

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 101595

Date of writing Report 4 June 1935 When handed in at Local Office 15 JUN 1935 Port of London Received at London Office 15 JUN 1935
 No. in Survey held at Bedford Date, First Survey 22 January, 1935 Last Survey 21 May, 1935
 Reg. Book. Number of Visits 12

Single on the Twin Triple Quadruple } Screw vessel
 Built at Glasgow By whom built A. Stephen & Son Ltd Yard/No. 546 When built 1935
 Owners Union Steamship Co. of New Zealand Ltd. Port belonging to Wellington
 Oil Engines made at Bedford By whom made W. H. Allen Sons & Co. Ltd. Contract No. K1/48375 When made 1935
 Generators made at Bedford By whom made W. H. Allen Sons & Co. Ltd. Contract No. E1/48376 When made 1935
 No. of Sets 3 Engine Brake Horse Power 268 (3 @ 89.3) Nom. Horse Power as per Rule 76.5 Total Capacity of Generators 180 Kilowatts. (3 @ 60kW.)

OIL ENGINES, &c.—Type of Engines Oilless injection (6S18) 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 680 lb/sq in Diameter of cylinders 145 mm Length of stroke 180 mm No. of cylinders 6 each No. of cranks 6 each
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 154 mm Is there a bearing between each crank Yes
 Revolutions per minute 900 Flywheel dia. 760 mm Weight 370 lbs. Means of ignition Compression Kind of fuel used Heavy oil.

Crank Shaft, dia. of journals as per Rule 79 mm as fitted 100 mm Crank pin dia. 90 mm Crank Webs Mid. length breadth 134 mm Mid. length thickness 36 mm Thickness parallel to axis shrink Thickness around eyehole shrink
 Flywheel Shaft, diameter as per Rule Crank Shaft Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 8 mm

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 No. Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes

Cooling Water Pumps, No. 3 (1 per engine) Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
 Lubricating Oil Pumps, No. and size 3 — 1 per engine each of 6 1/4 gallons per minute.

Air Compressors, No. 1 No. of stages 1 Diameters 1 1/2 Stroke 1 1/2 Driven by Electric
 Scavenging Air Pumps, No. 1 Diameter 1 1/2 Stroke 1 1/2 Driven by Electric

AIR 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. 1 Cubic capacity of each 16.24 cu ft. Internal diameter 14" thickness 1/2"
 Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 26/30 Working pressure by Rules 770 lb/sq in
 Starting Air Receivers, No. Two Total cubic capacity 16.24 cu ft. Internal diameter 14" thickness 1/2"
 Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 26/30 Working pressure by Rules 770 lb/sq in
 Actual working pressure 500 lb/sq in
 Tested 21.5.35 to 1000 lb/sq in

ELECTRIC GENERATORS:—Type E.V. open marine. Rating 63° F.
 Pressure of supply 220 volts. Load (each) 272 Amperes. Direct or Alternating Current Direct.
 If alternating current system, state frequency of periods per second 50

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 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 24.8.33 (If not, state date of approval) Receivers Christie & Tule Co. Separate Tanks Yes

SPARE GEAR 6 pistons complete, 6 liners, 2 fuel pumps, 6 delivery & 3 suction pipes for fuel pumps.
15 nags 2 cylinder heads complete with all valves, 10 inlet & 10 exhaust valves, 4 push rod assemblies 1 complete rocker assembly. 4 inlet and exhaust valve guides, 1 cam shaft cham
12 inlet & exhaust valve springs 4 fuel pump delivery valve springs, 6 fuel pump main springs
1 complete set main bearings, 1 connecting rod complete, 1 set piston rings for one piston
1 set studs for one cylinder cover, 2 bottom end bolts 2 main bearing bolts, 1 starting valve
1 impeller for cooling water pump.
1 armature, 1 set brushes & holders, 1 set field coils 1 end bearing bush.

The foregoing is a correct description.
W. H. ALLEN, SONS & Co., Ltd.
A. Geo. Kimber. Manufacturer.



