

Rpt. 4b.

## REPORT ON OIL ENGINE MACHINERY.

No. 15022

Received at London Office

APR 21 1939

Date of writing Report 16 April 1939 When handed in at Local Office

Port of Amsterdam

No. in Survey held at Hengelo + Amsterdam Date, First Survey 8 Sept. 38 Last Survey 11 April 1939

Number of Visits 46

Reg. Book. Single  
on the Twin }  
Triple } Screw vessel  
Quadruple }

M.V. CISTULA

Tons { Gross  
Net

Built at Schiedam By whom built N.V. Wilton-Tijndam Yard No. 666 When built 1939

Engines made at Amsterdam By whom made N.V. Werkspoor Engine No. 745 When made 1939

Donkey Boilers made at Flushing By whom made Kon. Mij. de Schelde Boiler No. 1051 When made 1939

Brake Horse Power 3300 Owners Petroleum Mij. de Crona Port belonging to 3 Garmhage

Nom. Horse Power as per Rule 502 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

Trade for which vessel is intended 25-9 55-8

OIL ENGINES, &amp;c.—Type of Engines Werkspoor's Diesel engine 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 7004 BS Diameter of cylinders 650 mm Length of stroke 1400 No. of cylinders 8 No. of cranks 8

Mean Indicated Pressure 1104 BS

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 844 mm Is there a bearing between each crank Yes

Revolutions per minute 110 Flywheel dia. 2260 mm Weight 6000 kg Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, { Solid forged as per Rule approved  
Semi built dia. of journals as fitted 460 mm  
All built Crank pin dia. 460 mm Crank Webs Mid. length breadth 80 mm Thickness parallel to axis  
Mid. length thickness 290 mm shrunk Thickness around eyehole

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

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the { tube { 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 our engine 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. 3 Salt &amp; fresh water Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. 2 Rotary 35 lvs each Diameter Stroke Can one be overhauled while the other is at work Yes

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

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, &amp;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. No. of stages Diameters Stroke Driven by

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

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

What provision is made for first Charging the Air Receivers

Super charge Scavenging Air Pumps, No. Bottom of each cyl Diameter 650 mm Stroke 1400 mm Driven by Main engine

Auxiliary Engines crank shafts, diameter as per Rule approved as fitted 95 mm Position No. 8711

Have the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith Ans ref. 15560.

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AIR RECEIVERS:—Have they been made under survey yes State No. of Report or Certificate 2187-2188

Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes

Can the internal surfaces of the receivers be examined and cleaned yes

Is a drain fitted at the lowest part of each receiver yes

Injection 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. Two

Total cubic capacity 400 cu feet

Internal diameter 14 95 mm

thickness 2.1 mm

Seamless, lap welded or riveted longitudinal joint Welded

Material SMS

Range of tensile strength 47-53 kg

Working pressure —

by Rules approved

Actual 3504 BS

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 20-1-37  
(If not, state date of approval) 23-4-37

Receivers 3.2.38

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

State the principal additional spare gear supplied

The foregoing is a correct description

WERKSPOR N.V.

Manufacturer.

Dates of Survey while building  
During progress of work in shops--  
During erection on board vessel--  
Total No. of visits

1938: Sept 8-22, 20 Oct 11-27, Nov 9, 24, Dec 1-8, 15-20, 23, 20-30 Jan 2-3, 5-6, 9-11, 20, 26  
Feb 2-4, 8-9, 13-14, 15-23, 25-27, March 1-2, 7-9, 13-14, 16-17, 23, 24, 29, April 3-5, 11

Dates of Examination of principal parts—Cylinders Nov 24, 26, 14 Covers Feb 4-27 Pistons Feb 14 March 2-9 Rods March 9 Connecting rods 13 Feb 9 March

Crank shaft 13-17 March Flywheel shaft 20 January Thrust shaft Sept 24 Jan 5 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 261

S.H. 16-9-30

Flywheel shaft, Material SMS

Identification Mark Shoda's

7119

Thrust shaft, Material SMS

Identification Mark 5371

Lloyd's

Intermediate shafts, Material

Identification Marks

W.P.M. 13-5-30

Tube shaft, Material

Identification Mark

Screw shaft, Material

Identification Mark

Identification Marks on Air Receivers

2187-2188  
44045 P.E.S.D  
5504 BS  
W.P. 3504 BS  
K.K. 1-12-30

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 yes

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo oil tanker 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 M.F. CLAVELLA Ams upat 15612.

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 letters & Society's Rules

Workmanship throughout good

The engine has been shipped to Schiedam and will be fitted aboard

Mess. Wilton-Tyngard Yard No 666

The amount of Entry Fee

£ 72- -

When applied for,

Special

£ 001- -

19-4-1939

Donkey Boiler Fee

£ - -

When received,

Travelling Expenses (if any)

£ 00,25

25-5-1939

Committee's Minute

FRI 9 JUN 1939

Assigned

See PE machy rpl

J. J. J. J. J.

Engineer Surveyor to Lloyd's Register of Shipping.



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