

# 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 & Vengelo Date, First Survey 5 March Last Survey 19 Nov 1934  
Number of Visits 66

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

Odense By whom built Odense Staalskibsværft Yard No. 54 When built 1934  
Amsterdam By whom made N.V. Werkspoor Engine No. 631 When made 1934  
Amsterdam By whom made N.V. Werkspoor Boiler No. 2668 When made 1934  
Power 2800 Owners N.V. Petroleum M<sup>t</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"

INES, &c.—Type of Engines Diesel turbo injection Supercharge 2 or 4 stroke cycle 4 Single or double acting single  
are in cylinders 700 LBS Diameter of cylinders 650 mm Length of stroke 1400 mm No. of cylinders 8 No. of cranks 8  
s, adjacent to the Crank, measured from inner edge to inner edge 844 mm Is there a bearing between each crank yes  
minute 110 Flywheel dia. 2260 mm Weight 6500 kg Means of ignition turles Kind of fuel used Crude oil  
dia. of journals as per Rule 444 mm 434 Crank pin dia. 460 mm Crank Webs Mid. length breadth 870 mm Thickness parallel to axis  
as fitted 460 mm Mid. length thickness 290 mm shrunk Thickness around eyehole  
aft, diameter as per Rule 444 mm Intermediate Shafts, diameter as per Rule 313 mm Thrust Shaft, diameter at collars as per Rule 330 mm  
as fitted 460 mm as fitted 470 mm as fitted 460 mm  
diameter as per Rule 345 mm Is the { hub } shaft fitted with a continuous liner { yes  
as fitted 400 mm screw }  
rs, thickness in way of bushes as per Rule 20.5 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 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  
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  
If so, state type Length of Bearing in Stern Bush next to and supporting propeller 1390 mm  
15'-0" Pitch 12'-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  
er Pumps, No. 3 saltwater 2 fresh water 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  
ted to the Main Bilge Line { No. and Size  
How driven

ps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size 1 rotary pump 40 tons/hour  
1 steam driven 8" x 10"  
ndent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
d size:—In Machinery Spaces

Power Pump Direct Suctions to the Engine Room Bilges, No. and size  
ilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces  
e accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges  
onnections fitted direct on the skin of the ship Are they fitted with Valves or Cocks  
ufficiently 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  
tted 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  
s through the bunkers How are they protected  
s 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  
nent 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  
another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from  
al, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork  
mpressors, No. No. of stages Diameters Stroke Driven by  
r Compressors, No. No. of stages Diameters Stroke Driven by  
ary Air Compressors, No. No. of stages Diameters Stroke Driven by  
change  
Air Pumps, No. Bottom end cyl. Diameter 650 Stroke 1400 mm Driven by Ham engine  
gines crank shafts, diameter as per Rule  
as fitted

REIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes  
al surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces manhole doors  
in arrangement fitted at the lowest part of each receiver yes  
re Air Receivers, No. none Cubic capacity of each Internal diameter thickness  
welded or riveted longitudinal joint Material 4 Range of tensile strength Working pressure by Rules  
r Receivers, No. 2 Total cubic capacity 800 cub feet Internal diameter 1495 mm thickness 21 mm  
welded or riveted longitudinal joint riveted Material SMS Range of tensile strength 29-34 ton Working pressure by Rules 37.4 LBS  
actual 35.0 LBS

003659-003670-0142



## IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded? no

PLANS. Are approved plans forwarded herewith for Shafting E-12-33. P-2-34 Receivers E-20-1-34 Separate Tanks  
(If not, state date of approval)

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,*

WERKSPOR N.V.

*Manufacturer.*

|   |  |  |
|---|--|--|
| Dates<br>of Survey<br>while<br>building | { During progress of<br>work in shops--<br>{ During erection on<br>board vessel--<br>{ Total No. of visits | March 5. 13. 19. 20. 21. 22. 23. 24. 25. 26. 29. April 10. 13. 20. 21. 25. 27. May 2. 4. 5. 7. 8. 10. 16. 17. 18. 19. 22. 24. 25. 26. 29. 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.   |
|   |  | 66   |

Dates of Examination of principal parts—Cylinders 15.3.34 & 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 29-6-34, 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 |
| Thrust shaft, Material                | SMS | Identification Mark                | 1146 423 2-0-34 | Intermediate shafts, Material          | SMS |
| Tube shaft, Material                  | -   | Identification Mark                | -               | Screw shaft, Material                  | SMS |

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 Maskinfabrik's Yard No 54

The amount of Entry Fee, ... ~~2~~ 42: - : ) When applied for,

Special

Donkey Boiler Fee

Travelling Expenses (if any)

### Committee's Minute

*Assigned*

FRI. 5 APR 1935

See J. E. Machz.

*Ernst Dörffler*  
Engineer Surveyor Lloyd's Regd

Engineer Surveyor Lloyd's Register of Shipping.

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Lloyd's Register  
Foundation