

REPORT ON OIL ENGINE MACHINERY.

Date of writing Report 6th Febr. 19.51 When handed in at Local Office 19 Port of Amsterdam Received at London Office 2 APR 1951

No. in Survey held at Zaandam Date, First Survey 4th Sept. '50 Last Survey 2nd Febr. 19.51

Reg. Book. Single Screw vessel m/v R.P.S. Number of Visits 9

Built at Zaandam By whom built Zaand. Scheepb. chg. waf. Coor. Peter Yard No. 454 When built 1951

Engines made at Amsterdam By whom made Werkspoor N.V. Engine No. 1022 When made 1950

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

Brake Horse Power 500 Owners Rotterdamse Rolencentrale N.V. Port belonging to Rotterdam

M.N. Power as per Rule 103 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended NHP=87

IL ENGINES, &c.—Type of Engines T.M.A.S. 278 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 10^{5/8} 270 mm Length of stroke 19^{1/8} 500 mm No. of cylinders 8 No. of cranks 8

Mean Indicated Pressure 7.5 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 320 mm Is there a bearing between each crank yes Revolutions per minute 325

Flywheel dia. 1120 mm Weight 560 kg Moment of inertia of flywheel (lbs. in² or Kg.cm.²) 1,129¹⁰ Means of ignition Compr. Kind of fuel used Diesel-oil

Crank Shaft, Solid forged dia. of journals as per Rule Crank pin dia. 200 mm Crank webs Mid. length breadth 340 mm Thickness parallel to axis ✓

All built as fitted 200 mm Crank webs Mid. length thickness 82 mm shrunk Thickness around eye-hole 215 mm

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as fitted

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

as fitted 196 mm in body screw

Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule 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 ✓

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 tube shaft yes If so, state type PLAN 301319-2803

Propeller, dia. 1780 mm Pitch 1093/898 mm No. of blades 4 Material Brange whether moveable no Total developed surface 50% sq. feet

Moment of inertia of propeller (lbs. in² or Kg.cm.²) 0.841 x 10⁶ Kind of damper, if fitted ✓

Method of reversing Engines direct reversible Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication grease

Thickness of cylinder liners 21 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged 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 ✓ Cooling Water Pumps, No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓

Bilge Pumps worked from the Main Engines, No. 1 Diameter 130 mm Stroke 75 mm Can one be overhauled while the other is at work ✓

Pumps connected to the Main Bilge Line { No. and size = 1 self priming centrifugal cap 70 m³/h — 1 S.H.I.P. pump 37 m³/h — 1 plunger pump — How driven = port aux. moto. — starb. aux. moto. — main engine —

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 BEGEMAN PUMP cap 70 m³/h. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 ME driven cap 4.5 m³/h. SIHIPUMP 37 m³/h. SPARE: 1 toothed wheel pump cap 4.8 m³/h — elec. driven

Are 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 1 Φ 50 mm In pump room ✓

in holds, &c. four: 1 Φ 70 mm — aft 2 Φ 70 mm

Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2 diam 70 mm

Are 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 yes

Are all Sea Connections fitted direct on the skin of the Ship on inlet chests are they fitted with valves or cocks valves Are they fixed efficiently 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 ✓ Are the blow off cocks fitted with a spigot and brass covering plate ✓

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

Do that 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 ✓ Is it fitted with a watertight door ✓ worked from ✓

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. 1 No. of stages 2 diameters 120/100 mm stroke 90 mm driven by M.E. driven

Auxiliary Air Compressors, No. 1 diameters cap 35 m³/h stroke driven by port aux. eng.

