

Rpt. 4c.

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 167

Received at London Office

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

8 JUL 1946 31 OCT 1946

No. in Survey held at Reg. Book. Date, First Survey 1-6-45 Last Survey 7-3-46 Number of Visits 4

on the <sup>Single</sup> ~~Triple~~ Screw vessel "T.R.V. 8"

Built at Gainsborough By whom built J.S. Watson (Gainsborough) Yard No. 1551 When built 1945

Owners The Admiralty Port belonging to

Oil Engines made at Keighley By whom made H. Widdop & Co. Ltd. Engine Contract No. 4378 When made

Generators made at Belfast By whom made Hugh J. Scott & Co. Generator Contract No. 26180 When made

No. of Sets 1 Engine Brake Horse Power 40/45 Nom. Horse Power as per Rule - Total Capacity of Generators 15 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 5 1/2" Length of stroke 6 1/2" No. of cylinders 3 No. of cranks 3

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6 1/2" Is there a bearing between each crank Yes

Revolutions per minute 1000 Flywheel dia. 25" Weight 3.7 cwt. Means of ignition Compression Kind of fuel used heavy oil

Crank Shaft, dia. of journals as per Rule 3" as fitted 3 1/2" Crank pin dia. 3 1/2" Crank Webs Mid. length breadth 4 1/2" Thickness parallel to axis -

Flywheel Shaft, diameter as per Rule Mounted on Crankshaft as fitted coupling Intermediate Shafts, diameter as per Rule - Thickness of cylinder liners 5/16"

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

Air Servo Motor fitted for starting 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. 1-1 1/2" bore x 2" stroke at 500 R.P.M. Is the sea suction provided with an efficient strainer which can be cleared within the vessel -

Lubricating Oil Pumps, No. and size 1 Double acting 1 3/8" bore x 3" stroke at 500 R.P.M.

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 68 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

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

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 clutches, a stand-by double acting lubricating oil pump 1 3/4" bore by 3" stroke and a Hamworthy centrifugal general service pump having a capacity of 32 tons per hour.

The foregoing is a correct description,

J. MacLeod

Manufacturer.



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Dates of Survey while building  
 During progress of work in shops - - 1-6-45, 25-7-45, 5-12-45, 7-3-46.  
 During erection on board vessel - - -  
 Total No. of visits

Dates of Examination of principal parts—Cylinders 1-6-45 Covers 25-7-45 Pistons 25-7-45 Piston rods  
 Connecting rods 25-7-45 Crank and Flywheel shafts 25-7-45 Intermediate shafts

Crank shaft { Material O.H. Steel Tensile strength 31.6 Tons. per square inch.  
 Elongation 29% on 2" Identification Marks LLOYD'S No. 807 J.N.B. 6-12-44 D.R.W.

Flywheel shaft, Material Identification Marks  
 Is this machinery duplicate of a previous case Identification Marks

Identification marks on Air Receivers

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

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 onboard at Gainsborough & tried under working conditions. See Hull Report No. 53775 of 29.10.46  
 Geo. A. Farny*

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

Committee's Minute  
 Assigned See F.E. Mchey. rpt.  
 FRI. 22 NOV 1946

*W. Waller*  
 Surveyor to Lloyd's Register of Shipping.  
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