

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 95571

30 SEP 1930

Date of writing Report

When handed in at Local Office

30 SEP 1930

Port of

London

12 FEB 1931

No. in Survey held at Reg. Book.

Bedford

Date, First Survey

7th April

Last Survey

10th Sept. 1930

Number of Visits

18

88929 on the Single Twin Triple Screw vessel

"WORCESTERSHIRE"

Tons { Gross 10800 Net

Built at Govan Glasgow

By whom built

Messrs. Fairfield Co. Ltd. Yard No. 640

When built 1930

Owners Messrs. Bibby & Co. Ltd. (Bibby Bros. & Co. Ltd.)

Port belonging to

Liverpool

Oil Engines made at

Bedford

By whom made

Messrs. W. H. Allen & Sons Ltd.

Contract No. 118781/2

When made 1930

Generators made at

Bedford

By whom made

Messrs. W. H. Allen & Sons Ltd.

Contract No. 118781/3

When made 1930

No. of Sets 3 Engine Brake Horse Power 1013 Nom. Horse Power as per Rule 290 Total Capacity of Generators 675 Kilowatts.

IL ENGINES, &c.—Type of Engines Allen Burneiser Main 2 or 4 stroke cycle 4 Single or double acting SA

Maximum pressure in cylinders 500 lb/sq. in. Diameter of cylinders 410 in. Length of stroke 600 in. No. of cylinders 4 No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 480 in. Is there a bearing between each crank Yes

Revolutions per minute 185 Flywheel dia. 2180 in. Weight 5 Tons Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule 226 in. as fitted 235 in. Crank pin dia. 240 in. Crank Webs Mid. length breadth 380 in. Mid. length thickness 127 in. Thickness parallel to axis SOLID FORGED Thickness around eye-hole

Flywheel Shaft, diameter as per Rule CRANKSHAFT. Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 34.5 in.

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

Cooling Water Pumps, No. Two Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size One per engine driven from crankshaft.

Air Compressors, No. One per engine No. of stages 3 Diameters 325x285x62 in. Stroke 250 in. Driven by Engine crankshaft

Scavenging Air Pumps, No. Diameter Stroke Driven by

IR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Fusible plug.

Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Ends portable

Is there a drain arrangement fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. One per engine Cubic capacity of each 40 litres Internal diameter 9 3/4 in. thickness 3/8 in.

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 29/33 1/2 Working pressure by Rules 1025 lb

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 Open Type, drip proof.

Pressure of supply 220 volts. Load 1025 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 yes

Are they over compounded 5 per cent. Yes, if not compound wound state distance between each generator

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 26-4-26 Receivers Separate Tanks

PREPARE GEAR

As per attached List (3 Sheets.)

The foregoing is a correct description,

W. H. ALLEN, SON & CO., LTD.,

Manufacturer.

W. H. Allen



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Lloyd's Register Foundation

003154-003161-0134



Dates of Survey while building { During progress of work in shops - - - } *Apr. 7. 14. May 5 June 30. July 8. 14. 16. 18. 25. 30. Aug. 12. 15. 18. 27. Sep. 3. 9. 10. 25.*  
 { During erection on board vessel - - - } *18 partial = 10 full*  
 Total No. of visits

Dates of Examination of principal parts—Cylinders *July 8, 14, 18, 25* Covers *July 14, 16, 18, 25, 30* Pistons *Aug. 15, 27 Sep. 3* Piston rods ✓

Connecting rods *April 7, 14 May 5.* Crank and Flywheel shaft *July 8, 16.* Intermediate shaft ✓

Crank and Flywheel shaft, Material *Steel* Identification Mark *See Below* Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *"Hampshire"*

General Remarks (State quality of workmanship, opinions as to class, &c.)

*Crank Shafts Identification Marks:—*

|                |                 |                |                 |                |                 |
|----------------|-----------------|----------------|-----------------|----------------|-----------------|
| <i>Eng. R.</i> | <i>KI/18781</i> | <i>Eng. B.</i> | <i>KI/18781</i> | <i>Eng. C.</i> | <i>KI/18781</i> |
|                | TEST 56         |                | TEST 96         |                | TEST 120        |
|                | J.P. BT<br>E.M. |                | J.P. BT<br>Y.C. |                | J.P.            |
|                | LLOYDS          |                | LLOYDS          |                | LLOYDS          |
|                | 8737            |                | 8742            |                | 8765            |
|                | 9-5-30          |                | 14-5-30         |                | 30-5-30         |
|                | <u>LR</u>       |                | <u>LR</u>       |                | <u>LR</u>       |
|                | 8-7-30          |                | 8-7-30          |                | 16-7-30         |

*This Machinery has been constructed under Special Survey in accordance with approved plans & hull requirements.*

*The workmanship & materials, so far as can be seen, are good and satisfactory bench trials have been carried out under survey.*

*The three sets which are numbered KI/18781<sup>A/B/C</sup> have been despatched to Glasgow where they are to be installed and, in my opinion, will be eligible for inclusion in the Classification & record of T.M.C. of the vessel.*

The amount of Fee ... £ *29-0-0*

Travelling Expenses (if any) £ *14-6-3*

When received for 1930

When received.

*Arthur D. Chambers.*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 11 FEB 1931

Assigned *See Hs Rpt 51220.*



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