

REPORT ON OIL ENGINE MACHINERY.

No. 15359

Received at London Office

AUG 29 1938

Date of writing Report 20 Aug. 1938 When handed in at Local Office

19

Port of Amsterdam

No. in Survey held at
Reg. Book.

Amsterdam

Date, First Survey 8 July, 1937

Last Survey 22 August, 1938

Number of Visits 47

Single
on the Twin
Triple
Quadruple

Screw vessel

M.V. CERION

Tons
Gross
Net

Built at South Bank

By whom built

Smith's Dock

Yard No. 1054 When built 1930

Engines made at

Amsterdam

By whom made

N. V. Werkspoor

Engine No. 785 When made 1930

Donkey Boilers made at

Amsterdam

By whom made

Werkspoor

Boiler No. 220 When made 1930

Brake Horse Power

1500

Owners

Port belonging to

Nom. Horse Power as per Rule

223

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

1916

435

L ENGINES, &c.—Type of Engines Solid injection supercharge 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders

700 LBS

Diameter of cylinders

500 mm

Length of stroke

110 mm

No. of cylinders

6

No. of cranks 6

Mean Indicated Pressure

130 LBS

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

640 mm

Is there a bearing between each crank: yes

Revolutions per minute

140

Flywheel dia.

1930 mm

Weight

4005

Means of ignition Solid injection

Kind of fuel used Diesel oil

Crank

Shaft,

Solid forged
Semi built
All built

dia. of journals

as per Rule approved

as fitted 350 mm

Crank pin dia.

350 mm

Crank Webs

Mid. length breadth 660 mm

Thick. parallel to axis

shrunk

Thick. around eyehole

Flywheel Shaft, diameter

as per Rule approved

as fitted 300/350

Intermediate Shafts, diameter

as per Rule approved

as fitted 275 mm

Thrust Shaft, diameter at collars

as per Rule approved

as fitted 300 mm

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule approved

as fitted 300 mm

Is the tube

screw

shaft fitted with a continuous liner

Yes

Bronze Liners, thickness in way of bushes

as per Rule approved

as fitted 10.5 mm

Thickness between bushes

as per Rule approved

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

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 no If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 1210 mm

Propeller, dia.

3560 mm

Pitch

2054/2906

No. of blades

4

Material Bronze

whether Moveable no

Total Developed Surface 3.9644 sq. feet

Method of reversing Engines air driven

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

Means of lubrication

forced

Thickness of cylinder liners

32.5 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.

1 rotary 100 l/hour main engine driven

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 30 l/hour

Stroke

Can one be overhauled while the other is at work

Yes

Pumps connected to the Main Bilge Line

No. and Size

2 Rotary 30 l/hour

1 duplex 8" x 10"

How driven

main engine

thrust 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 10"

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 60 l/hour Rotary

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 Pump Room

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

Are the Bilge Suctions in the Machinery Spaces

ed 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.

Supercharge

No. Bottom end each cylinder

Diameter 500 mm

Stroke 1100 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

AIR RECEIVERS:—Have they been made under survey

State No. of Report or Certificate 4711-4712

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

Starting Air Receivers, No.

2

Total cubic capacity

484 cub ft

Internal diameter

1095 mm

thickness 19 mm

Seamless, lap welded or riveted longitudinal joint

riveted

Material

S.M.S.

Range of tensile strength

30.5/19.5 ton

Working pressure

by Rules

Actual 30 kg

IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded? Yes Letter up 15311-

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

23-4-37
2-7-37
2-11-37
6-1-38

Receivers 6-1-38

Separate Fuel Tanks

Donkey Boilers

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements 10-12-37.

SPARE GEAR.

Has the spare gear required by the Rules been supplied

Yes

State the principal additional spare gear supplied

As per attached list (forwarded to Rotterdam Surveyors).

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
	1937. July 8-19, Aug 20, January 1938. 21. 20. 31 Feb 15-20 March 10-15-16-18-20-29	April 5. 11. 22-26-27-28 May 2. 10-11-12-13-20-31 June 1-10-14-16-17-20-29 July 6-14-20	

Dates of Examination of principal parts—Cylinders 2.10.13 May Covers 23 May Pistons 1-14 June Rods 1-14 June Connecting rods 23 May 17

Crank shaft 29 March 20 April Flywheel shaft 23 May Thrust shaft 12 April 11-20 May Intermediate shafts 20 May 5 April 10 May Tube shaft

Screw shaft 2-10 May Propeller 12 May Stern tube 22 April 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.S Identification Mark 4654-4610 Flywheel shaft, Material S.M.S Identification Mark 6135

Thrust shaft, Material S.M.S Identification Mark H.P.B. 12-4-30 Intermediate shafts, Material S.M.S Identification Marks 5.S.H. 12-11-30

Tube shaft, Material L Identification Mark 4654 Screw shaft, Material S.M.S Identification Marks 4670

Identification Marks on Air Receivers 4711-4712 Spare PS S.M.S 4771 H.P.B. 10-5-30

Recept. & list 44 kg W.P. 30 kg H.P.B. 29-4-38

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

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 except intermediate shaft

If so, state name of vessel M.V. "Antonia" And up 15335

General Remarks (State quality of workmanship, opinions as to class, &c.

The Machinery has been built under special survey in accordance with approved plans & Secretary's letters
Material duly tested as per rules. workmanship throughout good

The amount of Entry Fee 40.-

Special 4/5 fee 535.-

Donkey Boiler Fee 75.-

Travelling Expenses (if any) 14.-

When applied for,

26-1-1938

When received,

8-10-1938

Burgdorff
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI 6 JAN 1938

See Note F.E. machy up 16490



Lloyd's Register Foundation