

REPORT ON OIL ENGINE MACHINERY.

No. 15738^B
AUG -4 1939

Received at London Office

Date of Writing Report 29 July 1939 When handed in at Local Office

19 Port of Amsterdam

No. in Survey held at
Reg. Book.

Date, First Survey 16 March 1938 Last Survey 27 July 1939

Number of Visits 62

35105 on the ^{Single}
^{Twin}
^{Triple}
^{Quadruple} Screw vessel

MV "TIBIA"

Tons { Gross 10356
Net 6146.81Built at Amsterdam By whom built N.V. Nederl. Scheepb. M^t Yard No. 272 When built 1939

Engines made at Amsterdam By whom made N.V. Werkspoor Engine No. 743 When made 1939

Donkey Boilers made at Amsterdam By whom made N.V. Werkspoor Boiler No. 2025/120 When made 1939

Brake Horse Power 4660 Owners N.V. Petroleum M^t de Carona Port belonging to 's Gravenhage

Nom. Horse Power as per Rule 628 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended Open Sea Service

LL ENGINES, &c.—Type of Engines Werkspoor's Diesel Supercharged or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 700 LBS Diameter of cylinders 650 mm Length of stroke 1400 mm No. of cylinders 10 No. of cranks 10

Mean Indicated Pressure 135 LBS Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 855 mm Is there a bearing between each crank yes

Revolutions per minute 120 Flywheel dia. Weight Means of ignition Solid inject Kind of fuel used Diesel oil

Crank Shaft, { Solid forged dia. of journals as per Rule approved as fitted 475 mm Crank pin dia. 475 mm Crank Webs Mid. length breadth 900 mm shrunk Thickness parallel to axis - 273
Semi built as fitted 475 mm Mid. length thickness 273/297 mm Thickness around eyehole - 210.5
All built

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule approved as fitted 440 mm Thrust Shaft, diameter at collars as per Rule approved as fitted 460 mm

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule approved as fitted 440 mm Is the { tube shaft fitted with a continuous liner { yes

Bronze Liners, thickness in way of bushes as per Rule approved as fitted 21 mm Thickness between bushes as per Rule approved as fitted 16 mm Is the after end of the liner made watertight in the

propeller boss yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner O.L.

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 the tube

shaft no If so, state type Length of Bearing in Stern Bush next to and supporting propeller 1547 mm

Propeller, dia. 4960 mm Pitch 3660 mm No. of blades 4 Material Bronze whether Moveable no Total Developed Surface 89.846 sq. feet

Method of reversing Engines by bar Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

forced Thickness of cylinder liners 55 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material lagged If 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. 3 Salt & fresh water 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. 2 Rotary 35 lpm and 1 duplex 8" x 8" x 10" Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line { No. and Size 2 Rotary 35 lpm and 1 duplex 8" x 8" x 10" How driven Main engines steam driven

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 8" x 8" x 10" Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 rotary 50 lpm and 1 duplex 8" x 8" x 10"

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 2-4"; 1-4" well lift 1-6"; 2-4" cofferdams 2-2" oil well fuel pump In Pump Room fore 2-3" aft 2-3"

In Holds, &c. Fore peak 1-4" Fore hold 3-2" duplex 2-4" fore cofferdam 1-5" aft cofferdam 1-5"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-150 mm and one 7"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces

ed 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 yes Are they fitted with Valves or Cocks Values & cocks

Are 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

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 yes

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 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 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. No. of stages Diameters Stroke Driven by 1-steam engine

Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 206-184 mm Stroke 160 mm Driven by 1-Diesel engine

Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

What provision is made for first Charging the Air Receivers One auxiliary air compressor steam driven

Scavenging Air Pumps, No. each bottom end of cylinder Diameter 650 mm Stroke 1400 mm Driven by Main engine

Auxiliary Engines crank shafts, diameter as per Rule approved as fitted 6" and 95 mm Position Motor room

Have the Auxiliary Engines been constructed under special survey yes Is a report sent herewith Summary report to S.H. & report 15559

005377 . 005386 . 0013

AIR RECEIVERS:—Have they been made under survey Yes State No. of Report or Certificate 2199-2202
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 1000 cb feet Internal diameter 16.95 in M thickness 2.2 in M
Seamless, lap welded or riveted longitudinal joint welded Material SMS Range of tensile strength 40-53 lb Working pressure by Rules approved
Actual 3504 BS

IS A DONKEY BOILER FITTED? Yes (Two) If so, is a report now forwarded? Yes
Is the donkey boiler intended to be used for domestic purposes only Yes
PLANS. Are approved plans forwarded herewith for Shafting E 11-2-38 Receivers E 3-2-38 Separate Fuel Tanks E 15-5-39
(If not, state date of approval) E 4-10-38
Donkey Boilers E 14-2-38 General Pumping Arrangements E 2-12-38 Pumping Arrangements in Machinery Space E 2-12-38
Oil Fuel Burning Arrangements E 13-4-39

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes
State the principal additional spare gear supplied
As per separate list

The foregoing is a correct description,
WERKSPOR N.V.

Manufacturer.

Dates of Survey while building
During progress of work in shops—May 3-10-31 June 9-16-27 July 16 Sept 2 Oct 3-4-14-21-24-25-26-28 Nov 15-18-22-20 Dec 1-7-12
During erection on board vessel—Jan 10-20-27 Feb 3-6-7-10-11-14-15-18-21-24-25-27 March 13
Total No. of visits 62

Dates of Examination of principal parts—Cylinders 24-25-26 Oct Covers 25-26 Oct Pistons 30 Nov/Dec Rods 30 Nov/Dec Connecting rods 2-6 Feb
Crank shaft May 3-31 Dec 14 Flywheel shaft 18 Jan Thrust shaft 21 Oct 30 Nov Intermediate shafts Nov 17-27 Tube shaft ✓
Screw shaft 20 Nov 14 Dec Propeller 21 Feb Stern tube 24 Dec 10 Feb Engine seatings 9 May-15 June Engines holding down bolts 9 May 15 June
Completion of fitting sea connections 21 Feb Completion of pumping arrangements 12 July Engines tried under working conditions 15 July
Crank shaft, Material SMS Identification Mark 5570-11 Flywheel shaft, Material ✓ Identification Mark ✓
Thrust shaft, Material SMS Identification Mark HPB 3-11-30 Intermediate shafts, Material SMS Identification Marks 5782 HPB 17-2-39
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material SMS Identification Mark 5710 HPB 3-2-39

Identification Marks on Air Receivers
2199 2202
Lloyd's list Lloyd's list
5504 BS 5504 BS
WP 3504 BS WP 3504 BS
KK 30-12-38 KK 5-1-39

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
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo tanker 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 No If so, state name of vessel
General Remarks (State quality of workmanship, opinions as to class, &c.)

The Machinery has been built under special survey, approved plans & Secretary's letters. Material duly tested workmanship throughout good. Tested Machinery whilst on a trial trip on the North Sea found working good. She is eligible in my opinion for the approval of the Committee to be recorded. * LMC 7-39 oil engine C.L. with continuous survey on owners request in the Society's registerbook.

The amount of Entry Fee £ 72 - When applied for, 3-8-1939
Special £ 1276.80
Donkey Boiler Fee £ 350 - When received, 29-8-1939
Travelling Expenses (if any) £ 55 -

Committee's Minute

Assigned

+ LMC 739 Oil Eng
208 180 lb

B. Burdett
Engineer Surveyor to Lloyd's Register of Shipping.



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Lloyd's Register
Foundation