

REPORT ON OIL ENGINE MACHINERY.

No. 280606

Received at London Office

Date of writing Report 5/4 1939 When handed in at Local Office

10

Port of RotterdamNo. in Survey held at Krimpen 2d Yvel Date, First Survey 13 Oct 1938 Last Survey 21 March 1939
Reg. Book.Number of Visits 15Single
on the ~~Two~~
Triple
Quadruple

Screw vessel

M.V. NIGER STROOMTons { Gross 4689
Net 2666Built at Krimpen 2d Yvel By whom built M. v. C. v. d. Giesse & Zoon Yard No. 656 When built 1939Engines made at A'dam By whom made N. v. Werkspoor Engine No. 731 When made 1938/9Donkey Boilers made at A'dam By whom made N. v. Werkspoor Boiler No. 2847 When made 1938Brake Horse Power 4250 Owners N. v. Hollandsche Stoomboot Port belonging to A'damNom. Horse Power as per Rule 618 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yesTrade for which vessel is intended seagoing tradeOIL ENGINES, &c.—Type of Engines Werkspoor Heavy oil engine 2 or 4 stroke cycle 4 Single or double acting single
please see A'dam report No 15512 AMaximum pressure in cylinders ✓ Diameter of cylinders ✓ Length of stroke ✓ No. of cylinders ✓ No. of cranks ✓Mean Indicated Pressure ✓Span of bearings, adjacent to the Crank, measured from inner edge to inner edge ✓ Is there a bearing between each crank ✓Revolutions per minute 120 Flywheel dia. ✓ Weight ✓ Means of ignition Compression Kind of fuel used Diesel oilCrank Shaft, { Solid forged ✓ as per Rule ✓ Crank pin dia. ✓ Crank Webs Mid. length breadth ✓ Thickness parallel to axis ✓
Semi built dia. of journals ✓ as fitted ✓ Mid. length thickness ✓ shrunk Thickness around eyehole ✓
All built ✓Flywheel Shaft, diameter as per Rule ✓ Intermediate Shafts, diameter as per Rule ✓ Thrust Shaft, diameter at collars as per Rule ✓
as fitted as fitted 360 mm as fitted 180 mmTube Shaft, diameter as per Rule ✓ Screw Shaft, diameter as per Rule ✓ Is the tube shaft fitted with a continuous liner { yes ✓
as fitted as fitted 400 mm screwBronze 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
as fitted as fittedpropeller 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 ✓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 tubeshaft no If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller 1600 mm ✓Propeller, dia. 4050 mm Pitch 4430/3425 No. of blades 4 Material Bronze whether Moveable no Total Developed Surface 78 sq. feetMethod of reversing Engines by air Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubricationforged Thickness of cylinder liners ✓ Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged withnon-conducting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine funnelCooling Water Pumps, No. 2 salt & 200 ft. 2 fresh 90 ft. Is the sea suction provided with an efficient strainer which can be cleared within the vessel yesBilge Pumps worked from the Main Engines, No. ✓ Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓Pumps connected to the Main Bilge Line { No. and Size three 1 à 200 ft., 1 à 105 ft., 1 à 50 ft. relay pumps
How driven electricallyIs 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 one relay 200 ft. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 relay 40 ft.Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary BilgePumps, No. and size:—In Machinery Spaces 3 à 4 1/2" 2 à 3 1/4" 1 à 2 3/4" tunnel 1 à 2 3/4" Rotterdam 114-115In Holds, &c. No I, 1 à 3 1/4" No II 2 à 3 1/4" No III 4 à 3 1/4" No IV 1 à 3 1/4" + 2 à 2" No V 1 à 3 1/4" + 2 à 2" 99-100Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 3 à 4 1/2" 66-67 68-69 1 à 2" 56-57Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spacesed from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yesAre all Sea Connections fitted direct on the skin of the ship on steel chests Are they fitted with Valves or Cocks Valves & cocksAre 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 and aboveAre 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 yesWhat pipes pass through the bunkers none 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 yes worked from top of engine roomIf 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 ✓Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 8 1/4 x 3 1/2" Stroke 7" Driven by electricallySmall Auxiliary Air Compressors, No. one No. of stages one Diameters 40 mm Stroke 60 mm Driven by handWhat provision is made for first Charging the Air Receivers hand air compressor to charge 100 L air vessel ✓Savenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by handAuxiliary Engines crank shafts, diameter as per Rule please see A'dam No. 150 BHP, one 52 BHP, one 100 BHPas fitted reports No 15512 C. 2 15434 Position Starb. in engine roomHave the Auxiliary Engines been constructed under special survey yes Is a report sent herewith yes

