

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 13250

Received at London Office

Date of writing Report 17th July 1945. When handed in at Local Office 19 Port of MANCHESTER 23 JUL 1945

No. in Survey held at ALTRINCHAM. Date, First Survey 1945 Last Survey 19  
Reg. Book. Number of Visits 1301

on the Single Screw vessel Empire Ship Tons: Gross 890 Net 579  
Built at GLASGOW By whom built A & J. Inglis Ltd. Yard No. J. 285 When built 1945

Owners Mow Y (British Tanker Co) Port belonging to Glasgow

Oil Engines made at ALTRINCHAM. By whom made Russell, Newbery & Co. Ltd. Engine No. 3887 When made 1945.  
Generators made at STOCKPORT. By whom made McClure & Whitfield Ltd. Generator No. 10229 When made 1945.

No. of Sets 1. Engine Brake Horse Power 36. Nom. Horse Power as per Rule 10.3. 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. in. Diameter of cylinders 4 1/2" 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 1/2" Is there a bearing between each crank Yes.

Revolutions per minute 1000 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. as fitted 2 1/2" Crank pin dia. 2 3/8" Crank Webs Mid. length breadth 3 1/2" Thickness parallel to axis 1 1/32"  
as fitted 2 1/2" Mid. length thickness 1.5/16" Thickness round eyehole 1 1/32"

Flywheel Shaft, diameter as per Rule Approved. as fitted 2 1/2" Intermediate Shafts, diameter as per Rule Approved. as fitted 2 1/2" 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 - 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. Louvred 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 1.9.44. Receivers - Separate Tanks -  
(If not, state date of approval)

SPARE GEAR AS PER RULE REQUIREMENTS.

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



Dates of Survey while building  
 During progress of work in shops - - 1945. April 10, May 3, 5, 10, June 2.  
 During erection on board vessel - -  
 Total No. of visits.....

Dates of Examination of principal parts—Cylinders 10.5.45. Covers 3 & 15.5.45. Piston 10.5.45. Piston rods -

Connecting rods 10.5.45. Crank and Flywheel shafts 10.5.45. Intermediate shafts -

Crank shaft Material O. H. Steel. Tensile strength  
 Elongation Identification Marks LLOYD'S 3184. FH.11.1.45.

Flywheel shaft, Material Identification Marks

Is this machinery duplicate of a previous case Identification Marks

Identification marks on Air Receivers

*Hanswold Eng Co. Air Compressor No 64852*

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 OF A GOOD QUALITY AND THE ENGINE, WHEN TESTED IN THE SHOP UNDER FULL LOAD CONDITIONS SHEWED SATISFACTORY RESULTS. THE REQUIREMENTS OF NOTICE NO. 18 HAVE, HOWEVER, NOT YET BEEN CARRIED OUT. WHEN THIS HAS BEEN DONE AND APPROVED, THE ENGINE WILL BE, IN MY OPINION, SUITABLE TO BE PLACED ON BOARD A VESSEL CLASSED WITH THIS SOCIETY FOR THE PURPOSE INTENDED.

*Not dealt with for Case 1803.*

The amount of Fee ... £ 4 : 4 : 0 When applied for 21. 7. 19 45.  
 Travelling Expenses (if any) £ 0 : 12 : 6 When received 19

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

Committee's Minute GLASGOW 27 OCT 1945  
 Assigned SEE ACCOUNTING MACHINERY REPORT



Im. 11. 12. J. (MADE AND PRINTED IN ENGLAND.)  
 (The Surveyors are requested not to write on or below the space for Committee Minute.)