

REPORT ON OIL ENGINE MACHINERY.

No 22325.

26 MAY 1943

Received at London Office

Date of writing Report 19th May 1943. When handed in at Local Office 20th May 1943. Port of GREENOCK

No. in Survey held at GREENOCK Date, First Survey 15th SEPT. 1941. Last Survey 19th MAY. 1943. Number of Visits 42.

Reg. Book. 87829 on the Single Screw vessel "NINELLA" Tons: Gross 8134 Net 4745

Built at GLASGOW By whom built BLYTHSWOOD S.B. CO L^{td} Yard No. 70 When built 1943
Engines made at GREENOCK By whom made JOHN G. KINCAID, CO L^{td} Engine No. 4146 When made 1943
Donkey Boilers made at GREENOCK By whom made JOHN G. KINCAID, CO L^{td} Boiler No. 4146 When made 1943
Owners ANGLO SAXON PETROLEUM CO L^{td} 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 OIL TANKER

OIL ENGINES, &c. Type of Engines KINCAID'S B & W under piston open charge 2 or 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 600 lbs/sq. in. Diameter of cylinders 650.7 Length of stroke 1400.7 No. of cylinders 8 No. of cranks 8
Mean Indicated Pressure 118 lbs/sq. in. 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 Diesel Oil
Crank Shaft, Solid forged dia. of journals as per Rule as fitted 460.7 Crank pin dia. 460.7 Crank Webs Mid. length breadth 750.7 Thickness parallel to axis 290.7
All built as fitted 460.7 Crank Webs Mid. length thickness 267.7 Thickness around eye-hole 205.7

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 21 Thrust Shaft, diameter at collars as per Rule as fitted 18 1/2
Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted 18 Is the tube shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule as fitted .731 Thickness between bushes as per Rule as fitted .6875 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 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 the tube shaft No
Length of Bearing in Stern Bush next to and supporting propeller 5'-0"

Propeller, dia. 45'-0" Pitch 12'-0" No. of blades 4 Material M.B. 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 Means of lubrication Greased
Thickness of cylinder liners 40.7 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material LAGGED

Cooling Water Pumps, No. 4 (2 M.E. Driven, 2 Steam Driven) 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. 2 Diameter Rotary Stroke 32 tons/hr Can one be overhauled while the other is at work Yes
Pumps connected to the Main Bilge Line No. and Size Two 32 tons/hr and One 85 tons/hr How driven Main engine steam

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
Exhaust Pumps, No. and size One 85 tons/hr Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 (One 40 tons/hr M.E., One 10 steam)
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 Suctions in the Machinery Spaces and from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

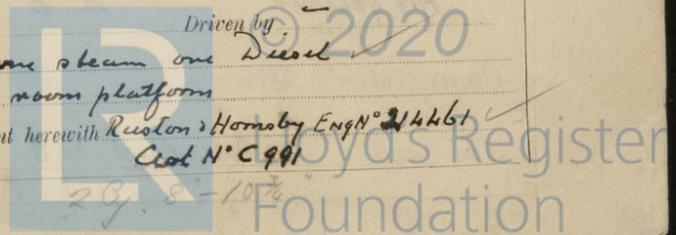
Are all Sea Connections fitted direct on the skin of the ship Yes Are they filled with Valves or Cocks Yes
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes Are the Overboard Discharges above or below the deep water line Below
Are they each fitted 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
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 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
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. One No. of stages 2 Diameters 120 cu ft/min Stroke Driven by Steam
Auxiliary Air Compressors, No. One No. of stages 2 Diameters Stroke Driven by Diesel
Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

What provision is made for first Charging the Air Receivers Steam air compressor
Scavenging Air Pumps, No. Diameter Stroke Driven by
Auxiliary Engines crank shafts, diameter as per Rule as fitted See attached certificate No. Two one steam one Diesel Position Engine room platforms
Have the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith Resolution Homolog Eng N° 21461 Cert N° C 991



