Form 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 461

Date of writing Report 17-6-1950 When handed in at Local Office ..... 19.. Port of Groningen

Received at London Office 1 JUL 1950

Entry in Survey Book. Survey held at Waterhuizen Date, First Survey 30-1-50 Last Survey 14-6-.. 1950

Number of Visits 16

Single on the ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel JOHNNY

Tons Gross 499.19 Net 316.97

Built at Waterhuizen By whom built N.V. Sch. W. Gebr. Van Diepen Yard No. 912 When built 1950

Engines made at Amsterdam By whom made Werkspoor NV Engine No. 1372 When made 1950

Auxiliary Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓

Brake Horse Power 540 ✓ Owners G. Kuur. Port belonging to Zwartsluis

I.H.P. Power as per Rule (120) 119 NHP=108 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended Ocean trade

Dimensions in m/m

MAIN ENGINES, &c. —Type of Engines T.M.S 308. 13 11.6 2 or 4 stroke cycle 4 ✓ Single or double acting single

Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 300 Length of stroke 480 18 7/8 No. of cylinders 6 ✓ No. of cranks 6

Mean Indicated Pressure 6.96 kg/cm² Ahead Firing Order in Cylinders 1-4-7-6-8-5-2-3 Span of bearings, adjacent to the crank, measured

from inner edge to inner edge 390 Is there a bearing between each crank yes ✓ Revolutions per minute 325

Flywheel dia. 1100 ✓ Weight 548 Kg Moment of inertia of flywheel (lbs. in² or Kg.cm.²) 1.2413 Means of ignition Compr. Kind of fuel used Diesel oil

Crank Shaft, Solid forged / ~~Semi built~~ / ~~All built~~ dia. of journals as per Rule appr. as fitted 220 ✓ Crank pin dia. 200 Crank webs Mid. length breadth 340 ✓ Mid. length thickness 95 ✓ shrunk Thickness parallel to axis ✓ Thickness around eyehole ✓

Flywheel Shaft, diameter as per Rule ✓ as fitted ✓ Intermediate Shafts, diameter as per Rule appr. as fitted 180 Thrust Shaft, diameter at collars as fitted appr. as per Rule 220

Tube Shaft, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule appr. as fitted 180 / 179 at cone. Is the ~~tube~~ / screw shaft fitted with a continuous liner ~~yes~~ / no ✓

Propeller Liners, thickness in way of bushes as per Rule ✓ as fitted ✓ Thickness between bushes as per Rule ✓ as fitted ✓ 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 ✓ Where 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 tube shaft yes If so, state type Rubber ring (as approved) Length of bearing in Stern Bush next to and supporting propeller 640 ✓

Propeller, dia. 1800 Pitch 1150 No. of blades 4 Material Bronze whether moveable no Total developed surface 49.3 ~~sq. feet~~ m²

Moment of inertia of propeller (lbs. in² or Kg.cm.²) ✓ Kind of damper, if fitted no

Method of reversing Engines By air Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes ✓ Means of operation forced Thickness of cylinder liners 22. Are the cylinders fitted with safety valves yes ✓ Are the exhaust pipes and silencers water cooled jacketed with non-conducting material yes 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. one à 20 T/h. (one à 63 T/h.) 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. one Diameter 130 Stroke 90 Can one be overhauled while the other is at work ✓

Bilge Pumps connected to the **Main Bilge Line** No. and size two à 63 T/h. one à ϕ 130 x 90. How driven aux. engines main engine

Is 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 63 T/h ✓ **Power Driven Lubricating Oil Pumps,** including spare pump, No. and size 2 à 3.6 T/h ✓

Are two independent means arranged for circulating water through the **Oil Cooler** yes ✓ **Bilge Suctions,** connected to both main bilge pumps and auxiliary pumps, No. and size:—In machinery spaces one à Ø 7" (2 à 6 4 7" ✓) In pump room ✓

Manifolds, &c. 2 à 2½" forward, 2 à 2½" aft.

Independent Power Pump Direct Suctions to the engine room bilges, No. and size one à Ø 7", one à 6 4 7"

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.

