

REPORT ON OIL ENGINE MACHINERY.

No. 127346

10 JUN 1933

Received at London Office

Date of writing Report 30 May 1933 When handed in at Local Office

Port of Amsterdam

No. in Survey held at Hengelo

Date, First Survey 25 April 1932 Last Survey 24 May 1933

Reg. Book.

Number of Visits 30

on the ^{Single} ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel "TRICOLOR"

Tons { Gross 6821.4
Net 4108.71

at Amsterdam By whom built Nederlandsche Scheep N^o 224 Yard No. 224 When built 1933

Engines made at Hengelo By whom made N.V. Machinefab. Gela Stork & Co Engine No. 3407 When made 1933

Boilers made at Hengelo By whom made N.V. Machinefab. Gela Stork & Co Boiler No. When made 1933

Indicated Horse Power 2 x 4200 Owners Wilhelm Wilhelmsen Port belonging to Ponsberg

Net Horse Power as per Rule 2330 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Use for which vessel is intended 23 1/2 43 1/16

ENGINES, &c.—Type of Engines Stork AEG-Hesselman 2 or 4 stroke cycle 2 Single or double acting double

Minimum pressure in cylinders 45 kg/cm² Diameter of cylinders 600 mm Length of stroke 100 mm No. of cylinders 2 x 6 No. of cranks 6 x 2

Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 830 mm Is there a bearing between each crank yes

Revolutions per minute 125 Flywheel dia. 2400 mm Weight 5600 kg Means of ignition Arcless Kind of fuel used Crude oil

Crank Shaft, dia. of journals as per Rule 410 as fitted 420 mm Crank pin dia. 420 mm Crank Webs Mid. length breadth 1190 mm Thickness parallel to axis as fitted 420 mm M.d. length thickness 245/265 shrunk Thickness around eye-hole as fitted 336

Wheel Shaft, diameter as per Rule as fitted 22 mm Intermediate Shafts, diameter as per Rule 336 as fitted 337 mm Thrust Shaft, diameter at collars as per Rule as fitted 354 mm

Propeller Shaft, diameter as per Rule as fitted 405 mm Is the tube screw shaft fitted with a continuous liner yes

Propeller Liners, thickness in way of bushes as per Rule as fitted 19.5 mm Thickness between bushes as per rule Is the after end of the liner made watertight in the collar boss yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner C.L.

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 no 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

Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. 4500 mm Pitch 4400 mm No. of blades 4 Material Bronze whether Moveable no Total Developed Surface 75 sq. feet

Method of reversing Engines Air screw Motor Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

Thickness of cylinder liners 20 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with 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

Working Water Pumps, No. 2 Rotary pumps 450 Const/plan Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Water Pumps worked from the Main Engines, No. none Diameter Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and Size 2.40 tons 1.75 150 Can be overhauled while the other is at work Yes Am Ltr 26/6/33

How driven Electric driven No (see plan)

Water Pumps, No. and size 2 - one 150 tons 1.75 tons Lubricating Oil Pumps, including Spare Pump, No. and size 2 Rotary pumps (each engine)

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 5 - 3" Affordam 1 - 3" Tunnelwell 1 - 3"

holds, &c. Holds No. 1. No. 2. No. 3. No. 4. = 2 x 3 1/2" each. Receptank 2.2 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 - One 6" One 8" One 3 1/4"

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces

readily 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 Valves & 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 above and 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

Are the pipes pass through the bunkers none How are they protected

Are the 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 there an 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 main deck

Are all wood vessels, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No. 2 No. of stages 3 Diameters 40. 346. 126 Stroke 160 Driven by aux engines

Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 110. 90 Stroke 40 Driven by hand (flywheel)

Engining Air Pumps, No. 1 for each engine Diameter 1450 mm Stroke 950 mm Driven by Main engine

Auxiliary Engines crank shafts, diameter as per Rule 1 - 3 cyl Stork (original) 1 - 3 cyl MAN fitted 2.54

as fitted 180 mm 1 - 4 cyl CEONW. 1 - 6 cyl @ 300 kW (MAN fitted 2.51)

