

REPORT ON OIL ENGINE MACHINERY.

No. 18786

Received at London Office. 7 APR 1953

Date of writing Report 30th March 1953 When handed in at Local Office 19 Port of Amsterdam

Survey held at Amsterdam Date, First Survey 11th April 1952 Last Survey 13th October 1952

Book. Number of Visits 7

Single on the Twin Triple Quadruple Screw vessel "BOGA"

It at Rotterdam (Scheepvaart) By whom built W. J. Stapel Yard No. 26 When built

Engines made at Amsterdam By whom made Verhulst & Co. Engine No. 1461 When made 1952

Key Boilers made at By whom made Boiler No. When made

Net Horse Power { Maximum 450 Service 36 Owners Republic Indonesia Port belonging to

V. as per Rule 86 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Use for which vessel is intended Deep Sea

ENGINES, &c. — Type of Engines T.M.A.S. 276 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 270 mm Length of stroke 500 mm No. of cylinders 6 No. of cranks 6

Indicated Pressure 75 kg/cm² A.F.O. 1-3-5-6-4-2 Span of bearings (i.e., distance between inner edges of bearings in of a crank) 320 mm Is there a bearing between each crank yes

Revolutions per minute { Maximum 375 Service 375

Wheel dia. 1120 mm Weight 1250 kg Moment of inertia of flywheel (lbs. in² or Kg. cm²) Means of ignition Comp. Kind of fuel used Diesel

ank dia. of journals as per Rule 200 mm Crank pin dia. 200 mm Crank webs Mid. length breadth 240 mm Thickness parallel to axis

Mid. length thickness 82 mm Thickness around eyehole

Wheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule

Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube screw shaft fitted with a continuous liner

Size 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. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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-

osive. If two liners are fitted, is the shaft lapped or protected between the liners. Is an approved Oil Gland fitted at the after

of stern tube. If so, state type. Length of bearing in Stern Bush next to and supporting propeller.

6-8 Propeller, dia. Pitch No. of blades Material whether moveable Total developed surface sq. feet

8-10 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

553-4 Location of fuel Thicker of cylinder liners 21 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled

540-1 Lined with non-conducting material Is the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

548 to the engine. Cooling Water Pumps, No. and how driven 12 mm Type Cap. 10 T/h Working by Main Eng

Spare F.W. S.W. Is the sea suction provided with an efficient strainer which can be cleared within the vessel.

6 Pumps worked from the Main Engines, No. and capacity 12 mm Type Cap. 10 T/h. Can one be overhauled while the other is at work.

7 Pumps connected to the Main Bilge Line No. and capacity of each How driven

8 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

9 arrangements. ME. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 120 T. Type Cap. 4.5 T/h.

10 two independent means arranged for circulating water through the Oil Cooler. Branch Bilge Suctions.

11 and size:—In machinery spaces. In pump room.

12 holds, &c.

13 Bilge Suctions to the engine room bilges, No. and size.

14 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

15 accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges.

16 All Sea Connections fitted direct on the skin of the Ship Are they fitted with valves or cocks Are they fixed

17 gently 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

18 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

19 pipes pass through the bunkers How are they protected

20 pipes pass through the deep tanks Have they been tested as per Rule

21 All pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times

22 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

23 or from one compartment to another Is the shaft tunnel watertight Is it fitted with a watertight door worked from

24 Good vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No. 1 No. of stages 2 diameters 100/120 mm stroke 90 mm driven by Main Eng.

25 Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

26 Provision is made for first charging the air receivers.

27 Charging Air Pumps or Blowers, No. How driven

28 Auxiliary Engines Have they been made under survey Engine Nos.

29 Makers name Position of each in engine room

30 Report No.

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AIR RECEIVERS:—Have they been made under survey Yes State No. of report or certificate Of L. 3247/3250
State full details of safety devices Safety valves fitted
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 1240 h Internal diameter 502 mm thickness 9.5 mm
Seamless, welded or riveted longitudinal joint Seamless Material S.M. Steel Range of tensile strength 34.2-48.5 kg/cm² Working pressure 30.0 atm
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 13-3-53 Receivers 13-3-53 Separate fuel tanks ✓
(If not, state date of approval)
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 13-3-53
12-11-52
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, WERKSPOR N.V. Manufacturer.
Dates of Survey while building: During progress of work in shops - 1952: 11/4 - 17/5 31/5 - 6/6 - 11/6 - 23/6 - 13/10
During erection on board vessel - ✓
Total No. of visits 7
Dates of examination of principal parts: Cylinders 11/4 Covers 11/6 Pistons 6/6 Rods ✓ Connecting rods 31/4
Crank shaft 31/5-52 Flywheel shaft ✓ Thrust shaft 13/7-49 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 12/10
Crank shaft, material S.M. Steel Identification mark Lloyds no. 16901 KK Flywheel shaft, material ✓ Identification mark ✓
Thrust shaft, material S.M. Steel Identification mark Lloyds no. 6293 Intermediate shafts, material ✓ Identification marks ✓
Tube shaft, material ✓ Identification mark ✓ Screw shaft, material ✓ Identification mark ✓
Identification marks on air receivers nos 2/3 - 3/5. Lloyds Test T.P. 60 atm. W.P. 30 atm. M.S.A. 26/2-52.
Welded receivers, state Makers' Name Rheinische Röhrenwerke AG. of Düsseldorf - Hierenfeld
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 ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.)
This engine has been built under Special Survey in accordance with approved plans, Society Rules and Secretary's letters. All materials have been tested as required and the workmanship found good. The engine has been tried on makers Testbed under full load conditions and found working satisfactorily.
In my opinion the vessel for which this engine is intended will be eligible for the notation L.M.C. (with date) when fitted and examined on board.
Copy certificates of crankshaft, Thrustshaft and airreceivers attached

The amount of Entry Fee ... fl. 341.-
Special ... £
Donkey Boiler Fee... £
Travelling Expenses (if any) fl. 50.-
When applied for 2-4 1953
When received 19
Committee's Minute See pgt 46.
Assigned ✓
THURSDAY 29 OCT 1953

Engineer Surveyor to Lloyd's Register of Shipping
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