

REPORT ON OIL ENGINE MACHINERY.

No. 53980

13 NOV 1933

Received by London Office

Date of writing Report 10 When handed in at Local Office 11. 11. 10³³ Port of *Glasgow*
 No. in Survey held at *Glasgow* Date, First Survey 1. 5. 33 Last Survey 13. 11. 1933.
 Reg. Book. Number of Visits 40

Single
Twin
Triple
Quadruple
Screw vessel *M.V. "Breene"* Tons { Gross 622.36
Net 316.79

Built at *Bowling* By whom built *Leith Found.* Yard No. *324* When built *1933*
 Engines made at *Glasgow* By whom made *British Auxiliaries Ltd.* Engine No. *163* When made *1933*
 Boilers made at *Aunan* By whom made *Bochman Co. Aunan Ltd.* Boiler No. *12456* When made *1933*
 Horse Power *725* Owners *Banturghy I. S. Co. Ltd.* Port belonging to *Laytletton N.Z.*
 Horse Power as per Rule *156* Is Refrigerating Machinery fitted for cargo purposes *No.* Is Electric Light fitted *Y/0.*
 Vessel for which vessel is intended *Coasting*

ENGINES, &c. Type of Engines *British Polar Diesel* 2 or 4 stroke cycle *2* Single or double acting *Single*
 Maximum pressure in cylinders *700 lbs* Diameter of cylinders *340 1/2* Length of stroke *570 1/2* No. of cylinders *5* No. of cranks *5*
 Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge *484 1/2* Is there a bearing between each crank *Y/0.*
 Revolutions per minute *250* Flywheel dia. *1550 1/2* Weight *2.86 tons* Means of ignition *Compression* Kind of fuel used *Diesel oil*
 Crank Shaft, dia. of journals as per Rule *216 1/2* Crank pin dia. *220 1/2* Crank Webs Mid. length breadth *308 1/2* Thickness parallel to axis *Y/0.*
 as fitted *220* Mid. length thickness *122* shrunk Thickness around eyehole *Y/0.*
 Propeller Shaft, diameter as per Rule *216 1/2* Intermediate Shafts, diameter as per Rule *155 1/2* Thrust Shaft, diameter at collars as per Rule *220*
 as fitted *220* Is the tube screw shaft fitted with a continuous liner *Y/0.*
 Liners, thickness in way of bushes as per Rule *Y/0.* Thickness between bushes as per Rule *Y/0.* Is the after end of the liner made watertight in the
 as fitted *Y/0.* If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *Y/0.*
 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 *Y/0.*
 No. of liners are fitted, is the shaft lapped or protected between the liners *Y/0.* Is an approved Oil Gland or other appliance fitted at the after end of the tube
 No. If so, state type Length of Bearing in Stern Bush next to and supporting propeller *35 1/2*
 Propeller, dia. *7'-9"* Pitch *4'-6"* No. of blades *4* Material *Brass* whether Moveable *Solid* Total Developed Surface *26* sq. feet
 Method of reversing Engines *Diesel Comp. Air* Is a governor or other arrangement fitted to prevent racing of the engine when detached *Y/0.* Means of lubrication
 Thickness of cylinder liners *25.5 1/2* Are the cylinders fitted with safety valves *Y/0.* Are the exhaust pipes and silencers water cooled or lagged with
 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 *Y/0.*
 Cooling Water Pumps, No. *1 @ 135 1/2" x 140 1/2" also ballast pump* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *Y/0.*
 special arrangements are made for dealing with cooling water if discharged into bilges *Y/0.*
 Main Pumps worked from the Main Engines, No. *One* Diameter *100 1/2* Stroke *140 1/2* Can one be overhauled while the other is at work *Y/0.*
 Pumps connected to the Main Bilge Line No. and Size *1 @ 4" x 4" x 5" and 1 @ 7" x 8" x 8"* How driven *Steam*
 Main Pumps, No. and size *1 @ 7" x 8" x 8"* Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size *2 @ 10.24 Gal ft/min*
 two independent means arranged for circulating water through the Oil Cooler *Y/0.* Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 pumps, No. and size:—In Machinery Spaces *1 @ 3"* In Pump Room *—*
 Tolds, &c. *2 @ 3"*
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *1 @ 2" and 1 @ 3 1/2"*
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes *Y/0.* Are the Bilge Suctions in the Machinery Spaces
 from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges *Y/0.*
 Are all Sea Connections fitted direct on the skin of the ship *Y/0.* Are they fitted with Valves or Cocks *Both.*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates *Y/0.* 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 *Y/0.* Are the Blow Off Cocks fitted with a spigot and brass covering plate *Y/0.*
 How are they protected *Y/0.*
 How are they protected *Y/0.*
 Have they been tested as per Rule *Y/0.*
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *Y/0.*
 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
 apartment to another *Y/0.* Is the Shaft Tunnel watertight *—* Is it fitted with a watertight door *Y/0.* worked from *Y/0.*
 On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork *Y/0.*

