

Copy M.S. Empire Gas

pt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 109223

Date of writing Report 22: 11: 1940 When handed in at Local Office 26: 11: 1940 Port of London
 Received at London Office 26: 11: 40
 No. in Survey held at Bedford Date, First Survey 26th July 1940 Last Survey 11th Nov. 1940
 Reg. Book. Number of Visits 8
 on the Single }
 Twin } Screw vessel M.V. "Empire Gas" 2 of 1088 Tons } Gross
 Triple } The other into Empire Cape & duplicate rpe. 358 & } Net
 Quadruple }
 will at Bowling By whom built Scott & Sons Yard No. 359 When built
 owners J & A Gardner & Co Ltd Port belonging to
 Oil Engines made at Bedford By whom made W. H. Allen Sons & Co Ltd Contract No. K/89717 When made 1940
 Generators made at " By whom made " " " Contract No. " When made " each
 No. of Sets Two Engine Brake Horse Power 74 Nom. Horse Power as per Rule Total Capacity of Generators 50 Kilowatts.

INTERNAL ENGINES, &c.—Type of Engines Heavy Oil 2 or 4 stroke cycle 4 Single or double acting single
 Maximum pressure in cylinders 700 lb² Diameter of cylinders 230^m/m Length of stroke 300^m/m No. of cylinders 2 No. of cranks 2
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 282^m/m Is there a bearing between each crank Yes
 Revolutions per minute 500 Flywheel dia. 1200^m/m Weight 3400 lb. Means of ignition Compression Kind of fuel used Diesel oil
 Crank Shaft, dia. of journals as per Rule 138^m/m as fitted 140^m/m Crank pin dia. 150^m/m Crank Webs Mid. length breadth 204^m/m Thickness parallel to axis ✓
 Mid. length thickness 70^m/m Thickness around eye hole ✓
 Flywheel Shaft, diameter as per Rule as fitted Crankshaft Intermediate Shafts, diameter as per Rule ✓ as fitted ✓ Thickness of cylinder liners 17^m/m ✓
 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. 1 Plunger type Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓
 Lubricating Oil Pumps, No. and size 1 Geared type
 Air Compressors, No. One No. of stages Two Diameters 3'8" x 7'4" Stroke 4 1/2" Driven by Extension of crank shaft
 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 ✓
 Are 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 Open type
 Pressure of supply 220 volts. Load 227 Amperes. Direct or Alternating Current Direct
 Is an 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
 Do the 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 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
 Are approved plans forwarded herewith for Shafting (If not, state date of approval) Receivers Separate Tanks

ARE GEAR One complete set of valves for one cylinder; 4 nozzles, 1 set of piston rings for one piston, 1 set of studs and nuts for 1 cylinder cover, 2 bolts and nuts for bottom end bearing, 2 bolts and nuts for main bearing; one fuel pump; one gudgeon pin and bush; one bottom end bearing; 2 pistons complete; crank shaft chain links, circulating pump chain links; 1 lubricating oil pump, 1 set of springs and joints, bolts and nuts &c; 1 set of brush holders with brushes.

The foregoing is a correct description,

(Sgd) W. H. Allen, Sons & Co Ltd Manufacturer.
H. H. Clarke

18: 11: 40



© 2021 Lloyd's Register Foundation

013033-013041-0248

Dates of Survey while building { During progress of work in shops - July 1940. 26 Aug 6. 16. 19. 23 Oct. 15. 17 Nov. 4
 { During erection on board vessel - - - }
 Total No. of visits 8

Dates of Examination of principal parts—Cylinders 26: 7: 40 Covers 19: 8: 40 Pistons 23: 8: 40 Piston rods ✓
 Connecting rods 19: 8: 40 Crank and Flywheel shaft 6. 8. 40 : 16: 8: 40 Intermediate shaft ✓
 Crank and Flywheel shaft, Material steel Identification Mark: ^{LLOYDS 3201 AS 18. 3. 40} HAG 6. 8. 40 ^{LLOYDS 82 ELK A 2047 8: 3: 40 RWC 16. 8. 40} 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.) The Generating sets were constructed under special survey in accordance with the requirements of the Rules and Approval plans, the steel was made at Works approved by the Committee, the workmanship is good and on completion the sets were tested upon the bench under full & overload conditions with satisfactory results.

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

One of these engines replaced engine No. K1/90284.

100, 7, 20—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ 12 : 12 : 0 When applied for, 28/11/1940
 Travelling Expenses (if any) £ 2 : 11 : 0 When received, 19

(Sgd) H. A. Garnett.
 Surveyor to Lloyd's Register of Shipping.

FRI. 31 OCT 1941

See Jls. J.C. 63686

Committee's Minute

Assigned



© 2021 Lloyd's Register Foundation