

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 1344.

Received at London Office

-2 APR 1931

Date of writing Report 19th March 31 When handed in at Local Office 21st March 31 Port of Bremen

No. in Survey held at Lugsburg
Reg. Book.

Date, First Survey 21st March 1930 Last Survey 17th March 1931
Number of Visits 75

Single
Twin
Triple
Quadruple

Screw vessel

CABO SAN AUGUSTIN

Tons { Gross
Net

Built at Bilbao

By whom built Soc. Española de const. naval

Yard No. 38 When built 1930/31

Engines made at Lugsburg

By whom made Masch. fabrik Lugsburg - Nurnberg

Engine No. 520 When made 1930/31

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 2x4600

Owners Memrs. Barra & Co

Port belonging to Seville

Nom. Horse Power as per Rule 2760

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

IL ENGINES, &c. Type of Engines 2x DZ 2u60/90 2 or 4 stroke cycle 2 Single or double acting double

Maximum pressure in cylinders 45 atm Diameter of cylinders 600 mm Length of stroke 900 mm No. of cylinders 2x7 No. of cranks 2x7

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 885 mm Is there a bearing between each crank yes

Revolutions per minute 133 Flywheel dia. 2100 mm Weight 3120 kg Means of ignition Solid inject. Kind of fuel used

Crank Shaft, dia. of journals as per Rule as fitted 420 mm Crank pin dia. 420 mm Crank Webs Mid. length breadth 560 mm shrunk Thickness parallel to axis Mid. length thickness 235 mm Thickness around eyehole

Flywheel Shaft, diameter as per Rule as fitted 420 mm Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted

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

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

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

he 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

wo 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

hod of reversing Engines direct. aux. air Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

wood Thickness of cylinder liners 42.5 mm Are the cylinders fitted with safety valves yes 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

ing Water Pumps, No. 3x 270 m³/h seawater indep. rotary Is the sea suction provided with an efficient strainer which can be cleared within the vessel

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

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

ast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size 3x 45 m³/h indep. rotary

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

ps, No. and size:—In Machinery Spaces

olds, &c.

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

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

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

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

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

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

t pipes pass through the bunkers How are they protected

t pipes pass through the deep tanks Have they been tested as per Rule

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

e 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

artment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

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

liary Air Compressors, No. 2x 215 m³/h No. of stages 3 Diameters 350/295/100 mm Stroke 220 mm Driven by aux. engines

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

enging Air Pumps, No. 2x tandem Diameter 1380 mm Stroke 820 mm Driven by main engines

liary Engines crank shafts, diameter as per Rule as fitted 170 mm

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

of Shipping, internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces manholes

re a drain arrangement fitted at the lowest part of each receiver yes

Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

ss, lap welded or riveted longitudinal joint Material 15 m³ Range of tensile strength 1800 mm Working pressure by Rules 30 atm

ng Air Receivers, Not for aux. engines Total cubic capacity 400 m³ Internal diameter 405 mm thickness 17.5 mm Working pressure by Rules 30 atm

ss, lap welded or riveted longitudinal joint riveted, solid dr. Material S. M. Steel Range of tensile strength 44-50, 41-42 and 42-50 kg/cm² Working pressure by Rules 30 atm

005518-005528-0197

IS A DONKEY BOILER FITTED?

PLANS. Are approved plans forwarded herewith for Shafting ^{4.3.30} ^{26.3.30} ^{8.8.30}
(If not, state date of approval)

Donkey Boilers

General Pumping Arrangements

If so, is a report now forwarded?

Receivers ^{26.3.30} ^{29.8.30} ^{9.12.30}

Separate Tanks

Oil Fuel Burning Arrangements

SPARE GEAR as per Rules

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

M. Schumann *Hochmann*

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 21. March; 2. April; 13. 19. 22. 31. May; 7. 16. 25. June; 8. 10. 22. July; 6. 18. 23. August; 6. 8. 13. 16. 17. 20. 27. 30. Sept; 4. 6. 7. 13. 14. 20. 21. 25. 27. 28. 29. 30. Oct; 8. 10. 11. 19. 20. 22. 28. 29. Nov; 1. 2. 8. 9. 10. 16. 17. 18. 23. 24. 27. 29. 30. Dec; 1930; 3. 5. 6. 14. 15. 18. 17. 19. 20. 21. 22. Jan; 17. March 1931
During erection on board vessel - - -
Total No. of visits

Dates of Examination of principal parts—Cylinders 16/20.9.30 Covers 8/28.11.30 Pistons 4.10.30 Rods 13.10.30 Connecting rods 20.10.30

Crank shafts 20.10.30 Flywheel shafts 2.1.31 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

Crank shafts Material S.M. Steel Identification Mark LLOYD'S F.K. 1846/47/48 12.6.30 Flywheel shafts Material S.M. Steel Identification Mark 3822 } M.K. 5.9.31
3823 }

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

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.

In my opinion the vessel for which these engines are intended will be eligible for the notation of LMC [with date]

when the machinery has been fitted satisfactory on board and tried under full working conditions.

A report has been sent to the Bilbao Surveyors