

REPORT ON OIL ENGINE MACHINERY.

No 10595

Received at London Office 15th JUL 1941
Date of writing Report 8th JUL 1941
When handed in at Local Office 15th JUL 1941
Port of MANCHESTER
Date, First Survey 31st JAN 1941
Last Survey 2nd JUL 1941
Number of Visits 8
Tons Gross
Net
By whom built
By whom made H. WIDROP & CO LTD
Engine No. 4023
When made 1941
Boiler No.
When made
Owners NEWCASTLE COAL & SHIPPING CO.
Port belonging to
Is Refrigerating Machinery fitted for cargo purposes
Is Electric Light fitted

ENGINES, &c. Type of Engines VERTICAL SOLID INJECTION 2 or 4 stroke cycle 2. Single or double acting SINGLE
Maximum pressure in cylinders 650 LBS
Indicated Pressure 53.5 LBS/sq. in. Diameter of cylinders 11.5" Length of stroke 13.5" No. of cylinders 6 No. of cranks 6
No. of bearings, adjacent to the Crank, measured from inner edge to inner edge 16.75" Is there a bearing between each crank YES.
Revolutions per minute 330. Flywheel dia. 36.75" Weight 15.6 CWTs. Means of ignition COMPRESSION Kind of fuel used HEAVY OIL.
Crank Shaft, { Solid forged
Semi built
All built } dia. of journals as per Rule APPROVED as fitted 6.75" Crank pin dia. 6.75" Crank Webs Mid. length breadth 9" Mid. length thickness 3.75" shrunk Thickness parallel to axis SOLID. Thickness around eyehole
Wheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted APPROVED 4.75"
Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner YES
Liners, 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 an approved Oil Gland or other appliance fitted at the after end of the tube
Length of Bearing in Stern Bush next to and supporting propeller
Propeller, dia. 16" Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
Method of reversing Engines DIRECT Is a governor or other arrangement fitted to prevent racing of the engine when detached YES Means of lubrication
FORCED Thickness of cylinder liners 1/8" Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or lagged with
conducting material YES If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine
Sling Water Pumps, No. ONE Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Pumps worked from the Main Engines, No. ONE Diameter 4.25" Stroke 3" Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line { No. and Size
How driven
If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
arrangements
Fast Pumps, No. and size Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 3 1/75" DIA x 3" STROKE.
Two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
Pumps, No. and size:—In Machinery Spaces In Pump Room
Holds, &c.
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
All the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces
from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
All Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
They fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the Overboard Discharges above or below the deep water line
They each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate
All pipes pass through the bunkers How are they protected
All pipes pass through the deep tanks Have they been tested as per Rule
All Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
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
apartment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from
If the vessel is a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
Air Compressors, No. ONE No. of stages Two Diameters 6" & 2 3/4" Stroke 3" Driven by MAIN ENGINE.
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
All Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
Provision is made for first Charging the Air Receivers
Venting Air Pumps, No. Diameter Stroke Driven by
Auxiliary Engines crank shafts, diameter as per Rule as fitted Position
The Auxiliary Engines been constructed under special survey Is a report sent herewith

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

Is a drain fitted at the lowest part of each receiver

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

by Rules

Actual

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Actual

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
(If not, state date of approval)

Yes

Receivers

Separate Fuel Tanks

Donkey Boilers

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

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 --
During erection on board vessel --
Total No. of visits

1941. JAN 31 FEB. 19. MAR 7. 12. APRIL 25. 30. MAY 12. JULY 2.

8.

Dates of Examination of principal parts—Cylinders 3/1.4/ Covers 3/1.4/ Pistons 3/1.4/ Rods — Connecting rods 3/1.4/

Crank shaft 3/1.4/ Flywheel shaft — Thrust shaft 12.3.4/ Intermediate shafts — Tube shaft —

Screw shaft — Propeller — Stern tube — Engine seatings — Engines holding down bolts —

Completion of fitting sea connections — Completion of pumping arrangements — Engines tried under working conditions —

Identification Mark 31.1.41 Flywheel shaft, Material — Identification Mark —

Thrust shaft, Material OH. STEEL Identification Mark 12.3.41 Intermediate shafts, Material — Identification Marks —

Tube shaft, Material — Identification Mark — Screw shaft, Material — Identification Mark —

Identification Marks on Air Receivers

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

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

WATSONS / ARD No. 1520.

General Remarks (State quality of workmanship, opinions as to class, &c.)

THIS ENGINE HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. THE MATERIALS AND WORKMANSHIP ARE OF A GOOD QUALITY AND THE ENGINE WHEN TESTED IN SHOP UNDER FULL LOAD CONDITIONS SHOWN SATISFACTORY RESULTS. IN MY OPINION THIS ENGINE IS SUITABLE FOR THE PURPOSE INTENDED AND WHEN INSTALLED ON BOARD AND SATISFACTORILY REPORTED UPON BY THE SOCIETY'S SURVEYORS WILL BE ELIGIBLE TO HAVE THE NOTATION OF * LLOYDS MACHINERY CERTIFICATE (WITH DATE)

The amount of Entry Fee .. £ 3 : 0 : 0 When applied for,
2/3" Special ... £ 23 : 0 : 0 8 JULY 1941
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ 3 : 15 : 0 19

Committee's Minute

FRI. 28 NOV 1941

Assigned

See Nwc. 99879

