

Rpt. 4b.

5 JAN 1946

Report on Oil Engine Machinery.

No. 14499....

Received at London Office

4 JAN 1946

Date of writing Report... 11th Dec. 1945. When handed in at Local Office... 24th Dec. 1945. Port of... Gothenburg.

No. in Survey held at... Gothenburg. Date, First Survey... 2nd January 1940 Last Survey... 4th Dec. 1945.

Reg. Book.

Number of Visits... 83.

31760... on the ~~XXXX~~ ~~XXXX~~ ~~XXXX~~ Single Screw vessel... "SAN ANTONIO" Tons {Gross 11163... Net 6676...

Built at... Gothenburg By whom built... A-B. Götaverken Yard No. 546 When built... 1945

Engines made at... Gothenburg By whom made... A-B. Götaverken Engine No. 1410 When made... 1945

Donkey Boilers made at... Gothenburg By whom made... A-B. Götaverken Boiler No. 2128/9 When made...

Brake Horse Power... 5600 Owners... Argentine Government Port belonging to... Buenos Aires

Nom. Horse Power as per Rule... 992 Is Refrigerating Machinery fitted for cargo purposes... No Is Electric Light fitted... Yes

Trade for which vessel is intended... Tanker

OIL ENGINES, &c.—Type of Engines... Heavy oil, crosshead type 2 or 4 stroke cycle... 2 Single or double acting... Single

Maximum pressure in cylinders... 49 kg/cm² Diameter of cylinders... 680 mm Length of stroke... 1500 mm No. of cylinders... 8 No. of cranks... 8Mean Indicated Pressure... 6.5 kg/cm² Span of bearings, adjacent to the Crank, measured from inner edge to inner edge... 974 mm Is there a bearing between each crank... Yes

Revolutions per minute... 112 of Balance Weights... 11500 kgm Means of ignition... Compression Kind of fuel used... Diesel oil

Crank Shaft, {Semi built dia. of journals as per Rule... 460 mm. as fitted... 480/130 mm. Crank pin dia. 480/60 mm. Crank Webs Mid. length breadth... 770 mm. Thickness parallel to axis... 300 mm. Mid. length thickness... 300 mm. Thickness around eye hole... 210 mm.

Flywheel Shaft, diameter as per Rule... Intermediate Shafts, diameter as per Rule... 378 mm. Thrust Shaft, diameter at collars as per Rule... 397 mm.

Tube Shaft, diameter as fitted... Screw Shaft, diameter as per Rule... 434 mm. as fitted... 445.5 mm. Is the {screw} shaft fitted with a continuous liner... No

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... Yes If so, state type... Cedervallé Length of Bearing in Stern Bush next to and supporting propeller... 2050 mm.

Propeller, dia... 5275 mm. Pitch... 4225 mm. No. of blades... 4 Material... Bronze whether Moveable... No Total Developed Surface... 11.1 metres

Method of reversing Engines... Compr. air Is a governor or other arrangement fitted to prevent racing of the engine... Yes Means of lubrication

Forced Thickness of cylinder liners... 50 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... 2 s. w. at 4150 lit/min. Is the sea provided with an efficient strainer which can be cleared within the vessel... Yes

Bilge Pumps worked from the Main Engines, No... None Diameter... Stroke... Can one be overhauled while the other is at work...

Pumps connected to the Main Bilge Line {No. and Size... 1 bilge 30 tons, 1 bilge 20 tons, 1 ballast 100 tons, 1 condenser circ. 180 t. How driven... Steam Electrically Electrically Electrically

Is the cooling water led to the bilges... No 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... 1 x 100 tons Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size... 2 x 3650 lit/min.

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

Pumps, No. and size:— In Machinery Spaces... 4 x 3½", 1 x 3", 1 x 3" to C/D round lub. oil tank In Pump Room... Main 3 x 3½"

In Holds, &c... 2 x 2½" dry cargo hold " " Fwd. 1 x 2½"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size... 2 x 5"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes... Yes 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... Yes

Are all Sea Connections fitted direct on the skin of the ship... One, others on tank top Are they fitted with Valves or Cocks... Valves

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates... No Are the Overboard Discharges above or below the deep water line... Above

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel... Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate... Yes

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... Yes

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... Yes Is the Shaft Tunnel watertight... No tunnel 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... None No. of stages... Diameters... Stroke... Driven by... Auxiliary engines

Auxiliary Air Compressors, No... 1 (3-cyl.) No. of stages... 2 Diameters... 130, 130/115 mm. Stroke... 120 mm. Driven by... Electric motor

Small Auxiliary Air Compressors, No... None No. of stages... Diameters... Stroke... Driven by...

