

# REPORT ON OIL ENGINE MACHINERY.

No 10595

Report No.

Date of writing Report

8<sup>th</sup> July 1941

When handed in at Local Office

15<sup>th</sup> July 1941

Port of MANCHESTER

Received at London Office

MANCHESTER

17 JUL 1941

No. in Survey held at

1605 on the

Single Twin Triple Quadruple

Screw vessel

"CAMROUX I"

Date, First Survey

31<sup>st</sup> JAN 1941

Last Survey

2<sup>nd</sup> July 1941

By whom built

By whom built

Yard No.

When built

Engines made at

KEIGHLEY

By whom made

H. WIDDOP & CO LTD

Engine No.

4023 When made 1941

Boilers made at

By whom made

Boiler No.

When made

Indicated Horse Power

300

Owners

NEWCASTLE COAL & SHIPPING CO.

Port belonging to

Net Horse Power as per Rule

138

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Use for which vessel is intended

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

Distance 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 cmts.

Means of ignition

COMPRESSION

Kind of fuel used

HEAVY OIL

Crank Shaft, Solid forged Semi built All built

dia. of journals as per Rule as fitted

APPROVED 6.75"

Crank pin dia. 6.75"

Crank Webs

Mid. length breadth 9" Mid. length thickness 3.75" shrunk

Thickness parallel to axis Thickness around eyehole

SOLID

Propeller 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"

Propeller Shaft, diameter as per Rule as fitted

Screw Shaft, diameter as per Rule as fitted

Is the tube screw shaft fitted with a continuous liner

NO

Equivalent

Hot shaft 4 1/2

actual 5 1/4

Thickness of 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

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 or other appliance fitted at the after end of the tube

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia.

17 1/2

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

Working Water Pumps, No.

ONE

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Water 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 the cooling 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 arrangements

Oil Pumps, No. and size

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 3 1 1/2" DIA x 3" STROKE

Are 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

Are 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

Are all Sea Connections fitted direct on the skin of the ship

Are they fitted with Valves or Cocks

Are 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

Are 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

Do all pipes pass through the bunkers

How are they protected

Do all pipes pass through the deep tanks

Have they been tested as per Rule

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

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

department to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Auxiliary Air Compressors, No.

ONE

No. of stages

Two

Diameters

6" x 2 3/4" Stroke

3"

Driven by MAIN ENGINE

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Is any provision made for first Charging the Air Receivers

Recharging Air Pumps, No.

Diameter

Stroke

Position

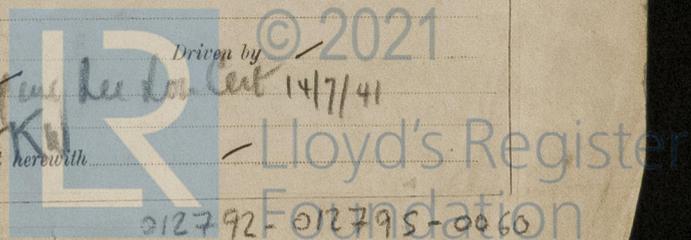
Driven by

14/7/41

Auxiliary Engines crank shafts, diameter as per Rule as fitted

Have the Auxiliary Engines been constructed under special survey

One Compressor Balling oil pump see list 14/7/41  
No 5 HP Side opening 7.5 Kcal  
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 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 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

State the principal additional spare gear supplied

The foregoing is a correct description.

J. Macneil Manufacturer.

Dates of Survey while building 1941. JAN 31 FEB. 19. MAR 7. 12. APRIL 25. 30. MAY 12. JULY 2. Total No. of visits 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 -

Thrust shaft, Material OH STEEL Identification Mark 40702 3889. 3/1.4/ Flywheel shaft, Material - Identification Mark -

Tube shaft, Material - Identification Mark 12.3.4/ Intermediate shafts, Material - Identification Marks -

Identification Marks on Air Receivers - Screw shaft, Material - Identification Mark -

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.

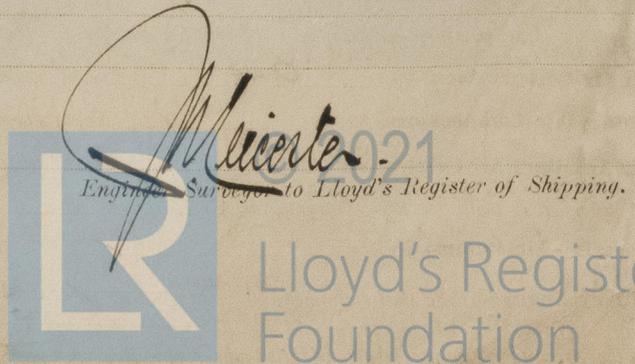
General Remarks (State quality of workmanship, opinions as to class, &c.)

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 \* KLOYDS 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

Committee's Minute FRI. 28 NOV 1941

Assigned See Nwc. 99879



Vertical text on the left margin: Certificate (if required) to be sent to...