

Rpt. 4c. REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS. No. 2069

Date of writing Report 11 SEP 1928 When handed in at Local Office 11 SEP 1928 Port of London
No. in Survey held at Bedford Date, First Survey 17 FEB 1928 Last Survey 8 SEP 1928

on the ^{Single} ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel "PORT ALMA" Tons {Gross 7983 Net 4926

Built at Newcastle-on-Tyne By whom built Swan Hunter & Wigham Richardson Yard No. 1242 When built 1928.

Owners Commonwealth & Dominion Line Port belonging to London.

Oil Engines made at Bedford By whom made Messrs W. H. Allen Sons & Co. Contract No. 9280/2/27 When made 1928

Generators made at Bedford By whom made Messrs W. H. Allen Sons & Co. Contract No. 9280/4/27 When made 1928

No. of Sets Three Engine Brake Horse Power 375 each Nom. Horse Power as per Rule 321 Total Capacity of Generators 771 Kilowatts.

OIL ENGINES, &c.—Type of Engines Diesel (Burneister-Wain) 2 or 4 stroke cycle 4 Single or double acting S.A.
Maximum pressure in cylinders 500 lbs/sq" Diameter of cylinders 350 mm Length of stroke 470 mm No. of cylinders 6 No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 420 mm Is there a bearing between each crank Yes
Revolutions per minute 250 Flywheel dia. 1800 mm Weight 5.4 Tons. Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule 190 mm as fitted 210 mm Crank pin dia. 210 mm Crank Webs Mid. length breadth 310 mm Mid. length thickness 105 mm shrunk Thickness parallel to axis SOLID FORGED

Flywheel Shaft, diameter as per Rule CRANK SHAFT. Intermediate Shafts, diameter as fitted Thickness of cylinder liners 28 mm

Is 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

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

Lubricating Oil Pumps, No. and size One geared to each Engine

Air Compressors, No. One to each Engine No. of stages 3. Diameter 292x260x57 mm Stroke 214 mm Driven by Bank on Engine

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 Fusible plug. Ends portable

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

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 90 litres Internal diameter 9 3/4" thickness 3/8"

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 29/33 3/8" Working pressure by Rules 1025 lbs/sq"

Starting Air Receivers, No. One per 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 3/8" Working pressure by Rules 1000 lbs/sq"

ELECTRIC GENERATORS:—Type Open Pressure of supply 220 volts. Load 1170 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. Level compounding, 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 No. 27-6-27 Receivers. Separate Tanks

PAIRE GEAR

As per attached List.

The foregoing is a correct description,

FOR MESSRS. W.H.ALLEN SONS & COMPANY. LIMITED. Manufacturer. BEDFORD.

Arthur.



Dates of Survey while building
 During progress of work in shops - Feb. 17. 27 April 4. June 21. July 7. 10. 13. 17. 18. 23. 30 Aug. 19. 22. Sep 8.
 During erection on board vessel - - -
 Total No. of visits 14 partial = 6 full.

Dates of Examination of principal parts - Cylinders July 7. 10. 13. 17. 18. 23. 30 Covers June 21. July 13. 17. 23. 30 Aug 19. Pistons 23-7-28 Piston rods ✓

Connecting rods Feb. 17. 27 April 4. Crank and Flywheel shaft July 17. 30 Intermediate shaft ✓

Crank and Flywheel shaft, Material Steel Identification Mark SEE BELOW Identification Marks

Is this machinery duplicate of a previous case Yes. If so, state name of vessel "Port Fairy"

General Remarks (State quality of workmanship, opinions as to class, &c.)
 Crank Shafts Identification Marks: -

<u>ENG. D.</u>	LLOYDS A	x 81	<u>ENG. E.</u>	95	<u>ENG. F.</u>	LLOYDS
	1313	84 R		LLOYDS		R
	20-4-28	MS & Co		336		1317
				RWF		9-5-28
				25-4-28		

This Machinery has been constructed under Special Survey in accordance with approved plans and Rule 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 92801/D/E/F. have been despatched to Newcastle-on-Tyne where they are to be installed on board and, in my opinion, will be eligible for inclusion in the Classification and record of T.M.C. of the vessel.

This Machinery has now been securely fitted on board the vessel, tried under full working conditions & found satisfactory.

The amount of Fee ... £32-2-0: When applied for, 11 SEP 1928
 Travelling Expenses (if any) £9-0-11: When received, per letter from Mr. [unclear] 16.10.1928

Arthur Palmer, Surveyor to Lloyd's Register of Shipping.
 Fred. A. Ferguson, Newcastle-on-Tyne.

Committee's Minute FRI. 14 DEC 1928
 Assigned See Rec. Log. No. 83570

1m. 7.28 - Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

Rpt. No. 91570
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