

1 JUL 1930

Bel. 10.409

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 49514

Received at London Office 14 AUG 1929

Date of writing Report 5-8-29 10 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 4 stroke cycle Single or double acting Single

Maximum pressure in cylinders 500 LBS/D" 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 eyehole 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/D" Working pressure by Rules 1054 LBS/D"

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

Is an 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

Do the 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

Are approved plans forwarded herewith for Shafting Receivers Separate Tanks

(If not, state date of approval)

FREE 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
 MANAGER FINNESTON WORKS

Manufacturers.



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 Lloyd's Register
 Foundation

004769-004777-0232

CONFERENCE

During progress of work in shops - - - 1928 Dec 5-19 1929 Jan 9-18-21-24-29-30 Feb 11-18 March 4, 12, 19, 26, 29, April 9, 11, 15, 16, 18, 29 May 3, 7, 15, 17, 22, 24, 27, 28, 29, 30 June 5, 13, 14, 19, 24, 25, 26 July 29

Dates of Survey while building {
 During erection on board vessel - - -
 Total No. of visits 41

Dates of Examination of principal parts - Cylinders 29-3-29 to 14-6-29 Covers 29-3-29 to 14-6-29 Pistons Piston rods
 Connecting rods Crank and Flywheel shaft 22-1-29 30-1-29 4-5-29 Intermediate shaft

Crank and Flywheel shaft, Material *Steel* Identification Mark *2344* Intermediate shafts, Material *Steel* Identification Marks *2344*
 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 Anneson
 Belfast.*

*AS
 9/8/29*

The amount of Fee £ *97.4.0*
~~72.8.0~~
~~97.4.0~~

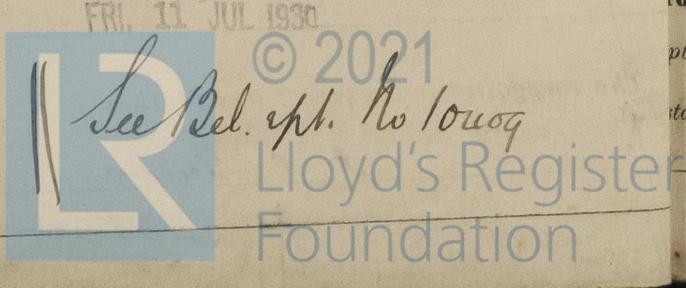
When applied for, *13/8/29*

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

Travelling Expenses (if any) £ : : *15.9.29* See London C4.

Committee's Minute **GLASGOW 13 AUG 1929**

Assigned *Deferred.*



Im. 7.20 - Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)