

## REPORT ON OIL ENGINE MACHINERY.

No. 1477

16 DEC 1955

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Site of writing Report. 29th Nov. 1955 When handed in at Local Office. 29th Nov. 1955 Port of Bremen

Survey held at Bremerhaven Date, First Survey 14th June, Last Survey 29th Nov. 19 55  
Number of Visits 16

Single Double Triple Quadruple Screw vessel. M.V. "TARAPACA" Tons Gross 11,55 Net 11,55

Yard No. 272 When built 11,55  
Engines made at Köln By whom made Deutz Engine No. 1483631 When made 1955  
Boiler No. - When made -  
Boilers made at - By whom made - Port belonging to Valparaiso  
Horse Power 1650 BHP Owners Corporation De Fomento Is Refrigerating Machinery fitted for cargo purposes yes, not Is Electric Light fitted yes  
N. Power as per Rule 330 Is Refrigerating Machinery fitted for cargo purposes yes, not Is Electric Light fitted yes  
Made for which vessel is intended Ocean going.

**MAIN ENGINES, &c.**—Type of Engines RBV 8 M - 366 2 or 4 stroke cycle 4 Single or double acting single  
Maximum pressure in cylinders 55 kgs/cm<sup>2</sup> Diameter of cylinders 420 mm Length of stroke 660 mm No. of cylinders 8 No. of cranks 8  
Mean Indicated Pressure 8.2 kgs/cm Ahead Firing Order in Cylinders ✓ Span of bearings, adjacent to the crank, measured  
from inner edge to inner edge ✓ Is there a bearing between each crank yes Revolutions per minute 250  
Flywheel dia. 2100 mm Weight 9850 kg Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm.<sup>2</sup>) 27 cm<sup>2</sup> Means of ignition Diesel Kind of fuel used oil  
Crankshaft, Solid forged as per Rule appr. 15-10-54 dia. of journals 270 mm Crank pin dia. 265 mm Crank webs Mid. length breadth shrunk Thickness parallel to axis -  
All built as fitted 270 mm Mid. length thickness - Thickness around eyehole -  
Flywheel Shrink disk as per Rule botted to flange as fitted end of crankshaft Intermediate Shafts, diameter as per Rule as appr. as fitted as appr. Thrust Shaft, diameter at collars as per Rule - as fitted as appr.  
Screw Shaft, diameter as per Rule - as fitted - Is the (screw) shaft fitted with a continuous liner No  
Bronze 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  
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 tube shaft yes If so, state type Cedervall Length of bearing in Stern Bush next to and supporting propeller 980 mm  
Propeller, dia. 2700 mm Pitch 1730 mm No. of blades 3 Material Bronze whether moveable no Total developed surface 3.2 m<sup>2</sup> sq feet  
Moment of inertia of propeller (lbs. in<sup>2</sup> or Kg. cm.<sup>2</sup>) Spare " 3100 " Kind of damper, if fitted Friction-type  
Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of  
lubrication forced Thickness of cylinder liners - Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled  
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 - sea-w.-fr.-wa. double pp. sets  
Cooling Water Pumps, No. two Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes  
Bilge Pumps worked from the Main Engines, No. - Diameter - Stroke - Can one be overhauled while the other is at work -  
Pumps connected to the Main Bilge Line (No. and size 1 x 80 m<sup>3</sup>/h - 20 metres, 1 x 40 m<sup>3</sup>/h - 50 metres How driven electric electric  
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 one, 80 m<sup>3</sup>-20 metres Note: 2 ME att. lub-oil pumps 11 m<sup>3</sup>/h Power Driven Lubricating Oil Pumps, including spare pump, No. and size one, spare, 12 m<sup>3</sup>/h 50 me-  
tres  
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 E.R. Tunnelrecess Tunnelwell & T. fwd. In pump room -  
H.No. 1 4 x 65 mm Ø - 1 x 65 mm Ø - 2 x 65 mm Ø H.No. 2 4 x 65 mm Ø - 1 x 65 mm Ø - 2 x 65 mm Ø H.No. 3 4 x 65 mm Ø - 1 x 65 mm Ø Chainlocker Co-dam, fr. 52/54  
Holds, &c. 2 x 65 mm Ø - 4 x 65 mm Ø - 2 x 65 mm Ø - 1 x 25 mm Ø - 1 x 65 mm Ø

Independent Power Pump Direct Suctions to the engine room bilges, No. and size 1 x 80 mm Ø - 1 x 100 mm Ø  
Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes yes Are the bilge suction 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 no, seachests Are they fitted with valves or cocks valves Are they fixed  
efficiently high on the ship's side to be seen without lifting the platform plates yes 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 -  
That pipes pass through the bunkers none How are they protected -  
That pipes pass through the deep tanks none 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 yes Is it fitted with a watertight door yes worked from E.R. TRUNK  
PASSAGE  
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. one, 750 RPM No. of stages two diameters 110/100 mm stroke 110 driven by Diesel dr.  
Auxiliary Air Compressors, No. one, 1450 RPM No. of stages two diameters 110/100 mm stroke 110 driven by el. dr.  
Small Auxiliary Air Compressors, No. - No. of stages - diameters - stroke - driven by -

Is provision made for first charging the air receivers hand worked compressor and 40 l air bottle starts 25 KW harb.-gen.  
Scavenging Air Pumps, No. scavenge turbs. blower diameter M.E. att. stroke - driven by -  
Auxiliary Engines crank shafts, diameter as per Rule see Augsburg Certs. No. three - port fwd. Position port aft inb. & outb. harb.-gen. comp  
Have the auxiliary engines been constructed under special survey yes Is a report sent herewith yes Panel ER stb.

