

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 1720.

Received at London Office 18 JUL 1935

Date of writing Report 16th July 1935 When handed in at Local Office 16th July 1935 Port of Bremen

No. in Survey held at 16th July 1935

Date, First Survey 5th April 1935 Last Survey 16th July 1935

Reg. Book.

Single
on the Twin
Triple } Screw vessel
Quadruple }

Joseph Medall

Number of Visits 52

Tons { Gross 2087
Net 1607

Built at Newcastle on Tyne

By whom built Swan, Hunter & Wigham Richardson Yard No. 1507 When built 1935

Engines made at Augsburg

By whom made Maschinenfabrik Augsburg-Nürnberg Engine No. 560300 When made 1935

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 2600/500

Owners Ciferri Paper Co.

Port belonging to Montreal

Nom. Horse Power as per Rule 245

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

OIL ENGINES, &c.—Type of Engines 2 x 952 30/42

2 or 4 stroke cycle 2 Single or double acting single

Maximum pressure in cylinders 60 atm

Mean Indicated Pressure 5.6 atm

Diameter of cylinders 300 mm

Length of stroke 420 mm

No. of cylinders 2 x 5

No. of cranks 2 x 5

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 370 mm

Is there a bearing between each crank yes

Revolutions per minute 375/353

Flywheel dia. 1000 mm

Weight 1000 kg

Means of ignition direct ign.

Kind of fuel used Diesel oil in fed bed

Crank Shaft, dia. of journals as per Rule

as fitted 190 mm

Crank pin dia. 190 mm

Crank Webs

Mid. length breadth 300 mm

Mid. length thickness 96 mm

Thrust Shaft, diameter at collars as per Rule

as fitted 190 mm

Flywheel Shaft, diameter as per Rule

as fitted

Intermediate Shafts, diameter as per Rule

as fitted

Thrust Shaft, diameter at collars as per Rule

as fitted 190 mm

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

as fitted

Thickness between bushes as per rule

as fitted

Is the after end of the liner made watertight in the

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

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

shaft If so, state type

Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia.

Pitch

No. of blades

Material

whether Movable

Total Developed Surface

sq. feet

Method of reversing Engines direct by pump - air

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

Means of lubrication

free Thickness of cylinder liners 20 mm

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

Cooling Water Pumps, No. 1, water from main engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. 1

Diameter 100 mm

Stroke 90 mm

Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line

No. and Size

How driven

Is the cooling water led to the bilges

If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements

Ballast Pumps, No. and size

Power-Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1000 mm, 9.5 m³/h at 1000 revs.

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

led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

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

Are they fitted with Valves or Cocks

Are 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

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. 1, water from main engine

No. of stages 2

Diameters 80/70 mm

Stroke 80 mm

Driven by main engine

Scavenging Air Pumps, No. 1, blown off the Root type

Diameter 500 mm³/4

Stroke

Driven by main engine

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

by Rules
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

by Rules
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 *yes 210326, 6/11/22-23* 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 *yes*

State the principal additional spare gear supplied

The foregoing is a correct description
Maschinenfabrik Augsburg-Nürnberg A.G.

Manufacturer.

id. 10/11/22

April: 5. 18. 23. 24. 25. 26. 27. 28. 29. 30. May: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. June: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. July: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16.

Dates of Survey while building

During progress of work in shops--

During erection on board vessel--

Total No. of visits

Dates of Examination of principal parts—Cylinders *5/8.6.25* Covers *7.6.25* Pistons *5/7.6.25* Rods Connecting rods *5/7.6.25*

Crank shaft *21.5.25* Flywheel shaft Thrust shaft *21.5.25* 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 *10/11/22*

Crank shaft, Material *S.M. steel* Identification Mark *LLOYD'S 4597/4704 J.G. 10/11.235* Flywheel shaft, Material Identification Mark

Thrust shaft, Material *with crank shaft in one piece* 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

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. *These heavy oil engines have been constructed under special survey in accordance with the Soc. Rules and Regulations as well as with the approved plans and instructions thereto.*

The materials used in the constructions are good and the workmanship is satisfactory.

The engines have been tested in the shop under normal load, 10% overload and 20% overload during about 20 hours and were found to be in safe working conditions during these trials.

In my opinion the vessel for which these engines are intended will be eligible for the notation of $\frac{3}{4}$ LMC [with date] when the whole machinery has been fitted satisfactorily on board and tried under full working conditions.

Copy of this report has been sent to the Newcastle Surveyors.

This machinery has been installed on board, tried under working conditions and found satisfactory.

A. H. Kiddle

L. J. H. H. H.

Engine Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £24. 64. 00

When applied for, 17. 4. 1925

4/5 Special ... £ 930. 00

Test bed trials ... £ 168. 00

Donkey Boiler Fee ... £ 15. 00

Travelling Expenses (if any) ... £ 15. 00

Committee's Minute

Assigned

See NWC. 76. 92860

TUE. 27 AUG 1925

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