

# REPORT ON OIL ENGINE MACHINERY.

No. 18226

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Report 8<sup>th</sup> April 1952 When handed in at Local Office 1952 Port of Amsterdam  
Survey held at Amsterdam Date, First Survey 31 May 1950 Last Survey 5<sup>th</sup> April 1952  
Number of Visits 14

Single Screw vessel M.S. "BANGO"  
By whom built "De Tolop"  
Yard No. 100 When built 1952  
By whom made "Werkspoor N.V."  
Engine No. 1306 When made 1950  
Boiler No. When made  
Port belonging to  
Power 430 Owners  
Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

2 or 4 stroke cycle 4 Single or double acting Single  
Type of Engines T.M.A.S. 276  
Diameter of cylinders 270 mm Length of stroke 500 mm No. of cylinders 6 No. of cranks 6  
Pressure in cylinders 50 kg/cm<sup>2</sup> Ahead Firing Order in Cylinders 1-3-5-6-4-2  
Span of bearings, adjacent to the crank, measured  
edge to inner edge 310 mm Is there a bearing between each crank Yes  
Revolutions per minute 375  
Weight 1250 kg Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm.<sup>2</sup>) 2575 Means of ignition Comp. Kind of fuel used Diesel oil

Intermediate Shafts, diameter 190 mm Thrust Shaft, diameter at collars 145 mm  
Screw Shaft, diameter 177.5 mm Is the shaft fitted with a continuous liner Yes  
Thickness in way of bushes as fitted 14 mm Thickness between bushes as fitted 11 mm  
Is the after end of the liner made watertight in the stern tube 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  
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-volatile  
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 liner  
If so, state type Length of bearing in Stern Bush next to and supporting propeller

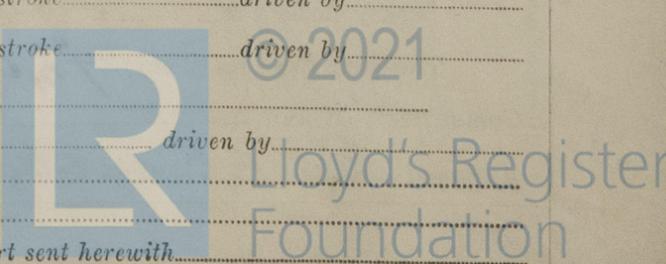
Reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes  
Means of reversing Direct  
Thickness of cylinder liners 21 mm Are the cylinders fitted with safety valves Yes  
Are the exhaust pipes and silencers water cooled  
non-conducting material Yes  
If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned  
Cooling Water Pumps, No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel  
worked from the Main Engines, No. 1 Diameter 130 mm Stroke 75 mm Can one be overhauled while the other is at work  
connected to the Main Bilge Line  
How driven  
water led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 & 45 t.p.h.  
Independent means arranged for circulating water through the Oil Cooler  
Suctions, connected to both main bilge pumps and auxiliary  
No. and size:—In machinery spaces In pump room  
Power Pump Direct Suctions to the engine room bilges, No. and size

Are the bilge suction pipes in holds and tunnel well fitted with strum-boxes  
Are the bilge suction pipes in the machinery spaces led from easily accessible points, placed above the level of the working floor, with straight tail pipes to the bilges  
Are they fitted with valves or cocks  
Are they fixed to the ship's side to be seen without lifting the platform plates  
Are the overboard discharges above or below the deep water line  
Are the blow off cocks fitted with a spigot and brass covering plate  
How are they protected  
Have they been tested as per Rule  
Are cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times  
Are the connections 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 in one compartment to another  
Is the shaft tunnel watertight  
Is it fitted with a watertight door  
worked from  
Are means provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Compressors, No. 1 No. of stages 1 diameters 100/120 mm stroke 90 mm driven by Main Engine  
Auxiliary Air Compressors, No. No. of stages diameters stroke driven by  
Is a report sent herewith

