

# REPORT ON OIL ENGINE MACHINERY.

No. 1389

10 SEP 1931

Received at London Office

Date of writing Report *27th Aug 31* When handed in at Local Office *1st Sept 31* Port of *Bremen*

No. in Survey held at *Manheim* Date, First Survey *15th June 1931* Last Survey *21st August 1931*  
Reg. Book. Number of Visits *17*

on the *Triple* Screw vessel

Tons } Gross  
          } Net

Built at *Eekhuizen, Holland*

By whom built *N.V. Weef "Vooruit"*

Yard No. *118* When built *1931*

Engines made at *Manheim*

By whom made *Motoren Werke vorm. Preug*

Engine No. *31891* When made *1931*

Boilers made at  
Horse Power *320*

By whom made  
Owners *Mems. Wilder u. v. d. Heyde*

Boiler No.           When made  
Port belonging to *Rotterdam*

Horse Power as per Rule *87*  
for which vessel is intended

Is Refrigerating Machinery fitted for cargo purposes           Is Electric Light fitted

ENGINES, &c.—Type of Engines *RH 45 Su*           2 or 4 stroke cycle *4* Single or double acting *single*  
on pressure in cylinders *45 atm*           Diameter of cylinders *310 mm*           Length of stroke *450 mm*           No. of cylinders *6*           No. of cranks *6*

bearings, adjacent to the Crank, measured from inner edge to inner edge *416 mm*           Is there a bearing between each crank *yes*  
Revolutions per minute *250*           Flywheel dia. *1100 mm*           Weight *2100 kg*           Means of ignition *pre-combustion chamber*           Kind of fuel used *Gesol on test bed*

Shaft, dia. of journals *as per Rule*           Crank pin dia. *190 mm*           Crank Webs           Mid. length breadth *240 mm*           Thickness parallel to axis  
*as fitted* *190 mm*           Mid. length thickness *100 mm*           shrunk           Thickness around eye-hole

Propeller Shaft, diameter *as per Rule*           Intermediate Shafts, diameter *as per Rule*           Thrust Shaft, diameter at collars *as per Rule*  
*as fitted*           *as fitted* *240*           *as fitted* *140*

Screw Shaft, diameter *as per Rule*           Screw Shaft, diameter *as per Rule*           Is the tube screw shaft fitted with a continuous liner *no*  
*as fitted*           *as fitted* *144*

Liners, thickness in way of bushes *as per Rule*           Thickness between bushes *as per Rule*           Is the after end of the liner made watertight in the stern boss *no*  
*as fitted*           *as fitted*

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

Propeller, dia. *1800*           Pitch           No. of blades           Material           whether Moveable           Total Developed Surface           sq. feet

Method of reversing Engines *direct by hand*           Is a governor or other arrangement fitted to prevent racing of the engine when declutched *yes*           Means of lubrication *oil*  
Thickness of cylinder walls *24 mm*           Are the cylinders fitted with safety valves *yes*           Are the exhaust pipes *and silencers* water cooled or lagged with insulating material *water cooled*

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine  
No. of Water Pumps, No. *1*           Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Special arrangements are made for dealing with cooling water if discharged into bilges  
Pumps worked from the Main Engines, No. *1*           Diameter *140 mm*           Stroke *90 mm*           Can one be overhauled while the other is at work *yes*  
*used if necessary as spare cooling water pump*

How connected to the Main Bilge Line { No. and Size           How driven  
Auxiliary Pumps, No. and size           Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size *hand pump and*  
Independent means arranged for circulating water through the Oil Cooler           Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge *fed to the main engine. 4.15/min*

No. and size:—In Machinery Spaces           In Pump Room  
Pipes, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size  
Are the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes           Are the Bilge Suctions in the Machinery Spaces

Are easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges  
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

How are they protected  
How are they protected  
Are they tested as per Rule

Pipes, 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 compartment to another

Is the Shaft Tunnel watertight           Is it fitted with a watertight door           Is it worked from  
If the vessel is a motor vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

