

REPORT ON OIL ENGINE MACHINERY.

No. 343/56

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Writing Report 14-11-1951 When handed in at Local Office 19 Port of Rotterdam

Survey held at Anhem Date, First Survey 16-2-1951 Last Survey 19-11-1951 Number of Visits 12

7 on the Twin Screw vessel "Kassa" Tons Gross Net

Anhem By whom built Anhemische Boornstapshelling N.V. Yard No. 354 When built 1951

made at Augsburg By whom made March Fabrik Augsburg-Kurowsberg A.G. Engine No. 430544 When made 1951

Boilers made at By whom made Boiler No. When made

Horse Power 2 x 230 Owners Port belonging to

Horse Power as per Rule 2 x 435 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

for which vessel is intended Ferry boat

ENGINES, &c. Type of Engines Heavy oil engines MAN G. 6 V 22 2 or 4 stroke cycle 4 Single or double acting Single

mean pressure in cylinders 5.5 Atm Diameter of cylinders 220 mm Length of stroke 330 mm No. of cylinders 6 each No. of cranks 6 each

indicated Pressure 5.5 Atm Is there a bearing between each crank Yes

of bearings, adjacent to the crank, measured from inner edge to inner edge 260 mm

Revolutions per minute 500 Flywheel dia. 900 mm Weight 1000 kg Means of ignition Compression Kind of fuel used Diesel oil

(Solid forged) dia. of journals as per Rule as fitted 130 Crank pin dia. 130 mm Crank webs Mid. length breadth 240 mm Thickness parallel to axis

Steel Shaft, diameter as per Rule as fitted 130 Intermediate Shafts, diameter as per Rule as fitted 110 Thrust Shaft, diameter at collars as per Rule as fitted 130

Shaft, diameter as per Rule as fitted 130 Screw Shaft, diameter as per Rule as fitted 130 Is the tube shaft fitted with a continuous liner no

Liners, thickness in way of bushes as per Rule as fitted 11 mm Thickness between bushes as per Rule as fitted Is the after end of the liner made watertight in the stern tube

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-toxic

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 stern tube shaft

Propeller, dia. 1225 mm Pitch 875 mm No. of blades 3 Material Bronze whether moveable Total developed surface 42.7 sq. feet

Method of reversing Engines By air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of starting forged

Thickness of cylinder liners 14 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled

with non-conducting material Water cooled Is the exhaust led overboard near the waterline, what means are arranged to prevent water from being syphoned to the engine

Cooling Water Pumps, No. 5 Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Pumps worked from the Main Engines, No. 2 Diameter 115 mm Stroke each Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and size 2 x 115 mm 1 x 15 mm How driven Engine driven Plate driven

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

Power Driven Lubricating Oil Pumps, including spare pump, No. and size main engine 2 x 384 mm Plate driven 1 x 250 mm

Two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both main bilge pumps and auxiliary pumps, No. and size: In machinery spaces 4 1/2"

Independent Power Pump Direct Suctions to the engine room bilges, No. and size 1 1/2"

All the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes Are the bilge suction 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

All Sea Connections fitted direct on the skin of the Ship on boxes Are they fitted with valves or cocks Valves Are they fixed conveniently high on the ship's side to be seen without lifting the platform plates

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

How are they protected Have they been tested as per Rule

Do 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 Is it fitted with a watertight door worked from

On 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

30 Auxiliary Air Compressors, No. 1 200 mm No. of stages 2 diameters 115 mm Stroke 115 mm driven by Plessons aux engine

Small Auxiliary Air Compressors, No. 1 150 mm No. of stages 2 diameters 75 mm Stroke 70 mm driven by Plessons aux engine

What provision is made for first charging the air receivers Air engine hand started

Revolving Air Pumps, No. diameter stroke driven by

18 Auxiliary Engines crank shafts, diameter as per Rule as fitted 110 mm Position Plessons aux engine

Have the auxiliary engines been constructed under special survey Yes Is a report sent herewith

