

4b.

REPORT ON OIL ENGINE MACHINERY.

No.

31795 B

Received at London Office

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of writing Report 7/11 1949 When handed in at Local Office 19 Port of Rotterdam
 in Survey held at Heusden Date, First Survey 6/5/49 Last Survey 26/10 1949
 Book. Number of Visits 9
 on the Single Twin Triple Quadruple Screw Vessel Motordanckship ELIZABETH B. Tons Gross 117.4
Heusden By whom built Wm. de Haan & Verbeek Yard No. 253 When built 1949
Appingedam By whom made N.V. "Brans Motorenfab." Engine No. 5317 When made 1949
Annam By whom made Cochran & Co. Boiler No. 18540 When made 1949
 ke Horse Power 240 Owners N.V. "Gabe Brans" Port belonging to London
 m. Horse Power as per Rule 60 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 de for which vessel is intended Shipping trade

MAIN ENGINES, &c.—Type of Engines Heavy oil engines, plain 2 or 4 stroke cycle 2 ✓ Single or double acting single ✓
 imum pressure in cylinders 45.14 kg/cm² Diameter of cylinders 190 mm Length of stroke 178 mm No. of cylinders 3 ✓ No. of cranks 3 ✓
 n Indicated Pressure 5.9 kg/cm² Is there a bearing between each crank yes
 n of bearings, adjacent to the Crank, measured from inner edge to inner edge 190 mm 411 app
 olutions per minute 265 ✓ Flywheel dia. 1300 mm ✓ Weight 1700 kg ✓ Means of ignition Compression Kind of fuel used Diesel oil
 ank shaft, { Solid forged as per Rule x Crank pin dia. 175 mm Crank Webs Mid. length breadth 240 mm shrunk Thickness parallel to axis x
 { Semi-built dia. of journals as fitted 175 mm Mid. length thickness 100 mm Thickness around eyehole x
 { All built
 wheel Shaft, diameter as per Rule x Intermediate Shafts, diameter as per Rule x Thrust Shaft, diameter at collars as per Rule x
 as fitted x as fitted 150 mm as fitted 125/150 mm
 be Shaft, diameter as per Rule x Screw Shaft, diameter as per Rule x Is the { tube } shaft fitted with a continuous liner { no ✓
 as fitted x as fitted 150 mm as fitted 145 mm { screw }
 onze Liners, thickness in way of bushes as per Rule x Thickness between bushes as fitted x Is the after end of the liner made watertight in the
 as fitted x If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner x
 peller boss x 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 x
 wo liners are fitted, is the shaft lapped or protected between the liners x Is an approved Oil Gland or other appliance fitted at the after end of the tube
 ft yes ✓ If so, state type submerging 25 x 18 mm Length of Bearing in Stern Bush next to and supporting propeller 570 mm
 opeller, dia. 1700 mm Pitch 1175 mm No. of blades 4 Material bronze whether Moveable no Total Developed Surface x sq. feet
 ethod of reversing Engines Reversing gear Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes ✓ Means of lubrication
 and Thickness of cylinder liners 30 mm Are the cylinders fitted with safety valves yes ✓ Are the exhaust pipes and silencers water cooled x lagged with
 a-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 funnel
 ooling Water Pumps, No. 2 23 M³/h. plunger type Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes ✓
 ge Pumps worked from the Main Engines, No. one Diameter 110 mm Stroke 80 mm Can one be overhauled while the other is at work x
 mps connected to the Main Bilge Line { No. and Size one 110 x 80 mm ✓ one 2 plunger type 23 M³/h ✓
 How driven main engine belt driven by aux engine
 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
 rangements x
 allast Pumps, No. and size one 23 M³/h ✓ Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 x 16 liter/min ✓
 re two independent means arranged for circulating water through the Oil Cooler yes ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 mps, No. and size:—In Machinery Spaces 2 x 2" 2 (2 x 1 1/2") In Pump Room x
 Holds, &c. Roffadams 12" portable hand pump, one drum with self-feeding catch, sufficient for
 ependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 x 2 1/2" ✓
 re all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes x Are the Bilge Suctions in the Machinery Spaces
 l from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes ✓
 re all Sea Connections fitted direct on the skin of the ship on steel chests ✓ Are they fitted with Valves or Cocks valves & handwork ✓
 re 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 above ✓
 re 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 ✓
 hat pipes pass through the bunkers none How are they protected x
 hat pipes pass through the deep tanks none Have they been tested as per Rule x
 re all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes ✓
 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,
 from one compartment to another yes ✓ Is the Shaft Tunnel watertight x Is it fitted with a watertight door x worked from x
 a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork x