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

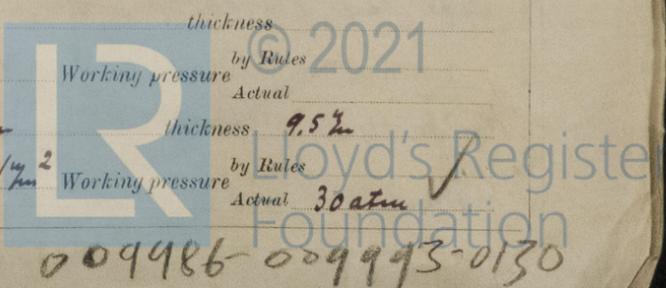
Auxiliary Air Compressors, No.           No. of stages           Diameters           Stroke           Driven by  
Suctioning Air Pumps, No.           Diameter           Stroke           Driven by

Primary Engines crank shafts, diameter *as per Rule*           No.—  
*as fitted*           Position —

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve *yes*  
Are the internal surfaces of the receivers be examined and cleaned *yes*           Is a drain fitted at the lowest part of each receiver *no*

Pressure Air Receivers, No.           Cubic capacity of each           Internal diameter           thickness  
Are they seamless, lap welded or riveted longitudinal joint           Material           Range of tensile strength           Working pressure  
*Actual*

Suctioning Air Receivers, No. *1*           Total cubic capacity *250 m<sup>3</sup>*           Internal diameter *387 mm*           thickness *9.5 mm*  
Are they seamless, lap welded or riveted longitudinal joint *seamless*           Material *S.M. Steel*           Range of tensile strength *55-60 kg/cm<sup>2</sup>*           Working pressure  
*Actual* *30 atm*



009986-009993-0130

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 27.5.31, 36.31 Receivers 16.7.31 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 *as per Rules*

The foregoing is a correct description.

MOTOREN-WERKE MANNHEIM A.-U.  
VORR. BENZ. ABT. STATIONÄRER MOTORENBAU

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 15.16.17.18.19.20. June; 9.10.11.13 July; 3.4.5.18.19.20.21. August 1931  
During erection on board vessel - -  
Total No. of visits

Dates of Examination of principal parts - Cylinders 10.7.31, 21.8.31 Covers 10.7.31, 21.8.31 Pistons 15.6.31, 21.8.31 Rods Connecting rods 15.6.31

Crank shaft 13.7.31, 21.8.31 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

Crank shaft, Material S. M. Steel Identification Mark LLOYD'S M.K.4129 Flywheel shaft, Material Identification Mark 19.6.31

Thrust shaft, Material Identification Mark 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 a 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 *F. Smit, Fexhol, yard No 76 for My "Ocean" of Groningen, Holland*

General Remarks (State quality of workmanship, opinions as to class, &c. *This heavy oil engine has been constructed in accordance*)

*with the Society's Rules and Regulations as well as with the approved plans and instructions thereto. The materials used in the construction are good and the workmanship is satisfactory. The engine has been tested running on the makers test bed during 13 hours incl. 2 hours 20% overload and 3 hours partial loads in the presence of the undersigned and was found to work satisfactorily. In my opinion the vessel for which this engine is intended will be eligible for the notation of  $\otimes$  LMC [with date] when the machinery has been fitted satisfactorily on board and tried under full working conditions.*

*Working pressure in the cylinders not to exceed 45 atm.*

*It is recommended that the 250lt air receiver No 600 F.S. 24.6.31 be fitted with drain on the bottom.*

*A copy of this report has been sent to the Rotterdam surveyors.*

The amount of Entry Fee .. £ 1 : 12 : When applied for.

*4/5* Special .. £ 17 : 12 : *5.9.1931*

*Test bed trials* Donkey Boiler Fee .. £ 4 : 4 : When received.

Travelling Expenses (if any) .. £ 8 : 11 : *£10 - 17.9.31 Ebb*  
*£21.19/- 14/10/31 Ebb*

Committee's Minute .. FRI. 5 FEB 1932

Assigned

*See F.C. Rpt.*

*J. Strouck*  
Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 4 MAR 1932



© 2021

Lloyd's Register Foundation

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

Rpt  
R  
Date  
No.  
Rey  
Buil  
Own  
Elec  
Is the  
System  
Press  
Direc  
If alte  
Has th  
Gener  
are the  
Where  
series u  
Are all  
short ci  
Positi  
is the v  
if situ  
are thei  
Earthin  
their res  
Main S  
a fuse on  
Switch  
are they  
woodwor  
are they  
permanen  
with mic  
and is th  
bars  
Main S  
Dow  
Instrum  
Earth T  
Switches  
Joint Bo