

# REPORT ON OIL ENGINE MACHINERY.

No. 391

Report 14th April 1952 When handed in at Local Office 19 Port of Bremen Received at London Office

Survey held at Bremen/Vegesack Date, First Survey 24th May 51 Last Survey 9th April, 1952 Number of Visits 77

Single Screw vessel M.V. "BONITA" Tons Gross 11083 Net

By whom built Bremer Vulkan Yard No. 816 When built 4.52

By whom made Bremer Vulkan Engine No. 408 When made 4.52

By whom made Bremer Vulkan Boiler No. 1017/8/9 When made 4.52

Owners A/B Dalen Port belonging to Gøteborg

Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

vessel is intended Carrying petroleum in bulk

Type of Engines MAN oil engines 2 or 4 stroke cycle 2 SC Single or double acting DA

Pressure in cylinders 48 kgs/cm<sup>2</sup> Diameter of cylinders 600 mm Length of stroke 1100 mm No. of cylinders 8 No. of cranks 8

Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured to inner edge 864 mm Is there a bearing between each crank yes Revolutions per minute 125

Weight 6,400 kgs Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) 19,000 Means of ignition compression Kind of fuel used Diesel

dia. of journals as per Rule 450 mm Crank pin dia. 450 mm Crank webs Mid. length breadth 265 mm Thickness parallel to axis 265 mm

Intermediate Shafts, diameter as per Rule 390 mm Thrust Shaft, diameter at collars as fitted 420 mm

Screw Shaft, diameter as fitted 435 mm Is the shaft fitted with a continuous liner yes

Thickness in way of bushes as per Rule 21 mm Thickness between bushes as fitted 15.5 mm Is the after end of the liner made watertight in the If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

Length of bearing in Stern Bush next to and supporting propeller 1950 mm

Pitch 3,940 mm No. of blades 4 Material bronze whether moveable no Total developed surface 8.8 m<sup>2</sup> sq. feet

Kind of damper, if fitted NONE

Means of governing a governor or other arrangement fitted to prevent racing of the engine yes

Thickness of cylinder liners 40 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled

Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Can one be overhauled while the other is at work

No. and size 1 - 30 tons per hour, 1 - 225 tons/hr 1 - 40 tons/hr

How driven electric steam

If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

Power Driven Lubricating Oil Pumps, including spare pump, No. and size two, 65 tons/hr

Suctions, connected to both main bilge pumps and auxiliary and size: - In machinery spaces 4 at 90 mm, 2 at 200 mm diam., Ford pp. room 1 at 90, to cable locker 75 mm

Centre pp. & aft pump rooms each p & s 90 mm & cofferdams p & s 90 mm

one at 200 mm diam. one at 90 mm (one - 200 mm emergency)

Are the bilge suction in the machinery spaces led from easily

Are they fitted with valves or cocks both

Are they fixed

Are the overboard discharges above or below the deep water line yes

on welded steel doubler

How are they protected

Have they been tested as per Rule yes

Is it fitted with a watertight door

worked from

Is the shaft tunnel watertight none

Is it fitted with a watertight door

worked from

What means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

No. of stages two diameters 265 & 105 mm stroke 250 port ford. and stbd. aux. engs.

No. of stages one diameters (40 cbm) 117/130 mm stroke 110 rpm driven by steam engine

No. of stages - diameters - stroke - driven by

steam driven compressor

diameter 1,500 mm stroke 1000 mm driven by main engine

No. three Position port ford. and aft and starbd. ford.

Is a report sent herewith yes

004308-004315-0053

Ships Register Foundation

AIR RECEIVERS:—Have they been made under survey... **yes** ✓ State No. of report or certificate No. 529

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. **two** ✓ Total cubic capacity **20,000 ltrs.** Internal diameter **1,648 mm** thickness **47/53.3 kg**

Seamless, welded or riveted longitudinal joint **butt welded** Material **S.M. steel** Range of tensile strength - Working pressure -

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

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

PLANS. Are approved plans forwarded herewith for shafting... **no** **yes** Receivers... **yes** Separation... **yes**

Donkey boilers... **yes** General pumping arrangements... **yes** Pumping arrangements in machinery space... **yes**

Oil fuel burning arrangements... **yes**

Have Torsional Vibration characteristics been approved... **yes** ✓ Date of approval **21.6.51**

SPARE GEAR.

