

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Received at London Office

29 JUN 1942

23 SEP 1942

Date of writing Report 19 - 5 - 1942 When handed in at Local Office 25-6-1942 Port of LEEDS

No. in Survey held at Keighley Date, First Survey 10th Mar. 1942 Last Survey 6th May 1942 Reg. Book. Number of Visits 2

on the ^{Single} ~~Triple~~ ~~Quadruple~~ Screw vessel

T. R. V. 1.

Tons { Gross Net

Built at Gainsborough By whom built J.S. Watson (Gainsborough) Ltd. Yard No. 1527 When built 1942

Owners Port belonging to

Oil Engines made at Keighley By whom made H. Widdop & Co. Ltd. Engine No. 4114 When made 1942

Generators made at Belfast By whom made Hugh J. Scott & Co. Ltd. Generator No. 39905 When made 1942

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 1/4" 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 1/4" Crank pin dia. 3 1/4" Crank Webs Mid. length breadth 4 1/2" Mid. length thickness 1 1/8" Thickness parallel to axis - Thickness around eye-hole -

Flywheel Shaft, diameter as per Rule mounted on crankshaft coupling as fitted Intermediate Shafts, diameter as per Rule - as fitted 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

Are the cylinders fitted with safety valves No. Air Servo Motor fitted for starting at 500 R.P.M. 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 3/4" 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 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 13-11-40 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, the stand-by lubricating oil pump mentioned in Report No.22 and a centrifugal general service pump of 32 tons per hour capacity against a head of 60 feet.

The foregoing is a correct description, For H. WIDDOP & COMPANY LTD J. Mac heads Manufacturer.



0100-845800-695800

Dates of Survey while building { During progress of work in shops - - 10-3-42, 5-5-42
 { During erection on board vessel - - - 26-5-42, 21-7-42, 3-9-42
 Total No. of visits 5

Dates of Examination of principal parts—Cylinders 10-3-42 Covers 10-3-42 Pistons 10-3-42 Piston rods -
 Connecting rods 10-3-42 Crank and Flywheel shafts 10-3-42 Intermediate shafts -
 Crank and Flywheel shafts, Material S.M. Steel 30/35 tons per sq. in. Identification Marks LLOYD'S No. 82 J.N.B. 30-1-41
 Intermediate shafts, Material - Identification Marks -
 Identification marks on Air Receivers -

Is this machinery duplicate of a previous case **yes** If so, state name of vessel Rowhedge M.605 T.R.V.2.

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 building to Class with the Society.

This auxiliary set has now been properly fitted on board the vessel and tried under working conditions with satisfactory results.

W. J. Ferguson

W. J. Ferguson
 Surveyor to Lloyd's Register of Shipping.

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

FRI 19 OCT 1942

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Committee's Minute
 Assigned