

REPORT ON OIL ENGINE MACHINERY.

No. 277396

JAN 19 1939

Received at London Office.

Date of writing Report 9-1-1939 When handed in at Local Office

Port of Rotterdam

No. in Survey held at
Reg. Book.

Schiedam

Date, First Survey

29-9-37. Last Survey

5-1-1939

Number of Visits 103.

on the ^{Single}
Twin
Triple
Quadruple

Screw vessel

motor vessel

"Z AANDAM"

Tons ^{Gross}
Net

Built at Schiedam By whom built Wilton-Tyenoord Yard No. 663 When built 1930-39.
Engines made at So By whom made So Engine No. 1062/ When made 38-39.
Donkey Boilers made at Amman. By whom made Cochran & Co. Boilers No. 14055-6 When made 1938.
Brake Horse Power 2 x 6250. Owners Ned. Amerik. Stoom. My. Port belonging to Rotterdam
Nom. Horse Power as per Rule 337. 3357 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes
Trade for which vessel is intended 2834 474

OIL ENGINES, &c. Type of Engines Wilton-Tyenoord M.A.N. 2X. 2 or 4 stroke cycle 2 Single or double acting double

Maximum pressure in cylinders 45 kg Diameter of cylinders 720 mm Length of stroke 1200 mm No. of cylinders 6 No. of cranks 6

Mean Indicated Pressure 5.22 kg

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1100 mm Is there a bearing between each crank Yes.

Revolutions per minute 118. Flywheel dia. 2350 mm Weight 5630 mm Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, ^{Solid forged}
^{Semi built} dia. of journals as per Rule App. Crank pin dia. 500 mm Crank Webs Mid. length breadth 950 mm Thickness parallel to axis
^{All built} as fitted 500 mm Mid. length thickness 320 mm shrunk Thickness around eyehole 22.5 mm

Flywheel Shaft, diameter as per Rule App. Intermediate Shafts, diameter as per Rule App. Thrust Shaft, diameter at collars as per Rule App.
as fitted 430 mm as fitted 410 mm as fitted 430 mm

Tube Shaft, diameter as per Rule App. Screw Shaft, diameter as per Rule App. Is the tube shaft fitted with a continuous liner Yes.
as fitted as fitted 450 mm

Bronze Liners, thickness in way of bushes as per Rule App. Thickness between bushes as per Rule App. Is the after end of the liner made watertight in the
as fitted 28 mm as fitted 20 mm

propeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner one length.

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 2040 mm

Propeller, dia. 5050 mm Pitch 5100 mm No. of blades 3 Material bronze whether Moveable Solid Total Developed Surface 7.3 M² sq. feet

Method of reversing Engines pneumatic Hydraulic Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

forged Thickness of cylinder liners 45 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 funnel.

Cooling Water Pumps, No. 3 à 400 lph. 3 à 325. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes.

Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and Size 3 à 130 lph. How driven electrically.

Is the cooling water led to the bilges no 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 2 à 135 lph. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 3. 2 65 lph.

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 2 à 3 engine room wells, 2 à 4" 6 à 6" 2 à 8" In Pump Room 2 à 2 1/2" 12 à 12 1/2" 12 à 12 1/2"

In Holds, &c. holds No. 1, 2, 3, 4, 6 each 2 à 3" hold No. 5, 4 à 3" 11 à 5" 6 à 6" 5 1/2 12 1/4" 5 1/2 12 1/4"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 à 8"

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 Yes

Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Solvers cocks.

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 below.

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 none How are they protected

What pipes pass through the deep tanks none 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 Yes

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 Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from top engine room.

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. 2 + 2 cyl. No. of stages 2 Diameters 194 x 218 mm Stroke 160 mm Driven by electrically.

Small Auxiliary Air Compressors, No. one No. of stages 2 Diameters 80 x 98 mm Stroke 100 mm Driven by aux engine

What provision is made for first Charging the Air Receivers small aux. air compressor driven by hand starting aux. engine charging 200 L air vessel.

Scavenging Air Pumps, No. 2. 2 cyl. tandem Diameter 1600 mm Stroke 1000 mm Driven by main engine.

Auxiliary Engines crank shafts, diameter as per Rule App. Position 2 port, 2 starboard in engine room.