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Y/0.*
 Can the internal surfaces of the receivers be examined and cleaned *Y/0.* Is a drain fitted at the lowest part of each receiver *Y/0.*
 High Pressure Air Receivers, No. *1* Cubic capacity of each *56.5 Cub ft* Internal diameter *650 1/2* thickness *14 1/2*
 Seamless, lap welded or riveted longitudinal joint *Riveted* Material *5* Range of tensile strength *28-32 tons* Working pressure *350*
 Starting Air Receivers, No. *2* Total cubic capacity *56.5 Cub ft* Internal diameter *650 1/2* thickness *14 1/2*
 Seamless, lap welded or riveted longitudinal joint *Riveted* Material *5* Range of tensile strength *28-32 tons* Working pressure *350*



IS A DONKEY BOILER FITTED? *Yps.*

If so, is a report now forwarded? *Yps.*

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

PLANS. Are approved plans forwarded herewith for Shafting *Yps.*
(If not, state date of approval)

Receivers *Yps.*

Separate Tanks *Yps.*

Donkey Boilers *Yps.*

General Pumping Arrangements *Yps.*

Oil Fuel Burning Arrangements *Yps.*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yps.*

State the principal additional spare gear supplied

See attached List.

The foregoing is ~~certified~~ **FOR BRITISH AUXILIARIES, LIMITED.**

John Rogers
GENERAL MANAGER.

Manufacturer.

Dates of Survey while building
During progress of work in shops-- 1933 May: 1. 10. 18 June: 2. 13 July: 3. 12. 25 Aug: 7. 17. 23. 30 Sep: 4. 6. 12. 13. 15. 19. 20. 22. 27. 28
During erection on board vessel--- 30 Oct: 2. 4. 6. 9. 10. 16. 23. 27. 31 Nov: 1. 3. 6. 8. 13
Total No. of visits 40

Dates of Examination of principal parts—Cylinders 18.9.33 Covers 9.10.33 Pistons 17.8.33 Rods — Connecting rods 27.9.33
Crank shaft 21.7.33 (FR) Flywheel shaft *and* Thrust shaft 27.9.33 Intermediate shafts — Tube shaft —
Screw shaft — Propeller 4.10.33 Stern tube 2.10.33 Engine seatings 7.8.33 Engines holding down bolts 27.10.33
Completion of fitting sea connections 4.10.33 Completion of pumping arrangements 13.11.33 Engines tried under working conditions 13.11.33
Crank shaft, Material *17 Incht steel* Identification Mark *YH-MAB* Flywheel shaft, Material *and* Identification Mark
Thrust shaft, Material *do.* Identification Mark *3178-JFC-26* 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. *Yps.*

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Yps.*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *No.*

If so, have the requirements of the Rules been complied with *Yps.*

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with *Yps.*

Is this machinery duplicate of a previous case *Yps.* If so, state name of vessel *Henry Rotts M.V. 20 198.*

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

This machinery has been built under special licence and in accordance with the Rules. It has been placed on board and efficiently secured in position and on completion has been tried under full working conditions with satisfactory results.

The machinery of this vessel is eligible, in our opinion, to be classed in the Register Book with notation of + L.M.C. 11.33.

Y. Caegow.

11/11/33.

The amount of Entry Fee .. £ 3 : : When applied for, 11/11/33
Special *39 less* ... £ 33 : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : : When received, 20/11/33

Committee's Minute **JUE 14 NOV 1933**

Assigned *+ Linc 11.33 Ch. L.B. 1000*

Prof. J. J. Boyle
Engineer Surveyor to Lloyd's Register of Shipping.



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(The Surveyors are requested not to write on or below the space for Committee's Minute.)

If not, state whether, and when, one will be sent to the Registrar of Shipping. If a report also sent on the Hull of the ship.