

REPORT ON OIL ENGINE MACHINERY.

Received at London Office

Date of writing Report 29 Oct 1932 When handed in at Local Office 19 Port of Rotterdam

No. in Survey held at Rotterdam Date, First Survey 21 Aug 1931 Last Survey 26 Oct 1932 Reg. Book. Number of Visits 32

on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel "TARANA" (TRAWLER) Tons { Gross 325.26 Net 135.42

Built at Rotterdam By whom built Hoekfab. Scheepwerf Yard No. 487 When built 1932

Engines made at ditto By whom made ditto Engine No. 488 When made 1932

Donkey Boilers made at none By whom made Boiler No. When made

Brake Horse Power 690 Owners Hoekfab. Scheepwerf Port belonging to Rotterdam

Nom. Horse Power as per Rule 98 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended 13 2398

OIL ENGINES, &c.—Type of Engines Heavy oil Recharged 2 or 4 stroke cycle yes Single or double acting yes

Maximum pressure in cylinders 45 kg/cm² Diameter of cylinders 330 mm Length of stroke 600 mm No. of cylinders 6 No. of cranks 6

Mean Indicated Pressure 9.44 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 408 mm Is there a bearing between each crank yes

Revolutions per minute 250-265 Flywheel dia. 2.46 ft Weight 220 kg Means of ignition compression Kind of fuel used Solar oil

Crank Shaft, dia. of journals as per Rule as fitted 220 mm Crank pin dia. 260 mm Crank Webs Mid. length breadth shrunk Thickness parallel to axis 136 mm Mid. length thickness Thickness around eyehole 115 mm

Flywheel Shaft, diameter as per Rule as fitted 204 mm Intermediate Shafts, diameter as per Rule as fitted 150.2 mm Thrust Shaft, diameter at collars as per Rule as fitted 166 mm

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted 239 mm Is the tube screw shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule as fitted 14 mm Thickness between bushes as per rule as fitted 14 mm Is the after end of the liner made watertight in the

propeller boss yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner one length

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 tight fit

If two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after end of the tube

shaft no If so, state type Length of Bearing in Stern Bush next to and supporting propeller 800 mm

Propeller, dia. 2200 mm Pitch 1500 No. of blades 4 Material Bronzewether Moveable no Total Developed Surface 16.46 sq. feet

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

Forced Thickness of cylinder liners 24 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material Lagg If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Tunnel

Cooling Water Pumps, No. 2 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. 2 Diameter 122 mm Stroke 150 mm Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line No. and Size 2 x 122 mm, 1 cammehel pump suction 3 1/2" How driven Main Eng. Electric 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 Cammehel Suction 3 1/2" Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 cammehel 3 - 3 1/2"

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 2 x 2" One hand pump 2" In Pump Room 1 x 2" Hand pump 1 x 2"

In Holds, &c. 2 x 2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 x 3 1/2"

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

Are all Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks both

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 none

What pipes pass through the bunkers pipe tunnel How are they protected

What 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 yes Is it fitted with a watertight door Engine worked from fitted aft

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Steel vessel

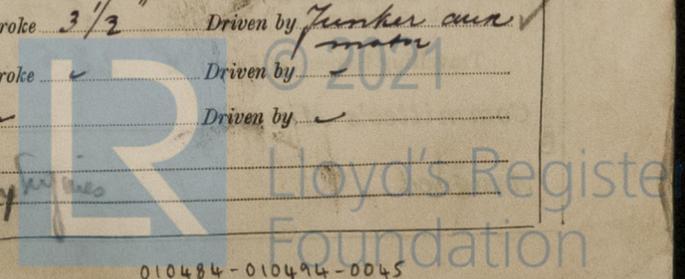
Main Air Compressors, No. 1 No. of stages 2 Diameters 320-200 Stroke 170 Driven by electric motor

Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 5" x 2 1/4" Stroke 3 1/2" Driven by Junker motor

Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Scavenging Air Pumps, No. none Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted 170-45 mm See plans 2 aux engines



13
12
80.7
55!
51/5;
49

AIR 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 and cleaned *Yes* Is a drain fitted at the lowest part of each receiver *Yes*
High Pressure Air Receivers, No. *none* 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. *1* Total cubic capacity *2600 Cbrs* Internal diameter *1100 mm* thickness *24 mm*
 Seamless, lap welded or riveted longitudinal joint *lap welded* Material *Steel* Range of tensile strength *22-28 ton per sq in* Working pressure *25*

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 *no donkey boiler fitted*
PLANS. Are approved plans forwarded herewith for Shafting *8-9-31* Receivers *25-9-31* Separate Tanks *✓*
 (If not, state date of approval) *13-10-31*
 Donkey Boilers *-* General Pumping Arrangements *8-10-31* Oil Fuel Burning Arrangements *✓*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*
 State the principal additional spare gear supplied *4 fuel valves complete, 4 exhaust valves complete, 1 set of crank pin braces, 1 set of crankshaft braces of cast iron, a number of springs for various valves, one cast iron propeller.*

The foregoing is a correct description.

N.V. MACHINEFABRIEK & SCHEEPSWERK van PRUIT JR., ROTTERDAM. Manufacturer.

Dates of Survey while building
 During progress of work in shops: 2/8-28/9-5-13/10-13-16-27/11-8/12-19-31-12-19-21-29/1-2-5-10-18-19-22-25/2.
 During erection on board vessel: 1-8/3-8/6-11/7-12/8-19-32.
 Total No. of visits: 33.
 Dates of Examination of principal parts—Cylinders 2/8-29-32 Covers 13/10-31-12/22-13/11-31 Rods *✓* Connecting rods 28/9-29/11-32
 Crank shaft 2/11-32 Flywheel shaft 2/11-32 Thrust shaft 2/11-32 Intermediate shafts 8/12-31-1/3-32 Tube shaft *✓*
 Screw shaft 8/12-31-1/7-32 Propeller 18/2-31 Stern tube 17/11-2/1-32 Engine seatings 5/2-32 Engines holding down bolts 26/3-32
 Completion of fitting sea connections 22/2-32 Completion of pumping arrangements 13/3-32 Engines tried under working conditions 26/10-32
 Crank shaft, Material *Steel* Identification Mark *LL 9045 PK 9046* Flywheel shaft, Material *Steel* Identification Mark *LL 9047 PK*
 Thrust shaft, Material *Steel* Identification Mark *LL 9047 PK* Intermediate shafts, Material *Steel* Identification Marks *LL 739 AB*
 Tube shaft, Material *✓* Identification Mark *27-11-32* Screw shaft, Material *Steel* Identification Mark *LL 737 AB*

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 *✓*
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with *No Ice Strengthening*
 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 built in accordance with the Society's Rules, approved plans and Secretary's letters, material tested as required and workmanship good. The machinery has been tested during a trial trip under full working conditions and found working and maintaining satisfactorily and is in my opinion eligible to be recorded in the Society's Register Book with + L.M.C. 10-32.*

The amount of Entry Fee .. £ 24.00: When applied for,
 Special ... £ 294.00: .. 19.
 Donkey Boiler Fee ... £ 25.00: When received,
 Travelling Expenses (if any) £ 28.50: 20.12-19.32
 Committee's Minute
 Assigned

A. P. Dijk
 Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 11 NOV 1932



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