

REPORT ON OIL ENGINE MACHINERY.

No. 14405

Received at London Office **12 APR 1954**

Date of writing Report 5-4 1954 When handed in at Local Office 19... Port of Amsterdam
No. in Survey held at Amsterdam Date, First Survey 26/8/53 Last Survey 9/3 1954
Reg. Book. Number of Visits 8

Single on the Twin Triple Quadruple Screw vessel "GRAMSBERGEN" Tons Gross... Net...

Built at Waterhuizen By whom built van Diepen Yard No. 929 When built 1954
Engines made at Amsterdam By whom made Werkspoor N.V. Engine No. 1683 When made 1954

Donkey Boilers made at... By whom made... Boiler No... When made...
Brake Horse Power { Maximum 650 Service 130 Owners Furness Port belonging to...

M.N. as per Rule 130 Is Refrigerating Machinery fitted for cargo purposes... Is Electric Light fitted Yes
Trade for which vessel is intended Beer going

OIL ENGINES, &c. — Type of Engines TMA5336 2 or 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 320 mm Length of stroke 600 mm No. of cylinders 6 No. of cranks 6

Mean Indicated Pressure 7.29 kg/cm² Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 394 mm Is there a bearing between each crank Yes Revolutions per minute { Maximum 950 Service 950

Flywheel dia 1400 mm Weight 1145 kg Moment of inertia of flywheel (lbs. in² or Kg. cm²) 1753 Means of ignition Comp. Kind of fuel used Diesel

Crank Shaft, { Solid forged Semi built All built } dia. of journals 245 mm as per Rule 245 mm as fitted 245 mm Crank pin dia 125 mm as per Rule 125 mm as fitted 125 mm Mid. length breadth 420 mm Crank webs Mid. length thickness 102 mm Thickness parallel to axis... Thickness around eyehole...

Flywheel Shaft, diameter 230 mm as per Rule 230 mm as fitted 230 mm Intermediate Shafts, diameter 125 mm as per Rule 125 mm as fitted 125 mm Thrust Shaft, diameter at collars 930 mm as per Rule 930 mm as fitted 930 mm

Tube Shaft, diameter 125 mm as per Rule 125 mm as fitted 125 mm Screw Shaft, diameter 125 mm as per Rule 125 mm as fitted 125 mm Is the { tube screw } shaft fitted with a continuous liner { }

Bronze Liners, thickness in way of bushes 25 mm as per Rule 25 mm as fitted 25 mm Thickness between bushes 25 mm as per Rule 25 mm as fitted 25 mm 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 fitted at the after end of stern tube... If so, state type... Length of bearing in Stern Bush next to and supporting propeller...

Propeller, dia 1400 mm Pitch 1.2 No. of blades 3 Material Steel whether moveable... Total developed surface 110 sq. feet
Moment of inertia of propeller including entrained water (lbs. in² or Kg. cm²)... Kind of damper, if fitted...

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine Yes Means of lubrication greases Thickness of cylinder liners 25 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes 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. and how driven Two M.E. Working F.W. rotary
S.W. Rotary Spare F.W. S.W. Is the sea suction provided with an efficient strainer which can be cleared within the vessel... Bilge Pumps worked from the Main Engines, No. and capacity 1 rotating 30 T.H. Can one be overhauled while the other is at work...

Pumps connected to the Main Bilge Line { No. and capacity of each... How driven... }
Is the cooling water led to the bilges... 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 capacity... Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 gear driven 7 T.H.
Are two independent means arranged for circulating water through the Oil Cooler... Branch Bilge Suctions... In pump room...

No. and size:—In machinery spaces... In holds, &c...
Direct Bilge 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 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...

