

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} ~~Triple~~ ^{Quadruple} 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 1943Brake Horse Power 3000 ^{max} normalOwners ANGLO SAXON PETROLEUM CO L^{td} Port belonging to LONDONNom. Horse Power as per Rule 502 ⁵⁰³ 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 lb/sq. in. Diameter of cylinders 650 1/2 Length of stroke 1400 1/2 No. of cylinders 8 No. of cranks 8

Mean Indicated Pressure 118 lb/sq. in. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 84 1/2 Is there a bearing between each crank Yes

Revolutions per minute 120 Flywheel dia. 22 1/8 Weight 2.19 tons Means of ignition Compression Kind of fuel used Diesel Oil

Crank Shaft, { Solid forged as per Rule 460 1/2 as fitted
Semi built dia. of journals as fitted
All built Crank pin dia. 460 1/2 Crank Webs Mid. length breadth 750 1/2 Thickness parallel to axis 290 1/2
Mid. length thickness 267 1/2 Thickness around eye hole 205 1/2

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule 21 as fitted Thrust Shaft, diameter at collars as per Rule 18 1/2 as fitted

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

Bronze Liners, thickness in way of bushes as per Rule 731 as fitted Thickness between bushes as per Rule 548 as fitted 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 Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube

shaft No If so, state type Yes 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 Compression Air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

Forced Thickness of cylinder liners 40 1/2 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

non-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 Yes

Cooling Water Pumps, No. 4 { 2 ME Driven Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
2 Steam Driven

Bilge Pumps worked from the Main Engines, No. 2 Diameter Rotary Stroke 32 in/hr Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line { No. and Size Two 32 in/hr and One 85 in/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 Yes

Exhaust Pumps, No. and size One 55 in/hr Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 { One 40 in/hr M.E.
One 10 in/hr 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

In Holds, &c.

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

d 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 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

That pipes pass through the bunks None How are they protected Yes

That pipes pass through the deep tanks Yes 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 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 Yes Driven by Steam

Auxiliary Air Compressors, No. One No. of stages 2 Diameters Stroke Yes Driven by Diesel

Small Auxiliary Air Compressors, No. Yes No. of stages Yes Diameters Stroke Yes Driven by

What provision is made for first Charging the Air Receivers Steam air compressor

Scavenging Air Pumps, No. Yes Diameter Yes Stroke Yes Driven by

Auxiliary Engines crank shafts, diameter as per Rule See attached certificate as fitted 4 1/2 in. Position Engine room platforms

Have the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith Resolution Homolog Eng N° 21461

Cot N° C 991

29. 8. 1943

Foundation

004520-004526-0128

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.

Cubic capacity of each

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

IS A DONKEY BOILER FITTED?

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting

Receivers

Separate Fuel Tanks

Donkey Boilers

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description,
For John G. Kincaid & Co. Ltd.,

Director.

Manufacturer.

Dates of Survey while building
During progress of work in shops -- (1941) SEPT. 15. 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.
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 seatings 12. 3. 43 Engines holding down bolts 20. 4. 43

Completion of fitting sea connections 25. 2. 43 94. 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
LLO40578580.
58446/2
WD 35646/2
CNH. 10. 9. 42

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 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

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° 22141

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/2"

Steam pipes 4 1/2" O.D. and under "Beesmer" 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 : 1934 MAY 19 43.
Donkey Boiler Fee ... £ 23 : 6 : When received,
AIR RECEIVER 4 4 :
Travelling Expenses (if any) £ : : 19

Committee's Minute GLASGOW 25 MAY 1943

Assigned -1- LMC 5.43

180 lbs/2"

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



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Foundation