

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Maltb 17523.
No. 111195

date of writing Report 6 June 1943 When handed in at Local Office 16 JUN 1943 Port of London
 No. in Survey held at Bedford Date, First Survey April 16 1943 Last Survey May 19 1943
 Reg. Book. Number of Visits 12
 on the Single Twin Triple Quadruple Screw vessel S.S. "EMPIRE CHIEFTAIN" Tons { Gross 9904
 Net 8904
 Built at Middlesbrough By whom built Furness S. B. Co. Ltd. Yard No. 2738 When built 1943
 Owners Ministry of Shipping Port belonging to Middlesbrough
 Oil Engines made at Bedford By whom made W. H. Allen, Sons & Co. Ltd. Contract No. K2/42524 When made 1943
 Generators made at do By whom made do Contract No. K2/42525 When made 1943
 No. of Sets 3 Engine Brake Horse Power 255 Nom. Horse Power as per Rule 255 Total Capacity of Generators 175 Kilowatts.

IL ENGINES, &c.—Type of Engines Heavy Oil 2 or 4 stroke cycle 4 Single or double acting single
 Maximum pressure in cylinders 750 lb. Diameter of cylinders 230 Z Length of stroke 300 Z No. of cylinders 6 No. of cranks 6
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 282 Z Is there a bearing between each crank yes
 Revolutions per minute 575 Flywheel dia. 1200 Z Weight 1780 lb. Means of ignition Compression Kind of fuel used Diesel Oil
 Crank Shaft, dia. of journals as per Rule 139 Z Crank pin dia. 150 Z Crank Webs Mid. length breadth 204 Z Thickness parallel to axis shrunk
as fitted 140 Z Mid. length thickness 70 Z Thickness around eyehole shrunk
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 19 Z
as fitted as fitted
 Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication Forces
 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. Three (total) Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
 Lubricating Oil Pumps, No. and size Three rotary (total)
 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

IR 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 Open
 Pressure of supply 220 volts. Full Load Current 796 Amperes. Direct or Alternating Current Direct
 If alternating current system, state the periodicity yes Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off yes
 Generators, are they compounded as per rule 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
 If the generators are under 100 kw. full load rating, have the makers supplied certificates of test yes and do the results comply with the requirements
 If the generators are 100 kw. or over have they been built and tested under survey yes

PLANS. Are approved plans forwarded herewith for Shafting yes Receivers yes Separate Tanks yes
 (If not, state date of approval)
SPARE GEAR one complete set of valves for one cylinder; 4 nozzles; one set of rings for one piston; one set of studs & nuts for one cylinder cover; 2 bolts & nuts for bottom end; 2 bolts & nuts for main bearing; one fuel pump; one gudgeon pin & bush; one bottom end bearing; one fuel injection pipe; one set brush holders & brushes etc.

The foregoing is a correct description.

W. H. ALLEN, SONS & Co., Ltd.,
Manufacturer.

H. H. Clarke. 9/6/43.



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Lloyd's Register
Foundation

Dates of Survey while building { During progress of work in shops - 1443 April 16. 20. 23. 27. 29. May 4. 7. 11. 12. 15. 18. 19.
 { During erection on board vessel - - -
 Total No. of visits 12.

Dates of Examination of principal parts - Cylinders 7.5.43 20.4.43 4.5.43 11.5.43
 Covers 29.4.43 27.4.43
 Pistons 29.4.43 Piston rods -
 Connecting rods 20.4.43 27.4.43 4.5.43 Crank and Flywheel shaft 16.4.43 27.4.43
 Intermediate shaft 28.4.43
 Crank and Flywheel shafts, Material Steel Identification Mark 440705 7.7.811. 768. 7.8.42. HAS 16.4.43
 440705 7.7.797. 830. 28.8.42. HAS 27.4.43
 440705 846 C.A.B. 906 21.10.42 HAS 23.4.43

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.) These generator sets were constructed under Special Survey in accordance with the requirements of the Rules and approved plans; the steel was made at Works approved by the Committee; the workmanship is good and on completion the machines were tested upon the bench under full and overload conditions with satisfactory results.

The sets have been dispatched to Middlesbrough for fitting on board the vessels.

These machines have now been securely fitted on board & tried out under working conditions & found satisfactory.

The amount of Fee ... £22-1-0
 Travelling Expenses (if any) £ 4-0-6
 When applied for, 16 JUN 1943
 When received, 19

J.H. Earnett
 Surveyor to Lloyd's Register of Shipping.

G. Norman Stuart

FRI. 17 DEC 1943

Committee's Minute
 Assigned See fee. re. Mat 17523