

# REPORT ON OIL ENGINE MACHINERY.

No. 108040

Received at London Office 18 JAN 1951

Survey held at NEWCASTLE-on-TYNE When handed in at Local Office 17 JAN 1951 Port of NEWCASTLE-on-TYNE

Date, First Survey 22/5/50 Last Survey 11/1/51 Number of Visits 33

Single or double acting SINGLE

Gross 6140 Tons Net 3329

By whom built SMITH'S DOCK CO. LD. Yard No. 1211 When built 1950

By whom made R & W. HAWTHORN LESLIE & CO. LD. Engine No. 4072 When made 1950

Boiler No. MAX & SERVICE When made 1950

Port belonging to OPEN SEA SERVICE

Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted NO

ENGINES, &c. — Type of Engines HAWTHORN-DOXFORD OPPOSED PISTON or 4 stroke cycle 2 Single or double acting SINGLE

Maximum pressure in cylinders 640 LBS/IN<sup>2</sup> Diameter of cylinders 600 mm Length of stroke 2320 mm No. of cylinders 3 No. of cranks 3 THREE THROW

Indicated Pressure 88 LBS/IN<sup>2</sup> Ahead Firing Order in Cylinders 1. 3. 2. Span of bearings, adjacent to the crank, measured BETWEEN EACH 3-THROW Revolutions per minute 108

Is there a bearing between each crank NO Tons Ft/SEC<sup>2</sup> 0.645 F. 0.645 A. 1.13 Means of ignition COMPRESSOR Kind of fuel used HEAVY OIL

Weight of flywheel 3.43 TNS Moment of inertia of flywheel 450 mm Crank pin dia. 450 mm Crank webs 255 mm Thickness parallel to axis 255 mm Thickness around eye-hole 200 mm

Wheel Shaft, diameter 450 mm Intermediate Shafts, diameter 430 mm Thrust Shaft, diameter at collars 450 mm

Screw Shaft, diameter 430 mm Is the shaft fitted with a continuous liner YES

Thickness of liners, thickness in way of bushes 21 mm Thickness between bushes 16 mm Is the after end of the liner made watertight in the propeller boss YES

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner IN ONE LENGTH

Length of bearing in Stern Bush next to and supporting propeller 4'-10 1/2"

Propeller, dia. 15'-9" Pitch 11'-6" No. of blades 4 Material BRONZE whether moveable NO Total developed surface 85 sq. feet

Kind of damper, if fitted NO

Method of reversing Engines HAND LEVER AND COMPRESSED AIR Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES Means of operation FORCED

Thickness of cylinder liners 25 mm Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled YES

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AIR RECEIVERS:—Have they been made under survey.....

YES

State No. of report or certificate.....

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.....

Cubic capacity of each.....

Internal diameter.....

thickness.....

Seamless, welded or riveted longitudinal joint.....

Material.....

Range of tensile strength.....

Working pressure.....

by Rules.....

Actual.....

Starting Air Receivers, No.....

TWO

Total cubic capacity.....

220 cu.ft.

Internal diameter.....

4' 13/8"

thickness.....

1 5/16"

Seamless, welded or riveted longitudinal joint.....

ELECT. WELD. Material.....

M. STEEL

Range of tensile strength.....

SHELL 28/32 TNS/0"  
ENDS 26/30 TNS/0"

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.....

YES

Receivers.....

YES

Separate fuel tanks.....

Donkey boilers.....

General pumping arrangements.....

Pumping arrangements in machinery space.....

Oil fuel burning arrangements.....

Have Torsional Vibration characteristics been approved.....

YES

Date of approval.....

22

17.3.50.

SPARE GEAR.

Has the spare gear required by the Rules been supplied.....

YES

State the principal additional spare gear supplied.....

AS PER ATTACHED LISTS

(To come)

The foregoing is a correct description AND THE PARTICULARS OF THE INSTALLATION AS FITTED ARE AS APPROVED FOR THE TORSIONAL VIBRATION CHARACTERISTIC.....  
Manufacturer.....

Dates of Survey while building.....  
During progress of work in shops - - 11.1950 MAY 22, 26, JUNE 2, 13, 19, JULY 7, 14, 24, 26, AUG. 10, 14, 16, 18, 22, 24, 28, 30, SEPT. 1, 5, 7, 11, 13, 15, 19, 21, 27, OCT. 3, 5, 6

During erection on board vessel - - 11.1951 JAN. 9, 11

Total No. of visits..... 33

Dates of examination of principal parts—Cylinders..... LINERS..... Covers..... Pistons 22.8.50 Rods 22.8.50 Connecting rods 1.9.50

Crank shaft 28.8.50 Flywheel shaft..... Thrust shaft IN CRANKSHAFT. Intermediate shafts 9.1.51. Tube shaft.....

Screw shaft 18.8.50 & 6.10.50. Propeller 6.10.50. Stern tube 9.1.51 Engine seatings..... Engine holding down bolts.....

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

Crank shaft, material FOHIS Identification mark W.H.F. 5.7.50 Flywheel shaft, material..... Identification mark.....

Thrust shaft, material FOHIS Identification mark IN CRANKSHAFT. Intermediate shafts, material FOHIS Identification marks.....

Tube shaft, material..... Identification mark..... Screw shaft, material FOHIS Identification mark.....

Identification marks on air receivers..... LLOYDS TEST. TP 950 LBS. WP 600 LBS. AB. 11.9.50"

Welded receivers, state Makers' Name R & W. HAWTHORN LESLIE & CO. LD. NEWCASTLE ON TYNE.

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.....

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

The machinery referred to herein has been constructed under Special Survey accordance with the Society's Rules, Approved Plans, and Secretary's letter. The material and workmanship are good. The machinery has been despatched to South Bank for installation in Messrs. Smith's Dock Co. Ltd. Ship No. 1211.

220.15 ENTRY FEE. The amount of Entry Fee... £121. 4. 0.

E.W. CONSTRUCTION Special (39 TNS) £11 0 0

TWO AIR VESSELS. Donkey Boiler Fee... £8. 0. 0.

Travelling Expenses (if any) £

Committee's Minute

FRI 10 AUG 1951

Assigned

Su R.E. moly-rph

When applied for 17 JAN 1951

When received 19

Engineer Surveyor to Lloyd's Register of Ships



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