

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 16552

Received at London Office

Date of writing Report 21st March 19 48 When handed in at Local Office 19 Port of Amsterdam

No. in Survey held at Amsterdam & Zaandam Date, First Survey 20-6-47 Last Survey 19th March 19 48
Reg. Book. Number of Visits 27

on the Single Screw Motor vessel "PRINSENGRACHT" Tons { Gross 499.97
Net 350.90

Built at Zaandam By whom built Zaanelandsche Scheepsbouw My Yard No. 448 When built 1948

Engines made at Amsterdam By whom made N.V. Werkspoor Engine No. 873 When made 1942 - fitted 1948

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

Brake Horse Power 500 580 Owners SPLIETHOF'S BEVRACHTINGSKANTOOR Port belonging to Amsterdam

Nom. Horse Power as per Rule 104 MN. 87. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended Ocean Trade

IL ENGINES, &c. — Type of Engines 4 SCSA all dimensions in mm 2 or 4 stroke cycle 4 Single or double acting S

Maximum pressure in cylinders 40 kg/cm² Diameter of cylinders 270 Length of stroke 500 No. of cylinders 8 No. of cranks 8

Mean Indicated Pressure 7.5 kg/cm² Span of bearings, adjacent to the crank, measured from inner edge to inner edge 318 Is there a bearing between each crank yes

Revolutions per minute 325 Flywheel dia. 1120 Weight 560 kg Means of ignition compression Kind of fuel used Diesel oil

Crank Shaft, Solid forged as per Rule approved dia. of journals 200 Crank pin dia. 200 Crank webs 340 Mid. length thickness 82 shrunk Thickness parallel to axis ✓

Flywheel Shaft, diameter as per Rule ✓ Intermediate Shafts, diameter as per Rule approved as fitted 200 Thrust Shaft, diameter at collars as fitted approved as per Rule 215

Tube Shaft, diameter as per Rule ✓ Screw Shaft, diameter as per Rule approved as fitted 196 Is the tube shaft fitted with a continuous liner { no }

Bronze Liners, thickness in way of bushes as per Rule ✓ Thickness between bushes as per Rule 5 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 no If so, state type ✓

Length of bearing in Stern Bush next to and supporting propeller 800

Propeller, dia. 1780 Pitch 1175 No. of blades 4 Material bronze whether moveable solid Total developed surface 125 m² sq feet

Method of reversing Engines directly Is a governor or other arrangement fitted to prevent racing of the engine ✓ declutched yes Means of lubrication forced Thickness of cylinder liners 21

Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled ✓

Are the exhaust pipes and silencers water cooled ✓ 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 ROTARY 15 T/h AND IN CASE OF EMERGENCY THE BALLAST PUMP the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Bilge Pumps worked from the Main Engines, No. 1 ROTARY 15 T/h Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓

Pumps connected to the Main Bilge Line { No. and size ME Bilge pump 15 T/h — Ballast pump - rotary 33.5 T/h — Bilge pump - rotary 33.5 T/h
How driven BELT GEARING (driven by ME or Aux. motor) }

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 1 (see above) Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 ME driven - rotary - 4.8 T/h
1 Stand-by - ram type - 3 T/h
1 Hand pump

Are 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 1 (φ 51) (1 suction (φ 50) on hand bilge pump) In pump room ✓

In holds, &c. 4 totally (φ 63) Independent Power Pump Direct Suctions to the engine room bilges, No. and size 1 (φ 70) on Bilge pump and on ME Bilge pump
1 (φ 70) on Ballast pump

Are all the bilge suction pipes in holds and tunnel and 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 yes Are they fitted with valves or cocks yes 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 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 ✓

What pipes pass through the bunkers ✓ How are they protected ✓

What 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 no tunnel 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. one No. of stages 2 diameters 100/120 stroke 90 driven by ME

Auxiliary Air Compressors, No. 1 supplied with Rotterdam Certif. N° 2013 - dated 19-1-48 No. of stages 2 diameters 60/130 stroke 90 driven by belt gearing

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

What provision is made for first charging the air receivers aux. air compressor (Aux. motor in hand-started)

Scavenging Air Pumps, No. ONE R.A. Lister Ltd. Dursley, N° CS.60042. Type 2JPMA. 2 cyls. 5 1/2 stroke 41 1000 revs/min; 18 BHP driven by ✓

Auxiliary Engine crank shafts, diameter as fitted journals: 3" — crank pin: 3" Position E room Starb. side

Have the auxiliary engines been constructed under special survey Due to long terms of delivery Is a report sent herewith no
the Maker was not able to supply an engine, covered by L.R. certificate, in time. A stock engine of the desired type has now been supplied.