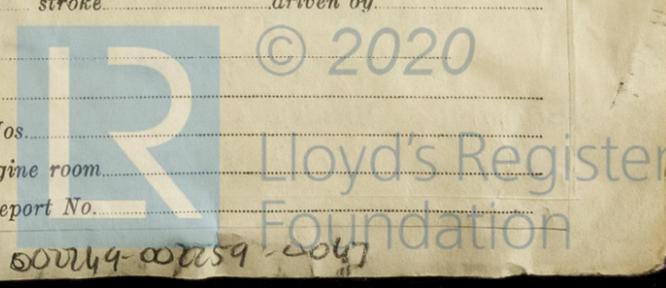
Are all Sea Connections fitted direct on the skin of the Ship... Are they fitted with valves or cocks... Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates... Are the overboard discharges above or below the deep water line... Are they each fitted with a 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. One No. of stages Two diameters 180/150 mm stroke 100 mm driven by M.E.
Auxiliary Air Compressors, No. One No. of stages One diameters 100 mm stroke 100 mm driven by M.E.

Small Auxiliary Air Compressors, No. One No. of stages One diameters 100 mm stroke 100 mm driven by M.E.
What provision is made for first charging the air receivers... Scavenging Air Pumps or Blowers, No. One How driven M.E. Engine Nos. 1 Position of each in engine room Starboard side Report No. 14405

Auxiliary Engines Have they been made under survey... Engine Nos. 1 Position of each in engine room Starboard side Report No. 14405



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AIR RECEIVERS: - Have they been made under survey Yes State No. of report or certificate 2/2435/3 V

State full details of safety devices Spring loaded safety valves

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 2000 cu ft Internal diameter 600 mm thickness 11 mm

Seamless, welded or riveted longitudinal joint Seamless Material Sp. Steel Range of tensile strength 47.4 - 47.5 kg/cm² Working pressure 30 kg/cm²

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 Appendix 1-1-54 Receivers 2-3-54 Separate fuel tanks -

Donkey boilers - General pumping arrangements - Pumping arrangements in machinery space -

Oil fuel burning arrangements -

Have Torsional Vibration characteristics been approved Yes Date and particulars of approval 2-2-54 for 325 hp

SPARE GEAR.

Has the spare gear required by the Rules been supplied - State if for "short voyages" only -

State the principal additional spare gear supplied -

The foregoing is a correct description,

Werkspoor N.V. Manufacturer.

Dates of Survey while building: During progress of work in shops - 26/4, 16/11, 2/2 '53, 6/2, 9/2, 17/2, 9/3 '54

During erection on board vessel - -

Total No. of visits 8

Dates of examination of principal parts - Cylinders 26/2, 17/2 '54 Covers 2/2 '53 Pistons 17/2 '54 Rods - - Connecting rods 16/11 '53

Crank shaft 26/4 '53, 9/3 '54 Flywheel shaft = Thrust shaft 2/2 '53 Intermediate shafts - - Tube shaft - -

Screw shaft - - Propeller - Stern tube - Engine seatings - Engine holding down bolts -

Completion of fitting sea connections - Completion of pumping arrangements - Engines tried under working conditions 17/2

Crank shaft, material Sp. Steel Identification mark Lloyd's 1921, No. 65314, AB-25-6-53, JFU-11-53 Flywheel shaft, material, - Identification mark -

Thrust shaft, material Sp. Steel Identification mark Lloyd's 1921, No. 65314, AB-25-6-53, JFU-11-53 Intermediate shafts, material - Identification marks -

Tube shaft, material - Identification mark - Screw shaft, material - Identification mark -

Identification marks on air receivers 38040 17/1, 38022 9/1

Welded receivers, state Makers' Name Messrs Rheinische Röhrenwerke A.G. Düsseldorf-Rhein

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 -

Full description of fire extinguishing apparatus fitted in machinery spaces -

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 -

What is the special notation desired -

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 Van Diepen Gard N° 928

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.)

The engine has been built under Special Survey in accordance with the approved plans, Secretarial letters and the Society's Rules. Materials have been tested as required and workmanship found good. The engine has been tried under full working condition and has been tested and found satisfactory and merits in my opinion the approval of the Committee to grant the vessel where the engine is intended for a record + LMC with date when installed and tried on board.

The engine has been shipped to Waterhuizen.

Copy set of crankshaft, thrustshaft and airreceivers attached

The amount of Entry Fee ... 473.-

Special ... £

Donkey Boiler Fee... £

Travelling Expenses (if any) 6.-

When applied for 2-4 19 54

When received 19

J. H. Bouman
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute -

Assigned + LMC 7.54.

OG.

