

This engine is now fitted on board the "ANONITY"
see LON. 119860. 1.50.

AIR COMPRESSOR.

No. 12480

RECEIVED
27 MAR 1946

REPORT ON OIL ENGINE ELECTRIC GENERATOR/SETS.

Date of writing Report 16.3.1946. When handed in at Local Office 20.3.46. Port of MANCHESTER. Received at London Office 22 MAR 1946

No. in Survey held at Altrincham. Date, First Survey 4th January, 1946. Last Survey 25th February 1946. Number of Visits 5

Reg. Book. Single on the Twin Triple Quadruple Screw vessel. EMPIRE TEDMUIR. Tons Gross 891 Net 381

Built at GLASGOW. By whom built A. & J. INGLIS. 1311 P to 1314 P. Yard No. 1313 P. When built

Owners. Port belonging to

Oil Engines made at Altrincham. By whom made Russel Newbery & Co. Ltd. Engine No. 3980 When made 1946.

Generators made at Stockport. By whom made Mc.Clure & Whitfield. Generator No. 10520 When made 1946.

No. of Sets 1. Engine Brake Horse Power 36. Nom. Horse Power as per Rule. Total Capacity of Generators 18 Kilowatts.

OIL ENGINES, &c.—Type of Engines Vertical, Solid Injection Heavy Oil. 2 or 4 stroke cycle 4. Single or double acting single

Maximum pressure in cylinders 860 lbs. sq. Diameter of cylinders 4 1/8". Length of stroke 6". No. of cylinders 4. No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 5 1/8". Is there a bearing between each crank Yes.

Revolutions per minute 1,000. Flywheel dia. 22". Weight 263 lbs. Means of ignition Compression. Kind of fuel used Diesel Oil

Crank Shaft, dia. of journals as per Rule Approved. 2 1/2". Crank pin dia. 2 3/8". Crank Webs Mid. length breadth 3 1/2". Thickness parallel to axis. Mid. length thickness 1 5/16". Thickness round eyehole.

Flywheel Shaft, diameter as per Rule. Intermediate Shafts, diameter as per Rule. Thickness of cylinder liners 11/32"

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes. Means of lubrication Forced.

Are the cylinders fitted with safety valves No. Are the exhaust pipes and silencers water cooled or lagged with non-conducting material.

Cooling Water Pumps, No. One plunger type. Is the sea suction provided with an efficient strainer which can be cleared within the vessel.

Lubricating Oil Pumps, No. and size One - Gear type.

Air Compressors, No. No. of stages. Diameters. Stroke. Driven by

Scavenging Air Pumps, No. Diameter. Stroke. Driven by

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. What means are provided for cleaning their inner surfaces.

Is there a drain arrangement fitted at the lowest part of each receiver.

High Pressure 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.

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.

ELECTRIC GENERATORS:—Type Compound Wound Continuous Rating V.E. Lowvred type.

Pressure of supply 110 volts. Full Load Current 163 1/2 Amperes. Direct or Alternating Current Direct

If alternating current system, state the periodicity. Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown on and off Yes. Generators, are they compounded as per Rule Yes. Is an adjustable regulating resistance fitted in series with each shunt field Yes.

Are all terminals accessible, clearly marked, and furnished with sockets Yes. Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes. Are the lubricating arrangements of the generators as per Rule Yes.

If the generators are under 100 kw. full load rating, have the makers supplied certificates of test Yes and do the results comply with the requirements Yes.

If the generators are 100 kw. or over have they been built and tested under survey.

PLANS.—Are approved plans forwarded herewith for Shafting 1st September, 1944 Receivers. Separate Tanks.

SPARE GEAR As per Rule Requirements.

The foregoing is a correct description,
per pro. RUSSELL, NEWBERY & Co. Ltd. Manufacturer.
J. C. Russell DIRECTOR



Jan 29.3.46

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Dates of Survey while building: During progress of work in shops - 1946 Jan. 4 Feb. 7, 8, 9, 25. During erection on board vessel - - - Total No. of visits - - -

Dates of Examination of principal parts - Cylinders 4. 1. 46. Covers 8 & 9. 2. 46. Pistons 4th Jan. 1946 Piston rods - - - Connecting rods 7th February, 1946. Crank and Flywheel shafts 7th February, 1946. Intermediate shafts - - -

Crank shaft: Material O.H. Steel. Tensile strength - - - Elongation - - - Identification Marks LLOYD'S 3556 DAT. 17.12.45. Flywheel shaft, Material - - - Identification Marks - - -

Is this machinery duplicate of a previous case - - - Identification Marks - - - Identification marks on Air Receivers Hamworthy Air Compressor No. 69008.

Is this machinery duplicate of a previous case Yes. If so, state name of vessel A. & J. Inglis Yard No. J.283 (Mch. Rpt. Engine No. 3881)

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. WORKMANSHIP AND MATERIALS ARE GOOD AND THE ENGINE, WHEN TESTED IN THE SHOP UNDER FULL LOAD CONDITIONS, SHOWED SATISFACTORY RESULTS. IN MY OPINION, THIS ENGINE IS SUITABLE TO BE PLACED ON BOARD A VESSEL CLASSED WITH THIS SOCIETY FOR THE PURPOSE INTENDED. COPIES OF CERTIFICATES COVERING ELECTRIC GENERATOR AND AIR COMPRESSOR ARE ATTACHED HEREWITH.

The amount of Fee ... f 4 : 4 : 0 When applied for 20.3. 19 46. Six Travelling Expenses (if any) f : 15 : 0 When received 19 - - -

Committee's Minute GLASGOW EE ACCOMPANYING MACHINERY REPORT. Assigned - - -

Im. 11. 1946. (The Surveys are requested not to write on or below the space for Committee Minute.)

Rpt. 4c. Date of writing No. in Sur Reg. Book. Built at Owners Oil Engines Generators No. of Sets

OIL ENGINE Maximum pressure Span of bearing Revolutions per minute Crank Shaft Flywheel Shaft Is a governor Are the cylinders Cooling Water Lubricating Air Compressor Scavenging

AIR RECEIVER Is each receiver Can the inter Is there a dra High Pressure Seamless, lap Starting Air Seamless, lap

ELECTRIC Pressure of If alternating Generators shunt field Are they so s If the generat If the generat PLANS. SPARE

