

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 91,597

Received at London Office

17 SEP 1927

4c.

-7 JUL 1927

-7 JUL 1927

Port of London

Date of writing Report

in Survey held at Bedford

Date, First Survey 30 July 1926 Last Survey 30 JUNE 1927

of Book. on the Single Twin Triple Quadruple Screw vessel

"PACIFIC RELIANCE"

Tons { Gross  
Net

uilt at Glasgow By whom built Blythwood Ship Co. Ltd. Yard No. When built 1927

wners Furness Withy & Co. Ltd. Port belonging to London

il Engines made at Bedford By whom made Messrs. W. H. Allen Sons Ltd. Contract No. 4040/1926 When made 1927

enerators made at Bedford By whom made Messrs. W. H. Allen Sons Ltd. Contract No. 4040/1926 When made 1927

o. of Sets Three Engine Brake Horse Power 735 Nom. Horse Power as per Rule 210 Total Capacity of Generators 495 Kilowatts.

TYPE OF ENGINES, &c. Type of Engines Diesel (Burmester Hainke) 4 stroke cycle Yes Single or double acting S.P.A.

Maximum pressure in cylinders 570 lbs/sq Diameter of cylinders 12 1/4 Length of stroke 17 1/2 No. of cylinders Four No. of cranks Four

Span 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. 1900 Weight 2 1/2 Tons Means of ignition Compression Kind of fuel used Diesel Oil

Crank Shaft, dia. of journals as per Rule 178 Crank pin dia. 190 Crank Webs Mid. length breadth 300 Thickness parallel to axis SOLID FORGED

Flywheel Shaft, diameter as per Rule CRANK SHAFT Intermediate Shafts, diameter as fitted Yes Thickness of cylinder liners 29

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Faced, jaspers forced from top

Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material None

Cooling Water Pumps, No. None Is the sea suction provided with an efficient strainer which can be cleared within the vessel Engine driven

Lubricating Oil Pumps, No. and size 3 No. of stages 3 Diameters 90/325/360 Stroke 280 Driven by Engine

Scavenging Air Pumps, No. 3 Diameter 3 Stroke 3 Driven by Engine

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes Essential plug Ends portable

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. 3 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. 3 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 Two bearing open, drip proof 6 poles Direct

Pressure of supply 220 volts. Load 750 Amperes. Direct or Alternating Current

If 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, with interpoles

Are they over compounded 5 per cent. level compounding 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. Lh. 31-3-26 Receivers Yes Separate Tanks Yes

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The foregoing is a correct description,

W.H. ALLEN SONS & COMPANY LTD.,

Manufacturer.

W.H. Allen  
6/7/27

No per attached List



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Lloyd's Register Foundation

W284-0027

Dates of Survey while building  
 During progress of work in shops - - 1926 July 30<sup>th</sup> Dec. 29. 1927 Jan. 7 Feb. 4. 28. March 9. 16. 31 April 5. 8. 13. 20 June 20. 24. 30.  
 During erection on board vessel - - -  
 Total No. of visits 15 partial = 6 full

Dates of Examination of principal parts—Cylinders 28-2-27, 4-5-27, 31-3-27, 5-4-27, 13-4-27 Covers 29-12-26, 7-1-27, 31-3-27, 5-4-27 Pistons 31-3-27, 30-6-27 Piston rods ✓

Connecting rods 30-7-26, 24-6-27 Crank and Flywheel shaft 8-4-27, 24-6-27 Intermediate shaft ✓

Crank and Flywheel shaft, Material Ingot Steel Identification Mark A. 1083 RL, 18-6-26, 13-4-27 Intermediate shaft, Material B. 6-9-26 Identification Marks C. 1338, 24-9-26, 20 T.H.

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, etc.)  
 This machinery has been constructed under Special Survey in accordance with approved plans & 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 40401/A/B/C have been despatched to Glasgow where they are to be installed and in my opinion, will be eligible for inclusion in the Classification and record of +L.M.C. of the vessel.

Int. 728—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ 21-0-0 When applied for, - 7 JULY 1927  
 Travelling Expenses (if any) £ 7-14-4 When received, 28.7.27

*Arthur A. Lehners*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 20 SEP 1927  
 Assigned See pls. S.C. rpt. No 47018

Rpt. 13  
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