Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

Antwerp 28246

No. 18899

Received at London Office 12 DEC 1952

Date of writing Report 21-11 1952. When handed in at Local Office 19 Port of Amsterdam

No. in Reg. Book. Survey held at Amsterdam Date, First Survey 11-11-1950 Last Survey 16-12-52 (Antwerp) Number of Visits 16

Single / ~~on the Twin~~ / ~~Triple~~ / ~~Quadruple~~ Screw vessel M/v "GERRY S" Tons Gross Net

Built at Terneuzen By whom built Terneuzensche Scheepsbouw Mij Yard No. 54 When built 1952

Engines made at Amsterdam By whom made Werkspoor Engine No. 1424 When made 1951/52

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

Brake Horse Power 700 Owners Rotterdamsche Kustvaart Centr. Port belonging to Rotterdam

M.N. Power as per Rule 140. Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Trade for which vessel is intended Seagoing

OIL ENGINES, &c.—Type of Engines TMA5337 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 330 m/m Length of stroke 600 m/m No. of cylinders 7 No. of cranks 7

Mean Indicated Pressure 7,3 kg/cm² Ahead Firing Order in Cylinders 1-2-4-6-7-5-3 Span of bearings, adjacent to the crank, measured from inner edge to inner edge 396 m/m Is there a bearing between each crank Yes Revolutions per minute 225

Flywheel dia. 1400 m/m Weight 1865 kg Moment of inertia of flywheel (~~lbs. in²~~ or Kg.cm.²) 6115. Means of ignition Compn. Kind of fuel used Diesel 300

Crank Shaft, Solid forged / Semi built / All built dia. of journals as per Rule ... as fitted 245 m/m Crank pin dia. 240 m/m with hole 125 m/m Crank webs Mid. length breadth 480 m/m Mid. length thickness 100 m/m Trunk Thickness parallel to axis ... Thickness around eyehole ...

Flywheel Shaft, diameter as per Rule ... as fitted ... **Intermediate Shafts,** diameter as per Rule ... as fitted 220 m/m **Thrust Shaft,** diameter at collars as fitted 230 m/m as per Rule reduced to 215 at fit coupling

Tube Shaft, diameter as per Rule ... as fitted — **Screw Shaft,** diameter as per Rule ... as fitted 220 m/m Is the tube / screw shaft fitted with a continuous liner — No

Bronze Liners, thickness in way of bushes as per Rule ... as fitted — Thickness between bushes as per Rule ... as fitted ... 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 — 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 915/205 m/m

Propeller, dia. 1,96 m. Pitch 1260 m/m No. of blades 4 Material Bronze whether moveable Solid Total developed surface 15924 sq. ~~feet~~ cm² Moment of inertia of propeller (~~lbs in²~~ or Kg.m.²) 360 Kind of damper, if fitted —

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Forced Thickness of cylinder liners 23 m/m Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Cooled If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine — **Cooling Water Pumps,** No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the **Main Engines,** No. 1 Rotating Flowthrough Cap 27 ton/hour Diameter ... Stroke ... Can one be overhauled while the other is at work

Pumps connected to the **Main Bilge Line** No. and size 3. one ME driven + 2 independent Cap. 50 T/H each. How driven One ME driven + 2 independent driven by Diesel motor

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 50 T/H. **Power Driven Lubricating Oil Pumps,** including spare pump, No. and size 1 Rotating 7 ton/hour 1 Spare 7,5 T/H

Are two independent means arranged for circulating water through the **Oil Cooler** one General Service cp. 50 T/H yes **Suctions,** connected to both main bilge pumps and auxiliary bilge pumps, No. and size:—In machinery spaces 5. 4×3" + 1×2" emergency hand pump. In pump room ✓

In holds, &c. 3 x 3"

Independent Power Pump Direct Suctions to the engine room bilges, No. and size ...

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes yes Are the bilge suctions 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 yes Are they fitted with valves or cocks cocks + valves. 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 ✓

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. 1 No. of stages 2 diameters 150/180 m/m stroke 100 m/m driven by main eng.

