

Rpt. 4b.

# REPORT ON OIL ENGINE MACHINERY.

No. 37 JUL 1947

Received at London Office

Date of writing Report 3<sup>rd</sup> June 1946 When handed in at Local Office 10 Port of Amsterdam  
 No. in Survey held at Amsterdam Date, First Survey 18 Aug 1944 Last Survey 15 Feb 1946  
 Reg. Book. Single on the Twin Triple Quadruple Screw vessel "FEROCIA" Tons Gross Net  
 Built at Stockhol By whom built N.V. Scheepswarf, Voornitzing Yard No. 160 When built 1946  
 Engines made at Amsterdam By whom made N.Y. Westspoor Engine No. 981 When made 1946  
 Donkey Boilers made at By whom made Boiler No. When made  
 Brake Horse Power Owners Minnaar Port belonging to   
 Nom. Horse Power as per Rule 60 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted   
 Trade for which vessel is intended

## OIL ENGINES, &c.—Type of Engines T.M.A 3276 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 40 kg/cm<sup>2</sup> Mean Indicated Pressure 7.5 kg/cm<sup>2</sup> Diameter of cylinders 370 mm Length of stroke 500 mm No. of cylinders 6 No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 330 mm Is there a bearing between each crank Yes  
 Revolutions per minute 337 Flywheel dia. 1180 mm Weight 1850 kg Means of ignition Compressor Kind of fuel used Diesel Oil

Crank Shaft, dia. of journals as per Rule as fitted 800 mm Crank pin dia. 300 mm Crank Webs Mid. length breadth 340 mm Thickness parallel to axis shrunk Mid. length thickness 22 mm Thickness around eye-hole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted

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

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 the tube shaft  If so, state type  Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia.  Pitch  No. of blades  Material  whether Moveable  Total Developed Surface  sq. feet

Method of reversing Engines by hand Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication forced Thickness of cylinder liners 11 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-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

Cooling Water Pumps, No. 1 Rotary 10 Comp. Hous 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 Rotary 15 C.P.H Diameter  Stroke  Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and Size How driven

Is the 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 arrangements

Ballast Pumps, No. and size  Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 Rotary 3600 C.P.H

Are two independent means arranged for circulating water through the Oil Cooler  Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces  In Pump Room

In Holds, &c.

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  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

Are all Sea Connections fitted direct on the skin of the ship  Are they fitted with Valves or Cocks

Are they fixed sufficiently 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

Are 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

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

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  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 120/100 mm Stroke 90 mm Driven by Main Engine

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

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

Scavenging Air Pumps, No.  Diameter  Stroke  Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted No.  Position



AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule.

Can the internal surfaces of the receivers be examined and cleaned. Is a drain fitted at the lowest part of each receiver.

High Pressure 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. Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual

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 Receivers Separate Fuel Tanks

Donkey Boilers General Pumping Arrangements Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied As per attached list.

The foregoing is a correct description,

WERKSPOR N.V.

[Signature]

Manufacturer.

Dates of Survey while building: During progress of work in shops - 1943 Aug 10; Sept 15; Nov 26; 1943 Sept 17. During erection on board vessel - 1945 Sept 24-25; Nov 3; Dec 29; 1946 Feb 15. Total No. of visits

Dates of Examination of principal parts—Cylinders 24-9-45 Covers 24-9-45 Pistons 3-11-45 Rods 5-11-43 Connecting rods 16-3-43 Crank shaft 3-11-45 Flywheel shaft Thrust shaft Intermediate shafts Tube shaft Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions 15-2-46 Crank shaft, Material S.M. Steel Identification Mark LLOYDS P.K. 10729 Flywheel shaft, Material Identification Mark A.B. 2-40 Intermediate shafts, Material Identification Marks Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

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 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 vessel

General Remarks (State quality of workmanship, opinions as to class, &c. This engine has been built under special survey in accordance with approved plans, Secretary letters and Society rules. Material tested as required and workmanship found good. The motor has been tested under full load condition and found working satisfactory. The motor has been sold to C. Minnaar. Overschie

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

Table with columns for fee type (Entry Fee, Special, Donkey Boiler Fee, Travelling Expenses), amount in £, and when applied for/received.

Committee's Minute FRI. 10 OCT 1947

Assigned See F.B. mch. rpt.

Signature of Engineer Surveyor to Lloyd's Register of Shipping.

