

# REPORT ON OIL ENGINE MACHINERY

No. 22670.

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Report 29<sup>th</sup> Nov 1954 When handed in at Local Office 29<sup>th</sup> Nov 1954 Port of Southampton  
Vessel held at Portsmouth Date, First Survey 6<sup>th</sup> Sept 1947 Last Survey 21<sup>st</sup> Sept 1954  
Number of Visits 19

Single Screw vessel **BIRCH** Tons Gross  
By whom built **Cook, Welton & Gemmell Ltd** Yard No. When built **1940**  
By whom made **Werkspoor N.V.** Engine No. When made **1950**  
By whom made  
Boiler No. When made  
Owners **Norspers Ltd** Port belonging to  
Per Rule **150** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**  
vessel is intended **Fishing**

S, &c. — Type of Engines 2 or 4 stroke cycle **Single** or double acting  
Diameter of cylinders Length of stroke **17.101** No. of cylinders No. of cranks  
Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured to inner edge  
Is there a bearing between each crank? Revolutions per minute  
Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm.<sup>2</sup>) Means of ignition Kind of fuel used  
Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis  
Mid. length thickness shrunk Thickness around eye-hole  
Intermediate Shafts, diameter as fitted **11.5"** Thrust Shaft, diameter at collars as fitted  
Screw Shaft, diameter as fitted Is the tube/screw shaft fitted with a continuous liner **No**  
Thickness in way of bushes as fitted Thickness between bushes as fitted Is the after end of the liner made watertight in the

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner  
Is an approved Oil Gland or other appliance fitted at the after  
If so, state type **Newark** Length of bearing in Stern Bush next to and supporting propeller **36 1/2"**  
Pitch No. of blades Material whether moveable Total developed surface sq. feet  
Kind of damper, if fitted  
Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched **Yes** Means of  
Thickness of cylinder liners **30/7-** Are the cylinders fitted with safety valves **Yes** 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  
Cooling Water Pumps, No. **one** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **Yes**  
Can one be overhauled while the other is at work  
No. and size **ONE - 2 1/2" BORE** **ONE - 2 1/2" BORE** **ONE 3" BORE**  
How driven **MAIN ENGINE** **G.S. PUMP** **2 HP ELECT. MOTOR**  
If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

No. and size **None** Power Driven Lubricating Oil Pumps, including spare pump, No. and size **ONE - MAIN ENG.** **ONE - S.F. BY 2 1/2" BORE**  
Suctions, connected to both main bilge pumps and auxiliary  
and size:—In machinery spaces **THREE - 2 1/2" BORE** In pump room  
wer Pump Direct Suctions to the engine room bilges, No. and size **ONE - 2 1/2" BORE**  
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  
access, placed above the level of the working floor, with straight tail pipes to the bilges **Yes**  
Are they fitted with valves or cocks **Yes** Are they fixed  
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**  
led 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**  
through the bunkers **None** How are they protected  
through the deep tanks **None** Have they been tested as per Rule  
Are they accessible at all times **Yes**  
Means 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  
compartment to another Is the shaft tunnel watertight **None** Is it fitted with a watertight door worked from

Compressors, No. **one** No. of stages **two** diameters **150/180/7** stroke **100/7** driven by **ME**  
No. **one** No. of stages **two** diameters **1 5/8"/4 1/2"** stroke **3 1/4** driven by **AUX. ENG.**  
Air Compressors, No. No. of stages diameters stroke driven by  
made for first charging the air receivers **Hand starting aux. gen. set.**  
Pumps, No. diameter stroke driven by  
diameters crank shafts, diameter as per Rule as fitted **2 1/2"** Position  
If engines been constructed under special survey **Yes** Is a report sent herewith **sent. Lon 14.7.54**

**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.....  
 Can the internal surfaces of the receivers be examined and cleaned..... Report No 17101  
 Is a drain fitted at the lowest part of each receiver.....  
 Injection Air Receivers, No.....  
 Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure.....  
 Starting Air Receivers, No..... Total cubic capacity..... Internal diameter..... thickness.....  
 Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure.....

**IS A DONKEY BOILER FITTED**..... 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..... 16.2.48 Receivers..... 23.7.47 Separate  
 (If not, state date of approval)  
 Donkey boilers..... General pumping arrangements..... 9.2.48 Pumping arrangements in machinery space..... 9  
 Oil fuel burning arrangements.....  
 Have Torsional Vibration characteristics been approved..... See Amsterdam Report Date of approval.....

**SPARE GEAR.**

Has the spare gear required by the Rules been supplied.....  
 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 - - -  
 During erection on board vessel - - - 6.9.47 - 21.9.54  
 Total No. of visits..... 19

Dates of examination of principal parts—Cylinders..... Covers..... Pistons..... Rods..... Connecting  
 Crank shaft..... Flywheel shaft..... Thrust shaft..... Intermediate shafts..... 31.12.48 Tube shaft  
 Screw shaft..... 14.9.51 Propeller..... Stern tube..... Engine seatings..... Engine holding down bolts  
 Completion of fitting sea connections..... 6.3.51 Completion of pumping arrangements..... Engines tried under working conditions  
 Crank shaft, material..... Identification mark..... Flywheel shaft, material..... Identification mark.....  
 Thrust shaft, material..... Identification mark..... Intermediate shafts, material..... SM steel Identification mark.....  
 Tube shaft, material..... Identification mark..... Screw shaft, material..... SM steel Identification mark.....  
 Identification marks on air receivers..... See Amsterdam Report

Welded receivers, state Makers' Name.....  
 Is the flash point of the oil to be used over 150°F.....  
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with.....  
 Description of fire extinguishing apparatus fitted.....  
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo..... 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..... Yes If so, state name of vessel..... 'MAYTHORN'

**General Remarks** (State quality of workmanship, opinions as to class, &c.)  
 This machinery has been partly installed in accordance with the approved plans and Secretary's letters and on completion will be in my opinion, to be classed in the Register Book with notation and record + LMC with dates.

The amount of Entry Fee ... £ 32 : - - -  
 Special 7.5% off 32.. £ 24 : 0 0  
 Donkey Boiler Fee... £ : :  
 Travelling Expenses (if any) £ 13 : 16 9

When applied for..... 19  
 When received..... 19

Signature of J. B. Rogers, Engineer Surveyor to Lloyd's Register



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

Committee's Minute.....  
 Assigned.....