Auxiliary Air Compressors, No. 1 No. of stages 2 diameters 100/110 m/m stroke 110 m/m driven by Hand started Diesel motor

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

What provision is made for first charging the air receivers Auxiliary Compressor driven by hand start 2 cyl. Lister Diesel.

Scavenging Air Pumps, No. ... diameter ... stroke ... driven by ...

Auxiliary Engines crank shafts, diameter as per Rule ... as fitted Journals 3" Pins 3" No. One Position Port-side (Lower platform Eng. Room)

Have the auxiliary engines been constructed under special survey yes Is a report sent herewith Yes

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AIR RECEIVERS:—Have they been made under survey Yes. State No. of report or certificate Sheffield C9946

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 by Rules ... Actual ...

Starting Air Receivers, No. Two. Total cubic capacity 2000 L. Internal diameter 589.2 m/m. thickness 10.4 m/m.

Seamless, welded or riveted longitudinal joint Seamless Material S.M. Steel Range of tensile strength 60/62.7 Kg/m/m² Working pressure by Rules ... Actual 30 Kg/cm²

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 21/7/52 (If not, state date of approval) Receivers ... Separate fuel tanks ...

Donkey boilers ... General pumping arrangements 29/8/52 Pumping arrangements in machinery space 6/11/52

Oil fuel burning arrangements ...

Have Torsional Vibration characteristics been approved Yes Date of approval 17-10-52.

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,

WERKSPOOR N.V. Manufacturer.

Dates of Survey while building

During progress of work in shops— 1950 1/11 24/11 27/11; 4/12 8/12 14/12 18/12 1951 2/1 19/2 26/2 22/3 30/3 2/4 9/4 13/4 1952 10/9.

During erection on board vessel— 1952:- Sept. 4. Oct. 22. 27. Nov. 1. 28. 29. Dec. 3. 6.

Total No. of visits 16 + 8 (Antwerp)

Dates of examination of principal parts—Cylinders 11/11 18/12'50 Covers 24/11 14/12'50 Pistons 2/1'51 22/3'51 Rods — Connecting rods 27/11'50

Crank shaft 4/12'50 Flywheel shaft — Thrust shaft 18/12'50 13/4'51 Intermediate shafts — Tube shaft —

Screw shaft — Propeller — Stern tube — Engine seatings 11/11'50 26/2'51 Engine holding down bolts —

Completion of fitting sea connections — Completion of pumping arrangements — Engines tried under working conditions 13/4'51.

Crank shaft, material S.M. Steel Identification mark Lloyd's N°11945 K.K. 4-12-50 Flywheel shaft, material, — Identification mark —

Thrust shaft, material S.M. Steel Identification mark Lloyd's N°10318 K.K. 18-4-50 Intermediate shafts, material — Identification marks —

Tube shaft, material — Identification mark — Screw shaft, material S.M. steel. Identification mark MS-N°-4/3/52.

Identification marks on air receivers RA N°906907 2906911 JEV 20-9-52.

Welded receivers, state Makers' Name —

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 ...

Description of fire extinguishing apparatus fitted 3-gl. patent extinguishing appr. + one Waterhose.

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 Yes If so, state name of vessel Standard type.

General Remarks (State quality of workmanship, opinions as to class, &c. ✓)

This engine has been built under Special Survey in accordance with approved plans, Society's Rules and Secretarial letters. All materials tested as required and workmanship found good.

The engine has been tested on Maker's testbed under full load condition and found satisfactory.

In my opinion the vessel where this engine is intended for will be eligible for the notation +LMC. with date when fitted and tried on board.

Copy certificates of crankshaft, thrustshaft and airreceiver attached.

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

Certificate (if required) to be sent to ...

The amount of Survey Fee ... £ 522.—
2/3 x 1405,60 = £ 522.—

Special ... £ :
Installation Antwerp B.f. 4320 :

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ 18.— :

When applied for 22-11 1952
27-2- 1953

When received 19

John. Thomas
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute " " (Antwerp) B.f. 1328.-
FRI. 10 APR 1953

The above mentioned machinery has been satisfactorily installed on board, and tried under working conditions.

Assigned +LMC 12.52 Oil Eng.

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