

# REPORT ON OIL ENGINE MACHINERY.

-8 JUL 1936  
No. 13681.

Received at London Office - 6 MAY 1936

Date of writing Report 2 May 1936 When handed in at Local Office 10 Port of Amsterdam

No. in Survey held at Amsterdam & Hengelo Date, First Survey 14 March 1935 Last Survey 20 April 1936  
Reg. Book. 2 Number of Visits 2

on the Single Double Triple Quadruple Screw vessel MV 202 "ERINNA" Tons <sup>Gross</sup>      <sub>Net</sub>     

Built at Flushing By whom built Konink De Schelde Yard No. 202 When built 1936

Engines made at Amsterdam By whom made N.V. Werkspoor Engine No.      When made 1936

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

Brake Horse Power 2000 Owners      Port belonging to     

Nom. Horse Power as per Rule 377 Is Refrigerating Machinery fitted for cargo purposes      Is Electric Light fitted     

Trade for which vessel is intended 25 2/16 55 1/2

**OIL ENGINES, &c.** Type of Engines Diesel with injection supercharge 2 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 6 No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 834 mm Is there a bearing between each crank yes

Revolutions per minute 120 Flywheel dia. 2260 Weight 6000 kg Means of ignition spark Kind of fuel used crude oil

Crank Shaft, dia. of journals 444 mm as per Rule 444 mm as fitted 460 mm Crank pin dia. 460 mm Crank Webs      Mid. length breadth 870 mm Thickness parallel to axis      Mid. length thickness 290 mm Thickness around eye-hole     

Flywheel Shaft, diameter 444 mm as per Rule 444 mm as fitted 460 mm Intermediate Shafts, diameter 350 mm as per Rule approved as fitted 350 mm Thrust Shaft, diameter at collars 340 mm as per Rule approved as fitted 340 mm

Tube Shaft, diameter      as per Rule      as fitted      Screw Shaft, diameter 370 mm as per Rule approved as fitted 370 mm Is the water screw shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes 14.5 mm as per Rule approved as fitted 14.5 mm Thickness between bushes 15 mm as per rule approved as fitted 15 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     

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 1400 mm

Propeller, dia. 4270 mm Pitch 2500 mm No. of blades 4 Material bronze whether Moveable no Total Developed Surface 62 sq. feet

Method of reversing Engines by air 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     

Cooling Water Pumps, No. 2 fresh & salt water Is the sea suction provided with an efficient strainer which can be cleared within the vessel     

What special arrangements are made for dealing with cooling water if discharged into bilges     

Bilge Pumps worked from the Main Engines, No. 2 rotary type with 35 1/2 Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line { No. and Size 2 rotary & 1 general service 8x8x10 How driven 1 by steam

Ballast Pumps, No. and size one 8x8x10 Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size rotary 40 horse 1 duplex 8x8x10

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      In Pump Room     

In Holds, &c.     

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size      Are the Bilge Suctions in the Machinery Spaces     

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes      Are they fitted with Valves or Cocks     

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 the Overboard Discharges above or below the deep water line     

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates      Are the Blow Off Cocks fitted with a spigot and brass covering plate     

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel      How are they protected     

What pipes pass through the bunkers      Have they been tested as per Rule     

What pipes pass through the deep tanks     

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.      No. of stages      Diameters      Stroke      Driven by     

Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 206 x 104 mm Stroke 160 mm Driven by 1 by steam engine 1 by Diesel engine

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     

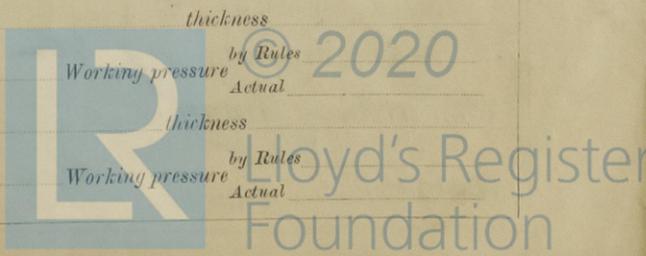
Can the internal surfaces of the receivers be examined and cleaned      Is a drain fitted at the lowest part of each receiver     

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 29-3-35 & 2-5-35 Receivers 9-4-35 Separate Tanks  
(If not, state date of approval)  
 Donkey Boilers \_\_\_\_\_ General Pumping Arrangements \_\_\_\_\_ Oil Fuel Burning Arrangements \_\_\_\_\_

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description.

WERKSPOR N.V.

*[Signature]*

Manufacturer.

Dates of Survey while building  
 During progress of work in shops-- 1935. March 14, 24. May 24, 28. June 4, 7, 14, 19, 25. July 15, 16, 22, 26, 31. Aug 5, 12, 13, 16, 17, 20, 21, 28, 29. Sept. 2, 20, 23, 25. Oct. 1, 2, 4, 7, 9, 17, 21, 23, 25. Nov 6, 7, 9, 13, 26, 29. Dec 2, 5, 6, 13, 30. 1936 Jan 2, 3, 10, 11, 14, 20, 22, 23, 28, 29. Feb 3, 5, 7, 27. March 2, 3, 5, 11, 26, 30. April 2, 14, 16, 28.  
 During erection on board vessel--  
 Total No. of visits

Dates of Examination of principal parts—Cylinders 8, 10, 14 Covers 10 Jan 22 Jan Pistons 2 Jan 4 Feb 26 Rods 5 Feb 27 Feb Connecting rods Jan 2, 1936 Feb

Crank shaft Jan 10 & 3-5 Feb Flywheel shaft 5 Feb 27 Feb Thrust shaft 21 Nov 27 Feb 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 \_\_\_\_\_  
 Crank shaft, Material SMS Identification Mark 4401 & 1402 SA. 4.10.35 Flywheel shaft, Material SMS Identification Mark 4403 SA. 4.10.35  
 Thrust shaft, Material SMS Identification Mark 1737 HPB 21-11-35 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 Yes If so, state name of vessel MK. ENSIS. Rotterdam Dry dock No 193  
Amrop 13659.

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

*The Machinery have been made in accordance with the approved plans Secretary's letters and the Society's rules. workmanship throughout good*

*The Machinery has been shipped to Flushing and will be fitted aboard Messrs De Schelde Jord No 202*

The amount of Entry Fee .. 160 :  
 Special 4/5 fu .. 703 :  
 Donkey Boiler Fee ... £ :  
 Travelling Expenses (if any) 45 : 23-6 19 36  
(per 11 to RST)

*[Signature]*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 14 JUL 1935  
 Assigned See Rot. J.E. 24647



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