Are all AIR RECEIVERS:—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 yes What means are provided for cleaning their inner surfaces manhole doors

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

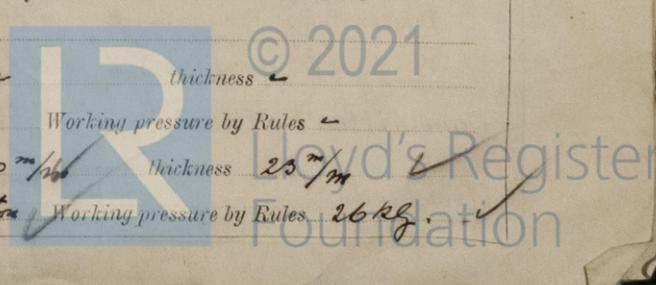
High Pressure Air Receivers, No. 2 Cubic capacity of each Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Starting Air Receivers, No. 2 Total cubic capacity 40 m³ Internal diameter 1600 mm thickness 25 mm

Seamless, lap welded or riveted longitudinal joint welded Material SM 5 Range of tensile strength 20-32 tons Working pressure by Rules 26 kg

003838-003845-0181



IS A DONKEY BOILER FITTED? Yes

If so, is a report now forwarded? Retained at London office

PLANS. Are approved plans forwarded herewith for Shafting 13-5-32 and 3-6-32 Receivers 6-7-32 Separate Tanks 3-0-32
(If not, state date of approval)

Donkey Boilers 3-12-32 General Pumping Arrangements 1-6-32/20-3-33 Oil Fuel Burning Arrangements 6-2-33

SPARE GEAR As per rules and

As per attached list

The foregoing is a correct description,
Machinefabriek **GEBR. STORK & Co. N.V.**

Amstrong

Manufacturer.

Dates of Survey while building
During progress of work in shops - 1932 April 25, May 5-11-25, Sept 12-23, Oct 5-13, 20-25, Nov 3, 10, 17-20, Dec 6, 15-20, Jan 6, 12, 16, 20, 30
Feb 17, Mar 25
During erection on board vessel - Feb 1-7, 11-17-23, March 7-24, April 10-14, 24, May 4, 12-17-24
Total No. of visits 30

Dates of Examination of principal parts—Cylinders 25-10-32 Covers 3-11-32 Pistons 20-10-32 Rods 20-10-32 Connecting rods 6-1-33

Crank shaft 6-12-32 Flywheel shaft 6-12-32 Thrust shaft 12-1-33 Intermediate shafts 17-11-32 Tube shaft ✓
20-12-32 Screw shaft 6-12-33 Propeller 11-2-33 Stern tube 1-2-33 Engine seatings 7-3-23 Engines holding down bolts 14-4-33

Completion of fitting sea connections 11-2-33 Completion of pumping arrangements 4-4-33 Engines tried under working conditions 24 May

Crank shaft, Material SMS Identification Mark 9727 MB 6-10-32 Flywheel shaft, Material see crankshaft Identification Mark 14676 KH 23-7-32

Thrust shaft, Material SMS Identification Mark 9666 MB 13-0-32 Intermediate shafts, Material SMS Identification Marks as per attached
4006 59 29-0-32

Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material SMS Identification Mark 4007 58 29-0-32
9965 MB 11-0

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 no If so, have the requirements of the Rules been complied with ✓

Is this machinery duplicate of a previous case no If so, state name of vessel -

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

The Machinery has been made in accordance with the rules, Secretary's Letter and approved plans, workmanship throughout good.
Tried Machinery, pumps, air compressors whilst on a trial trip on the water sea found working good. A small but air compressor which does not require compressed air for starting up a fitting for fuel changing the air receivers is placed aboard.
She is eligible in my opinion to be recorded, + L.M.C. 5.33

Committee's Minute
FRI. 23 JUN 1933
+ L.M.C. 5.33
D.B. 100th
Elect

The amount of Entry Fee ... £72
Special ... £1099
Donkey Boiler Fee ... 50.40
Travelling Expenses (if any) 221.20

When applied for, 19
When received, 10/7/33

Barclay
Engineer Surveyor to Lloyd's Register of Shipping.



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