

REPORT ON OIL ENGINE MACHINERY.

No. 106

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Date of writing Report 19th Dec. 1950. When handed in at Local Office 19 Port of Bremen
 No. in Survey held at Vegesack Date, First Survey 23rd March Last Survey 12th August 1950.
 Reg. Book. 061 Single on the Twin Triple Quadruple Screw vessel "ATALANTA" Tons Gross 9683 Net 5621
 Built at Gothenburg By whom built Eriksbergs M.V. Aktieb. Yard No. - When built 1930/9
 Engines made at Bremen-Vegesack By whom made Bremer Vulkan Engine No. 357/58 When made 1950
 Donkey Boilers made at By whom made Boiler No. When made
 Brake Horse Power 2 x 2000 Owners Rederiaktiebolaget Dalen, Göteborg Port belonging to Göteborg
 I.N. Power as per Rule 900 913 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which vessel is intended carrying petroleum in bulk

L. ENGINES, &c.—Type of Engines Bremer Vulkan MAN Diesel Eng. K4765/120 2 or 4 stroke cycle 2 Single or double acting single
 Maximum pressure in cylinders 48 kg/cm² Diameter of cylinders 650 mm Length of stroke 1200 mm No. of cylinders 4 No. of cranks 4
 Mean Indicated Pressure 5.68 kg/cm² Ahead Firing Order in Cylinders starbd. 1, 4, 2, 3 Span of bearings, adjacent to the crank, measured
 from inner edge to inner edge 925 mm Is there a bearing between each crank yes Revolutions per minute 120
 Flywheel dia. 2300 mm Weight 4.4 tons Moment of inertia of flywheel (lbs. in² or Kg. cm²) 15 000 kgm² Means of ignition Kind of fuel used Diesel oil
 Crank shaft, ~~Semi built~~ ~~As built~~ dia. of journals as per Rule 401 mm as fitted 420 mm Crank pin dia. 420 mm Crank webs Mid. length breadth 1330 mm 625 Thickness parallel to axis 265 mm
 Flywheel Shaft, diameter as per Rule - as fitted - Intermediate Shafts, diameter as per Rule 276 mm as fitted 416 mm Thrust Shaft, diameter at collars as fitted 290 mm
 Tube Shaft, diameter as per Rule - as fitted - Screw Shaft, diameter as per Rule 303 mm as fitted 340 mm Is the (tube) shaft fitted with a continuous liner yes
 Bronze Liners, thickness in way of bushes as per Rule - as fitted 20 mm Thickness between bushes as per Rule - as fitted 16 mm Is the after end of the liner made watertight in the
 propeller boss yes 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 - If so, state type - Length of bearing in Stern Bush next to and supporting propeller 1490 mm
 Propeller, dia. 3930 mm Pitch 3700 mm No. of blades 4 Material bronze whether moveable no Total developed surface 5.1 m² sq. feet
 Moment of inertia of propeller (lbs. in² or Kg. cm²) 9000 kgm² Kind of damper, if fitted no
 Method of reversing Engines crankshaft Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of
 lubrication forced eng. Thickness of cylinder liners 40 mm 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 - Cooling Water Pumps, No. 3 FRESH WATER / SALT WATER / SPACE (EITHER SERVICE) 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 ballast pump 150 t/h 1 bilge pump 20 t/h How driven steam driven electrical drive
 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 150 t/h Power Driven Lubricating Oil Pumps, including spare pump, No. and size 3 - 42 m³/h
 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 1-75 mm p. ford., 2-75 mm s. ford., 1-75 mm aft In pump room no change
 holds, &c. no change
 Independent Power Pump Direct Suctions to the engine room bilges, No. and size one - 150 mm and one 75 mm
 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 yes 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 yes Are the overboard discharges above or below the deep water line yes
 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 old
 at pipes pass through the bunkers none How are they protected -
 at 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
 Are the arrangements 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 - Is it fitted with a watertight door - worked from -
 In wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork -
 In Air Compressors, No. 2 No. of stages 2 diameters 105/270 mm stroke 220 mm driven by aux. Diesels
 Auxiliary Air Compressors, No. one old No. of stages - diameters - stroke - driven by steam eng.
 All Auxiliary Air Compressors, No. - No. of stages - diameters - stroke - driven by -
 Is provision made for first charging the air receivers Aux. air compressor (steam driven)
 Ventilating Air Pumps, No. 2 diameter 940 mm stroke 2 x 850 mm driven by main engine CRANK
 Auxiliary Engines crank shafts, diameter as per Rule - as fitted 130 mm Position after end of engine room
 Are the auxiliary engines been constructed under special survey yes Is a report sent herewith no, see also page 2