014364 - 014371 - 0299



AIR RECEIVERS:—Have they been made under survey Yes State No. of report or certificate Copy attached
 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 ✓
Starting Air Receivers, No. 2 Total cubic capacity 2 x 390 litres Internal diameter 400 mm thickness 12 mm
 Seamless, lap welded or riveted longitudinal joint Seamless Material Mild steel Range of tensile strength 44-47 kg/cm² Working pressure Actual 30 kg/cm²
IS A DONKEY BOILER FITTED ✓ 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 20-5-51 Receivers ✓ Separate fuel tanks ✓
 (If not, state date of approval) Donkey boilers ✓ General pumping arrangements 30-5-51 Pumping arrangements in machinery space 30-5-51
 Oil fuel burning arrangements ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes
 State the principal additional spare gear supplied ✓

The foregoing is a correct description,
N. V. Arnhem, The Netherlands, Schelling, M.B. Manufacturer.

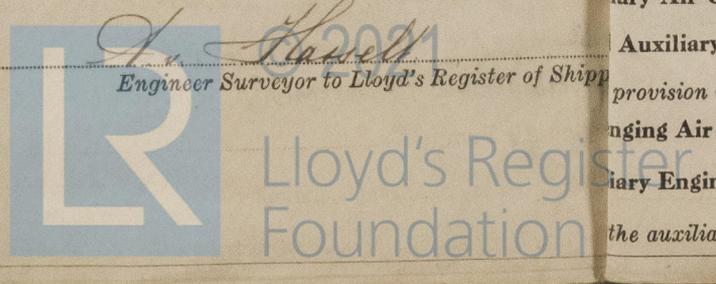
Dates of Survey while building	During progress of work in shops - -	26/	16/	9/	12-16/	8-11-19/	21/	3-30/	19/
	During erection on board vessel - -	12,	14	15,	16,	17,	19,	110,	11-51
	Total No. of visits	12							

Dates of examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓
 Crank shaft ✓ Flywheel shaft ✓ Thrust shaft 19-51 Intermediate shafts 19-51 Tube shaft ✓
 Screw shaft 19/ 21/ 19-51 Propeller 19/ 21/ 19-51 Stern tube 6/ 51 Engine seatings 19-51 Engine holding down bolts 19-51
 Completion of fitting sea connections 6/ 51 Completion of pumping arrangements 10-51 Engines tried under working conditions 10-51
 Crank shaft, material ✓ Identification mark ✓ Flywheel shaft, material ✓ Identification mark ✓
 Thrust shaft, material Mild steel Identification mark LLOYDS 1241A-411 B 7-2-19-51 Intermediate shafts, material Mild steel Identification marks ✓
 Tube shaft, material ✓ Identification mark ✓ Screw shaft, material Mild steel Identification mark ✓
 Identification marks on air receivers N^o 1019-1022 LLOYDS TEST 100 ATM W.P. 30 ATM A.Z.M. 19-5-51

Is the flash point of the oil to be used over 150°F ✓
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with ✓
 Description of fire extinguishing apparatus fitted 1 hose with coupling, two foam apparatus 2 gallon each
 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 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 approved plans Secretary's Orders and Society's Rules. Materials tested as required and workmanship found good. Upon completion the machinery has been tried under full working conditions on a trial to the North Sea when all was found to be in good working and manoeuvring condition and in my opinion the machinery of this vessel merits the approval of the Committee to be recorded in the Society's Register Book with the record of L.M.C. 11-51. A. Lingwood

The amount of Entry Fee ... £ :
 Special Testing fee ... £ 103.00 :
 Donkey Boiler Fee... £ :
 Travelling Expenses (if any) £ 111.00 :
 When applied for 10/ 1952
 When received 19
 Committee's Minute Deferred
 Assigned Deferred



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

RECEIVED AUG 1951 of D.O. n Sur Book. on t Qu at. nes made ey Boilers e Horse Po Power as e for which ENGINE inum press Indicated inner edg heel dia. k (Solid Semi t All bu heel Shaft Shaft, dia ze Liners, uler boss. e liner doe sive. tube shaft eller, dia. nt of ine od of reve ation. Fo aged with n to the engi ling = Pumps wo ps connecte cooling w gements. st Pumps, wo independ pumps, No lds, &c. pendent Po ll the bilge ible mud-b ll Sea Com ently high hey each fit pipes pass pipes pass ll pipes, coo arrangeme , or from o ood vessel, Air Comp iary Air C Auxiliary provision is ng Air I iary Engine the auxiliar