Small Auxiliary Air Compressors, No. 1 No. of stages 2 diameters cap 35 m³/h stroke driven by

Is provision made for first charging the air receivers aux. engines are started electrically or by hand

Scavenging Air Pumps, No. 2 diameters driven by stroke driven by

Auxiliary Engines crank shafts, diameter as per Rule No. 2 Position 3 tank no 681.57/58 Port no 681.55/56

Have the auxiliary engines been constructed under special survey yes Is a report sent herewith cent. 263-264 d.d. 3-1-51

9/4/51



Lloyd's Register

AIR RECEIVERS:—Have they been made under survey... *yes* ✓ State No. of report or certificate *C 3701 (Amshu)*
 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...
 Starting Air Receivers, No. *2* ✓ Total cubic capacity *1240 lbs* Internal diameter *500 mm* thickness *12 mm*
 Seamless, welded or riveted longitudinal joint *welded* Material *S. etc. steel* Range of tensile strength *41-47 kg/mm²* Working pressure...
 Actual... *30 kg*

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... *19-8-50* Receivers... *26-5-48* Separate fuel tanks...
 (If not, state date of approval) *19-8-50*
 Donkey boilers... *✓* General pumping arrangements... *25-7-50* Pumping arrangements in machinery space... *25-7-50*
 Oil fuel *pumping* arrangements... *25-7-50*
 Have Torsional Vibration characteristics been approved... *yes* ✓ Date of approval... *21-7-50*

SPARE GEAR.

Has the spare gear required by the Rules been supplied... *yes* ✓
 State the principal additional spare gear supplied... *spare tailshaft (marked: LLOYDS No 11203 KK 9-9-50)*
spare bronze propeller (marked: LLOYDS No 555 PFW 1-9-50)

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
 During progress of work in shops - - -
 During erection on board vessel - - - *4/9-10/12-1950 - 4/1-1/1-22/1-24/1-25/1-1/2-22/2-1951*
 Total No. of visits... *9*
 Dates of examination of principal parts—Cylinders... Covers... Pistons... Rods... Connecting rods...
 Crank shaft... Flywheel shaft... Thrust shaft... Intermediate shafts... Tube shaft...
 Screw shaft... Propeller... Stern tube... *drawn in: 4-9-50* Engine seatings... *11-1-51* Engine holding down bolts... *11-1-51*
 Completion of fitting sea connections... *18-12-50* Completion of pumping arrangements... *22-1-50* Engines tried under working conditions... *25-1-51*
 Crank shaft, material *S. etc. Steel* Identification mark... *LLOYDS No 10457 KK 4-5-50* Flywheel shaft, material... Identification mark...
 Thrust shaft, material *S. etc. Steel* Identification mark... *LLOYDS No 1226 AB 13-6-50* Intermediate shafts, material *S. etc. Steel* Identification marks... *LLOYDS No 11 KK 9-9-50*
 Tube shaft, material... Identification mark... Screw shaft, material *S. etc. Steel* Identification mark... *LLOYDS No 112 KK 9-9-50*
 Identification marks on air receivers... *No 1073-1074 LLOYDS TEST 60 kg/cm² W.P. 30 kg/cm² AB 24-2-50*
 Welded receivers, state Makers' Name... *De Plaatswellerij of Velsen*
 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... *DECKWASH LINE φ 2" 1 connection & hose on poopdeck - 1 connection & hose in fore-castle. 2-3 gallon foam extinguishers in engine room - 1 ditto in galley - 2 ditto in crew quarters.*
 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... *✓*
 Is this machinery duplicate of a previous case... *✓* If so, state name of vessel... *✓*

General Remarks (State quality of workmanship, opinions as to class, &c... *This Machinery has been made and fitted in accordance with the approved plans, Secretary letters and Society Rules.*
The materials were tested in accordance with the Rule requirements and the Workmanship was found good.
The Machinery has been tried under full load condition during a trial trip on the North Sea with satisfactory results.
The Machinery of this Vessel merits in my opinion the approval of the Committee and may be assigned the R.B. with record of + LMC 2,51 and notation of tailshaft fitted with O.G.

(copy out of spare propeller and auxiliary sets attached)

The amount of Entry Fee... *fl 193.-*
 Special... *£* : : When applied for *23-3 19 51*
 Donkey Boiler Fee... *£* : : When received... *19*
 Travelling Expenses (if any) *fl 23.-*

A. Cran
 Engineer Surveyor to Lloyd's Register of Shipping



Committee's Minute... **FRI. 13 APR 1951**
 Assigned... *+ LMC 2.51 Oil Eng. O.G.*

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