

Newcastle-on-Tyne 94702
AUX.

REPORT ON OIL ENGINE MACHINERY.

No. 13560.

12 NOV 1936

Rpt. 4b.

Date of writing Report 11th Nov. 1936 When handed in at Local Office 11th Nov. 1936 Port of Bristol
Received at London Office

To. in Survey held at Dursley Date, First Survey 12th Nov. Last Survey 29th Nov. 1936.
By. Book. (SUPP) Number of Visits 2.

8580 on the Single Screw vessel **HULLGATE** Tons Gross 409 Net 219
Triple
Quadruple

uilt at **NEWCASTLE-ON-TYNE** By whom built **CLELAND'S (SUCCESSORS) LTD.** Yard No. 35 When built 1937.
Engines made at **Dursley** By whom made **A. A. Lister & Co.** Engine No. 353400 When made 1936
onkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓
ake Horse Power 7 Owners **HULL GATES SHIPPING CO.** Port belonging to **HULL**
om. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted **YES.**
rade for which vessel is intended ✓

L ENGINES, &c. Type of Engines **C.I. Airless Injection** 2 or 4 stroke cycle 4 Single or double acting **Single**
Maximum pressure in cylinders 750 lb Diameter of cylinders 4.5 Length of stroke 4.375 No. of cylinders **one** No. of cranks **one**
an of bearings, adjacent to the Crank, measured from inner edge to inner edge 4.875 Is there a bearing between each crank ✓
olutions per minute 1000 Flywheel dia. 18.75 Weight 300 lb Means of ignition **Compression** Kind of fuel used **Heavy Oil**
ank Shaft, dia. of journals as per Rule Crank pin dia. 2.75 Crank Webs Mid. length breadth 3.5 Thickness parallel to axis
as fitted 2.375 Mid. length thickness 1.31 shrunk Thickness around eye-hole
wheel Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted Thrust Shaft, diameter at collars as per Rule
as fitted 2.25 as fitted
be Shaft, diameter as per Rule Screw Shaft, diameter as fitted Is the { tube { shaft fitted with a continuous liner {
as fitted
onze Liners, thickness in way of bushes as per Rule Thickness between bushes as fitted Is the after end of the liner made watertight in the
as fitted
pepper boss. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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
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

opeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
ethod of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched **Yes** Means of lubrication

Thickness of cylinder liners 266 Are the cylinders fitted with safety valves **Yes** Are the exhaust pipes and silencers water cooled or lagged with
conducting material **No** If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being sucked back to the engine

ooling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel
lge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

umps connected to the Main Bilge Line { No. and Size
How driven
lubricating Oil Pumps, including Spare Pump, No. and size

allast Pumps, No. and size
e two independent means arranged for circulating water through the Oil Cooler
umps, No. and size:—In Machinery Spaces
Holds, &c.

ependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
e all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces

l from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
e all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks.

re they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the Overboard Discharges above or below the deep water line
e 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

hat pipes pass through the bunkers How are they protected
That pipes pass through the deep tanks Have they been tested as per Rule

re all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
s 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

ompartment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from
f a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

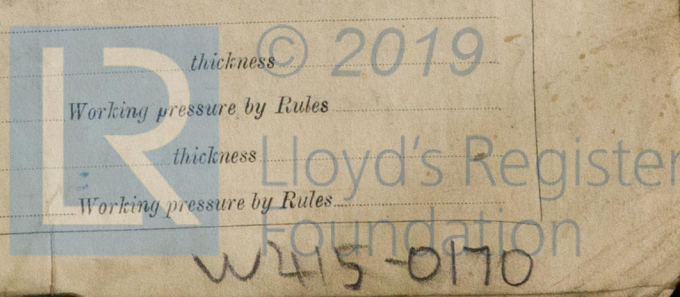
lain Air Compressors, No. No. of stages Diameters Stroke Driven by
uxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
mall Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

avenging Air Pumps, No. Diameter Stroke Driven by
uxiliary Engines crank shafts, diameter as per Rule
as fitted

R RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule
an the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

s there a drain arrangement fitted at the lowest part of each receiver
lgh Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness
eamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

arting Air Receivers, No. Total cubic capacity Internal diameter thickness
eamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting 24/10/34
(If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

The foregoing is a correct description,

Per R.A. Lister & Co. (Marine & Ship) Manufacturer.

Dates of Survey while building
During progress of work in shops -- 12, Oct. 29th Oct.
During erection on board vessel --
Total No. of visits 2.

Dates of Examination of principal parts—Cylinders 12-10-36 Covers 12-10-36 Pistons 12-10-36 Rods ✓ Connecting rods 12-10-36

Crank shaft 12-10-36 Flywheel shaft 12-10-36 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 29/10/36

Crank shaft, Material Steel Identification Mark M 488 29/10/36 Flywheel shaft, Material Steel Identification Mark M 488 29/10/36

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. ✓

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with ✓

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 ✓

Is this machinery duplicate of a previous case ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c.)

All parts of this engine have been examined before being assembled & afterwards tested in the test bed of foundry satisfactory

It has been sent to the Harworth Eng. Co. (Listed in N° 118) & stated to be for yard N° 35 being tried by Cleland (Successor) Wellington Quay in Tyne.

This engine has now been installed on board the above vessel & has been satisfactorily tested under working conditions driving:— (1) Aux. Single Stage Air Compressor, (2) 2½" Rotary Bilge pump (3) 3" Rotary Ballast pump & (4) 1½ KW. generator for light and in my opinion is suitable for the purposes intended.

Newcastle 27/1/37
J. H. Mon.

The amount of Entry Fee ... £ : : When applied for,
Special ... £ 3 : 3 0 11th Nov. 1936
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : 14 0 16/12/1936

Committee's Minute

FRI 12 MAR 1937

Assigned

See New. J.E 94702

John L. Gwynne
Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register
Foundation