

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 91,597

Received at London Office 17 SEP 1927
 Date of writing Report -7 JUL 1927 When handed in at Local Office -7 JUL 1927 Port of London
 Date, First Survey 30 JUL 1926 Last Survey 30 JUNE 1927
 Number of Visits

Survey held at Bedford
 on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel "PACIFIC RELIANCE"
 Tons { Gross
 Net
 Built at Glasgow By whom built Blythwood Ship Co. Ltd. Yard No. When built 1927
 Owners Furness Withy & Co. Ltd. Port belonging to London
 Oil Engines made at Bedford By whom made Messrs. H. H. Allen Sons Ltd. Contract No. 4040/1926 When made 1927
 Generators made at Bedford By whom made Messrs. H. H. Allen Sons Ltd. Contract No. 4040/1926 When made 1927
 No. of Sets Three Engine Brake Horse Power 735 ^{245 each} Nom. Horse Power as per Rule 210 ²¹⁰ Total Capacity of Generators 495 Kilowatts.

ENGINES, &c.—Type of Engines Diesel (Burmester Main) 4 stroke cycle Yes Single or double acting S.A.
 Maximum pressure in cylinders 570 lbs/sq. in. Diameter of cylinders 32 1/2" Length of stroke 17 1/2" 440" No. of cylinders Four No. of cranks Four
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 38 1/2" 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
 as fitted 185" Mid. length thickness 101" shrunk
 Flywheel Shaft, diameter as per Rule CRANK SHAFT Intermediate Shafts, diameter as fitted ✓ Thickness of cylinder liners 29" ⁱⁿ
 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
 Cooling Water Pumps, No. None Is the sea suction provided with an efficient strainer which can be cleared within the vessel
 Lubricating Oil Pumps, No. and size Engine driven
 Air Compressors, No. 3 No. of stages 3 Diameters 90/325/360" Stroke 280" Driven by 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 Fusable plug Ends portable
 Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Ends portable
 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 like 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 like 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
 Pressure of supply 220 volts. Load 750 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, with interpoles
 Are they over compounded 5 per cent. level compounding 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. Lh. 31-3-26 Receivers. ✓ Separate Tanks ✓
 (If not, state date of approval)

PARE GEAR

As per attached List

The foregoing is a correct description,

W.H. ALLEN SONS & COMPANY LTD.,

Manufacturer.

G.W. Reid
6/7/27

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Lloyd's Register
Foundation

W284-0027

Dates of Survey while building
 During progress of work in shops - - 1926 July 30th Dec. 29. 1927 Jan. 7 Feb. 4. 28. March 9. 16. 31 April 5. 8. 23. 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, 4-3-27, 31-3-27 Covers 29-12-26, 7-1-27 Pistons 31-3-27, 30-6-27 Piston rods ✓
 5-4-27, 13-4-27 31-3-27, 5-4-27

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 Intermediate shaft, Material B. 6-9-26 Identification Marks C. 24-9-26
 LLOYDS TEST 1083 RL. 1338 24-9-26 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 +LHC of the vessel.

Rpt. 13

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Date of

No. in Reg. 4228

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The amount of Fee ... £ 21-0-0

When applied for, 7 JUL 1927

Travelling Expenses (if any) £ 7-14-4

When received, 28.7.1927

Committee's Minute

TUES. 20 SEP 1927

Assigned

See pls. F.C. rpt. No 47018

Richard A. Lehners.
 Surveyor to Lloyd's Register of Shipping.



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