

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 50939

22 OCT 1930

Received at London Office

Date of writing Report 19 When handed in at Local Office 18. 10. 1930 Port of Glasgow

No. in Survey held at Glasgow Reg. Book. Date, First Survey 26. 7. 29 Last Survey 1st Sept. 1930. Number of Visits 4

70172 on the <sup>Single</sup> ~~Double~~ ~~Triple~~ ~~Quadruple~~ Screw vessel "Impress of Britain" Tons { Gross 42348 Net 22545

Built at Glasgow By whom built John Brown & Co. Ltd. Yard No. 530. When built

Owners Canadian Pacific Railway Coy Port belonging to London

Oil Engines made at Glasgow By whom made British Fiat Auxiliaries Contract No. 126 When made 1930.

Generators made at Rugby By whom made British Thomson-Houston Contract No. 129 When made 1930.

No. of Sets 4 Engine Brake Horse Power 160 in each engine Nom. Horse Power as per Rule 189 Total Capacity of Generators 1800 Kilowatts.

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

Maximum pressure in cylinders 500 lb Diameter of cylinders 440 mm Length of stroke 500 mm No. of cylinders 4 No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 536 mm Is there a bearing between each crank y/n

Revolutions per minute 260. Flywheel dia. 2006 mm Weight 5 tons Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule 233 mm as fitted 260 mm Crank pin dia. 260 mm Crank Webs Mid. length breadth 340 mm Mid. length thickness 144 mm Thickness parallel to axis Thickness around eyehole

Flywheel Shaft, diameter as per Rule 233 mm as fitted 256 mm Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 35 mm

Is a governor or other arrangement fitted to prevent racing of the engine when declutched y/n Means of lubrication Fuel

Are the cylinders fitted with safety valves y/n Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Lagged

Cooling Water Pumps, No. 1 @ 14,800 galls. per hour Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size 1 @ 2700 galls. per hour

Air Compressors, No. one No. of stages 3 Diameters 320 mm - 65 mm 300 mm - 286 mm Stroke 350 mm Driven by Cranks shaft

Scavenging Air Pumps, No. one Diameter 664 mm Stroke 500 mm Driven by Cranks shaft

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule y/n

Can the internal surfaces of the receivers be examined y/n What means are provided for cleaning their inner surfaces Second ends

Is there a drain arrangement fitted at the lowest part of each receiver y/n

High Pressure Air Receivers, No. one Cubic capacity of each 80 lbs Internal diameter 11.5" thickness .492"

Seamless, lap welded or riveted longitudinal joint Seamless Material S Range of tensile strength 37 tons Working pressure by Rules 1520 lb

Starting Air Receivers, No. 6 Total cubic capacity 1440 lbs Internal diameter 14.45" thickness .45"

Seamless, lap welded or riveted longitudinal joint Seamless Material S Range of tensile strength 37.5 Working pressure by Rules 1100 lb

ELECTRIC GENERATORS:—Type B.T.H. 8 pole 450 Rnt.

Pressure of supply 225 volts. Load 2000 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 y/n

Generators, do they comply with the requirements regarding rating y/n are they compound wound y/n

are they over compound 5 per cent. y/n, if not compound wound state distance between each generator

is an adjustable regulating resistance fitted in series with each shunt field y/n Are all terminals accessible, clearly marked, and furnished with sockets y/n

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

PLANS. Are approved plans forwarded herewith for Shafting y/n Receivers y/n Separate Tanks y/n

SPARE GEAR

As per Attached Sheet.

The foregoing is a correct description, FIAT BRITISH AUXILIARIES LTD.

pp. D. B. M. Manufacturer.



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Lloyd's Register Foundation

W392-5099

Dates of Survey while building  
 During progress of work in shops - 19 29 July 30 Aug 2 12 20 Sep 5 11 13 19 Oct 8 Nov 6 13 Dec 10 13 17 24 (1930) Jan 10 13 20  
 During erection on board vessel - 31 Feb 10 28 Mar 5 7 13 25 Apr 3 7 10 15 18 28 May 1 2 7 13 19 30 June 6 10 17 24 July 7 Aug  
 Total No. of visits - 46 - 13 18 20 Sep 9

Dates of Examination of principal parts - Cylinders 7-7-30 Covers 9-9-30 Pistons 7-11-30 Piston rods 9-7-30

Connecting rods 7-3-30 Crank and Flywheel shaft 15-11-29 17-12-29 7-1-30 (PR) Intermediate shaft - - -

Crank and Flywheel shaft, Material 1st high steel Identification Marks 2663-74 2773-74 3383-50 Intermediate shafts, Material - Identification Marks -

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, &c.)

These engines have been built under special Survey and as approved. The materials & workmanship are good. On completion they have been tested on the bench with satisfactory results.

These engines are, in my opinion, suitable for inclusion in the classification and notation of + L.M.C. of the vessel for which they are intended. The engines have been despatched to the yard of Messrs John Brown & Co of Clydebank.

Q.L.  
18/10/30

*[Faint handwritten notes and diagrams covering the lower half of the page, including various measurements and technical details.]*

Im 7/29-Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minutes.)

The amount of Fee ... £ 15 : 12 : 21.10.19.30  
 Travelling Expenses (if any) £ : 12/12/30

*Geo. Murray*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 21 OCT 1930  
 Assigned Deferred.

Rpt. 13.  
**RE**  
 Date of writing  
 No. in Survey Reg. Book.  
 70172 on  
 Built at  
 Owners  
 Electric Light  
 Is the Vessel  
 System of  
 Pressure of s  
 Direct or Al  
 If alternating  
 Has the Auto  
 Generators,  
 are they over  
 Where more t  
 series with ea  
 Are all termin  
 short circuited  
 Position of  
 is the ventila  
 if situated  
 are their acc  
 Earthing,  
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 Switchboa  
 are they pro  
 woodwork o  
 are they con  
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 with mica o  
 and is the  
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