

REPORT ON OIL ENGINE MACHINERY.

No. 1296

Received at London Office 25 SEP 1930

Date of writing Report 16th September 30 When handed in at Local Office 18th September 30 Port of Bremen

No. in Survey held at Lübeck Date, First Survey 21st October 1929 Last Survey 16th Sept 1930
Reg. Book. Number of Visits 83

Single
Twin
Triple
Quadruple
Screw vessel

Tons } Gross
 } Net

Built at Bilbao By whom built Compañia Euskalduna Yard No 5506 When built 1930

Engines made at Lübeck By whom made Maschinenfabrik Augsburg-Nürnberg Engine No 350060 When made 1929/30

Donkey Boilers made at By whom made Boiler No. When made

Brake Horse Power 2x1600 Owners Compañia Arrendataria del Municipio de Retoleros of Madrid Port belonging to

Nom. Horse Power as per Rule 754 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Trade for which vessel is intended

OIL ENGINES, &c.—Type of Engines 2xK7V 60/110 2 1/2 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 45 atm Diameter of cylinders 600 mm Length of stroke 1100 mm No. of cylinders 2x7 No. of cranks 2x7

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 854 mm Is there a bearing between each crank Yes

Revolutions per minute 195 Flywheel dia. 2100 mm Weight 6300 kg Means of ignition Solid principle, injection Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule 390 mm Crank pin dia. 390 mm Crank Webs Mid. length breadth 550 mm Thickness parallel to axis 242 mm

Flywheel Shaft, diameter as per Rule 320 mm Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule 320 mm

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

Bronze 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

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 Moveable Total Developed Surface sq. feet

Method of reversing Engines direct by means of comp. air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

forced Thickness of cylinder liners 45 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. 3, fitted to each engine; 1 spare 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, each eng Diameter 135 mm Stroke 200 mm Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line No. and Size How driven

Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size 4, fitted to each engine of 42 cbm/h 1 spare electr. driven 47 cbm/h

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. 2 No. of stages 3 Diameters 260/220/60 mm Stroke 200 mm Driven by aux. engines

Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule 130 mm

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

Can the internal surfaces of the receivers be examined and cleaned Yes Is a drain fitted at the lowest part of each receiver

Starting High Pressure Air Receivers, No. 2, for main eng Cubic capacity of each 10 000 CF Internal diameter 1500 mm Thickness 6

Seamless, lap welded or riveted longitudinal joint riveted Material S.M. Steel Range of tensile strength 41-47 kg/cm² Working pressure by Rules Actual

Starting Air Receivers, No. 2, aux engines Total cubic capacity 125 CB each Internal diameter 405 Thickness 5

Seamless, lap welded or riveted longitudinal joint seamless Material S.M. Steel Range of tensile strength 50 kg/cm² Working pressure by Rules Actual



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0150 26 0150 38-0134

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 *London letters E 8.11.29* Receivers *yes, London letters E 12.12.29* Separate Tanks
(If not, state date of approval) *27.11.29*

Donkey Boilers _____ General Pumping Arrangements *29.4.30, 23/25.7.30* 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.

Ma. Feiler v. Thurnheim Manufacturer.

Dates of Survey while building
During progress of work in shops - *21.29. Oct; 4.13.14.30/Nov; 12. 19 Dec; 20. 22.23. Jan; 14.15.7.14.18.18.22. Febr; 4.5.7.13.18.19.20.25.26.28.29 March; 26.28.29 April; 2.3.5.10. 7.12.13.14.20.21.22.23.31. May; 2.3.4.5.6.7.10.11.12.14.16.21.25.26.28.30 June; 1.2.5.7.8.10.11.12.14.19 July; 1.2.4.5.6.13 August; 1.2.3.6. 16. September 1930*
During erection on board vessel -
Total No. of visits

Dates of Examination of principal parts—Cylinders *20/2.20/28.4.30* Covers *14.2.30* Pistons *4.3.30* Rods *7.3.30* Connecting rods *25.3.30*
Crank shaft *5/13/20.5.30* Flywheel shaft *19.7.30* Thrust shaft *16.9.30* 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 *11/12.6.30 (350060)*
Crank shaft, Material *S.M. Steel* Identification Mark *LLOYD'S V.5.859. 5.5.30* Flywheel shaft, Material *S.M. Steel* Identification Mark *LLOYD'S KH.14000 4.2.30*
Thrust shaft, Material *S.M. Steel* Identification Mark *LLOYD'S 943/47 P.K.N.S. 20.5/7.6.30* 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

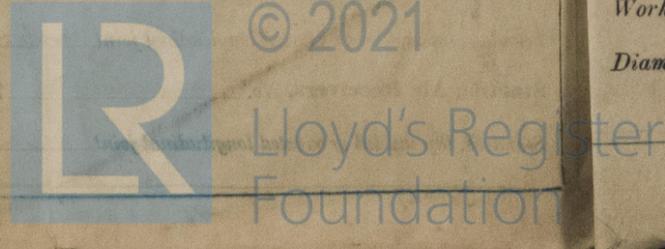
Is this machinery duplicate of a previous case _____ If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. *These heavy oil engines and their accessories 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 engine No. 350060 has been tested in the makers shop and was found working satisfactorily. In my opinion the vessel for which these engines are intended will be eligible for the notation of * LMC [with date] when the engines have been satisfactory fitted on board and tried under full working conditions. A copy of this report has been sent to the Bilbao Surveyors. The working pressure in the cylinders of the auxiliary machinery not to exceed 45 atmos.*)

The amount of 1/2 Entry Fee	£ 4 : 16 :	When applied for,
4/5 Special	£ 90 : 3 :	<i>24.9.1930</i>
2 pivoted air receivers	£ 8 : 8 :	When received,
Donkey boiler fee		<i>6.11.30</i>
Travelling Expenses (if any)	£ 2 : 2 :	

J. Hawks
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI, 10 APR 1931**
Assigned



Rpt. 5a.
Date of writing
No. in Reg. Book.
89950
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Engines
Boilers
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MULTI
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Certificate (if required) to be sent to