

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Std. No. 32584

Sms. No. 20813

DEC 29 1938

Received at London Office

Date of writing Report 23rd Dec. 1938 When handed in at Local Office 23rd Dec. 1938 Port of Grimsby
 No. in Survey held at Lincoln Date, First Survey 10. 2. 38 Last Survey 12. 13. 1938
 Reg. Book. Number of Visits 9

on the Single Screw vessel British Liberty Tons { Gross
 Triple
 Quadruple Net

Built at Hampton Hill-on-Dees By whom built Jurvis Shipbuilding Co. Yard No. When built

Owners Port belonging to

Oil Engines made at Lincoln By whom made Ruston & Hornsby Ltd ENGINE Contract No. 193124 When made 1938

Generators made at Sunderland By whom made Sunderland Forge & Eng. Co. Ltd GENERATOR Contract No. F5450 When made 1938

No. of Sets One Engine Brake Horse Power 48 Nom. Horse Power as per Rule 14 Total Capacity of Generators 30 Kilowatts.

OIL ENGINES, &c.—Type of Engines 5 VQZ Vertical Solid Injection 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 800 lbs. Diameter of cylinders 5 3/8" Length of stroke 8" No. of cylinders 5 No. of cranks 5

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6 1/4" Is there a bearing between each crank Yes

Revolutions per minute 600 Flywheel dia. 32" Weight 1120 lbs. Means of ignition Compression Kind of fuel used Heavy oil

Crank Shaft, dia. of journals as per Rule Approved 3 5/8" Crank pin dia. 3 1/4" Crank Webs Mid. length breadth 5 1/8" Thickness parallel to axis shrunk
as fitted 3 5/8" Mid. length thickness 1 39/64" Thickness around eye hole

Flywheel Shaft, diameter as per Rule Approved 3 5/8" Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 1/2"

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 Water cooled

Cooling Water Pumps, No. Two Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓

Lubricating Oil Pumps, No. and size One, Twin geared.

Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓

Scavenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓

AIR RECEIVERS:—Have they been made under Survey ✓ State No. of Report or Certificate ✓

Is each receiver, which can be isolated, fitted with a safety valve as per Rule ✓

Can the internal surfaces of the receivers be examined ✓ What means are provided for cleaning their inner surfaces ✓

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

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. ✓ Total cubic capacity ✓ Internal diameter ✓ thickness ✓

Seamless, lap welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure by Rules ✓

ELECTRIC GENERATORS:—Type Enclosed

Pressure of supply 110 volts. Full Load Current 273 Amperes. Direct or Alternating Current direct

If alternating current system, state the periodicity ✓ Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off Yes

Generators, are they compounded as per rule Yes is an adjustable regulating resistance fitted in series with each

shunt field ✓ 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

If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test Yes and do the results comply with the requirements Yes

If the generators are 100 kw. or over have they been built and tested under survey ✓

PLANS. Are approved plans forwarded herewith for Shafting 18. 4. 35 Receivers ✓ Separate Tanks ✓
 (If not, state date of approval)

SPARE GEAR

As per Rule requirements. ✓

The foregoing is a correct description,

Ruston & Hornsby Limited,

H. G. Kimber

Manufacturer.

Oil & Gas Engine Dept.



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Foundation

W161-0104

Dates of Survey while building { During progress of work in shops - 1938 Feb 10, 24 Mar 14 Jul 5, Sep 24 Nov 10, 12 Dec 8, 12
During erection on board vessel - - -
Total No. of visits 9

Dates of Examination of principal parts—Cylinders 12.12.38 Covers 12.12.38 Pistons 12.12.38 Piston rods ✓

Connecting rods 24.9.38

Crank and Flywheel shafts

5.7.38

Intermediate shafts ✓

Crank and Flywheel shafts, Material

Steel

Identification Marks LLOYD'S 3363, 5.7.38 AS.

Intermediate shafts, Material ✓

Identification Marks. ✓

Identification marks on Air Receivers

Is this machinery duplicate of a previous case Yes If so, state name of vessel

Lms. Rpt. 20778.

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

This engine has been built under special survey in accordance with the Rules and approved plans.

The workmanship and materials are good.

Running tests have been carried out at the Makers works with satisfactory results.

The engine is being despatched to Messrs. Furness Shipbuilding Co., Haverton Hill-on-Tees, for fitting on board the vessel.

74909/1/11.9376-37/11.1541.

Request form attached Lms. Rpt. 20755.

The amount of Fee ...

£ 5

When applied for,

28.12.38

Travelling Expenses (if any) £

When received,

7.3.39 39/14/3

Pauling

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE 7 MAR 1939

Assigned

See F.E. machy rpt



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