

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 8394

Date of writing Report August 10th 1935 When handed in at Local Office August 10th 1935 Port of Manchester
Received at London Office 12 AUG 1935
Date, First Survey 2.7.35 Last Survey 2.8.1935
Number of Visits 3

Survey held at Manchester
on the Single Twin Triple Quadruple Screw vessel
Built at Northwich By whom built W. J. Yarwood & Sons. Ltd Yard No. 490 When built 1935

Port belonging to
Engines made at Heaton Moor By whom made Messrs. Crossley Bros. Ltd ENGINE Contract No. 119259 When made 1935
Generators made at Manchester By whom made Laurence Scott & Electroductors MOTOR Contract No. 111754/35 When made 1935
No. of Sets 1 Engine Brake Horse Power 12 Nom. Horse Power as per Rule 12 Total Capacity of Generators 12 Kilowatts.

L ENGINES, &c.—Type of Engines B.V.B. Vertical Airlens Injection 2 or 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 750 lb Diameter of cylinders 4" Length of stroke 4 1/2" No. of cylinders 1 No. of cranks 1
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 3 5/8" Is there a bearing between each crank Yes
Revolutions per minute 1000 Flywheel dia. 19" Weight 180 lb Means of ignition Compression Kind of fuel used Heavy Oil
Crank Shaft, dia. of journals 3 3/4" as per Rule Approved Crank pin dia. 2 3/8" Mid. length breadth 3 3/4" Thickness parallel to axis Yes
as fitted 3 3/4" Crank Webs 7/8" Mid. length thickness 7/8" Thickness around eye hole Yes
Flywheel Shaft, diameter 3 1/4" as per Rule Intermediate Shafts, diameter as fitted Thickness of cylinder liners 278"

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 Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes
Cooling Water Pumps, No. ONE Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
Lubricating Oil Pumps, No. and size ONE 9/16" bore x 1/2" Stroke
Air Compressors, No. Yes No. of stages Yes Diameters Yes Stroke Yes Driven by Yes
Scavenging Air Pumps, No. Yes Diameter Yes Stroke Yes Driven by Yes

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes
Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Yes
Is there a drain arrangement fitted at the lowest part of each receiver Yes
High Pressure Air Receivers, No. Yes Cubic capacity of each Yes Internal diameter Yes thickness Yes
Seamless, lap welded or riveted longitudinal joint Yes Material Yes Range of tensile strength Yes Working pressure by Rules Yes
Starting Air Receivers, No. Yes Total cubic capacity Yes Internal diameter Yes thickness Yes
Seamless, lap welded or riveted longitudinal joint Yes Material Yes Range of tensile strength Yes Working pressure by Rules Yes

ELECTRIC GENERATORS:—Type Direct
Pressure of supply 100 volts. Load 12 Amperes. Direct or Alternating Current Direct
If alternating current system, state frequency of periods per second Yes
Has the **Automatic Governor** been tested and found efficient when the whole load is suddenly thrown on or off Yes
Generators, do they comply with the requirements regarding rating Yes are they compound wound Yes
Are they over compounded 5 per cent. Yes, if not compound wound state distance between each generator 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

PLANS. Are approved plans forwarded herewith for Shafting Yes Receivers Yes Separate Tanks Yes
ARE GEAR 1 Inlet & 1 exhaust valve complete with springs, 3 Piston Gas Rings, 1 Gudgeon pin complete, 2 Cylinder head studs & nuts, 2 Bottom end bolts complete with nuts, an assortment of bolts & nuts.
Extra Spares for Generator. 1 Set of Carbon Brushes. 1 Liner of brush holder.

The foregoing is a correct description.
CROSSLEY BROTHERS LTD.
W. J. Yarwood
Marine Department

Manufacturer.



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

2. 7. 35, 24. 7. 35, 2. 8. 35.

Dates of Examination of principal parts—Cylinders 2. 7. 35 Covers 2. 7. 35 Pistons 2. 7. 35 Piston rods ✓

Connecting rods 24. 7. 1935 Crank and Flywheel shaft 24. 7. 1935 Intermediate shaft ✓

Crank and Flywheel shaft, Material S.M. Steel Identification Marks BTG J.W.L. 7.1.35 Intermediate shafts, Material ✓ Identification Marks ✓

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 good and the engine when tested under light load conditions in shop showed satisfactory results.

This engine in our opinion is suitable to be placed on board a vessel classed with this Society for the purpose for which it is intended.

The engine has been despatched to Northwich.

The amount of Fee ... £ : : When applied for, 19

Travelling Expenses (if any) £ : : When received, 19

Committee's Minute

Assigned

W. A. Black & J. M. Muntz.
 Surveyors to Lloyd's Register of Shipping.



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