

REPORT ON OIL ENGINE MACHINERY.

No. 53980

13 NOV 1933

Date of writing Report

10

When handed in at Local Office

11. 11.

1033 Port of

Received at London Office

Glasgow

No. in Survey held at Reg. Book.

Glasgow

Date, First Survey

1. 5. 33

Last Survey

13. 11. 1933.

Number of Visits

48

Single
Twin
Triple
Quadruple

Screw vessel

M.V. Breeze

Tons Gross 622.36
Net 316.79

Built at

Bowling

By whom built

Scott & Sons

Yard No. 324

When built 1933

Engines made at

Glasgow

By whom made

British Auxiliary 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

125

Owners

Cantabury I.I. Co. Ltd.

Port belonging to

Lyttelton N.Z.

Horse Power as per Rule

156

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

Yls.

Use 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

100 lb/sq. in.

Diameter of cylinders

34 1/2

Length of stroke

57 1/2

No. of cylinders

5

No. of cranks

5

Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge

48 1/2

Is there a bearing between each crank

Yls.

Revolutions per minute

250

Flywheel dia.

155 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

as fitted 220

Crank pin dia.

220 1/2

Crank Webs

Mid. length breadth 308 1/2

Mid. length thickness 122

Thickness parallel to axis

shrunk

Thickness around eye-hole

Propeller Shaft, diameter

as per Rule 216 1/2

as fitted 220

Intermediate Shafts, diameter

as per Rule

as fitted

Thrust Shaft, diameter at collars

as per Rule 155 1/2

as fitted 220

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

Yls.

Liner, thickness in way of bushes

as per Rule

as fitted

Thickness between bushes

as per rule

as fitted

Is the after end of the liner made watertight in the

After boss

Yls.

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

Yls.

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 so, state type

Yls.

Is an approved Oil Gland or other appliance fitted at the after end of the tube

Propeller, dia.

1-9

Pitch

4-6

No. of blades

4

Material

Brass

whether Moveable

Solid

Total Developed Surface

26

sq. feet

Method of reversing Engines

Direct Comp. Air

Is a governor or other arrangement fitted to prevent racing of the engine when disconnected

Yls.

Means of lubrication

Thickness of cylinder liners

25.5

Are the cylinders fitted with safety valves

Yls.

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

Working Water Pumps, No.

1 @ 135 1/2 x 140 1/2

also

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Yls.

Are special arrangements made for dealing with cooling water if discharged into bilges

Yls.

Water 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

Pumps connected to the Main Bilge Line

No. and Size

1 @ 4 1/2 x 4 1/2 x 5" and 1 @ 7 x 8 x 8"

How driven

Steam

Water 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

Are two independent means arranged for circulating water through the Oil Cooler

Yls.

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size

In Machinery Spaces

1 @ 3"

In Pump Room

Folds, &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

Yls.

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

Yls.

Are all Sea Connections fitted direct on the skin of the ship

Yls.

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

Yls.

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

Yls.

Are the Blow Off Cocks fitted with a spigot and brass covering plate

Yls.

Do all pipes pass through the bunkers

None

How are they protected

Do all pipes pass through the deep tanks

None

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

Yls.

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

Yls.

Is the Shaft Tunnel watertight

Yls.

Is it fitted with a watertight door

Yls.

worked from

On 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

17 1/2 x 10 1/2

Stroke

350 1/2

Driven by Main Engine

Auxiliary Air Compressors, No.

One

No. of stages

3

Diameters

12.6 x 2 1/2

Stroke

3 1/2

Driven by Steam

Small Auxiliary Air Compressors, No.

One

No. of stages

One

Diameters

8 1/2

Stroke

350 1/2

Driven by Main Engine

Scavenging Air Pumps, No.

One

Diameter

8 1/2

Stroke

350 1/2

No.:

Position

Yls.

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Yls.

Can the internal surfaces of the receivers be examined and cleaned

Yls.

Is a drain fitted at the lowest part of each receiver

Yls.

High Pressure Air Receivers, No.

1

Cubic capacity of each

56.5

Internal diameter

650 1/2

Thickness

14 1/2

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Actual

by Rules

Actual

by Rules

Actual

Working pressure

Actual

by Rules

Actual

Working pressure

Actual

IS A DONKEY BOILER FITTED?

Yps.
No.

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
(If not, state date of approval)

Yps.

Receivers

Yps.

Separate Tanks

Yps.

Donkey Boilers

Yps.

General Pumping Arrangements

Yps.

Oil Fuel Burning Arrangements

✓

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~~ **AUXILIARY CERTIFICATE**

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 7.8.33 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 1/2 inch 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 ✓

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 Yps. If so, state name of vessel *Henry Rotts M.O. 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 tested 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.

11/11/33.

The amount of Entry Fee .. £ 3 : : When applied for, 11/11/33
Special *39. less* .. £ 33 : :
Donkey Boiler Fee .. £ 1/2 : :
Travelling Expenses (if any) £ : : When received, 20/11/33

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

Assigned

+ L.M.C. 11.33 CL.
L.B. 1000

CERTIFICATE WRITTEN 13/11/33

Proforman
Engineer Surveyor to Lloyd's Register of Shipping.



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