What provision is made for first Charging the Air Receivers... Current supplied to electrically driven comp. by steam driven generator

Scavenging Air Pumps, No... 1 Diameter... 1300 mm. Stroke... 1100 mm. Driven by... Main engine

Auxiliary Engines crank shafts, diameter as per Rule... 139 mm. No... 2 Position... Engine room floor

Have the Auxiliary Engines been constructed under special survey... Yes Is a report sent here with... Yes

011574-011585-0027

AIR RECEIVERS:—Have they been made under survey...**Yes**... State No. of Report or Certificate...
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...**Yes**...
Injection Air Receivers, No. None... Cubic capacity of each... Internal diameter... thickness...
Seamless, lap welded or riveted longitudinal joint... Material... Range of tensile strength... Working pressure...
Starting Air Receivers, No. 2... Total cubic capacity... **2 x 11.3 M³**... Internal diameter... **1800 mm.**... thickness... **25 mm.**...
Seamless, lap welded or riveted longitudinal joint... **Riveted**... Material... **S.M.Steel**... Range of tensile strength... **44/50**... Working pressure...
IS A DONKEY BOILER FITTED?... **Yes**... If so, is a report now forwarded?... **Yes**...
Is the donkey boiler intended to be used for domestic purposes only... **No**...
PLANS. Are approved plans forwarded herewith for Shafting... **20.1.1939, 11.12.39**... **30.8.1939**... Separate Fuel Tanks...
(If not, state date of approval)
Donkey Boilers... **30.8.1939**... General Pumping Arrangements... **10.5.1940 (Got)**... Pumping Arrangements in Machinery Space... **16.5.1940 (Got)**...
Oil Fuel Burning Arrangements...
SPARE GEAR.

Has the spare gear required by the Rules been supplied... **Yes**...
State the principal additional spare gear supplied... **4 fuel valves complete, 2 exhaust valves complete, 4 exhaust valve spindles and seats, 1 yoke for exhaust valve motion, 1 piston rod, 4 number of piston rings, 1 main bearing complete, 8 fuel pump chests, plungers and liners, 1 propeller shaft and nut.**

The foregoing is a correct description,
AKTIEBOLAGET GÖTAVÄRKEN
Ulf Johansson

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } **2nd January 1940 - 4th December 1945.**
During erection on board vessel - - }
Total No. of visits... **83**...
Dates of Examination of principal parts—Cylinders... **31/1/41**... Covers... **15/1/41**... Pistons... **28.30/12/40**... Rods... **28.30/12/40**... Connecting rods... **26.2.1941**...
Crank shaft... **24.1.1941**... Flywheel shaft... Thrust shaft... **19.6.1941**... Intermediate shafts... **22.7.1941**... Tube shaft...
Screw shaft... **16.7.1941**... Propeller... **12.8.1941**... Stern tube... **28.4.1941**... Engine seatings... **8.1.1941**... Engines holding down bolts... **26.10.1942**...
Completion of fitting sea connections... **17.5.1941**... Completion of pumping arrangements... **3.12.1945**... Engines tried under working conditions... **3.12.1945**...
Crank shaft, Material... **S.M. Steel**... Identification Mark... **LLOYDS 10588 PK 19.7.40**... Flywheel shaft, Material... Identification Mark... **LLOYDS 5190 22.7.41 HBS**...
Thrust shaft, Material... **S.M. Steel**... Identification Mark... **LLOYDS 5191 HBS 19.6.41**... Intermediate shafts, Material... **S.M. Steel**... Identification Marks... **LLOYDS 5188 HBS 16.7.41**...
Tube shaft, Material... Identification Mark... Screw shaft, Material... **S.M. Steel**... Identification Mark...
Identification Marks on Air Receivers...
No. 667 and 668
LLOYDS TEST 39 KG.
WP 25 KG.
HBS 21.3.41

Is the flash point of the oil to be used over 150° F... **Yes**...
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with... **Yes**...
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... **Not desired**...
Is this machinery duplicate of a previous case... **Yes**... If so, state name of vessel... **Buenos Aires (now San José), Götaverken's Yard No-555**...
GENERAL REMARKS (State quality of workmanship, opinions as to class, &c...) **This machinery has been built under special survey in accordance with the Rules and approved plans, the workmanship and materials are good and test sheets for the shafting and air receiver material are attached. The machinery has been securely fitted in the vessel under my inspection and to my satisfaction and has been tested on a trial trip and found in order. The main crankshaft was made by Skodaworks and tested by the Prague Surveyor in July, 1940, the air receiver material was made by Witkowitz and tested by the Vienna Surveyors in August and October 1939. At these times the certificates of the Surveyors in German-occupied countries were accepted as valid and therefore no check tests were made.**

The remaining important forgings and castings are of Swedish manufacture. One main engine cylinder, piston, top- and bottom end bearings, crank pin and journal were examined and the donkey boilers examined internally on the 15th September 1945 and the screwshaft was drawn and examined on the 28th November 1945.
The machinery is eligible in my opinion to be classed +LMC 12.45 with notations of OG and 2 DB 150 B.

The amount of Entry Fee... **Kr. 114:00** : When applied for, **24/12.1945**...
Special Air receiver Fee... **Kr. 2367:00** :
Donkey Boiler Fee... **Kr. 160:00** : When received, **19**...
Travelling Expenses (if any) £ - : - :
FRI. 18 JAN 1946

h.B. Lyyen
Engineer Surveyor to Lloyd's Register of Shipping.

COMMITTEE'S MINUTE

ASSIGNED **+LMC 12.45 Oil Eng.**
O.G. 2 D.B. 150 B.