AUGSBURG No. 840.

003106-003115-0236



AIR RECEIVERS:—Have they been made under survey yes State No. of report or certificate Emergency 55/2  
Is each receiver, which can be isolated, fitted with a safety valve as per Rule. yes Main 55/1075 D.F.C. - Air 55-205 D.F.C.  
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. - Cubic capacity of each. - Internal diameter. - thickness. -  
Seamless, welded or riveted longitudinal joint. - Material. - Range of tensile strength. - Working pressure. 15 mm  
Starting Air Receivers, No. 4 Total cubic capacity. 250 Internal diameter. 18 mm  
Seamless, welded or riveted longitudinal joint. welded Material SMOH-steel Range of tensile strength. 42.4- Working pressure. 46.2  
by Rules. as  
Actual. Em. 40

IS A DONKEY BOILER FITTED no 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 Receivers. no Separate fuel tanks. --  
(If not, state date of approval)  
Donkey boilers. none General pumping arrangements. yes Pumping arrangements in machinery space. yes  
Oil fuel burning arrangements. --  
Have Torsional Vibration characteristics been approved. -- Date of approval. --

#### SPARE GEAR.

Has the spare gear required by the Rules been supplied. yes  
State the principal additional spare gear supplied. spare, cast iron propeller, spare screwshaft.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
During progress of work in shops - - June 14, 22, 24, 28, 30, July 3, 10, 24, 29, August 19, 20, September 3, October 9, 14, 1955.  
During erection on board vessel - - October 25, November 14, 17, 30, December 2, 1955.  
Total No. of visits. 20

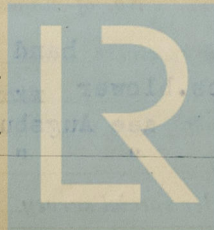
Dates of examination of principal parts—Cylinders. ✓ Govers. ✓ Pistons. ✓ Rods. - Connecting rods. ✓  
Crank shaft. ✓ Flywheel shaft. ✓ Thrust shaft. ✓ Intermediate shafts. 3.9.55 Tube shaft. -  
Screw shaft. 19.8.55 Propeller. 20.8.55 Stern tube. 19.8.55 Engine seatings. 4.9.55 Engine holding down bolts. 14.10.55  
Completion of fitting sea connections. 20.8.55 Completion of pumping arrangements. 31-10-55 Engines tried under working conditions. 24-11-55  
Crank shaft, material SMOH-steel Identification mark 434 H.S. 29.6 Flywheel shaft, material SMOH Steel Identification mark HK 15A 23  
Thrust shaft, material SMOH-steel Identification mark 4.8.55 Intermediate shafts, material SMOH Steel Identification marks 4.8.55  
Tube shaft, material - Identification mark - Screw shaft, material SMOH-steel Identification mark 4.8.55  
Identification marks on air receivers. LLOYD'S TEST D.S.F. T.P. 48.5 ATM. NO. 100-6789 LLOYD'S TEST D.S.F. T.P. 53 ATM. NO. 15-6449 LLOYD'S TEST D.S.F. T.P. 40 ATM. NO. 16-8.55  
W.P. 30 ATM. 100-6788 W.P. 33 ATM. 21.1.55 W.P. 40 ATM. 16.8.55

Welded receivers, state Makers' Name. Wilhelm Siebel, Freudenberg, SIEGEN.  
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  
Description of fire extinguishing apparatus fitted. Chemical fire extinguishers, fire hydrants and hoses.  
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo. no 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. yes If so, state name of vessel. ANTOFAGHSTA.

General Remarks (State quality of workmanship, opinions as to class, &c.) The main- and auxiliary engines of this vessel have been constructed under Special Survey (see certificates attached). They have been installed in accordance with the Society's Rules, the approved plans and the Secretary's letters and the materials and the workmanship are good. The machinery has been examined under working conditions during sea-trials and found good. The machinery of this vessel is eligible in my opinion to have the record of +LMC 11.55 - TS OG - Oil Engi 4SCSA - 8 cyl's 420/600 - 350 MM. 330  
Crankcase explosion devices are fitted to main- and auxiliary engines.

The amount of Entry Fee ... £ 76 : 5 : 0  
Special ... £ : :  
Donkey Boiler Fee... £ : :  
Travelling Expenses (if any) £ 16 : 0 : 0  
When applied for London 30/1/56  
When received 19  
Engineer Surveyor to Lloyd's Register of Shipping A.R. Macintosh

Committee's Minute FRIDAY 10 FEB 1956  
Assigned +LMC 11.55  
OG.



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