

## REPORT ON OIL ENGINE MACHINERY.

No. 2324

Date of writing Report **31.3. 19 53** When handed in at Local Office **19 53** Port of **H A M B U R G** Received at London Office **20 APR 1953**

No. in Reg. Book. **4263** Survey held at **H A M B U R G** Date, First Survey **22nd Jan. 1953** Last Survey **24.3. 19 53** Number of Visits **18**

on the ~~XXXX~~ ~~XXXX~~ ~~XXXX~~ Screw vessel **M.V. "STANVAC NAIROBI" (ex "JAMES J. MAGUIRE")** Tons **Gross 11643**  
**Net 6587.83**

Built at **Monfalcone** By whom built **Cant. Riuniti dell' Adriatico** Yard No. **-** When built **1939-5**  
 Engines made at **Kobe** By whom made **Mitsubishi Heavy Industries** Engine No. **1362** When made **7.52**  
 Donkey Boilers made at **-** By whom made **-** Boiler No. **-** When made **-**  
 Brake Horse Power { Maximum **-** Service **5000** Owners **Oriental Trade & Transport Co. Ltd.** Port belonging to **London**  
 M.N. as per Rule **1000** Is Refrigerating Machinery fitted for cargo purposes **no** Is Electric Light fitted **yes**

Trade for which vessel is intended **International**

I L ENGINES, &c. — Type of Engines **License - Sulzer 7 SD 72** 2 or 4 stroke cycle **2** Single or double acting **single**  
 Maximum pressure in cylinders **53 kg/cm<sup>2</sup>** Diameter of cylinders **720 mm** Length of stroke **1250 mm** No. of cylinders **7** No. of cranks **7**  
 Mean Indicated Pressure **5.98 kg/cm<sup>2</sup>** Span of bearings (i.e., distance between inner edges of bearings in way of a crank) **934 mm** Is there a bearing between each crank **yes** Revolutions per minute { Maximum **-** Service **128**  
 Flywheel dia. **2398 mm** Weight **1700 kgs** Moment of inertia of flywheel (~~xxxx~~ or Kg.cm.<sup>2</sup>) **5.47 x 10<sup>7</sup>** Means of ignition **solid** Kind of fuel used **heavy fuel**  
 " " " balance wts. ( " " " " ) **-**

Crank Shaft, { Solid forged dia. of journals as per Rule **-** Crank pin dia. **as fitted** Crank webs Mid. length breadth **-** Thickness parallel to axis **-**  
 { Semi built as fitted **-** Mid. length thickness **-** Thickness around eye-hole **-**  
 { All built as fitted **-**

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

Tube Shaft, diameter as per Rule **-** Screw Shaft, diameter as per Rule **-** Is the { tube screw } shaft fitted with a continuous liner { **-** }  
 as fitted **-** as fitted **-** as fitted **-**

Bronze Liners, thickness in way of bushes as per Rule **-** Thickness between the bushes as fitted **-** Is the after end of the liner made watertight in the propeller boss **-**  
 If the liner is in more than one length 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 fitted at the after end of stern tube **-** If so, state type **-** Length of bearing in Stern Bush next to and supporting propeller **-**

Propeller, dia. **5070 mm** Pitch **3400 mm** No. of blades **4** Material **bronze** whether moveable **no** Total developed surface **90** sq. feet  
 Moment of inertia of propeller ~~including water~~ **38.77 t.m<sup>2</sup>** Kind of damper, if fitted **-**

Method of reversing Engines **direct** Is a governor or other arrangement fitted to prevent racing of the engine **yes** Means of lubrication **forced** Thickness of cylinder liners **-** Are the cylinders fitted with safety valves **yes** Are the exhaust pipes and silencers water cooled **-**  
 lagged with non-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 **-** Cooling Water Pumps, No. and how driven **2 shaft driven** Working F.W. **1**  
 F.W. **1** Spare F.W. **1** S.W. **1** 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. and capacity **none** Can one be overhauled while the other is at work **-**  
 Pumps connected to the Main Bilge Line { No. and capacity of each **2 steam driven** How driven **1 steam driven emergency**

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 **-**

General service Ballast Pumps, No. and capacity **one** Power Driven Lubricating Oil Pumps, including spare pump, No. and size **2, each 190 m<sup>3</sup>/hr.**  
 Are two independent means arranged for circulating water through the Oil Cooler **yes** Branch Bilge Suctions **5 ins.**  
 No. and size:—In machinery spaces **3 x 3 1/2", 1 x 10" emergency.** In pump room **centre 1 x 3"**  
 In holds, &c. **2 x 3", Forepeak space 2 x 3", Cofferdam aft 4 x 4", Cofferdam " " " forwd. 2 x 3"**