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

W1134-0136

Lloyd's Register
Foundation

AIR RECEIVERS:—Have they been made under survey

State No. of Report or Certificate

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

by Rules

Actual

Starting Air Receivers, No.

2.

Total cubic capacity

31 M³

Internal diameter

1800 mm

thickness

30 mm

Seamless, lap welded or riveted longitudinal joint

double butt

Material 5 M steel

Range of tensile strength

44-50 kg

Working pressure

by Rules

Actual

30 kg

IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

Yes

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

no

PLANS.

Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

13-7-37

13-8-37

3-9-37

Receivers

23-9-37

Separate Fuel Tanks

4-11-30

Donkey Boilers

General Pumping Arrangements

27-5-37

Pumping Arrangements in Machinery Space

27-5-37

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

Yes

State the principal additional spare gear supplied

as per attached list.

WILTON-FIJENOORD.

(N.V. WILTON'S Machinefabriek en Scheepswerf)

(WILTON'S Engineering & Shipway Co.)

Maatschap, j voor Scheeps en Werktuigbouw

FIJENOORD N.V.

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building	{	During progress of work in shops--	29/9-10-22-30/12-37	5-12-17-25-29/1-38	3-9-16-25/2-38	7-9-11-17-23-29/3-38	7-8-9-11-13-19-20-22-27-28-29-30/4-38
		During erection on board vessel--	5-9-10-12-13-16-17-19-20-21-23-24-27-28-31/5-38	1-2-4-7-8-11-14-16-17-20-22-23-24-26/6-38	1-2-4-7-8-11-14-16-17-20-22-23-24-26/6-38	1-2-4-7-8-11-14-16-17-20-22-23-24-26/6-38	1-2-4-7-8-11-14-16-17-20-22-23-24-26/6-38
		Total No. of visits	103-				

Dates of Examination of principal parts—Cylinders												18/12-37	5-17-25/1-38	Covers	25/7-9-11-29/2-38	Pistons	5/9-15/27-38	Rods	25/8-12/3-38	Connecting rods	7-29/11-38
Crank shaft		7-7-38	Flywheel shaft		7-7-38	Thrust shaft		16-6-38	Intermediate shafts		17/5-1-29/11-38	Shaft		17/5-1-29/11-38							
Screw shaft		2/5-27/11-38	Engine		18-8-38	Stern tube		2/5-16-15/8	Engine seatings		18-8-38	Engines holding down bolts		17-24/10-38							
Completion of fitting sea connections					18-8-38	Completion of pumping arrangements					16-12-38	Engines tried under working conditions					28-29/12-38				

Crank shaft, Material	5 M steel	Identification Mark		Flywheel shaft, Material	5 M steel	Identification Mark	
Thrust shaft, Material	5 M steel	Identification Mark		Intermediate shafts, Material	5 M steel	Identification Marks	
Tube shaft, Material		Identification Mark		Screw shaft, Material	5 M steel	Identification Mark	

Identification Marks on Air Receivers		No 208-209. LLOYD'S TEST. 44 KG. W.P. 30 KG. C.B. 31-9-38.	No 448. 881954331. 60 Atm L.R. V S 26-6-37	Lloyds test No 2350 60 Atm W.P. 30 kg. HKS 25-5-38
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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

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

acknowledged

If so, state name of vessel

"Noordam"

General Remarks

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

The machinery has been made under special survey in accordance with the Society's Rules, approved plans and Secretary's letter. Material tested as required and workmanship good. The machinery has been tested under full working condition and was found working and manoeuvring satisfactorily and in my opinion eligible to be recorded in the Society's Register book with + L.M.C. 1-39. oil engines, C.L. 100 H.

The amount of Entry Fee	£ 22.00	When applied for,	18.1.1939
Special	£ 2211.30	When received,	
Donkey Boiler Fee	£ 100.00		
Travelling Expenses (if any)	£ 63.00		7.2.1939

Committee's Minute

Assigned

+ Lmb. 1.39
2 L.R. - 100 H
oil eng. Ch.

TUE 24 JAN 1939

Engine Surveyor to Lloyd's Register of Shipping.



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Foundation