

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 8394

Date of writing Report August 10<sup>th</sup> 1935 When handed in at Local Office August 10<sup>th</sup> 1935 Port of Manchester  
 Date, First Survey 2.7.35 Last Survey 2.8.1935  
 Number of Visits 3

Survey held at Manchester Date, First Survey 2.7.35 Last Survey 2.8.1935  
 on the Single Screw vessel   
✓ on the Twin   
✓ on the Triple   
✓ on the Quadruple   
 Built at Northwich By whom built W. J. Yarwood & Sons. Ltd Yard No. 490 When built 1935

Engines made at Heatow Wood By whom made Wm. Crossley Bros. Ltd ENGINE Contract No. 119259 When made 1935  
 Generators made at Manchester By whom made Laurence Scott & Electroductors MOTOR Contract No. 11754/35 When made 1935  
 Total Capacity of Generators 1.2 Kilowatts.

**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 lbs 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   
 Revolutions per minute 1000 Flywheel dia. 19" Weight 180 lbs Means of ignition Compression Kind of fuel used Heavy Oil  
 Crank Shaft, dia. of journals 3 3/4" & 3.94 Crank pin dia. 2 3/8" Mid. length breadth 3 3/4" Thickness parallel to axis   
 as per Rule Approved Crank Webs Mid. length thickness 7/8" Thickness around eye-hole   
 Flywheel Shaft, diameter 3 1/4" Intermediate Shafts, diameter 3 1/4" 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  Are the exhaust pipes and silencers water cooled or lagged with non-conducting material   
 Cooling Water Pumps, No. ONE Is the sea suction provided with an efficient strainer which can be cleared within the vessel   
 Lubricating Oil Pumps, No. and size ONE 9/16" bore x 1/2" stroke  
 Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓  
 Scavenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓

**AIR RECEIVERS:**—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 Direct  
 Pressure of supply 100 volts. Load 12 Amperes. Direct or Alternating Current Direct  
 If alternating current system, state frequency of periods per second ✓  
 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   
 Are they over compounded 5 per cent.  if not compound wound state distance between each generator   
 Is an adjustable regulating resistance fitted in series with each shunt field  Are all terminals accessible, clearly marked, and furnished with sockets   
 Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched  Are the lubricating arrangements of the generators as per Rule

**PLANS.** Are approved plans forwarded herewith for Shafting ✓ Receivers ✓ Separate Tanks ✓  
 ARE GEAR 1 Inlet & 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 Linc of brush holder.

The foregoing is a correct description.  
**CROSSLEY BROTHERS LTD**  
 Manufacturer.



1910-6131M

16/8/35

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.

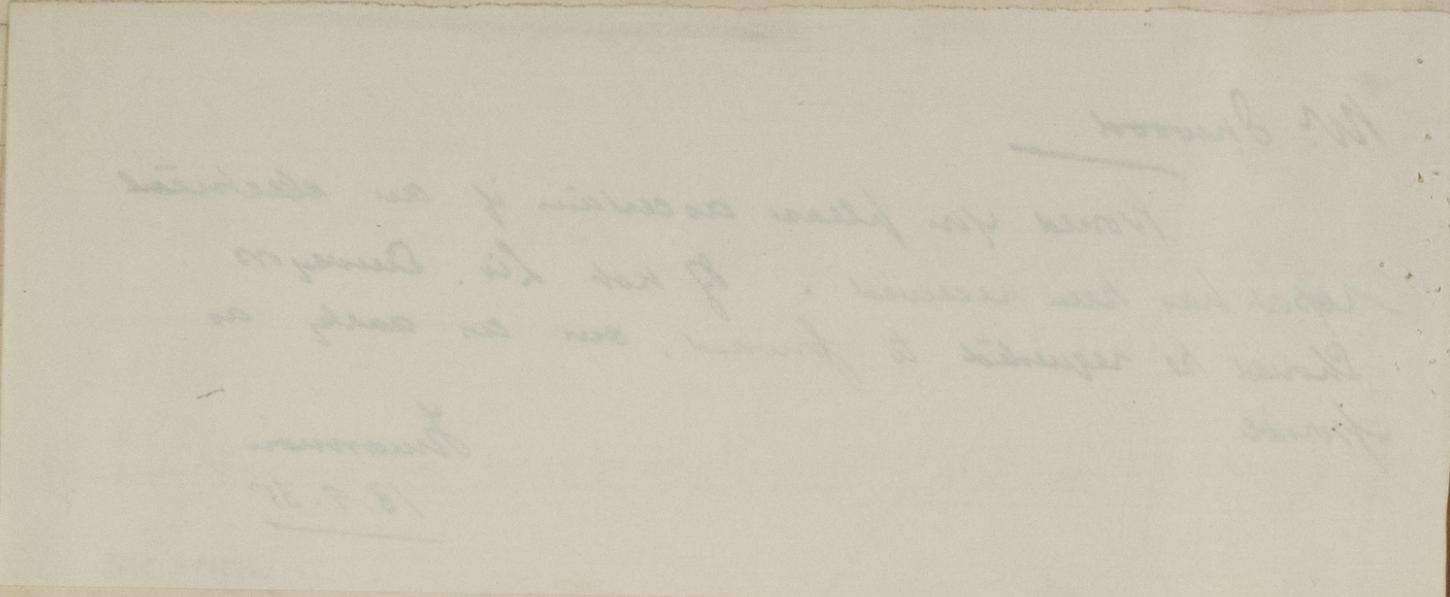
Dates of Examination of principal parts—Cylinders 2. 7. 35 Covers 2. 7. 35 Pistons 2. 7. 35 Piston rods ✓  
 Connecting rods 24. 7. 1935 Crank and Flywheel shaft 24. 7. 1935 Intermediate shaft ✓  
 Crank and Flywheel shaft, Material S.M. Steel Identification Marks BTQ.J.W.L. 7.1.35 Intermediate shafts, 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 stops 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...

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

Committee's Minute

Assigned

100, 7, 28 - Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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