

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 21233

Received at London Office

JUL -4 1940

Date of writing Report 2.7.40 when handed in at Local Office 2.7.40 Port of Grimsby
 No. in Survey held at Lincoln Date, First Survey 5.10.39 Last Survey 24th June 1940.
 Reg. Book. 20402 on the Single Motor Underwood Screw vessel Underwood
 Number of Visits 10.

Built at Leith By whom built Henry Robt. Ltd Yard No. 291 When built 1941
 Owners Union Steamship Co of New Zealand Port belonging to London
 Oil Engines made at Lincoln By whom made Ruston & Hornsby, Ltd Engine Contract No. 207095 When made 1940
 Generators made at Gorwick By whom made Laurence, Scott & Electromotors, Ltd Generator Contract No. 81871 When made 1940
 No. of Sets One Engine Brake Horse Power 40 Nom. Horse Power as per Rule 11.4 Total Capacity of Generators 20 Kilowatts.

OIL ENGINES, &c.—Type of Engines 4 VROZ - Vertical Solid Injection 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 800 lbs. Diameter of cylinders 4 1/2" Length of stroke 5 1/2" No. of cylinders 4 No. of cranks 4
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6 17/32" Is there a bearing between each crank Yes
 Revolutions per minute 1000 Flywheel dia. 26" Weight 424 Means of ignition Compression Kind of fuel used Heavy oil.
 Crank Shaft, dia. of journals as per Rule Approved Crank pin dia. 3" Crank Webs Mid. length breadth 3 1/2" Thickness parallel to axis shrunk
 as fitted 3 Mid. length thickness 1 1/16" Thickness around eye-hole shrunk
 Flywheel Shaft, diameter as per Rule Approved Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 5/16"
 as fitted 3 as fitted shrunk
 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 Yes
 Cooling Water Pumps, No. One Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
 Lubricating Oil Pumps, No. and size One, geared.
 Air Compressors, No. Yes No. of stages Yes Diameters Yes Stroke Yes Driven by Yes
 Scavenging Air Pumps, No. Yes Diameter Yes Stroke Yes Driven by Yes

AIR RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate Yes
 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 Yes
 Is there a drain arrangement fitted at the lowest part of each receiver Yes
 High Pressure Air Receivers, No. Yes Cubic capacity of each Yes Internal diameter Yes thickness Yes
 Seamless, lap welded or riveted longitudinal joint Yes Material Yes Range of tensile strength Yes Working pressure by Rules Yes
 Starting Air Receivers, No. Yes Total cubic capacity Yes Internal diameter Yes thickness Yes
 Seamless, lap welded or riveted longitudinal joint Yes Material Yes Range of tensile strength Yes Working pressure by Rules Yes

ELECTRIC GENERATORS:—Type Enclosed-ventilated, drip-proof.
 Pressure of supply 220 volts. Full Load Current 91 Amperes. Direct or Alternating Current Direct
 If alternating current system, state the periodicity Yes 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 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 Yes

PLANS. Are approved plans forwarded herewith for Shafting 7-10-38 Receivers Yes Separate Tanks Yes
 (If not, state date of approval)

SPARE GEAR
As per Rule requirements.

The foregoing is a correct description,
H. Geo. Kimber Manufacturer.



W266-0184

Dates of Survey while building { During progress of work in shops - - } 1939 Oct 5.16 1940 Mar 14.18.29 Apr 8 May 20.23.30 Jun 27
 { During erection on board vessel - - - }
 Total No. of visits 10

Dates of Examination of principal parts—Cylinders 20.5.40 Covers 20.5.40 Pistons 20.5.40 Piston rods ✓

Connecting rods 8.4.40 Crank and Flywheel shafts 20.5.40 Intermediate shafts ✓

Crank and Flywheel shafts, Material Steel Identification Marks LLOYDS 5444-20.5.40AS

Intermediate shafts, Material Housing Identification Marks LLOYDS 3571-20.5.40AS

Identification marks on Air Receivers

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *Gen. Reg. No 21166*

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 set is being despatched to Messrs Henry Robt. Ltd, Leith, for fitting on board the vessel.

Request form attached.
94633/T/40/12/1.- P/12/10768

The amount of Fee £3 less £ 2 13/8
 5/- for survey of 5444
 2/- do of 1110 (40)
 Travelling Expenses (if any) £

When applied for, 21/7/40
 When received, 21/10/40

R. A. White

Surveyor to Lloyd's Register of Shipping.

Im. 1137.—Transfer. (MADE IN ENGLAND.)

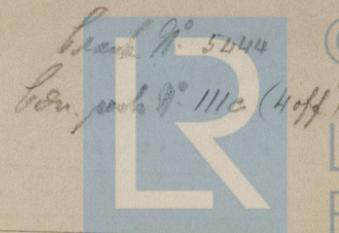
(The Surveyors are requested not to write on or below the space for Committee Minute.)

Committee's Minute

TRI. 11 JUL 1941

Assigned

See Lib. No 20437



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