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BUILT BY ENGINE BUILDERS
AS PER APPROVED PLAN FOR BELPA

AIR RECEIVERS:—Have they been made under survey...yes
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. - Cubic capacity of each - Internal diameter - thickness -
Seamless, welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure
Starting Air Receivers, No. 2 Total cubic capacity 2 x 10m³ Internal diameter 1550/1500 mm thickness 24 mm
Seamless, welded or riveted longitudinal joint riveted Material steel Range of tensile strength 41-50 kg/mm² Working pressure 30 kg/cm²

IS A DONKEY BOILER FITTED yes If so, is a report now forwarded Two existing boilers
Is the donkey boiler intended to be used for domestic purposes only no

PLANS. Are approved plans forwarded herewith for shafting 6.1.50
(If not, state date of approval) 28.4.50
Donkey boilers - General pumping arrangements 28.4.50 Pumping arrangements in machinery space 28.4.50
Oil fuel burning arrangements 28.4.50
Have Torsional Vibration characteristics been approved yes Date of approval 3.8.50 for 120 RPM
Counterweights 2.8.50

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes
State the principal additional spare gear supplied 1 cylinder cover 2 piston guide rings
2 cylinder liners 1 fuel injection pump
2 piston skirts
2 telescopic pipes
scavenging air pump, spares
Bremer Vulkan
Schiffbau und Maschinenfabrik
Bremen-Vegesack
The foregoing is a correct description.
Manufacturer.

Dates of Survey while building
During progress of work in shops - 23.3., 14.4., 19.4., 26.4., 8.5., 15.5., 1.6., 14.6., 28.6., 30.6., 7.7., 7.8., 12.8., 1950.
During erection on board vessel - 28.6., 30.6., 7.7., 7.8., 1950.
Total No. of visits -
Dates of examination of principal parts—Cylinders - Covers - Pistons 24.2.50 Rods 26.1.50 Connecting rods 17.4/20, 15.2.50
Crank shaft 15.2.50 Flywheel shaft - Thrust shaft 13.4.50 Intermediate shafts 21.4.50 Tube shaft -
Screw shaft 21.4.50 Propeller 3.6.50 Stern tube - Engine seatings - Engine holding down bolts -
Completion of fitting sea connections - Completion of pumping arrangements - Engines tried under working conditions -
Crank shaft, material steel Identification mark 10 6654/11.2.50 Flywheel shaft, material - Identification mark 673 FS 13.4.50
Thrust shaft, material steel Identification mark 671 FS 13.4.50 Intermediate shafts, material steel Identification marks 683 FS 21.4.50
Tube shaft, material - Identification mark - Screw shaft, material steel Identification mark 682 FS 21.4.50
Identification marks on air receivers 240 and 241 LLOYD'S TEST
WP 30 ATU TP 44 ATU JPG 25.5.50.

Welded receivers, state Makers' Name -
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 Foam & Steam smothering
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 yes If so, state name of vessel HERBRAND

General Remarks (State quality of workmanship, opinions as to class, &c.)
The main machinery has been constructed under special survey in accordance with the Society's Rules and Regulations, approved plans and instructions thereto. The material used was surfaced examined, of tested quality, and the workmanship to be satisfactory. Fitting out of machinery in ship chocking, alignment and deflection good. Dock and sea trials, engines functioned satisfactorily.
In my opinion the vessel can now be eligible for the notation LMC (with date), re-engined. + NE 8/50

The amount of Entry Fee ... £ 612 : 0 : 0
Special ... £ : :
Donkey Boiler Fee... £ : :
Travelling Expenses (if any) £ 10 : 0 :
When applied for 25 Sept 29/4
When received 19
THU 3 MAY 1951
Assigned
Lloyd's Register Foundation