

REPORT ON OIL ENGINE MACHINERY

No. 22670.

Report 29th Nov 1954 When handed in at Local Office 29th Nov 1954 Port of Southampton
Survey held at Portsmouth Date, First Survey 6th Sept '47 Last Survey 21st Sept 1954
Number of Visits 19

Single Screw vessel **BIRCH** Tons Gross... Net...
By whom built **Book, Walton & Gemmell Ltd** Yard No... When built **1940**
By whom made **Worsnop N.W.** 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... No. of cylinders... No. of cranks...
Pressure... 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...
Weight... Moment of inertia of flywheel (lbs. in² or Kg. cm.²)... Means of ignition... Kind of fuel used...
as per Rule... as fitted... Crank pin dia... Crank webs... Mid. length breadth... Thickness parallel to axis...
as per Rule... as fitted... Intermediate Shafts, diameter... as per Rule... as fitted... Thrust Shaft, diameter at collars... as per Rule...
Screw Shaft, diameter... as per Rule... as fitted... Is the { tube / screw } shaft fitted with a continuous liner { **No** }
Thickness in way of bushes... as per Rule... as fitted... Thickness between bushes... as per Rule... 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 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...
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...
Yes 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**
Is there any means arranged for circulating water through the Oil Cooler **Yes** Suctions, connected to both main bilge pumps and auxiliary...
and size:—In machinery spaces **THREE - 2 1/2" BORE** In pump room...

Water 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...
Accesses, 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 **Three**
Are they fixed 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 the valves and pumps in connection with the machinery and all boiler mountings accessible at all times **Yes**
Are the 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...
Is the shaft tunnel watertight **None** Is it fitted with a watertight door... worked from...

What means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork...
Air Receivers, No. **One** No. of stages **Two** diameters **150/180 7/8"** stroke **100 7/8"** driven by **ME**
Air Compressors, 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 ...
Is made for first charging the air receivers **Hand starting aux. gen. set.**
Pumps, No. ... diameter ... stroke ... driven by ...
Are crank shafts, diameter ... as per Rule ... as fitted **2 1/2"** Position ...
Have engines been constructed under special survey **Yes** Is a report sent herewith **Sub. Lm 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..... Internal diameter..... thickness.....
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 shafts.....
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..... No 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% of £ 32 .. £ 24 : 0 0
Donkey Boiler Fee... £ : :
Travelling Expenses (if any) £ 13 : 16 9
When applied for..... 19
When received..... 19
Engineer Surveyor to Lloyd's Register

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



Lloyd's Register Foundation