotary Diameter 32 tons/hr Stroke Can one be overhauled while the other is at work YES

Pumps connected to the Main Bilge Line No. and size One 32 tons/hr One 40 tons/hr One 85 tons/hr How driven Main engine Steam Steam (G.S.)

Is 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 YES

Ballast Pumps, No. and size None Power Driven Lubricating Oil Pumps, including spare pump, No. and size One 40 tons/hr One 25 Duplex

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 Three @ 3 1/2" In pump room

Independent Power Pump Direct Suctions to the engine room bilges, No. and size Two @ 6"

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes YES Are the bilge suction 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 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 efficiently high on the ship's side to be seen without lifting the platform plates YES

Are they each fitted with a discharge valve always accessible on the plating of the vessel 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 YES Are the blow off cocks fitted with a spigot and brass covering plate YES

What pipes pass through the bunkers None How are they protected YES

What pipes pass through the deep tanks None Have they been tested as per Rule YES

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 YES

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork YES

Main Air Compressors, No. 1 No. of stages 2 diameters 120 cuf/rev stroke driven by Steam

Auxiliary Air Compressors, No. One No. of stages Two diameters 90 cuf/rev stroke driven by Diesel engine

Small Auxiliary Air Compressors, No. One No. of stages Two diameters 90 cuf/rev stroke driven by Diesel engine

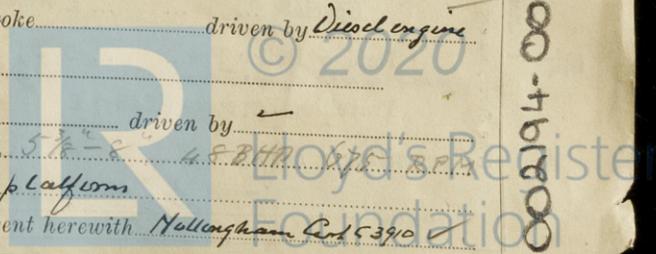
What provision is made for first charging the air receivers Steam compressor

Scavenging Air Pumps, No. None diameter stroke driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted Position EP platforms

Have the auxiliary engines been constructed under special survey YES Is a report sent herewith HULLINGHAM 15390

1200-50700-0031



**AIR RECEIVERS:**—Have they been made under survey... *Yes* ✓ State No. of report or certificate...  
 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 and cleaned... *Yes* ✓ Has a drain fitted at the lowest part of each receiver... *Yes* ✓  
 Injection Air Receivers, No. *None* ✓ Cubic capacity of each... Internal diameter... thickness...  
 Seamless, lap welded or riveted longitudinal joint... Material... Range of tensile strength... Working pressure...  
 Starting Air Receivers, No. *One* ✓ Total cubic capacity *450 cu ft* ✓ Internal diameter *5'3"* ✓ thickness *1 3/32"* ✓  
 Seamless, lap welded or riveted longitudinal joint *TR DBS* ✓ Material *S* Range of tensile strength *78/32 ton* ✓ Working pressure...  
 Actual... *350*

**IS A DONKEY BOILER FITTED** *Yes* ✓ If so, is a report now forwarded... *Yes* ✓  
 Is the donkey boiler intended to be used for domestic purposes only... *No* ✓  
**PLANS.** Are approved plans forwarded herewith for shafting... *23-1-45* Receivers... *30-7-45* Separate fuel tanks... *None*  
 (If not, state date of approval)  
 Donkey boilers... *15/12/44* General pumping arrangements... *Glasgow of!* Pumping arrangements in machinery space... *14-9-45*  
 Oil fuel burning arrangements... *17/5/45*

**SPARE GEAR.**

Has the spare gear required by the Rules been supplied... *Yes* ✓ *Personal vibration calculation of 12/3/46*  
 State the principal additional spare gear supplied... *See attached list*  
*Spare screw shaft LR 14273 5832 CNH 23/4/46*

The foregoing is a correct description  
 For **JOHN G. KINCAID & CO. LIMITED.** Manufacturer.  
*A. M. Gemmell* Chief of Technical Staff.

Dates of Survey while building  
 During progress of work in shops... (1945) AUG. 7. SEPT. 4. 14. 26. OCT. 4. 19. NOV. 30. DEC. 6. 12. (1946) JAN. 14. 16. FEB. 21. MARCH 11. 21. 26. 29.  
 During erection on board vessel... APR. 9. 16. 17. 23. 25. 29. MAY 7. 8. 13. 17. 20. 21. 22. 28. JUNE 4. 5. 12. 14. 18. 27. JULY 15. 17. 18. 22. 23. 29. AUG. 5. 6. 13. 20. 21. 22. 27. SEPT. 2. 4. 5. 13. 14. 26. 27.  
 Total No. of visits... *66*

Dates of examination of principal parts—Cylinders... *22/5/46 to 25/6/46* Covers... *22/5/46, 23/6/46* Pistons... *22/5/46* Rods... *20/8/46* Connecting rods... *20/8/46*  
 Crank shaft... *20/8/46* Flywheel shaft... ✓ Thrust shaft... *15/7/46* Intermediate shafts... *15/7/46* Tube shaft... ✓  
 Screw shaft... *23/4/46* Propeller... *23/4/46* Stern tube... *21/3/46* Engine seatings... *15/7/46* Engine holding down bolts... *10/10/46*  
 Completion of fitting sea connections... *2/7/46* ✓ Completion of pumping arrangements... *24/10/46* Engines tried under working conditions... *26-10-46*  
 Crank shaft, material... *S* Identification mark... *LR 14276 CNH* Flywheel shaft, material... ✓ Identification mark... ✓  
 Thrust shaft, material... *S* Identification mark... *LR 14273 CNH* Intermediate shafts, material... *S* Identification marks... *LR 14273 C*  
 Tube shaft, material... ✓ Identification mark... ✓ Screw shaft, material... *S* Identification mark... *LR 14273 CNH*  
 Identification marks on air receivers... *Air receiver ex Mariposa original markings indecipherable approved Glasgow letter 30/7/45* ✓  
*Retested 550 lbs / 350 lbs CNH*

Is the flash point of the oil to be used over 150°F... *Yes* ✓  
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with... *Yes* ✓  
 Description of fire extinguishing apparatus fitted... *Steam under ER platform and under boiler*  
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo... *Tanker* 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... *No* ✓  
 Is this machinery duplicate of a previous case... *Yes* ✓ If so, state name of vessel... *NEOTHUMA GRN FEN 23337*

**General Remarks** (State quality of workmanship, opinions as to class, &c.)  
*This machinery has been constructed under special survey in accordance with the Rules and approved plans. The materials & workmanship are sound & good. The engine & boiler have been effectively installed in the vessel and tested on a sea trial under full working conditions with satisfactory results. This machinery is eligible in my opinion to be classed in the Society Register book with reserve + LMC 10-46 & Notation Screw shaft CL 2 DBs 180 lbs / 70" fitted for oil fuel FP above 150°F*

The amount of Entry Fee... £ 6 :  
 Special... £ 100 : 3  
 Donkey Boiler Fee... £ 27 : 15  
 Air RECEIVER EX 7 TEST  
 Travelling Expenses (if any) £ 2 : 2  
 When applied for... *9th Nov. 1946*  
 When received... *19*

*Charles J. Haubert*  
 Engineer Surveyor to Lloyd's Register of Shipping

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

Committee's Minute... **GLASGOW** 12 NOV 1946  
 Assigned... *1- LMC 10.46*  
*air lug*  
*2 DB 180 lb*

