

# REPORT ON OIL ENGINE MACHINERY.

No. 1611.

29 MAR 1934

Received at London Office

Date of writing Report 24. 1. 1934 When handed in at Local Office 26. 1. 1934 Port of Bremen

No. in Survey held at Augsburg  
Reg. Book.

Date, First Survey 22<sup>nd</sup> September 1933 Last Survey 24<sup>th</sup> March 1934

Number of Visits 90

Single  
Twin  
Triple  
Quadruple } Screw vessel

Tons }  
Gross  
Net

Built at Reupren

By whom built Messrs. Wm. Simons & Co. Ltd.

Yard No. 704 When built 1933-34

Machinery made at Augsburg

By whom made Masch. fabrik Augsburg-Nürnberg

Engine No. 080 When made 1933/34

Boilers made at

By whom made

Boiler No. When made

Horse Power 2x1500

Owners Messrs. Bremen Oil Co. Ltd.

Port belonging to London

Horse Power as per Rule 490

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

for which vessel is intended run propelling dredger

ENGINES, &c.—Type of Engines 2x 96/674 2 or 4 stroke cycle 4 Single or double acting single

Working pressure in cylinders 49 atem Diameter of cylinders 520 mm Length of stroke 740 mm No. of cylinders 2x6 No. of cranks 2x6

Bearings, adjacent to the Crank, measured from inner edge to inner edge 660 mm Is there a bearing between each crank yes

Revolutions per minute 250 Flywheel dia. 1800 mm Weight 1280 kg Means of ignition direct ign. Kind of fuel used Diesel oil (on test bed)

Shaft, dia. of journals as per Rule 310 mm Crank pin dia. 310 mm Crank Webs Mid. length breadth 410 mm Kind of fuel used Diesel oil (on test bed)

Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule

Screw Shaft, diameter as per Rule Is the tube screw shaft fitted with a continuous liner

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

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

When 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

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 39 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

insulating material water cooled If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

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

Special arrangements are made for dealing with cooling water if discharged into bilges

Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Connected to the Main Bilge Line No. and Size How driven

Pumps, No. and size Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 cog wheel pump worked from main engine. 4 1/2 in 3/4

Independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

No. and size.—In Machinery Spaces In Pump Room

Direct Power Pump Direct Suctions to the Engine Room Bilges, No. and size

Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces

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

Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

Are they fitted 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 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

How are they protected Have they been tested as per Rule

Are they protected when passing through the deep tanks

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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, plans B200322 - 30.10.33 Receivers yes, plan H17807 - 21.10.33* Separate Tanks  
 (If not, state date of approval) *Letter 5.9.33 and 6.1.34*

Donkey Boilers... General Pumping Arrangements... Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes, as per rules*

State the principal additional spare gear supplied

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

Manufacturer.

Dates of Survey while building  
 During progress of work in shops - *Sept 1933: 22.26.27. Oct 1933: 20.23.24.25.26. Nov 1933: 2.4.8.10.13.14.21.22.23.27.28. Dec 1933: 2.5.6.7.8.11.12.18.19.20. 21.23.30: Jan 1934: 2.3.10.11.12.13.17.18.19.20. Feb 1934: 1.2.3.5.6.7.8.9.10.13.14.15.16.17.19.20.21.22.23.24.26.27.28. 22.25.26.27.29.30.31*  
 During erection on board vessel - *March 1934: 1.2.3.5.6.7.8.9.10.12.15.17.19.20.21.22.23.24.*  
 Total No. of visits

Dates of Examination of principal parts - Cylinders *13.1.34/14.1.34* Covers *24.2/23.11.33* Pistons *12.3.34* Rods *12.1.34* Connecting rods *2.12.33*  
 Crank shaft *20.1.34/24.3.34* Flywheel shaft *8.12.33* 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 *19/20.2.34*

Crank shaft, Material *S.M. Steel* Identification Mark *LLOYD'S F.S. 1827. 31.10.33 HB 10198. 13.12.33* Flywheel shaft, Material *S.M. steel* Identification Mark *LLOYD'S F.S. 1627 8.12.33*  
 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  
 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 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 on the weakens test bed during 26 hours incl. hours 4% overload and 8 hours partial loads in the presence of the undersigned and were found to work satisfactorily. In my opinion the vessel for which these engines are intended will be eligible for the notation of L.M.C. [with date] when the whole machinery has been fitted. Satisfactorily on board and tried under full working conditions. A copy of this report for the Rangoon Surveyors has been forwarded to the London head office.*

Certificate (if required) to be sent to

The amount of Entry Fee	£ 6 : 8	When applied for,	
<i>1/5 Special</i>	£ 125 : 15		<i>27. 3. 1934</i>
<i>test bed trials</i>	£ 13 : 8	When received,	
<i>Donkey Boiler Fee</i>	£ 6 : 14		<i>30.4.1934</i>
<i>Travelling Expenses (if any)</i>	£ 26 : 3		

*L. Straw*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned  
*See Rgn Rpt 873*