MAIN AIR COMPRESSORS, No. x No. of stages x Diameters x Stroke x Driven by x
Auxiliary Air Compressors, No. one ✓ No. of stages 2 Diameters 440 YDS TEST 31 x 1 1/2" Stroke 3 1/4" Driven by aux engine
Small Auxiliary Air Compressors, No. one ✓ No. of stages 2 Diameters 440 YDS TEST 31 x 1 1/2" Stroke 70% Driven by main engine
 What provision is made for first Charging the Air Receivers hand started and engine driven aux air compressor
Scavenging Air Pumps, No. 3 ✓ Diameter rotary Stroke x Driven by main engine
Auxiliary Engines crank shafts, diameter as per Rule x No. one 2 1/2" 40 B.H.P. heavy oil engine N^o 15100
 as fitted 90 mm Position Starboard side in engine room
 Have the Auxiliary Engines been constructed under special survey yes ✓ Is a report sent herewith Greening report dated 28/11/49

AIR RECEIVERS:—Have they been made under survey *yes* ✓ State No. of Report or Certificate *A.R. 1*

Is each receiver, which can be isolated, fitted with a safety valve as per Rule *yes* ✓ *safety valves as per Rules are approved and applied*

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* *Actual*

Starting Air Receivers, No. *1* ✓ Total cubic capacity *205 lbs* Internal diameter *25.3 in* thickness *7 in*

Seamless, lap welded or riveted longitudinal joint *seamless* Material *steel* Range of tensile strength *41,470 lbs* Working pressure *by Rules* *Actual* *10.17 lbs*

IS A DONKEY BOILER FITTED? *yes* ✓ If so, is a report forwarded? *yes* ✓

Is the donkey boiler intended to be used for domestic purposes only *no* ✓

PLANS. Are approved plans forwarded herewith for Shafting *8/4/49* Receivers *✓* Separate Fuel Tanks *15/11/49* *20/11/49*

Donkey Boilers *report attached* General Pumping Arrangements *23/12/49* Pumping Arrangements in Machinery Space *15/11/49*

Oil Fuel Burning Arrangements *✓* *for existing machinery arrangement in eng. room* *1" steam pressure hot line round DB* *loss with completion*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes, for short voyages* ✓

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 - *1949*
During erection on board vessel - *May 6, July 8-13, Aug 19, Sept 15-20-20, Oct 19-26.*
Total No. of visits *9*

Dates of Examination of principal parts—Cylinders *✓* Covers *✓* Pistons *✓* Rods *✓* Connecting rods *✓*

Crank shaft *✓* Flywheel shaft *✓* Thrust shaft *✓* Intermediate shafts *19/10/49* Tube shaft *✓*

Screw shaft *9/4/49* Propeller *9/4/49* Stern tube *9/4/49, 13/4/49* Engine seatings *9/4/49* Engines holding down bolts *19/10/49*

Completion of fitting sea connections *9/4/49* Completion of pumping arrangements *19/10/49* Engines tried under working conditions *26/10/49*

Crank shaft, Material *✓* Identification Mark *✓* Flywheel shaft, Material *✓* Identification Mark *✓*

Thrust shaft, Material *✓* Identification Mark *✓* Intermediate shafts, Material *steel* Identification Marks *✓*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *steel* Identification Mark *✓*

Identification Marks on Air Receivers *LLOYD'S TEST* *40 kg* *W.P. 20 kg* *MB 10-7-49* *propeller LLOYD'S* *Nº 1320* *Arch. 29-4-49*

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 *✓*

Is this machinery duplicate of a previous case *✓* If so, state name of the vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery has been satisfactorily*

fitted in the vessel in accordance with the approved plans, Society's Rules and

Secretary's letter. Workmanship throughout good. The machinery was tried

during a trial trip and was found in a good working order and is in my

opinion eligible to be classed in the Society's Register with

+ LMC Oil engines O.G. and DB 100 lbs.

The amount of Entry Fee .. £ : : When applied for,

Special £ *130.-* ✓ *21/11 1949*

Donkey Boiler Fee £ : : When received,

Travelling Expenses (if any) £ *90.00* ✓ *19*

Committee's Minute

Assigned *+ LMC 10.49 Oil Eng*

DB 100 lbs. O.G.

Engineer Surveyor to Lloyd's Register of Shipping.



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