Overboard Sea Connections fitted direct on the skin of the Ship welded chests Are they fitted with valves or cocks 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 ✓

Do any pipes pass through the bunkers none ✓ How are they protected ✓

Do any 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 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 machinery aft ✓ Is it fitted with a watertight door ✓ worked from ✓

In 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. one ✓ No. of stages 2 diameters 120/100. stroke 90 driven by m. engine

Auxiliary Air Compressors, No. ✓ No. of stages ✓ diameters ✓ stroke ✓ driven by ✓

Small Auxiliary Air Compressors, No. one ✓ No. of stages 2 diameters 4½"/2" stroke 4¼" driven by aux. engine

What provision is made for first charging the air receivers Both aux. engines hand started.

Starting Air Pumps, No. ✓ diameter ✓ stroke ✓ driven by ✓

Auxiliary Engines crank shafts, diameter as per Rule ✓ as fitted Cert. Smith. D 3601/2. No. 2 Position Port and Stb

Have the auxiliary engines been constructed under special survey yes ✓ Is a report sent herewith ← Southampton

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17/7/50

AIR RECEIVERS:—Have they been made under survey yes ✓ State No. of report or certificate Amst. 373

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, welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure by Rules Actual

Starting Air Receivers, No. 2 ✓ Total cubic capacity 1240 Litres Internal diameter 500 thickness 12

~~Seamless~~, welded ~~or riveted longitudinal~~ joint Material SM steel Range of tensile strength 41-47 Working pressure by Rules Actual 30

IS A DONKEY BOILER FITTED no ✓ 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 14/2 '50 (If not, state date of approval) Receivers ✓ Separate fuel tanks

Donkey boilers ✓ General pumping arrangements 20-4-50 Pumping arrangements in machinery space 20-4-50

Oil fuel ~~burning~~ piping arrangements 2-6-50.

Have Torsional Vibration characteristics been approved 24-3-50. for 325 rpm Date of approval ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes. for unrestricted voyages.

State the principal additional spare gear supplied

The foregoing is a correct description, N.V. Machinefabriek & Rep.bedrijf D. E. Horter Manufacturer.

Dates of Survey while building

During progress of work in shops - - Amsterdam Report 17225: 14 visits

During erection on board vessel - - - 1950 Jan 30; Feb 8 - March 30-30 April 5-7-8-11 May 2-4-9-24-30; June 9-7-14.

Total No. of visits 30

Dates of examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓

Crank shaft ✓ Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts 7-4-50 Tube shaft ✓

Screw shaft 7-4-50 Propeller 17-3-50 Stern tube 30-3-50 Engine seatings 8-4-50 Engine holding down bolts 7-6-

Completion of fitting sea connections 8-4-50 Completion of pumping arrangements 14-6-50 Engines tried under working conditions 14-6

Crank shaft, material SM steel. Identification mark LR. 8704. HPB 22-6-42

Flywheel shaft, material ✓ Identification mark ✓ LR. 171

Thrust shaft, material SM steel Identification mark = crankshaft Intermediate shafts, material SM steel Identification marks A-H/2 LR. 69

Tube shaft, material ✓ Identification mark ✓ Screw shaft, material SM steel Identification mark AZM 7-4

Identification marks on air receivers Nos 4090-4091. LLOYDS TEST 60 kg/cm² W.P. 30 kg/cm² A.V.B. 14-3-50

Welded receivers, state Makers' Name N.V. De Pleatwellery Vebbe.

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 ✓

Description of fire extinguishing apparatus fitted 3 x 40 Litres foam.

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 ✓

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with no

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 of this vessel has been made and fitted in accordance with the Rules, approved plans and Secretary's letters. The Workmanship is good. The Machinery has been tested under full working conditions and all found satisfactory. In our opinion the machinery of this vessel merits the approval of the Committee and be recorded in the Society's Register Book + LMC 6.50. 6.

The amount of Entry Fee ... £ :

Special 1/3 x 604.00 ... £ 202.- :

Donkey Boiler Fee... £ :

Travelling Expenses (if any) £ nil :

When applied for 23.6.1950

When received 19

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned +LMC 6.50 Oil Eng. OC

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

Certificate (if required) to be sent to