

1 JUL 1930

Bel. 10.409

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 49514

Received at London Office

14 AUG 1929

Date of writing Report 5-8-29 19 When handed in at Local Office 12-8-29 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 18-2-29 Last Survey 29 July 1929

Reg. Book. 16189 on the Single Twin Triple Quadruple Screw vessel N° 807 "BRITANNIC" "BRITANNIC" Tons { Gross Net

Built at Belfast By whom built Messrs Harland & Wolff Ltd Yard No. 807 When built 1929

Owners White Star Line Port belonging to Liverpool

Oil Engines made at Glasgow By whom made Harland & Wolff Ltd Contract No. 8071 When made 1929

AIR COMPRESSORS made at Glasgow By whom made Harland & Wolff Ltd Contract No. 8071 When made 1929

No. of Sets 4 Engine Brake Horse Power 850 EACH Nom. Horse Power as per Rule 181 EACH Total Capacity of Generators ✓ Kilowatts.

OIL ENGINES, &c.—Type of Engines Diesel 2 or 4 stroke cycle Single or double acting Single

Maximum pressure in cylinders 500 LBS/SQ IN Diameter of cylinders 550 mm Length of stroke 1,000 mm No. of cylinders 4 EACH ENGINE No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 730 mm Is there a bearing between each crank yes

Revolutions per minute 160 Flywheel dia. 2800 mm Weight 6.08 tons Means of ignition compression Kind of fuel used diesel

Crank Shaft, dia. of journals as per Rule 340 mm as fitted 380 mm Crank pin dia. 380 mm Crank Webs Mid. length breadth 720 mm Thickness parallel to axis 220 mm Mid. length thickness 220 mm shrunk Thickness around eye hole 166 mm

Flywheel Shaft, diameter as per Rule 340 mm as fitted 380 mm Intermediate Shafts, diameter as per Rule ✓ as fitted ✓ Thickness of cylinder liners 38 mm TOP 27.5 mm BOTTOM

Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication Forced sight feed

Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged

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

Lubricating Oil Pumps, No. and size one off each engine 33 tno/hr each.

Air Compressors, No. Two each No. of stages 3 Diameters 870 mm 775 mm 172 mm Stroke 400 mm Driven by Diesel 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 yes

Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces Loose ends.

Is there a drain arrangement fitted at the lowest part of each receiver yes

High Pressure Air Receivers, No. one off each Cubic capacity of each 550 LITRES Internal diameter 520 mm thickness 75"

Unless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 28-32 tno/sq in Working pressure by Rules 1054 lbs/sq in

Low Pressure Air Receivers, No. ✓ Total cubic capacity ✓ Internal diameter ✓ thickness ✓

Unless, lap welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure by Rules ✓

ELECTRIC GENERATORS:—Type ✓

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

Is the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off ✓

Generators, do they comply with the requirements regarding rating ✓ 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 ✓ Are all terminals accessible, clearly marked, and furnished with sockets ✓

Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched ✓ Are the lubricating arrangements of the generators as per Rule ✓

INS. Are approved plans forwarded herewith for Shafting ✓ Receivers ✓ Separate Tanks ✓

(If not, state date of approval)

SHAFTING GEAR ✓

As per attached list which is in accordance with the rules.

The foregoing is a correct description,

For HARLAND & WOLFE, LTD.

J. C. Green

Manufacturer.

MANAGER FINNIESTON WORKS



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Lloyd's Register
Foundation

004769-004777-0232

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Dates of Survey while building
During progress of work in shops -
During erection on board vessel - - -
Total No. of visits

1928 Dec 5-19 1929 Jan 9-18-21-24-29-30 Feb 11-18 March 11, 12, 19, 28, 29, April 9, 11, 15, 16, 18, 29 May 3, 7, 16, 17, 22, 24, 27, 28, 29, 30 June 5, 13, 14, 19, 24, 25, 26 July 29

Dates of Examination of principal parts - Cylinders 29-3-29 to 14-6-29 Covers 29-3-29 to 14-6-29 Pistons
Connecting rods Crank and Flywheel shaft 24-1-29 30-1-29 4-5-29 Intermediate shaft
Crank and Flywheel shaft, Material Steel Identification Mark 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.) These engines have been built under special survey in accordance with the rules and the approved plans, the material & workmanship are good, they have been run on full power on the test bed and found satisfactory.
The engines have now been shipped to Belfast for fitting in the ship.

These engines have been fitted and efficiently fastened in the auxiliary motor room of the vessel. They have been tried out under working conditions with satisfactory results.

R Lee Annes
Belfast.

9/8/29

The amount of Fee ... 97.4.0
72.8.0
24.6.0

Travelling Expenses (if any) £ : :
When applied for, 13/8/29
When received, 15.9.29 See London C4.

Chas R Rowcliffe
Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 13 AUG 1929
Assigned Deferred.