v.1. 200 BHP / 100 L 543

002630-002638-0042

AIR RECEIVERS:—Have they been made under survey *yes* 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 *—*
Starting Air Receivers, No. *2* Total cubic capacity *20 M³ 100 lbs.* Internal diameter *—* thickness *—*
Seamless, lap welded or riveted longitudinal joint *—* Material *—* Range of tensile strength *—* Working pressure *—*

IS A DONKEY BOILER FITTED? *yes* If so, is a report now forwarded? *yes*
Is the donkey boiler intended to be used for domestic purposes only *no*
PLANS. Are approved plans forwarded herewith for Shafting *—* Receivers *—* Separate Fuel Tanks *—*
(If not, state date of approval) Donkey Boilers *—* General Pumping Arrangements *24/10 '30* Pumping Arrangements in Machinery Space *24/10 '30*
Oil Fuel Burning Arrangements *20/4 '30*

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,

Manufacturer.

Dates of Survey while building { During progress of work in shops -- *14/30*
During erection on board vessel -- *Oct 13, Dec 13, 27, Jan 10-10-25-30, Feb 27, March 4-22-24-27-28-29-31.*
Total No. of visits *15.*

Dates of Examination of principal parts—Cylinders *—* Covers *—* Pistons *—* Rods *—* Connecting rods *—*
Crank shaft *—* Flywheel shaft *—* Thrust shaft *25/1 '39* Intermediate shafts *25/1 '39* Tube shaft *—*
Screw shaft *13/12 '30* Propeller *13/12 '30* Stern tube *13/12 '30* Engine seatings *13/12 '30* Engines holding down bolts *25/1 '39*
Completion of filling sea connections *27/12 '30* Completion of pumping arrangements *27/12 '39* Engines tried under working conditions *27/29, 3-39.*
Crank shaft, Material *—* Identification Mark *—* Flywheel shaft, Material *—* Identification Mark *—*
Thrust shaft, Material *—* Identification Mark *—* Intermediate shafts, Material *—* Identification Marks *—*
Tube shaft, Material *—* Identification Mark *—* Spare Screw shaft, Material *AM steel* Identification Mark *—*
Identification Marks on Air Receivers *No 5172/5173 LLOYDS TEST 620 lbs W.P. 420 lbs H.P.B. 29-0-30*
No 4549 LLOYDS TEST 60 ATM. W.P. 30 ATM. H.P.B. 14-3-30.

Is the flash point of the oil to be used over 150° F. *above*
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 *not desired*
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 made under special survey in accordance with the approved plans, Society's Rules and Secretary's letters workmanship good, and has been satisfactorily fitted on board. The machinery was found in a good working and manœuvring order when tried under full working condition, and is in my opinion eligible to be classed in the Society's Registerbook + L.M. 24-C.L. and DB100 lbs.*

The amount of Entry Fee .. £ : : When applied for,
Special ... £ *254.—* 19
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ *26.—* 25 4 19 *398/4*

Committee's Minute

Assigned

FRI, 21 APR 1930
+ Lmc 4.39 Del Eng
DB 100 lb CL

G. Williams
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation