

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 11556

Received at London Office 26 JUL 1943 28 NOV 1943

Date of writing Report \_\_\_\_\_ When handed in at Local Office \_\_\_\_\_ Port of **MANCHESTER.**

No. in Survey held at **Altrincham** Date, First Survey **8.6.43.** Last Survey **12.7. 19 43**  
 Reg. Book. \_\_\_\_\_ Number of Visits **2**

on the <sup>Single</sup> ~~Triple~~ ~~Quadruple~~ Screw vessel **"ASSIDUOUS" J2533.** Tons } Gross  
 Net

Built at **SELBY** By whom built **Cochrane and Sons Ltd.** Yard No. **1263/4** When built **J.2529/31**

Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

Oil Engines made at **Altrincham** By whom made **Russell Newbery & Co.** ~~Engine~~ No. **3779** When made **1943**

Generators made at \_\_\_\_\_ By whom made \_\_\_\_\_ Contract No. \_\_\_\_\_ When made \_\_\_\_\_

No. of Sets **1** Engine Brake Horse Power **14** Nom. Horse Power as per Rule **4** Total Capacity of Generators \_\_\_\_\_ Kilowatts.

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

Maximum pressure in cylinders **860 lbs/sq in.** Diameter of cylinders **4 1/2"** Length of stroke **6"** No. of cylinders **2** No. of cranks **2**

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 **800** Flywheel dia. **22"** Weight **220 lbs** Means of ignition **compression** Kind of fuel used **Diesel Oil**

Crank Shaft, dia. of journals <sup>as per Rule</sup> **approved** <sub>as fitted</sub> **2 1/2"** Crank pin dia. **2 5/8"** Crank Webs <sup>Mid. length breadth</sup> **3 1/2"** <sup>Mid. length thickness</sup> **1.5/16"** Thickness parallel to axis \_\_\_\_\_ Thickness around eye-hole \_\_\_\_\_

Flywheel Shaft, diameter <sup>as per Rule</sup> \_\_\_\_\_ <sub>as fitted</sub> \_\_\_\_\_ Intermediate Shafts, diameter <sup>as per Rule</sup> \_\_\_\_\_ <sub>as fitted</sub> \_\_\_\_\_ 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 - Centrifugal** 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 \_\_\_\_\_

Pressure of supply \_\_\_\_\_ volts. Full Load Current \_\_\_\_\_ Amperes. Direct or Alternating Current \_\_\_\_\_

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 \_\_\_\_\_

Generators, are they compounded as per rule \_\_\_\_\_ is an adjustable regulating resistance fitted in series with each shunt field \_\_\_\_\_

Are all terminals accessible, clearly marked, and furnished with sockets \_\_\_\_\_

Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched \_\_\_\_\_ Are the lubricating arrangements of the generators as per Rule \_\_\_\_\_

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

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

LANES. Are approved plans forwarded herewith for Shafting **2.10.42.** Receivers \_\_\_\_\_ Separate Tanks \_\_\_\_\_  
 (If not, state date of approval)

PARE GEAR **AS PER RULE REQUIREMENTS.**

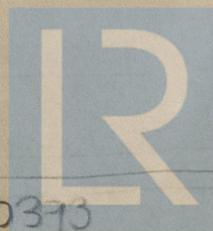
The above engine with attached salvage pump supplied to Am Rescue Coy "ASSIDUOUS" to Shields Hall

The foregoing is a correct description,

per pro. **RUSSELL, NEWBERY & Co. Ltd.** Manufacturer.

*J. B. Russell*  
 DIRECTOR

004292 - 004299 - 0373



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Dates of Survey while building { During progress of work in shops - - } 1943. June 8th and July 12th.  
 { During erection on board vessel - - - }  
 Total No. of visits

Dates of Examination of principal parts—Cylinders 8.6.43. Covers 8.6.43. Pistons 8.6.43. Piston rods -  
 Connecting rods 8.6.43. Crank and Flywheel shafts 8.6.43. Intermediate shafts -  
 Crank and Flywheel shafts, Material O.H.Steel Identification Marks LLOYDS 1552 FH 17.12.42.  
 Intermediate shafts, Material - Identification Marks -  
 Identification marks on Air Receivers -

Is this machinery duplicate of a previous case. If so, state name of vessel -

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 GOOD AND THE ENGINE, WHEN TESTED IN SHOP UNDER FULL LOAD CONDITIONS SHEWED SATISFACTORY RESULTS. IN MY OPINION, THIS ENGINE IS SUITABLE TO BE PLACED ON BOARD A VESSEL CLASSED WITH THIS SOCIETY, FOR THE PURPOSE INTENDED.

Im. 4.33. - Transfer, (MADE AND PRINTED IN ENGLAND)  
 (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ 4 : 4 : 0 When applied for, 22/7/43  
 Travelling Expenses (if any) £ : 10 : 0 When received, 19

*Edwards*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 16 NOV 1943  
 Assigned see minute or Encl. S.S. Rpt.