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* Is a drain fitted at the lowest part of each receiver *Yes*
Injection Air Receivers, No. *1* Cubic capacity of each *500 cu ft* Internal diameter *6'-0 3/4"* thickness *3/32"*
 Seamless, lap welded or riveted longitudinal joint *✓* Material *S* Range of tensile strength *29/33 tons* Working pressure by Rules *364* Actual *356*
Starting Air Receivers, No. *One* Total cubic capacity *500 cu ft* Internal diameter *6'-0 3/4"* thickness *3/32"*
 Seamless, lap welded or riveted longitudinal joint *TP. DBS* Material *S* Range of tensile strength *29/33 tons* Working pressure by Rules *364* Actual *356*

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 *22-5-42* Receivers *20-5-42* Separate Fuel Tanks *✓*
 (If not, state date of approval)
 Donkey Boilers *20-5-42* General Pumping Arrangements *Glasgow* Pumping Arrangements in Machinery Space *18-3-43*
 Oil Fuel Burning Arrangements *31-5-42*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*
 State the principal additional spare gear supplied

See Separate Part

The foregoing is a correct description,
 For John G. Kincaid & Co. Ltd.,
Robert Green Director. Manufacturer.

Dates of Survey while building
 During progress of work in shops: (1941) SEPT. 15-23-30. OCT. 22-23-30. NOV. 3-6-10. DEC. 4-10-17. (1942) JAN. 5-8-12-23-29. FEB. 5-25. APRIL 2-6. MAY 22. JUNE 8-16-17. JULY 1-14-22-23.
 During erection on board vessel: AUG. 5-7-14-27. SEPT. 10-23. OCT. 1-5-7-8-15. NOV. 4-25-30. DEC. 1-7-10-16-18. (1943) JAN. 19-27. FEB. 22. MAR. 4-11-12-15-23-29-30. APR. 1-7-8-9-10-13-14-16-20-23-27-28-29. MAY 5-12-19.
 Total No. of visits *42*

Dates of Examination of principal parts—Cylinders *14-7-42* Covers *14-7-42* Pistons *22-2-43* Rods *22-2-43* Connecting rods *1-12-42*
 Crank shaft *1-12-42* Flywheel shaft *✓* Thrust shaft *1-12-42* Intermediate shafts *1-10-42* Tube shaft *✓*
 Screw shaft *27-1-43* Propeller *27-1-43* Stern tube *2-4-42* Engine sealings *12-3-43* Engines holding down bolts *20-4-43*
 Completion of fitting sea connections *25-2-43* Completion of pumping arrangements *12-5-43* Engines tried under working conditions *12-5-43*
 Crank shaft, Material *SMS* Identification Mark *L910841 CNH* Flywheel shaft, Material *✓* Identification Mark *✓*
 Thrust shaft, Material *SMS* Identification Mark *L910841 CNH* Intermediate shafts, Material *SMS* Identification Marks *L910841 CNH*
 Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *SMS* Identification Mark *L910841 CNH*
 Identification Marks on Air Receivers *2301*
LL0405 TESTED.
584 lbs
WP 356 lbs
CNH. 10-9-42

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 engine room platform & boiler*
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *Oil tanker* If so, have the requirements of the Rules been complied with *Yes*
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with *✓*
 Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *"NARANIO" GPK report N° 22161*
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General Remarks (State quality of workmanship, opinions as to class, &c.)
This engine and boiler have been built under special survey in accordance with the Rules & approved plans. The materials & workmanship are sound & good. They have been efficiently installed in the vessel & tested under working conditions on a short sea trial. This machinery is eligible in my opinion to be classed in the Society's Register Book with record + LMC 5-43 and notation Screw shaft CL. One DB 180 lbs/0"
Steam pipes 4 1/2" O.D and under "Bessemer" steel
Steam pipes more than 4 1/2" O.D "Open Heart" steel

The amount of Entry Fee	£ 6 : 0	When applied for,
Special	£ 100 : 3	19th MAY, 1943.
Donkey Boiler Fee	£ 23 : 6	When received,
Air Receiver	£ 4 : 4	19
Travelling Expenses (if any)	£ :	

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

Committee's Minute **GLASGOW 25 MAY 1943**
 Assigned *1- Dec 5-43* *WP 180 lbs*



Rpt. 5a.
 Date of writing
 No. in Series
 Reg. Book.
5444
87829
 Built at
 Engines made
 Boilers made
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