

REPORT ON OIL ENGINE MACHINERY.

No. 218b.

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No. in Survey held at Delfzijl Date, First Survey 23-6-39 Last Survey 1-8-1947.

Reg. Book. Single on the Triple Screw vessel "BATAVIER" Number of Visits 65 Tons Gross 394.96
Quadruple Net 147.58

Built at Delfzijl By whom built Schw. Gebr. Niestern Yard No. 226 When built 1941

Engines made at Augsburg By whom made Messrs. M.A.N. Engine No. 511640 When made 1939

Donkey Boilers made at - By whom made - Boiler No. - When made -

Brake Horse Power 500 Owners Mr. J. Muthert Port belonging to Groningen

Nom. Horse Power as per Rule 97.8 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended MN=105 sea going trade.

OIL ENGINES, &c.—Type of Engines oil engine 8 Vn 42. 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 50 Kg/cm² Diameter of cylinders 11 1/4" 285 mm Length of stroke 16 1/2" 420 mm No. of cylinders 8 No. of cranks 8

Mean Indicated Pressure 6.8 Kg/cm² Span of bearings, adjacent to the crank, measured from inner edge to inner edge 340 mm (352) Is there a bearing between each crank yes

Revolutions per minute 375 300 aff? Flywheel dia. 1200 mm Weight 800 Kg Means of ignition dir. ign. Kind of fuel used gas oil

Crank Shaft, Solid forged dia. of journals as per Rule 185 mm Crank pin dia. 175 mm Crank webs Mid. length breadth 280 Thickness parallel to axis -
Semi built as fitted Mid. length thickness 89.5 shrunk Thickness around eye hole -
All built

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule 140 mm Thrust Shaft, diameter at collars as fitted 160 mm
as fitted as fitted

Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule 140 mm Is the shaft fitted with a continuous liner no
as fitted as fitted

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 yes
as fitted as fitted

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 Rubber ring Length of bearing in Stern Bush next to and supporting propeller 600 mm

Propeller, dia. 1700 mm Pitch 1090 mm No. of blades 4 Material cast iron whether moveable no Total developed surface 50 % sq. feet

Method of reversing Engines direct by Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication forced Thickness of cylinder liners 20 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled yes

Is the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine funnel

Cooling Water Pumps, No. 2 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. 1 Diameter 105 mm Stroke 120 mm Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line No. and size 1 Rotary 2 3/8" of 15 tons/h, 1 Rotary 3" of 60 tons/h, 1 Rotary 3" of 30 tons/h
How driven 1 attached to main motor, 2 by main and aux. oil engine

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 60 M³/h Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 à 2.29 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 2 à 3" , 1 à 2 1/2" and 1 à 2 3/8" In pump room -

In holds, &c. 4 à 2 1/2"

Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2 of 3" (2 3/4" aff?)

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 bolted on 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 -

Do the pipes pass through the bunkers none How are they protected -

Do the 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 no tunnel Is it fitted with a watertight door - worked from -

On 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. - No. of stages - diameters - stroke - driven by -

Auxiliary Air Compressors, No. 1 No. of stages 2 diameters 80/70 mm stroke 80 mm driven by Main engine

Small Auxiliary Air Compressors, No. 1 No. of stages 2 diameters 110/90 mm stroke 85 mm driven by aux. or main eng.

Is provision made for first charging the air receivers small aux. air compr. driven by aux. motor, which is hand started

Exhausting Air Pumps, No. - diameter - stroke - driven by -

Auxiliary Engines crank shafts, diameter as per Rule 48 mm No. one Position in engine room S.B. side

Have the auxiliary engines been constructed under special survey yes Is a report sent herewith no

AIR RECEIVERS:—Have they been made under survey...yes... State No. of report or certificate Dusseldorf 30-5-39 Order No. 20265
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, lap welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure by Rules -
Starting Air Receivers, No. 2 Total cubic capacity 800 litres Internal diameter 500 mm thickness 14 mm
Seamless, lap welded or riveted longitudinal joint Lap. Material S.M. steel Range of tensile strength 39/41 Working pressure by Rules -
Actual 30 Atm.

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 3-8-39 Receivers 17-5-39 Separate fuel tanks 21-12-39
(If not, state date of approval)
Donkey boilers - General pumping arrangements 4-10-39 Pumping arrangements in machinery space 4-10-39
Oil fuel buring arrangements -

SPARE GEAR.

Has the spare gear required by the Rules been supplied...yes...
State the principal additional spare gear supplied -

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
During progress of work in shops - 1939 June 23-27; July 10; Aug. 2-7-19-25-26; Sept. 4-8-15-18-14-20-23; Oct. 13-14-16-17-18-19-20-23-24-25-26-27-30-31; Nov. 1-2-3-6-7-8-9-13-14-15; Dec. 5-6-9-12-13-14-15-27; 1940 Jan. 12.
During erection on board vessel - 26-7-39; 30-10-39; 25-4-40; 2-9-40; 24-1-41; 9-6-41; 7,8-5-46; 3-6-46; 30-9-46;
14,21-2-47; 17-4-47; 9-6-47; 8,14-7-47; 1-8-47.
Total No. of visits 65

Dates of examination of principal parts—Cylinders 19-9-39 Covers 27-6-39 Pistons 15-9-39 Rods - Connecting rods 15-9-39
Crank shaft 18-9-39 Flywheel shaft - Thrust shaft 9-11-39 Intermediate shafts 12-1-40 Tube shaft -
Screw shaft 12-1-40 Propeller 14-7-47 Stern tube 21-2-47 Engine seatings 3-6-46 Engine holding down bolts 17-4-47
Completion of fitting sea connections 12-3-40 Completion of pumping arrangements 8-7-47 Engines tried under working conditions 1-8-47
Crank shaft, material S.M. steel Identification mark Lloyd's No. 2762 V.S. 1-4-39 Flywheel shaft, material - Identification mark -
Thrust shaft, material S.M. steel Identification mark Lloyd's No. 2118 V.S. 1-4-39 Intermediate shafts, material S.M. steel Identification marks Lloyd's No. 2118 V.S. 1-4-39
Tube shaft, material - Identification mark - Screw shaft, material S.M. steel Identification mark Lloyd's No. 2118 V.S. 1-4-39
Identification marks on air receivers 2000 60 Atm. W.P. 30 Atm. 2003 60 Atm. W.P. 30 Atm.
V.S. 27-5-39 V.S. 27-5-39

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 4 x 5 litres A solvent of Sulphuric acid and Ammonium Bicarbonate in water.
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...not required.
If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with...not required.
Is this machinery duplicate of a previous case...no... If so, state name of vessel -

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery has been fitted in accordance with the approved plans.
Machinery examined during trial, found working satisfactory. Torsional vibration characteristics not submitted as this installation was fitted in 1941.
We are of opinion that the machinery of this vessel is eligible for notation LMC 8-47. Oil Engine and O.G. 8-47.

The amount of Entry Fee ... £ :
Special ... £1. 100.-- : When applied for 1-12- 19 41.
Donkey Boiler Fee... £ : When received 21-12- 19 41.
Travelling Expenses (if any) £1. 29.-- :
Committee's Minute FRI. 19 SEP 1947
Assigned + LMC 8.47 Oil Eng.
O.G. 8.47

Engineer Surveyor to Lloyd's Register of Shipping.
Lloyd's Register Foundation