

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 92207

12 JAN 1928 19 When handed in at Local Office 12 JAN 1928 Port of London
 of writing Report in Survey held at Bedford. Date, First Survey 14 June 1927 Last Survey 29 Dec 1927
 Book. 108(S) on the Single Twin Triple Quadruple Screw vessel "GREYSTOKE CASTLE" Tons { Gross 15 Net 12
 at Birkenhead By whom built Messrs. Lammell Laird & Co. Yard No. 928 When built 1927
Messrs. James Chambers & Co. Port belonging to Liverpool
 Engines made at Bedford By whom made Messrs. W.H. Allen Sons & Co. Contract No. 67401/A/B When made 1927
 Generators made at Sunderland By whom made Messrs. The Sunderland Forge & Engineering Co. Ltd. Contract No. C332/3 When made 1927
 of Sets 4 Engine Brake Horse Power 497 Nom. Horse Power as per Rule 142 Total Capacity of Generators 330 Kilowatts.
 ENGINES, &c. Type of Engines Burmeister - Wain (Diesel) 2 or 4 stroke cycle 4 Single or double acting S.A.
 Minimum pressure in cylinders 570 Diameter of cylinders 12 1/2 325 Length of stroke 13 1/2 350 No. of cylinders 2-2 2-2 No. of cranks 2-2 2-2
 Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 380 Is there a bearing between each crank Yes
 Revolutions per minute 300 Flywheel dia. 1600 Weight 3.9 tons Means of ignition Compression Kind of fuel used Diesel
 Crank Shaft, dia. of journals 169 as per Rule 190 Crank pin dia. 190 Crank Webs 280 Mid. length breadth 150 Thickness parallel to axis SOLID FORGED
 as fitted 190 Crank pin dia. 190 Mid. length thickness 150 Thickness around eye hole 23.5
 Crank Shaft, diameter 169 as per Rule 190 Intermediate Shafts, diameter 169 as fitted 190 Thickness of cylinder liners 23.5
 Is there a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Mechanical forced.
 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes
 Driving Water Pumps, No. Chain driven Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
 Lubricating Oil Pumps, No. and size Engine driven
 Air Compressors, No. 1 to each Engine No. of stages 3 Diameters 180 x 158 x 36 Stroke 174 210 Driven by Crank on Engine
 Suctioning Air Pumps, No. 1 Diameter 180 Stroke 174 Driven by Crank on Engine
 RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes Ends portable Yes
 Are 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. 1 to each Engine Cubic capacity of each 35 litres Internal diameter 7 1/4 thickness 3/8
 Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 29/33 Working pressure by Rules 1104
 Starting Air Receivers, No. 1 to each Engine Total cubic capacity 150 litres Internal diameter 12 thickness 1/2
 Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 29/33 Working pressure by Rules 1000
 ELECTRIC GENERATORS:—Type Made by Sunderland Forge & Engineering Co. Ltd.
 Pressure of supply 220 volts. Load 455/3 Amperes. Direct Yes Alternating Current Yes
 Is an 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. Level compound 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 No, retained for duplication Receivers Yes Separate Tanks Yes
 (If not, state date of approval) 14-10-27
 SHAFTING GEAR

As per attached list K/73789

The foregoing is a correct description,

for W.H. ALLEN SONS & COMPANY LIMITED

Manufacturer.

Attest

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Lloyd's Register
Foundation

007991 003005 0012

Dates of Survey while building { During progress of work in shops - June 14. July 6. 27. Aug. 26. Sep. 15. 10. 27. Oct. 3. 8. 11. 15. 20. 24. 31. Nov. 5. 17. Dec. 5. 8. 15. 20. 23. 29. }
During erection on board vessel - - - }
Total No. of visits 22 partial = 9 full.

Dates of Examination of principal parts - Cylinders Covers Pistons Piston rods

Connecting rods Crank and Flywheel shaft Intermediate shaft

Crank and Flywheel shaft, Material *Inf. Steel* Identification Mark *See below* Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case *No* If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) *Crank Shaft Identification Mark*

Eng. N° 67401/A. 6880
6939
7167 E.
T.I.
1011 T.H.
LLOYDS
1790
29-7-27
T.H.
6-10-27
LR

Eng. N° 67401/B. 6880
6987
7167 F
T.I.
1011
LLOYDS N° 1791
29-7-27
T.H.
6-10-27
LR

2 Cylinder Engines

Eng. N° 67407/A. 6880
6962
7223 F.
T.H.
1005
LLOYDS
1764
22-7-27
T.H.
20-9-27
LR

Eng. N° 67407/B. 6880
7223
T.I.
1004
LLOYDS
1763
22-7-27
T.H.
6-10-27
LR

3 Cylinder Engines

This machinery has been constructed under special survey in accordance with approved plans and Rule requirements. The workmanship and materials, so far as can be seen, are good and satisfactory bench trials have been carried out under survey.

The four sets i.e. two 2 Cylinder sets numbered 67401/A/B and two 3 Cylinder sets numbered 67407/A/B have been despatched to Birkenhead where they are to be installed on board and in my opinion, will be eligible for inclusion in the Classification and record of +LRC of the vessel.

This machinery has been installed under special survey and tested under working conditions to our satisfaction.

W.S. Shields & J. Milton

The amount of Fee ... £ 14 : 4 :
Travelling Expenses (if any) £ 8 : 11 : 7
When applied for, 12 JAN 1928
When received, 9/3/28 *LR*

Arthur H. Palmer.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned



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