

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 20056

20 MAR 1937

Date of writing Report 19. 3. 37 When handed in at Local Office 19. 3. 37 Port of Grimsby
Date, First Survey 16-11-1936 Last Survey 25-2-1937 Number of Visits 16

on the Single Screw vessel M.V. 'YENANGYAUNG.' Tons Gross Net
Built at Newcastle By whom built Swan Hunter & W. Richardson Yard No. 1531 When built 1934
Engines made at Lincoln By whom made Ruston & Hornsby Ltd Engine No. 183695 When made 1934
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 40 Owners Mess. Barmah Oil Co. Ltd Port belonging to
Nom. Horse Power as per Rule 11 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

TRADE for which vessel is intended (one engine type 4 V O Z)
L ENGINES, &c. Type of Engines airless injection cold starting 2 or 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 800 LBS. Diameter of cylinders 5 3/8" Length of stroke 8" No. of cylinders 4 No. of cranks 4
M.I.P. 86.5 LBS. Is there a bearing between each crank yes
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6 1/2"
Revolutions per minute 600 Flywheel dia. 2'-8" Weight 890 LBS. Means of ignition Compression Kind of fuel used Crude oil
Crank Shaft, dia. of journals as per Rule approved 3 5/8" Crank pin dia. 3 1/4" Crank Webs Mid. length breadth 5 7/8" Thickness parallel to axis
as fitted 3 5/8" Mid. length thickness 1 5/8" shrunk Thickness around eye hole
Flywheel Shaft, diameter as per Rule approved 3 5/8" Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule
as fitted 3 5/8" as fitted Is the tube screw shaft fitted with a continuous liner

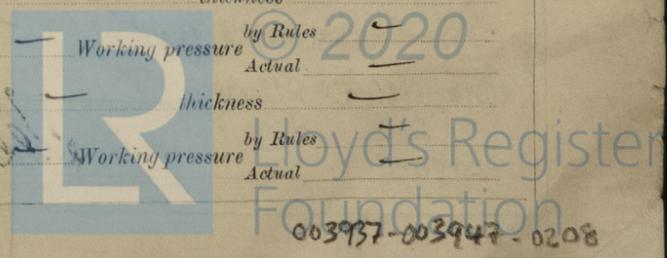
Tube Shaft, diameter as per Rule as fitted
Screw Shaft, diameter as per Rule as fitted
Is the tube screw shaft fitted with a continuous liner
Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per rule Is the after end of the liner made watertight in the
as fitted If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
Propeller boss 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
If two 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
If so, state type Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication
forced Thickness of cylinder liners 7/16" Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with
non-conducting material water If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine
Cooling Water Pumps, No. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel
What special arrangements are made for dealing with cooling water if discharged into bilges
Bilge Pump worked from the Engine, No. one Diameter 2 3/4" Stroke 2" Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line No. and Size How driven
Ballast Pumps, No. and size Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size one, geared
Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
Pumps, No. and size:—In Machinery Spaces In Pump Room
In Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces
Are they fitted with Valves or Cocks
Are all Sea Connections fitted direct on the skin of the ship Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates
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
What pipes pass through the bunkers 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
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
Is the Shaft Tunnel watertight 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. No. of stages Diameters Stroke Driven by
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
Scavenging Air Pumps, No. Diameter Stroke Driven by
Auxiliary Engines crank shafts, diameter as per Rule as fitted No. Position

AIR RECEIVERS:—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
High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure Actual
Starting Air Receivers, No. Total cubic capacity Internal diameter thickness
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure Actual



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

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

PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval) 23/10/33

Receivers

Separate Tanks 28-1-37

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes

State the principal additional spare gear supplied

DUNSTON & HORNEBY, Limited

The foregoing is a correct description.

John Kimber

Manufacturer.

Dates of Survey while building: During progress of work in shops - 1936 Nov 16 Dec 3, 29, 31. 1937 Jan 7, 18, 21, 25, 27. Feb 1, 5, 12, 16, 22, 23, 25. During erection on board vessel - Total No. of visits 16

Dates of Examination of principal parts - Cylinders 25-1-37 Covers 25-1-37 Pistons 12-2-37 Rods Connecting rods 9-3-37

Crank shaft 18-1-37 Flywheel shaft 18-1-37 Thrust shaft Intermediate shafts Tube shaft

Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions 22-2-37

Crank shaft, Material S.M. Steel Identification Mark 3250 A Flywheel shaft, Material S.M. Steel Identification Mark 3250 A

Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks

Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

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

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

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 workmanship & materials are good.

The engine has been built under Special Survey in accordance with the Rules & Approved plans.

Running trials were carried out at the Makers works & all found satisfactory.

The engine has been forwarded to Newcastle for fitting on board.

This Auxiliary Oil Engine has been satisfactorily fitted on board the vessel.

Arthur
Newcastle on Engine.

Request form attached.

Refs: 9/4156/36/IV. 933.

The amount of Entry Fee .. £	When applied for,
Special .. £	19.
Donkey Boiler Fee .. £	When received,
Travelling Expenses (if any) .. £	19.

Committee's Minute

Assigned

FRI 3 SEP 1937

See Mv. J.E. 95379

Clive Bell

Engineer Surveyor to Lloyd's Register of Shipping.



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