

July.

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REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 13461.

of writing Report 25th November, 48. When handed in at Local Office 8th December, 48. Received at London Office 10 DEC 1948
 in Survey held at MANCHESTER. Port of MANCHESTER.
 Book. Date, First Survey 23rd March, 1948 Last Survey 17th November, 48.
 on the Single Screw vessel. Classed Vessel. Number of Visits 6.
7-39.6 to Halifax. Tons { Gross
 at Halifax. By whom built Halifax Shipyards Ltd. Yard No. 18. When built
Argentine Government. Port belonging to Buenos Aires.
 Engines made at Altrincham. By whom made Russell Newbery & Co. Ltd., Engine 4176
 erators made at By whom made. Contract No. When made. 1948.
 of Sets Engine Brake Horse Power 18 each. M.N. as per Rule 4.5 each. Total Capacity of Generators Kilowatts.
 intended for essential services.

L 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 850 lbs/sq.inch. Diameter of cylinders 4.1/8" Length of stroke 6" No. of cylinders 2 x 2 No. of cranks 2 x 2
 indicated pressure 105 lbs/sq.inch. Firing order in cylinders 2, 1. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 5.1/8"
 here a bearing between each crank Yes. Moment of inertia of flywheel (16 m² or Kg.-cm.²) Revolutions per minute 1,000.
 wheel dia. 25" Weight 345 lbs. Means of ignition Compression. Kind of fuel used Diesel Oil.
 as per Rule Approved. Kind of fuel used Diesel Oil.
 Crank Shaft, dia. of journals 2.1/2" Crank pin dia. 2.3/8" Crank Webs Mid. length breadth 3.1/2" Thickness parallel to axis -
 as fitted Flywheel fitted on end of crankshaft. Mid. length thickness 1.5/16"shrunk Thickness round eyehole -
 as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia (16 m² or Kg.-cm.²)
 as fitted Means provided to prevent racing of the engine when declutched. Yes. Means of lubrication Forced. Kind of damper if fitted -
 the cylinders fitted with safety valves No. Are the exhaust pipes and silencers water cooled or lagged with non-conducting material.
 oling Water Pumps, No. Two Ram Type. Is the sea suction provided with an efficient strainer which can be cleared within the vessel.
 oricating Oil Pumps, No. and size One integral with engine (Gear Type).

Compressors, No. No. of stages Diameters Stroke Driven by
 venging Air Pumps, No. Diameter Stroke Driven by
 R RECEIVERS:—Have they been made under Survey State No. of Report or Certificate
 each receiver, which can be isolated, fitted with a safety valve as per Rule.
 the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces
 here a drain arrangement fitted at the lowest part of each receiver.
 h Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness
 mless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules
 rting Air Receivers, No. Total cubic capacity Internal diameter thickness
 mless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type Full Load Current Amperes Direct or Alternating Current
 ssure of supply volts. Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown
 alternating current system, state the periodicity Generators, are they compounded as per Rule is an adjustable regulating resistance fitted in series with each shunt field
 and off all terminals accessible, clearly marked, and furnished with sockets Are they so spaced
 shielded that they cannot be accidentally earthed, short circuited, or touched Are the lubricating arrangements of the generators as per Rule
 he generators are under 100 kw. full load rating, have the makers supplied certificates of test and do the results comply with the requirements
 he generators are 100 kw. or over have they been built and tested under survey
 ails of driven machinery other than generator.

ANS.—Are approved plans forwarded herewith for Shafting 18th Feb., 1948. Receivers Separate Tanks
 (If not, state date of approval)
 e Torsional Vibration characteristics if applicable been approved Armature shaft Drawing No.
 (state date of approval)

ARE GEAR AS PER RULE REQUIREMENTS.

The foregoing is a correct description,
 pro. RUSSELL, NEWBERY & Co. Ltd.

Manufacturer.

DIRECTOR



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014751-04762-0152

4 13461.
Dates of Survey while building
During progress of work in shops - -
During erection on board vessel - -
Total No. of visits

1948. 23 March. 25 May. 24 Aug., 2 Sept. 10 & 17 Nov.

Dates of Examination of principal parts—Cylinders 2.9.48. Covers 24.8.48. Pistons 2.9.48. Piston rods
Connecting rods 2.9.48. Crank and Flywheel shafts Intermediate shafts

Crank shaft Material O.H. Steel. Tensile strength 4906, 42 Tons/sq.in. 5297 39.6
Elongation 4906. 27% on 2". 5297, 26% on 2". Identification Marks Lloyd's 4906 R.J.Y. 23.3.48
5297 R.J.Y. 25.5.48

Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers

Is this machinery duplicate of a previous case Yes. If so, state name of vessel Halifax Shipyards Yard No. 17, Mch. Rpt. No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These engines have been constructed under special survey of tested materials in accordance with the Secretary's letters, approved plans and Rule Requirements. Materials and workmanship are good and, when tested in the shop under full load conditions, coupled direct to an electric dynamometer, showed satisfactory results.

In my opinion, these engines are suitable for installation on board a vessel to be classed with this Society, for the purpose intended.

The engines have been despatched to Canada, where they will be coupled to a Reavell Type A Compressor.

Forging Report No.F.5383 attached herewith.

The amount of Fee ... £ 8 : 0 : 0. When applied for 21.12.1948
Travelling Expenses (if any) £ - : 15 : 0. When received 19

Committee's Minute

FRI, 29 SEP 1950

Assigned

See Minute on S.C.Rpt.



J. White
Surveyor to Lloyd's Register of Shipping.

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