

REPORT ON OIL ENGINE MACHINERY.

No. 129346

10 JUN 1933

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

10 Port of Amsterdam

No. in Survey held at Hengelo
Reg. Book.Date, First Survey 25 April 1932 Last Survey 24 May 1933
Number of Visits 30on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel "TRICOLOR"Tons { Gross 6821.4
Net 4108.71

At Amsterdam By whom built Nederlandsche Schepb N^o 224 When built 1933.
Engines made at Hengelo By whom made N.V. Machinefab. Gela Stork & C^o Engine No. 3487 When made 1933.
Boilers made at Hengelo By whom made N.V. Machinefab. Gela Stork & C^o Boiler No. When made 1933
Horse Power 2 x 4200 Owners Wilhelm Wilhelmsen Port belonging to Ponsboro.
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 2330 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 1100 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 Arcus 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 shrunk Thickness around eye hole

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

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

Liner 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

After 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

Are liners 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

no If so, state type 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 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 inch 150 mm Condenser Yes Ann ltr 26/6/33

How driven Electric driven No (see plan)

Fast Pumps, No. and size 2 - one 150 tons - 1.75 inch ? 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

Pipes, 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. Depth 2.2 1/2"

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

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 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 pipes pass through the bunkers none How are they protected

Are 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 good 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 as fitted 180 mm 1 - 3 cyl Stork (original) 1 - 3 cyl MAN fitted 2.54

1 - 4 cyl CEONW. 1 - 6 cyl CE 300 KW (B.H. fitted 2.51)

IR 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 N³ Internal diameter 1600 mm Thickness 25 mm

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

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
(If not, state date of approval)

Receivers 6-7-32

Separate Tanks 3-0-32

Donkey Boilers 3-12-32

General Pumping Arrangements 1-6-5-32/20-3-33

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.

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 3-10-27-30 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 10-10-32 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 17-11-32

Screw shaft 6-12-33 Propeller 11-2-33 Stern tube 11-2-33 Engine seatings 7-3-20 Engines holding down bolts 24-4-33

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 S M S Identification Mark 6727 MB 6-10-32 Flywheel shaft, Material *see crankshaft* Identification Mark

Thrust shaft, Material S M S Identification Mark 6666 MB 13-0-32 Intermediate shafts, Material S M S Identification Marks *as per attached*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material S M S Identification Mark 4504 54 29-7965 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 North Sea found working good. A small but air compressor which does not require compressed air for starting up a fitting for first changing the air receivers is placed aboard.

She is eligible in my opinion to be recorded, + LMC. 5.33

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

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

Committee's Minute

Assigned

FRI. 23 JUN 1933

+ LMC 5.33
C.L.

S.B. 100th
Elect

Burgdorff
Engineer Surveyor to Lloyd's Register of Shipping.



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Lloyd's Register
Foundation