

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 12491

13 NOV 1939

Received at London Office

Belfast

Date of writing Report

19 When handed in at Local Office

10. 11.

39 Port of

Date in Survey held at

Belfast

Date, First Survey

Visits included in 7. 8. with 41

Last Survey

19

Number of Visits

on the Single
Twin
Triple
Screw vessel

"AUCKLAND STAR"

Tons Gross 1238.211
Net 750.777

Built at

Belfast

By whom built

Harland, Wolff Ltd

Yard No. 1017

When built

1939

Owners

Blue Star Line Ltd.

Port belonging to

Belfast

Engines made at

Belfast

By whom made

Harland, Wolff Ltd

Contract No. 1017

When made 1939

Generators made at

Birmingham

By whom made

General Electric Co. Ltd

Contract No.

When made 1939

No. of Sets 3

Engine Brake Horse Power 1440

Nom. Horse Power as per Rule 411

Total Capacity of Generators 990 Kilowatts.

L ENGINES, &c.—Type of Engines

Harland, Wolff - B.H. Arden Injector, or 4 stroke cycle 4

Single or double acting Single

Maximum pressure in cylinders

500 lb/sq in

Diameter of cylinders

330 mm

Length of stroke

330 mm

No. of cylinders

6

No. of cranks

6

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

400 mm

Is there a bearing between each crank

Yes

Revolutions per minute

300

Flywheel dia.

1900 mm

Weight

4000 kg

Means of ignition

Compressor

Kind of fuel used

Diesel Oil

Crank Shaft, dia. of journals

as per Rule approved

280 mm

Crank pin dia.

220 mm

Crank Webs

Mid. length breadth

mean 292 mm

Thickness parallel to axis

Solid

Mid. length thickness

115 mm

Thickness around eyehole

Fanged

Flywheel Shaft, diameter

as per Rule

270 mm

Intermediate Shafts, diameter

as per Rule

Thickness of cylinder liners

24 mm

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

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

Lagged

Cooling Water Pumps, No.

See Report on Main Motors

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

Yes

Lubricating Oil Pumps, No. and size

Three 8.4 cub. metres per hour at 300 r.p.m.

Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Savenging Air Pumps, No.

Diameter

Stroke

Driven by

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

Yes

Are the internal surfaces of the receivers be examined

Yes

What means are provided for cleaning their inner surfaces

Open ends

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

Working pressure by Rules

Starting Air Receivers, No.

Two

Total cubic capacity

360 cu. ft.

Internal diameter

24 1/2"

thickness

1/2"

Seamless, lap welded or riveted longitudinal joint

E.W. end joint

Material

Steel

Range of tensile strength

24/32 Tons

Working pressure by Rules

422 lb/sq in

ELECTRIC GENERATORS:—Type

Compound wound

Pressure of supply

220

volts. Load

4500

Total Amperes

Direct or Alternating Current

Direct

Is an alternating current system, state frequency of periods per second

Yes

Is the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off

Yes

Do the generators, do they comply with the requirements regarding rating

Yes

Are they compound wound

Yes

Do 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

ANS. Are approved plans forwarded herewith for Shafting

6.4.38

Receivers

Separate Tanks

16.3.39

ARE GEAR

In accordance with the Rules. - See Separate List

The foregoing is a correct description.

For HARLAND AND WOLFF, LIMITED.

A. J. Marshall
SECRETARY

Manufacturer.



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Lloyd's Register
Foundation

W334-0052

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits

Dates of Examination of principal parts—Cylinders 31.5.39 to 28.6.39 Covers 9.5.39 to 27.39 Pistons 9.5.39 to 27.39 Piston rods

Connecting rods 2.6.39 to 28.6.39 Crank and Flywheel shaft 12.5.39 to 27.39 Intermediate shaft

Crank and Flywheel shafts, Material S.M. Steel Identification Mark 110708 283

Intermediate shafts, Material Identification Marks

Is this machinery duplicate of a previous case Yes If so, state name of vessel M/V "WELLINGTON STAR"

General Remarks (State quality of workmanship, opinions as to class, &c.)

The engines have been constructed under Special Survey.

The materials, workmanship are good

The engines have been efficiently installed onboard the vessel, tried out under working conditions with satisfactory results

The main generator was constructed under survey and the electrical installation tried out satisfactorily.

The amount of Fee ... £

Travelling Expenses (if any) £

When applied for,

19

When received,

19

R. Lee Ames

Chas. S. Thomas

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE 21 NOV 1939

See Bel No. 12491



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Lloyd's Register Foundation

Rpt. 13.

Date of writing

No. in Reg. B.

20298

Built at

Owners

Electrical

Is vessel

Have plan

Heating

has the g

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