Direct Bilge Suctions to the engine room bilges, No. and size **1 x 5"** forwd. **2 x 3"**

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 **yes** Are they fitted with valves or cocks **yes 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 **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 **yes**  
 That pipes pass through the bunks. **cofferdam bilge suction** How are they protected **suitably constructed**  
 That pipes pass through the deep tanks **forepeak suction** Have they been tested as per Rule **yes**  
 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 **none** Is it fitted with a watertight door **none** worked from **-**  
 Is 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. **none** No. of stages **-** diameters **-** stroke **-** driven by **-**  
 Auxiliary Air Compressors, No. **one** No. of stages **2** diameters **2 x 75/165 mm** stroke **150 mm** driven by **steam eng.**  
 Small Auxiliary Air Compressors, No. **one** No. of stages **2** diameters **1 x 30/80 mm** stroke **60 mm** driven by **diesel dr.**

What provision is made for first charging the air receivers **Aux. diesel driven compressor, started by hand**  
 SAVING Air Pumps or Blowers, No. **7 (each cyl. one)** How driven **main engine driven**  
 Auxiliary Engines Have they been made under survey **yes, see Kiel Rpt. 837** Engine Nos. **14971/72** Lloyd's Register  
 Makers name **Bohn & Kahler, Kiel** Position of each in engine room **port forward and aft** Foundation  
 Report No. **Rpt. No. 837**



AIR RECEIVERS:—Have they been made under survey as originally fitted State No. of report or certificate -  
State full details of safety devices each receiver one relief valve  
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 29 m<sup>3</sup> Internal diameter as before thickness -  
Seamless, welded or riveted longitudinal joint welded Material SMOH steel Range of tensile strength - Working pressure 28 kg/cm<sup>2</sup>

IS A DONKEY BOILER FITTED yes If so, is a report now forwarded no, as originally fitted  
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 yes Pumping arrangements in machinery space yes  
Oil fuel burning arrangements -  
Have Torsional Vibration characteristics been approved yes Date and particulars of approval 29.9.52; 8.1.53

#### SPARE GEAR.

Has the spare gear required by the Rules been supplied yes State if for "short voyages" only ocean going  
State the principal additional spare gear supplied One complete cylinder cover, one cylinder liner, one complete cylinder relief valve, one set piston rings, one piston complete, one screw shaft, one spare propeller.

HOWALDTSWERKE HAMBURG A.-G.

The foregoing is a correct description,

Manufacturer: Howaldtswerke A.-G.

Dates of Survey while building  
During progress of work in shops -  
During erection on board vessel Jan. 22, 29, Feb. 5, 6, 10, 14, 19, 24, 27, Mar. 2, 4, 9, 13, 16, 20, 21, 23, 24, 1953.  
Total No. of visits 18  
Dates of examination of principal parts—Cylinders - Covers - Pistons - Rods - Connecting rods -  
Crank shaft - Flywheel shaft - Thrust shaft - Intermediate shafts - aux. intermed. 14.2.53  
Screw shaft 3.2.53 Propeller 29.1.53 Stern tube - Engine seatings 6.2.53 Engine holding down bolts 5.3.53  
Completion of fitting sea connections - Completion of pumping arrangements 9.3.53 Engines tried under working conditions 23.3.53  
Crank shaft, material - Identification mark - Flywheel shaft, material - Identification mark 44259-CH39  
Thrust shaft, material See Kobe Report No. 830 Identification mark - Intermediate shafts, material SM Steel Identification marks PN 330L1MS  
Tube shaft, material - Identification mark - Screw shaft, material SMOH steel Identification mark 252051-1-1  
Identification marks on air receivers as originally fitted Lloyds HB 3153 19.4.38

Welded receivers, state Makers' Name -  
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  
Full description of fire extinguishing apparatus fitted in machinery spaces CO<sub>2</sub> in E.R. & B.R., stm. smothering under boilers, chemical in E.R. & B.R., Water in E.R. & B.R., stm. smothering  
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo tanker If so, have the requirements of the Rules been complied with forepeak  
What is the special notation desired -  
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 yes If so, state name of vessel "Olympia Maru"

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.) This engine has been constructed under Special Survey (see Kobe Report No. 830) examined during construction, properly installed in the above vessel and found satisfactory under working conditions and is eligible, in my opinion, for classification with the notation \* NE constructed 7,52 fitted 3,53.

The amount of Entry Fee see Rpt. 9  
Special £ When applied for 19  
Donkey Boiler Fee £ When received 19  
Travelling Expenses (if any) £

Committee's Minute -  
Assigned -

W. B. Zahner  
Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation