

Rpt. 4c

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 168

8 JUL 1946

11 OCT 1946

IN D.O.

Received at London Office

Date of writing Report 10-6-1946 When handed in at Local Office 5-7-1946 Port of LEEDS.

No. in Survey held at Keighley Date, First Survey 14-2-45 Last Survey 7-3-1946

Reg. Book. on the <sup>Single</sup> ~~Triple~~ ~~Quadruple~~ Screw vessel "T.R.V. 8" Number of Visits 4 Tons { Gross... Net... }

Built at Gainsborough By whom built J.S. Watson (Gainsborough) Yard No. 1554 When built 1945

Owners The Admiralty Port belonging to

Oil Engines made at Keighley By whom made H. Widdop & Co. Ltd. Engine Contract No. 4382 When made

Generators made at Belfast By whom made Hugh J. Downes Generator Contract No. 62185 When made

No. of Sets 1 Engine Brake Horse Power 7 Nom. Horse Power as per Rule - Total Capacity of Generators 3.5 Kilowatts.

**OIL ENGINES, &c.**—Type of Engines Airless injection heavy oil. 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 700 Lbs/sq.in. Diameter of cylinders 4" Length of stroke 4" No. of cylinders 1 No. of cranks 1

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 5.125" Is there a bearing between each crank either side of Yes

Revolutions per minute 1400 Flywheel dia 19" Weight 1.5 cwts. Means of ignition Compression Kind of fuel used heavy oil

Crank Shaft, dia. of journals as per Rule 2.21" as fitted 2.25" Crank pin dia 2.25" Crank Webs Mid. length breadth 3" Thickness parallel to axis -

Flywheel Shaft, diameter as per Rule Approved and as fitted 2.125" Intermediate Shafts, diameter as per Rule - as fitted - Thickness of cylinder liners .3125"

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Engine started by hand 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 per engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel -

Lubricating Oil Pumps, No. and size one per engine 0.625" bore x 0.25" stroke.

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

Pressure of supply 220 volts Full Load Current 15.8 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 - 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 9-12-43 Receivers - Separate Tanks -

**SPARE GEAR** In accordance with the requirements of the Rules.

**NOTE:** In addition to the above Generator this engine drives through gear wheels an air compressor 6" x 2.25" bore 3" stroke. Speed 408 R.P.M.

The foregoing is a correct description,

J. Machead

Manufacturer.



© 2021

Lloyd's Register Foundation

011316 - 011329 - 0190

Dates of Survey while building  
 During progress of work in shops - - 14-2-45, 23-8-45, 5-12-45, 7-3-46.  
 During erection on board vessel - - -  
 Total No. of visits

Dates of Examination of principal parts—Cylinders 5-12-45 Covers 5-12-45 Pistons 5-12-45 Piston rods -  
 Connecting rods 23-8-45 Crank and Flywheel shafts 23-8-45 Intermediate shafts -

Crank shaft  
 Material O.H. Steel Tensile strength 31.2/37.2 Tons/sq.in. (Two Tests)  
 Elongation 31.0 % and 39.0 % on 2" Identification Marks LLOYD'S No.1888 31-5-43 J.B.G.

Flywheel shaft, Material Identification Marks

Is this machinery duplicate of a previous case

Identification marks on Air Receivers

Is this machinery duplicate of a previous case. Yes  If so, state name of vessel. Watsons Yard No. 1550.

*5-TRV 7*

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.)

This engine has been constructed under Special Survey, of tested materials, in accordance with the Secretary's letters, approved plans and the requirements of the Rules.  
 The materials and workmanship are good and the engine was found to be satisfactory when tested in the shop under full load conditions with Generator.  
 This engine is suitable, in my opinion, for fitting on board a vessel classed with the Society.

*Satisfactorily fitted on board at Gainsborough and tested under working conditions. See Hull Report No 53775 of 29.10.46. Geo. A. Long*

1in, 11, 42, -T (MADE AND PRINTED IN ENGLAND). (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ : : When applied for ... 19  
 Travelling Expenses (if any) £ : : When received ... 19

*D. McAlister*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned *See F.E. mch. opt.*

FRI. 22 NOV 1946

