

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 16th September 30
Reg. Book.Date, First Survey 24 October 1929 Last Survey 16th Sept 1930
Number of Visits 83Single
Twin
Triple
Quadruple
Screw vesselTons { Gross
Net

Built at Bilbao By whom built Compañia Euskalduna Yard No 5506 When built 1930
Engines made at Augsburg By whom made Masch. fabrik Augsburg-Kirnbach Engine No 350050 When made 1929/30
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 2x1600 Owners Compañia Arrendataria del Muelle 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 2354 43 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
as fitted 390 mm Mid. length thickness 242 mm shrunk Thickness around eye hole 162.5 mm
Flywheel Shaft, diameter as per Rule 320 mm Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule
as fitted 320 mm as fitted 320 mm
Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the { tube } shaft fitted with a continuous liner {
as fitted as fitted screw
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
as fitted 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. 1, fitted to each engine, 1 spare electric driven 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 1 fitted to each engine of 42 dm/h
1 spare elect. driven 47 dm/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
as fitted 130 mm

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule 44
Can the internal surfaces of the receivers be examined and cleaned yes Is a drain fitted at the lowest part of each receiver yes
Starting High Pressure Air Receivers, No. 2, for main eng Cubic capacity of each 10 000 L Internal diameter 150 mm Thickness 16 mm
Seamless, lap welded or riveted longitudinal joint riveted Material S. M. Steel Range of tensile strength 44-50 kg/mm² Working pressure by Rules
Actual
Starting Air Receivers, No. 2, aux engines Total cubic capacity 125 L each Internal diameter 40 mm Thickness 8 mm Working pressure by Rules
Actual
Seamless, lap welded or riveted longitudinal joint seamless Material S. M. Steel Range of tensile strength 44-50 kg/mm² 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, London letters E 8.11.29* Receivers *yes, London letters E 12.12.29* Separate Tanks *yes*
(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; 14.5.7.14.15.18.21. Feb; 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; 1.2.4.5.6.18 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.S. 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.

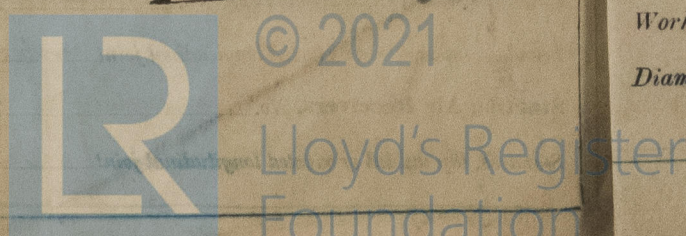
The working pressure in the cylinders of the auxiliary machinery not to exceed 45 atm.

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

Committee's Minute FRI, 10 APR 1931

Assigned

F. Howard
Engineer Surveyor to Lloyd's Register of Shipping.



Rpt. 5a.

Date of writing

No. in Reg. Book.

89950

Master

Engines made

Boilers made

Nominal H.P.

MULTI

Manufacture

Total H.P.

No. and D.

Tested by

Area of F.

Area of e.

In case of

Smallest a.

Smallest a.

Largest i.

Thickness

long. seam

Percentag

Percentag

Thickness

Material

Length of

Dimension

End plat

How are

Tube plat

Mean pi

Girders

at centre

in each

Tensile

Pitch of

Working

Thickness

Pitch of

Working

Diameter

Working

Diameter