

27 SEP 1930

BL 10.468

pt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 50658

Received at London Office

16 JUL 1930

Date of writing Report

11th July, 1930

When handed in at Local Office

11th July, 1930

Port of

GLASGOW.

No. in Survey held at
Reg. Book.

86460

Single
Twin
Triple
Quadruple

Screw vessel

"SILVERSANDAL"

Date, First Survey

9.12.29

Last Survey

9th July, 1930.

Number of Visits

16

Built at

Belfast

By whom built

Harland & Wolff Ltd.

Yard No.

885

When built

1930

Owners

Silver Line Ltd.

Port belonging to

LONDON.

Oil Engines made at

Glasgow

By whom made

Harland & Wolff Ltd.

Contract No.

885

When made

1930

Generators made at

Sunderland

By whom made

Sunderland Forge & Eng. Co.

Contract No.

885

When made

1930

No. of Sets

4

Engine Brake Horse Power

151 each

Nom. Horse Power as per Rule

172 each

Total Capacity of Generators

400

Kilowatts.

OIL ENGINES, &c.—Type of Engines

Diesel, Vertical Reciprocating

2 or 4 stroke cycle

4

Single or double acting

Single

Maximum pressure in cylinders

500 lb./in.²

Diameter of cylinders

230 mm.

Length of stroke

380 mm.

No. of cylinders

6 each

No. of cranks

6 each

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

302 mm.

Is there a bearing between each crank

Yes

Revolutions per minute

300

Flywheel dia.

1225 mm.

Weight

1.08 tons

Means of ignition

Compression

Kind of fuel used

Diesel

Crank Shaft, dia. of journals

as per Rule 132 mm.

as fitted 140 mm.

Crank pin dia.

140 mm.

Crank Webs

Mid. length breadth

335 mm.

Thickness parallel to axis

2 solid

Mid. length thickness

78 mm.

Thickness around eyehole

3 forged.

Flywheel Shaft, diameter

as per Rule 132 mm.

as fitted 140 mm.

Intermediate Shafts, diameter

as per Rule

as fitted

Thickness of cylinder liners

18 to 14 mm.

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

Yes

Means of lubrication

Forced & gravity

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.

Ship's system

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

Yes

Lubricating Oil Pumps, No. and size

One off each engine

Each 2 tons/hr.

Air Compressors, No.

None

No. of stages

Diameters

Stroke

Driven by

Diameter

Stroke

Driven by

Scavenging Air Pumps, No.

None

Diameter

Stroke

Driven by

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

Fusible plug; safety valve on pipe line.

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.

None

Cubic capacity of each

Internal diameter

Thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Starting Air Receivers, No.

One

Total cubic capacity

150 litres

Internal diameter

295 mm.

Thickness

.71 in.

Seamless, lap welded or riveted longitudinal joint

Seamless

Material

Steel

Range of tensile strength

Working pressure by Rules

ELECTRIC GENERATORS:—Type

Open type

Pressure of supply

220 volts.

Load

455 (each)

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 generators as per Rule

Yes

PLANS. Are approved plans forwarded herewith for Shafting

12th Oct. 1929

Receivers

None

Separate Tanks

None.

SHAFTING

As per attached list

In accordance with the

SHAFTING

Rules and in excess.

The foregoing is a correct description,

For HARLAND & WOLFF, LTD.

C. H. Green

Manufacturer.

MANAGER FINNIESTON WORKS,



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Lloyd's Register

Foundation

002477-002484-0070

Dates of Survey while building { During progress of work in shops - - } 19 29 Dec 9. 10. 20 (1930) Jan 21 Mar 3. 12. 17. 19. 24. 28 May 8. 9 June 3. 19 July 3. 9
{ During erection on board vessel - - - }
Total No. of visits 20

Dates of Examination of principal parts—Cylinders 19-6-30 Covers 19-6-30 Pistons 3-6-30 Piston rods 3-6-30

Connecting rods 3-6-30 Crank and Flywheel shafts { 12-3-30, 24-3-30 }
Crank and Flywheel shaft, Material Steel Identification Mark 2021, 2953, 3011, 3085 Intermediate shafts, Material None Identification Marks

Is this machinery duplicate of a previous case Yes. If so, state name of vessel M.V. "Silverlake".

General Remarks (State quality of workmanship, opinions as to class, &c.) These four 6-cylinder Auxiliary Dies Engines have been built under special survey in accordance with this Society's Rules. The material & workmanship are good. They have been tried on the test bed under full power load with satisfactory results. The Engines & their generators have been forwarded to Belfast to be fitted in the vessel.

These engines have been efficiently fastened on seats in the motor room of the vessel & tried out under full working conditions with satisfactory results.

R. Lee Amner
Belfast.

Im. 720—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ 17 : 4 : 15 JUL 1930
When applied for, 19
Travelling Expenses (if any) £ — : — : 17 Aug 1930
When received, 19
See London form C. 11.

Committee's Minute GLASGOW 15 JUL 1930
Assigned Deferred.

J. D. Boyle
Surveyor to Lloyd's Register of Shipping.

FRI. 3 OCT 1930