Has the spare gear required by the Rules been supplied... **yes** ✓

State the principal additional spare gear supplied... **with 125% with 48-58 rpm**

The foregoing is a correct description... *[Signature]* Manufacturer.

Dates of Survey while building... During progress of work in shops - 24/5., 11/6., 26., 6/7, 20, 25, 29/7, 16/8, 22, 25, 3/9, 15, 19, 25, 27, 1/10, 3, 5, 11, 19, 23, 25, 1/11, 22, 27, 3/12, 7, 11, 13, 14, 20, 21, 27, 1951. 3/1, 12, 16, 18, 22, 23, 25, 28, 29, 30, W.O.D., 4/2, 1952. During erection on board vessel - 16/1, 28, 30, 13/2, 15, 18, 21, 28, 4/3, 6, 8, 12, 14, 18, 28/3, 31, 1/4, 2, 4, 5, 8, 9. Total No. of visits 77

Dates of examination of principal parts—Cylinders 4.4.52 Covers 25.1.52 Pistons 28.3.52 Rods 28.3.52 Connecting rods 24.5.51 to 27.9.51

Crank shaft 16.11.52 Flywheel shaft - Thrust shaft 16.1.52 Intermediate shafts 14.11.51 Tube shaft 27.9.51

Screw shaft 21.2.52 Propeller 6.4.52 Stern tubes 7.11.51 Engine seatings 15.2.52 Engine holding down 28.1.52

Completion of fitting sea connections 28.1.52 Completion of pumping arrangements 8.4.52 Engines tried under working conditions 28.1.52

Crank shaft, material S.M. steel Identification mark 79 & 79a WAA Flywheel shaft, material - Identification mark -

Thrust shaft, material SM steel Identification mark 507 Intermediate shafts, material S.M. steel Identification mark -

Tube shaft, material - Identification mark - Screw shaft, material S.M. steel Identification mark -

Identification marks on air receivers LLOYDS TEST NOS. 529 & 530 W.P. 30 ATU T.P. 48.5 ATU 18.2.52 WOD

Aux. & whistle air bottles: S 816, W.P. 30 ATU (aux.) & 15 ATU (whistle) T.P. 50 ATU 14.11.51 WAA

Welded receivers, state Makers' Name Main receivers, Brenner Vulkan, Vegesack, to Aux. receivers, not known.

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 steam smothering in boiler room, sand boxes, chemical extinguishers

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo... **yes** ✓ If so, have the requirements of the Rules been complied with... **yes** ✓

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with... **no**

Is this machinery duplicate of a previous case... **no** **yes** ✓ If so, state name of vessel... **DAGMAR SALEN**

General Remarks (State quality of workmanship, opinions as to class, &c. This engine has been constructed under Specification in conformity with the Society's Rules and Regulations, the approved plans and the Secretary's letters and workmanship are good. The engine has been examined during construction, properly installed in the above and found satisfactory under working conditions and is eligible in my opinion, for classification with ALMC 4.52.

Oil Engines 2 S.C.S.A. 8 Cyl. 23.6" - 43.3", 1300 MN 2 DB 185 lbs, 1 DB (WT) 185 lbs. TS CL. ME not to be run continuously between 48 and 58 RPM.

The amount of Entry Fee ... £ 6 640.00 Special ... £ When applied for ... 19 Donkey Boiler Fee... £ See Rpt. When received ... 19 Travelling Expenses (if any) £ 240.00

Assigned **F.L.M.C 4.52 Oil Eng. C.H. 228 180lb (with torsional endorsement)**

Certificate (if required) to be sent to the Committee's Minute.

