

REPORT ON OIL ENGINE MACHINERY.

No. 15206

Received at London Office.

APR 1 1938

Date of writing Report 30 March 1938 When handed in at Local Office

19

Port of Amsterdam

No. in Survey held at
Reg. Book.

Amsterdam

Date, First Survey

7 April 1937

Last Survey

23 March 1938

Number of Visits 24

Single
on the Twin
Triple
Quadruple

Screw vessel

M.V. CLEA

Tons
Gross
Net

Built at Rotterdam

By whom built

Rotterdam dry dock Yard No. 140 When built 1930

Engines made at Amsterdam

By whom made

N. V. Werkspoor

Engine No. 703 When made 1930

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 2800

Owners

Port belonging to

Nom. Horse Power as per Rule 502

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

25%

55%

OIL ENGINES, &c.—Type of Engines Diesel, but not injection supercharged 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

8

No. of cranks

8

Mean Indicated Pressure 110 lbs

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.

2200 mm

Weight

6000 kg

Means of ignition

Ruler

Kind of fuel used

Diesel oil

Crank Shaft,

Solid forged

Semi built

All built

dia. of journals

as per Rule 434.5

as fitted 460 mm

Crank pin dia.

460 mm

Crank Webs

Mid. length breadth 870 mm

Flywheel Shaft, diameter

as per Rule 434.5

as fitted 460 mm

Intermediate Shafts, diameter

as per Rule 434.5

as fitted 470 mm

Thrust Shaft, diameter at collars

as per Rule 434.5

as fitted 460 mm

Tube Shaft, diameter

as per Rule 434.5

as fitted 460 mm

Screw Shaft, diameter

as per Rule 434.5

as fitted 460 mm

Is the

tube

shaft fitted with a continuous liner

yes

Bronze Liners, thickness in way of bushes

as per Rule 18.5

as fitted 20.5 mm

Thickness between bushes

as per Rule 13.9

as fitted 15 mm

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

C.T.

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

yes

Is an approved Oil Gland or other appliance fitted at the after end of the tube

shaft

If so, state type

yes

Length of Bearing in Stern Bush next to and supporting propeller

1600

Propeller, dia.

15'

Pitch

12'

No. of blades

4

Material

Brass

whether Moveable

no

Total Developed Surface

72

sq. feet

Method of reversing Engines

By hand

Is a governor or other arrangement fitted to prevent racing of the engine when declutched

yes

Means of lubrication

forced Thickness of cylinder liners

5.5 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 & 2 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

Diameter

Rotary

each

Stroke

35 mm

Can one be overhauled while the other is at work

yes

Pumps connected to the Main Bilge Line

No. and Size

2 rotary 25 mm

How driven

gear driven main engine

Steam 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

1- 8" x 8" x 10"

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size

1 rotary 40 mm

1 duplex 8" x 8" x 10"

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 Holds, &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

yes

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

yes

Are they fitted with Valves or Cocks

yes

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates

yes

Are the Overboard Discharges above or below the deep water line

yes

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

yes

Are the Blow Off Cocks fitted with a spigot and brass covering plate

yes

What pipes pass through the bunkers

yes

How are they protected

yes

What pipes pass through the deep tanks

yes

Have they been tested as per Rule

yes

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

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.

2

No. of stages

2

Diameters

Stroke

Driven by

Steam engine

Auxiliary Air Compressors, No.

2

No. of stages

2

Diameters

Stroke

Driven by

Steam engine

Small Auxiliary Air Compressors, No.

2

No. of stages

2

Diameters

Stroke

Driven by

Steam engine

What provision is made for first Charging the Air Receivers

Superchargers

No. Bottom end each Cyl

Diameter

650 mm

Stroke

1400 mm

Driven by

main engine

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted

No.

Position

Have the Auxiliary Engines been constructed under special survey

Is a report sent herewith

Lloyd's Register

Foundation

W374-0123

AIR RECEIVERS:—Have they been made ☒ survey ☒ Are reports or certificates now forwarded ☒
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 ☒
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 ☒
Starting Air Receivers, No. *SMS* Total cubic capacity *800* Internal diameter *1495 mm* thickness *21 mm*
Seamless, lap welded or riveted longitudinal joint ☒ Material *SMS* Range of tensile strength *29/34 ton* Working pressure *350 lbs*

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* Receivers *10-1-37* Separate Fuel Tanks ☒
(If not, state date of approval) *20-4-37*
Donkey Boilers ☒ General Pumping Arrangements ☒ Pumping Arrangements in Machinery Space *20-4-37*
Oil Fuel Burning Arrangements ☒ SPARE GEAR.

Has the spare gear required by the Rules been supplied ☒
State the principal additional spare gear supplied ☒

WERKSPoor N.V.
AMSTERDAM

The foregoing is a correct description,
C. J. Thuyt Manufacturer.

Dates of Survey while building
During progress of work in shops-- *April 7-21 June 4-15 July 8-19-23-28 Aug 2 Sept 7-23 Oct 14-21 Nov 15, 18, 23, 24*
During erection on board vessel-- *Dec 17 Jan 10-14-17-19-24 Feb 8-10 March 2-24 10-11-16-18-21-23*
Total No. of visits *21 April 37*

Dates of Examination of principal parts—Cylinders *19 Jan 10* Covers *19 Jan 10* Pistons *20 Jan 17 Dec* Rods *21 Apr 15 Nov* Connecting rods *17 Dec 14 Jan*
Crank shaft *7 Feb 21 April 11* Flywheel shaft *15 Nov* Thrust shaft *23 Sept 17 Dec* Intermediate shafts *23 July 2 Aug 17 Oct* Tube shaft ☒
Screw shaft *2 Aug 27 Jan* 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 *1030 440405* Flywheel shaft, Material *SMS* Identification Mark *9009 440405*
Thrust shaft, Material *SMS* Identification Mark *5526-0-37* Intermediate shafts, Material *SMS* Identification Marks *447-5-37*
Tube shaft, Material *L* Identification Mark *4002 4002* Screw shaft, Material *SMS* Identification Mark *2905 440405*

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 *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 *Mr. Marusa Amst up 13993^c*

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery have been constructed under special survey to approved plans and Secretary's letters
Material duly tested workmanship good

The engine has been shipped to Rotterdam and will be fitted aboard Rotterdam dry dock 24 190.

The amount of Entry Fee *£ 72- -* When applied for, *31.3.1938*
Special *£ 960- -* When received, *30.4.38*
Donkey Boiler Fee *£ - -*
Travelling Expenses (if any) *£ 10- -*
Committee's Minute *TUE. 31 MAY 1938*
Assigned *See Rot J.E 26918*