

# REPORT ON OIL ENGINE MACHINERY.

No. 13334  
-8 DEC 1934

Received at London Office

Report 22 Nov 1934 When handed in at Local Office 19 Port of Amsterdam  
Survey held at Amsterdam & Hengelo Date, First Survey 5 March Last Survey 19 Nov 1934  
Number of Visits 66.

Single  
Twin  
Triple  
Quadruple  
Screw vessel M.V. "PERNA" Tons { Gross  
Net

By whom built Odense By whom made N.V. Werkspoor  
Yard No. 54 When built 1934 Engine No. 631 When made 1934  
Boiler No. 2668 When made 1934  
Power 2800 Owners N.V. Petroleum M<sup>r</sup> "La Corona" Port belonging to Gravenhage  
Power as per Rule 502 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted  
Which vessel is intended 25 7/16" 55 1/8"

Types, &c.—Type of Engines Diesel Airless injection Supercharge 2 or 4 stroke cycle 4 Single or double acting Single  
No. of cylinders 700 LBS Diameter of cylinders 650 mm Length of stroke 1400 mm No. of cylinders 8 No. of cranks 8  
Is there a bearing between each crank yes  
Flywheel dia. 2260 mm Weight 6500 kg Means of ignition Airless Kind of fuel used Crude oil  
Crank pin dia. 460 mm Crank Webs Mid. length breadth 870 mm Thickness parallel to axis  
Mid. length thickness 290 mm Thickness around eyehole  
Intermediate Shafts, diameter as per Rule 315 mm Thrust Shaft, diameter at collars as per Rule 330 mm  
Screw Shaft, diameter as per Rule 345 mm Is the screw shaft fitted with a continuous liner yes  
Thickness in way of bushes as per Rule 22.5 mm Thickness between bushes as per rule Is the after end of the liner made watertight in the

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner  
Is the space charged with a plastic material insoluble in water and non-corrosive  
Is an approved Oil Gland or other appliance fitted at the after end of the tube  
Length of Bearing in Stern Bush next to and supporting propeller 1390 mm  
Pitch 15'-0" No. of blades 4 Material Bronze whether Moveable no Total Developed Surface 72 sq. feet  
Reversing Engines by Air Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication  
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  
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

Sea Pumps, No. 3 Suckwater 2 Freshwater Is the sea suction provided with an efficient strainer which can be cleared within the vessel  
worked from the Main Engines, No. 2 Rotary Diameter 350 mm Stroke Can one be overhauled while the other is at work yes  
connected to the Main Bilge Line No. and Size How driven  
Lubricating Oil Pumps, including Spare Pump, No. and size 1 rotary pump 4 1/2 inch low  
1 steam driven 8 x 10  
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

Power Pump Direct Suctions to the Engine Room Bilges, No. and size  
Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces  
accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges  
Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks  
Suctions 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  
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  
Suctions through the bunkers How are they protected  
Suctions through the deep tanks Have they been tested as per Rule

Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times  
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  
to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from  
Means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork  
Compressors, No. No. of stages Diameters Stroke Driven by  
Air Compressors, No. No. of stages Diameters Stroke Driven by  
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by  
Air Pumps, No. Bottom end cyl. Diameter 650 Stroke 1400 mm Driven by Main engine

Engines crank shafts, diameter as per Rule as fitted  
RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes  
All surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces manhole doors  
Arrangement fitted at the lowest part of each receiver yes  
Air Receivers, No. none Cubic capacity of each Internal diameter thickness  
Welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules  
Air Receivers, No. 2 Total cubic capacity 800 cub feet Internal diameter 1495 mm thickness 21 mm  
Welded or riveted longitudinal joint Material SMS Range of tensile strength 29-24 ton Working pressure by Rules 375 LBS  
Actual 350 LBS

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IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded? No

PLANS. Are approved plans forwarded herewith for Shafting E 12-23, P-2-34 Receivers E 20-1-34 Separate Tanks

Donkey Boilers 17-3-34 General Pumping Arrangements E 21-6-34/7-7-34 Oil Fuel Burning Arrangements

SPARE GEAR

The foregoing is a correct description,

WERSPOOR NY  
W. Allan Furterman

Manufacturer.

Dates of Survey while building: During progress of work in shops-- March 5, 13, 19, 20, 21, 22, 23, 27, 28, 29. April 10, 13, 20, 21, 25, 27. May 2, 4, 5, 7, 8, 10, 16, 17, 18, 19, 22, 24, 26, 28, 29, 31. June 1, 2, 4, 5, 7, 12, 13, 14, 15, 18, 19, 21, 22, 25, 26, 28, 29, 30. July 1, 5, 11, 17, 18, 27, 28, 31. Aug 2, 3, 6, 21, 24. Sept 25, 19, Nov.

Dates of Examination of principal parts—Cylinders 15, 3, 34, 4, 5, 34 Covers 19-3-34 Pistons 5-3, 34, 13-4, 34 Rods 13-4, 34, 25, 34 Connecting rods 4-6-34

Crank shaft 2-5-34 Flywheel shaft 2-5-34 Thrust shaft 20-5-34, 2-0-34 Intermediate shafts 29-5-34, 25-9-34 Tube shaft

Screw shaft 24-6-34, 25-9-34 Propeller Stern tube 15-11-34 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 2049 52 13-4-34 Flywheel shaft, Material SMS Identification Mark 2069 54 24-4-34

Thrust shaft, Material SMS Identification Mark 1146 52 2-0-34 Intermediate shafts, Material SMS Identification Marks 1198 47 B 25-9

Tube shaft, Material Identification Mark Screw shaft, Material SMS Identification Mark 1200 47 B 25-9

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

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

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 engine has been constructed under special survey in accordance with the approved plans & Secretary's Letter.

Material tested as required, workmanship throughout good.

The engine has been forwarded to Denmark - Odense and will be placed in Messrs Odense Maskarbejdsvoerft Jant N<sup>o</sup> 54

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

The amount of Entry Fee ... £ 72.- : When applied for,  
Special 45 £ 96.- : 19  
Donkey Boiler Fee ... £ 102.80 :  
Travelling Expenses (if any) £ 56.- : 27-12-19 34 70 29

Committee's Minute FRI. 5 APR 1935  
Assigned See J. E. Machy

Harrodoffen  
Engineer Surveyor Lloyd's Register of Shipping.

