

## 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  
Reg. Book.

Date, First Survey

26. 7. 29

Last Survey

1930.

Number of Visits

10172 on the

Single  
Twin  
Triple  
Quadruple

Screw vessel

"Impruss of Britain"

Tons

Gross 42348

Net 22545

Built at

Glasgow

By whom built

John Brown &amp; 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.

128

When made 1930.

No. of Sets

4

Engine Brake Horse Power

160

Nom. Horse Power as per Rule

189

Total Capacity of Generators 1800 Kilowatts.

## OIL ENGINES, &amp;c.—Type of Engines

Flat British Direct.

2 or 4 stroke cycle

Single or double acting

Single

Maximum pressure in cylinders

500 lb

Diameter of cylinders

400 lb

Length of stroke

500 lb

No. of cylinders

4

No. of cranks

4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

536 lb

Is there a bearing between each crank

Yes

Revolutions per minute

260.

Flywheel dia.

2006 lb

Weight

5 tons

Means of ignition

Compression

Kind of fuel used

Diesel oil

Crank Shaft, dia. of journals

as per Rule 233 lb

as fitted 260 lb

Crank pin dia.

260 lb

Crank Webs

Mid. length breadth 340 lb

Thickness parallel to axis

shrink

Mid. length thickness 144 lb

Thickness around eyehole

Flywheel Shaft, diameter

as per Rule 233 lb

as fitted 260 lb

Intermediate Shafts, diameter

as per Rule

Thickness of cylinder liners

36 lb

Is a governor or other arrangement fitted to prevent racing of the engine when declutched

Yes

Means of lubrication

Fuel

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.

10

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

10

2700 galls. per hour

Air Compressors, No.

one

No. of stages

3.

Diameters

320 lb - 65 lb

Stroke

350 lb

Driven by

cranks shaft

Scavenging Air Pumps, No.

one

Diameter

664 lb

Stroke

500 lb

Driven by

cranks shaft

## 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

Scrubbed ends

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

Yes

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

14.46"

thickness

.45"

Seamless, lap welded or riveted longitudinal joint

Seamless

Material

S

Range of tensile strength

37.5

Working pressure by Rules

1110 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

Yes

Generators, do they comply with the requirements regarding rating

Yes

are they compound wound

Yes

are they over compound 5 per cent.

Yes

if 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 generator as per Rule

Yes

## PLANS.

Are approved plans forwarded herewith for Shafting

Yes

Receivers

Yes

Separate Tanks

## SPARE GEAR

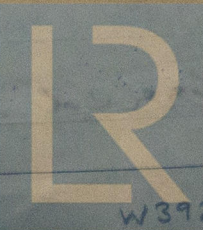
As per Attached Sheet.

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

pp.

D. Brown

Manufacturer.



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Lloyd's Register

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 16 18 28 May 1 2 7 13 19 30 June 6 16 17 24 July 7 Aug  
 Total No. of visits - 46 - 13 18 20 Sep 9

Dates of Examination of principal parts - Cylinders 7.4.30 Covers 9.9.30 Pistons 7.11.30 Piston rods 9.9.30

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. best steel Identification Marks 2663-74 2773-74 3383-74 Intermediate shafts, Material - Identification Marks -

Is this machinery duplicate of a previous case 90. 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.

2.6/30  
18/10/30

1m 7 28 - Transfer.  
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

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

John Brown  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 21 OCT 1930  
 Assigned Deferred.

Rpt. 13.  
**REF**  
 Date of writing  
 No. in Survey Book.  
 70172 on  
 Built at  
 Owners  
 Electric Light  
 Is the Vessel  
 System of  
 Pressure of  
 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,  
 their respect  
 (2) Main Swit  
 a fuse on ea  
 Switchboa  
 are they pro  
 woodwork o  
 are they co  
 permanent  
 with mica  
 and is the  
 Yes  
 bars Yes  
 Main Sw  
 AGE COND  
 EQUALISE  
 Instrum  
 Earth T  
 SERIES  
 Switch  
 Joint B