5400-503010-0043



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

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 by Rules Actual

Starting Air Receivers, No. *2* Total cubic capacity *1240 litres* Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual *30 lbs*

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 *17-7-47* Receivers Separate fuel tanks *22-1-48*
(If not, state date of approval)

Donkey boilers General pumping arrangements *13-6-47* Pumping arrangements in machinery space *12-1-48*

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 of exact description,
N. V. ZWANLANDSCHE SCHEEPSBOUWMAATSCHAPPIJ Manufacturer.

Dates of Survey while building

During progress of work in shops - - *1947: 20/6-2/7-14/7-5/8-12/9-19/9-24/9-29/9-3/10-10/10-21/10-31/10-8/11-17/11-18/11-24/11-26/11-1948: 30/1-16/2*

During erection on board vessel - - *1947: 21/11-20/12 1948: 17/2-23/2-3/3-13/3-18/3-19/3*

Total No. of visits *27*

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

Crank shaft Flywheel shaft Thrust shaft *18-11-47* Intermediate shafts *26-11-47* Tube shaft

Screw shaft *24-11-47* Propeller *24-11-47* Stern tube *HYDR. T. 17-11-47 DRAWN IN 21-11-47* Engine seatings *17-2-48* Engine holding down bolts *23-2-48*

Completion of fitting sea connections *20-12-47* Completion of pumping arrangements *3-3-48* Engines tried under working conditions *13-3-48*

Crank shaft, material Identification mark Flywheel shaft, material Identification mark

Thrust shaft, material *SM steel* Identification mark *LLOYDS N: 5307 KK: 18-11-47* Intermediate shafts, material *SM steel* Identification marks *LLOYDS N: 5366 KK: 26-11-47*

Tube shaft, material Identification mark Screw shaft, material *SM steel* Identification mark *LLOYDS N: 5346 KK: 24-11-47*

Identification marks on air receivers *721-722 GL AD 7-1941 LLOYDS TEST. 50 KG HPB. 21-4-42*

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 *Foam Ext. app: 1 (5 litres) in Engine; 1 (2 1/2 litres) in Messroom; 1 (2 1/2 litres) in crew compartment. 2 coxas (2") on deckwash line (1 fore + 1 aft) with 20 m hose (1 1/2")*

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) *The engine, having been built during the war under L.R. Special Survey, has been installed and completed under our supervision in accordance with the approved plans, Rule requirements and Secretary's letters. Found workmanship satisfactory. Main engine and auxiliaries have been tried under full charge on a trial trip with satisfactory results.*

We are of opinion that this vessel is eligible to be recorded in the Register Book with the record of + LMC. 3,48

Periodical vibration characteristics appeared in the Keelstrake table dated 17.9.47 for Service Speed of 32.5 R.P.M.

The amount of Entry Fee ... £ *£ 300.-*

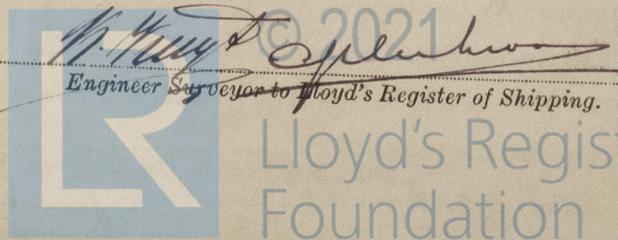
Special ... £ : : When applied for *9-4-1948*

Donkey Boiler Fee... £ : : When received *19*

Travelling Expenses (if any) £ *£ 57.50*

Committee's Minute *FRI. 7 MAY 1948*

Assigned *+ LMC 3,48 Oil Eng + NE made 42 fitted 48*



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