

COMPRESSOR REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 21124

Date of writing Report 15.11.39 When handed in at Local Office 15.11.39 Port of *Grimsby*
 No. in Survey held at *Lincoln* Date, First Survey 25.8.38 Last Survey 9.11.39
 Reg. Book. *Lincoln* Number of Visits 9
 on the *Single* Screw vessel *Tu. Sc. Turb. Llanartha line*
 Triple
 Quadruple
 Built at *Greenock* By whom built *Greenock Dockyard Co. Ltd* Yard No. 437 When built 1940
 Owners Port belonging to
 Oil Engines made at *Lincoln* By whom made *Ruston & Hornsby, Ltd* Contract No. 195324 When made 1939.
 Generators made at *Poole* By whom made *Hammworthy Engineering Co. Ltd* Contract No. 43732 When made 1939
 No. of Sets / Engine Brake Horse Power 5 Nom. Horse Power as per Rule 1.4 Total Capacity of Generators ✓ Kilowatts.

OIL ENGINES, &c.—Type of Engines *1 VTOZ - Vertical Solid Injection* 2 or 4 stroke cycle *4* Single or double acting *Single*
 Maximum pressure in cylinders 850 Diameter of cylinders 4" Length of stroke 4" No. of cylinders 1 No. of cranks 1
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 4 5/8" Is there a bearing between each crank *Yes*
 Revolutions per minute 1000 Flywheel dia. 19 1/2" Weight 160 lbs. Means of ignition *Compression* Kind of fuel used *Heavy oil*
 Crank Shaft, dia. of journals as per Rule *Approved* Crank pin dia. 2 1/2" Mid. length breadth 3 3/8" Thickness parallel to axis *shrunk*
 as fitted 2 3/8" Crank Webs Mid. length thickness 1 1/4" Thickness around eyehole ✓
 Flywheel Shaft, diameter as per Rule *Approved* Intermediate Shafts, diameter as per Rule *✓* Thickness of cylinder liners 1 3/4"
 as fitted 2 1/8" 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 *No (Land starting)* Are the exhaust pipes and silencers water cooled or lagged with non-conducting material ✓
 Cooling Water Pumps, No. *One* Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓
 Lubricating Oil Pumps, No. and size *One, geared.*
 Air Compressors, No. *One* No. of stages *Single* Diameters 2 1/4" Stroke 3" Driven by *Engine*
 Scavenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓
 AIR RECEIVERS:—Have they been made under Survey *Yes* State No. of Report or Certificate *C 3438.*
 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 *Inspection hole*
 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. *One* Total cubic capacity *3.25 Cub. ft.* Internal diameter 1' 3" thickness 5/16"
 Seamless, lap welded or riveted longitudinal joint *Seamless* Material *Steel* Range of tensile strength *26-30 tons.* Working pressure by Rules *Approved*

ELECTRIC GENERATORS:—Type ✓
 Pressure of supply ✓ volts. Full Load Current ✓ Amperes. Direct or Alternating Current ✓
 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 ✓
 Generators, are they compounded as per rule ✓ is an adjustable regulating resistance 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 ✓
 If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test ✓ and do the results comply with the requirements ✓
 If the generators are 100 kw. or over have they been built and tested under survey ✓

PLANS. Are approved plans forwarded herewith for Shafting 17.9.39 Receivers. 5-5-38 Separate Tanks ✓
 (If not, state date of approval)

SPARE GEAR

As per Rule requirements.

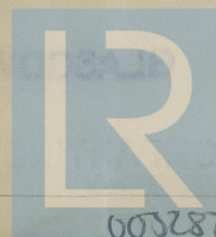
The foregoing is a correct description.

Ruston & Hornsby Limited,

H. Geo. Kimber

Manufacturer.

Oil & Gas Engine Dept.



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Lloyd's Register
Foundation

003282-003284-0076

Dates of Survey while building { During progress of work in shops - - } 1938 Aug 25-29 1939 Mar 21-31 Apr 27 May 8-15 Oct 16 Nov 9
 { During erection on board vessel - - - }
 Total No. of visits 9

Dates of Examination of principal parts—Cylinders 8-5-39 Covers 8-5-39 Pistons 8-5-39 Piston rods ✓
 Connecting rods 27-4-39 - 8-5-39 Crank and Flywheel shafts 8-5-39 Intermediate shafts ✓

Crank and Flywheel shafts, Material Steel Identification Marks LLOYDS 3487-8-5-39 AS

Intermediate shafts, Material ✓ Identification Marks ✓

Identification marks on Air Receivers 58885
 Lloyds Test
 600 lbs.
 WP 800 lbs.
 9-11-39 AS.

Is this machinery duplicate of a previous case Yes If so, state name of vessel Gns. Rpt. N° 20963.

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

This engine and compressor have been built under special survey in accordance with the Rules, Secretary's letters and approved plans.

The workmanship and materials are good.

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

The set is being shipped to Messrs Greenock Dockyard Co. Ltd. Greenock, for fitting on board the vessel.

This set has been apparently installed on board the vessel, tried out under full working conditions, with satisfactory results. It is eligible in my opinion to be fitted in a vessel Classed in the Society's Register Book.

Charles A. Hunter

Greenock
 12/4/40

07/39/11/70-11/11712.

Request from attaché Gns. Rpt. 20963

The amount of Fee ...	£ 2 : 19 8:	When applied for, 15.11.39
3 less 4 for C/R Survey (10s) plus 4p		When received, 8 th FEB. 1940
Travelling Expenses (if any) £		

A. A. A. A.
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW 16 APR 1940

Assigned SEE ACCOMPANYING MACHINERY REPORT.



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