

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 59686

Received at London Office

MAY -5 1938

Date of writing Report

10

When handed in at Local Office

30-4-

38

Port of Glasgow

No. in Survey held at Reg. Book.

Glasgow

Date, First Survey

24. 3. 37

Last Survey 29th April 1938.

Number of Visits

33

Single
on the Twin
Triple
Quadruple

Screw vessel

Sc. M.V. "LOCHAVON"

Tons { Gross 9204
Net 5703

Built at

Govan

By whom built

Harland & Wolff Ltd

Yard No. 999G

When built 1938

Owners

Royal Mail Lines Ltd

Port belonging to

London

Oil Engines made at

Glasgow

By whom made

British Auxiliaries Ltd

Contract No.

When made 1938

Generators made at

Belfast

By whom made

Harland & Wolff Ltd

Contract No.

When made

No. of Sets

4

Engine Brake Horse Power

1500

Nom. Horse Power as per Rule

428

Total Capacity of Generators / 000 Kilowatts.

OIL ENGINES, &c.—Type of Engines Heavy Oil Type K.45I 2 or 4 stroke cycle 2. Single or double acting Single

Maximum pressure in cylinders

780 lbs.

Diameter of cylinders

250 M/M

Length of stroke

420 M/M

No. of cylinders

5

No. of cranks

5

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

360 M/M

Is there a bearing between each crank

Yes

Revolutions per minute

340

Flywheel dia.

1300 M/M

Weight

1100 Kgs.

Means of ignition

Compression

Kind of fuel used

Diesel

Crank Shaft, dia. of journals

as per Rule 152 M/M

as fitted 160

Crank pin dia.

160 M/M

Mid. length breadth

214 M/M

Thickness parallel to axis

✓

Flywheel Shaft, diameter

as per Rule 152 M/M

as fitted 160

Intermediate Shafts, diameter

as per Rule

as fitted

Thickness of cylinder liners

19.5

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

Yes

Means of lubrication

Forced

Are the cylinders fitted with safety valves

Yes

Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

Yes

Cooling Water Pumps, No.

1 off each engine

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Yes

Lubricating Oil Pumps, No. and size

One each engine 125 litres per min

Air Compressors, No.

✓

No. of stages

✓

Diameters

✓

Stroke

✓

Driven by

✓

Scavenging Air Pumps, No.

One each engine

Diameter

650 M/M

Stroke

240 M/M

Driven by

Crank Shaft

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

Can the internal surfaces of the receivers be examined

Yes

What means are provided for cleaning their inner surfaces

Manhole door.

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

Yes

High Pressure Air Receivers, No.

✓

Cubic capacity of each

✓

Internal diameter

✓

thickness

✓

Seamless, lap welded or riveted longitudinal joint

Material

✓

Range of tensile strength

2 @ 61.9"

Working pressure by Rules

✓

Starting Air Receivers, No.

2 off 725 cft

Total cubic capacity

1500 cft

Internal diameter

1 @ 3:0

thickness

1 @ 19/32

Seamless, lap welded or riveted longitudinal joint

Riveted

Material

Steel

Range of tensile strength

28/32 t

Working pressure by Rules

356 lbs

ELECTRIC GENERATORS:—Type

Pressure of supply

volts.

Load

Amperes.

Direct or Alternating Current

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

Generators, do they comply with the requirements regarding rating

are they over compounded 5 per cent.

, if not compound wound state distance between each generator

is an adjustable condenser 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

PLANS. Are approved plans forwarded herewith for Shafting

5-11-36.

Receivers 6/3/37 + 12/3/37

Separate Tanks

✓

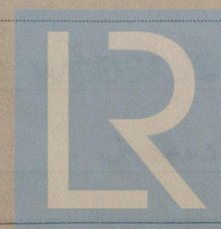
PAIRE GEAR as per attached list

The foregoing is a correct description

BRITISH AUXILIARIES, LIMITED,

MANAGER.

Manufacturer.



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Lloyd's Register Foundation

W 500-0110

Dates of Survey while building { During progress of work in shops - - } 1937 Mar: 24-30 Apr: 12 June: 2-4-9 Aug: 30 Sep: 23 Oct: 20-27 Nov: 11-16-1938
{ During erection on board vessel - - - } 22-24-29 Dec: 2-6-8-14-16-20-23-27 (1938) Jan: 6-7-17-18 Feb: 3 Mar: 1-9-1939
Total No. of visits 33

Dates of Examination of principal parts—Cylinders 16-11-37 29-11-37 2-12-37 9-6-37 17-11-37 24-11-37 6-12-37
24-11-37 2-12-37 4-3-38 14-12-37 29-11-37 2-12-37 23-12-37
Covers 4-6-37 6-12-37 5-6-37 Pistons

Connecting rods 6-12-37 23-12-37 Crank and Flywheel shaft 18-3-37 28-5-37 8-4-37 Intermediate shaft ✓
Lloyds No. 9712 P.K. 59

Crank and Flywheel shaft, Material Steel Identification Mark 9714 " 68 Intermediate shafts, Material ✓ Identification Marks ✓
9713 " 62
9715 " 62

Is this machinery duplicate of a previous case Yes. If so, state name of vessel M.V. ESSEX lgs report No. 57690

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 approved plans. The materials and workmanship are good. On completion they have been tried on the bench at full power with satisfactory results. They are to the order of Messrs Harland & Wolff Ltd Govan and have been properly secured on board at vessel, M.V. "LOCHAVON" at present fitting out at their yard. under No. 999 G.

30/4/38

428. N.H.P. @ 2/-
The amount of Fee ... £ 42. 16. 0.
Travelling Expenses (if any) £ : :
When applied for, 4 MAY 1938
When received, 14. 6. 1938

Committee's Minute GLASGOW 4 MAY 1938
Assigned Defused

G. E. Murdoch H. Haffner
Surveyors to Lloyd's Register of Shipping