DM  
2/5/52



**AIR RECEIVERS:**—Have they been made under survey *Yes* State No. of report or certificate *C. 9595*  
 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. *1* Cubic capacity of each *1100 litres* Internal diameter *496 mm* thickness *10*  
 Seamless, welded or riveted longitudinal joint *Seamless* Material *S.M. Steel* Range of tensile strength *64-64000* Working pressure *10*  
 Starting Air Receivers, No. *1* Total cubic capacity *1100 litres* Internal diameter *496 mm* thickness *10*  
 Seamless, welded or riveted longitudinal joint *Seamless* Material *S.M. Steel* Range of tensile strength *64-64000* Working pressure *10*

**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 *Yes*  
**PLANS.** Are approved plans forwarded herewith for shafting *10-3-52* Receivers *10-3-52* Separate for Donkey boilers *Yes* General pumping arrangements *Yes* Pumping arrangements in machinery space *Yes*  
 Oil fuel burning arrangements *Yes*  
 Have Torsional Vibration characteristics been approved *Yes* Date of approval *10-3-52*

**SPARE GEAR.**

Has the spare gear required by the Rules been supplied *Yes*  
 State the principal additional spare gear supplied *None*

The foregoing is a correct description, **WERKSPOR N.V.** Manufacturer.  
 Dates of Survey while building: During progress of work in shops *1950 May 31, June 6-8, 13-14, 19-30, Aug 15, Sept 12-19*  
 During erection on board vessel *1952 March 14, April 2-7*  
 Total No. of visits *14*

Dates of examination of principal parts—Cylinders *13-6-50* Covers *24-29/6/50* Pistons *14-6-50* Rods *13-6-50* Connecting rods *13-6-50*  
 Crank shaft *13-6-50* Flywheel shaft *13-6-50* Thrust shaft *9-2-48* Intermediate shafts *5-4-52* Tube shaft *30-10-40*  
 Screw shaft *4-4-52* Propeller *4-4-52* Stern tube *14-3-52* Engine seatings *14-3-52* Engine holding down bolts *14-3-52*  
 Completion of fitting sea connections *14-3-52* Completion of pumping arrangements *14-3-52* Engines tried under working conditions *14-3-52*  
 Crank shaft, material *S.M. Steel* Identification mark *110XDS No 10010* Flywheel shaft, material *S.M. Steel* Identification mark *110XDS No 10010*  
 Thrust shaft, material *S.M. Steel* Identification mark *110XDS No 10010* Intermediate shafts, material *S.M. Steel* Identification mark *110XDS No 10010*  
 Tube shaft, material *S.M. Steel* Identification mark *110XDS No 10010* Screw shaft, material *S.M. Steel* Identification mark *110XDS No 10010*  
 Identification marks on air receivers *No 906070-906073 LLOYD'S TEST 60 kg.*  
*W.P. 30 195 R.R. 15-3-49.*

Welded receivers, state Makers' Name *The Chesterfield Tube Co. Ltd.*  
 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 *None*  
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *Yes* If so, have the requirements of the Rules been complied with *Yes*  
 If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with *Yes*  
 Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *None*

**General Remarks** (State quality of workmanship, opinions as to class, &c. *This engine has been built under survey in accordance with approved plan and Society's rules. Material as required and workmanship found good. The engine has been tested on test bench under full load condition and found in good work. The engine has been shipped to Middelredt (Rotterdam district). In my opinion the vessel for which this engine is intended will be eligible for the notation of L.M.C. (with date) when the whole machinery is fitted satisfactory on board and tried under full working conditions. Copy Certificate's of crankshaft, thrust and I.M. shafts, screw shaft and receivers attached.*

The amount of Entry Fee ... £ *732,00*  
 Special ... £ : : When applied for *16.4.1952*  
 Donkey Boiler Fee... £ : : When received *19*  
 Travelling Expenses (if any) £ *72,00*  
 Engineer Surveyor to Lloyd's Register *W. Young*

Assigned *Su F.E. Mely, rpt Rot 35488*  
**TUES. 6 JAN 1953**  
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Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.

