

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 10162

Date of writing Report 13th Aug 1940 When handed in at Local Office 19th Aug 1940 Port of ^{Received at London Office} MANCHESTER AUG 21 1940
 No. in Survey held at ALTRINCHAM Date, First Survey 18th July 1940 Last Survey 13 Aug 1940
 Reg. Book. Number of Visits 3.

on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel STEAM TUG. "PRUDENT."
 Built at HULL By whom built C. D. HOLMES & CO. Yard No. When built

Owners Port belonging to
 Oil Engines made at ALTRINCHAM By whom made RUSSELL NEWBERRY & CO. LTD. Engine Contract No. 3545. When made 1940
 Generators made at — By whom made — Contract No. — When made —
 No. of Sets ONE Engine Brake Horse Power 14. Nom. Horse Power as per Rule 4. Total Capacity of Generators — Kilowatts.

OIL ENGINES, &c.—Type of Engines VERTICAL SOLID INJECTION 2 or 4 stroke cycle 4 Single or double acting SINGLE
 Maximum pressure in cylinders 900 lbs/sq. in. Diameter of cylinders 4.125" Length of stroke 6" No. of cylinders TWO. No. of cranks TWO.
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 4.75" Is there a bearing between each crank YES
 Revolutions per minute 800 Flywheel dia. 22" Weight 220 LBS Means of ignition COMPRESSION Kind of fuel used HEAVY OIL.

Crank Shaft, dia. of journals as per Rule APPROVED as fitted 2 1/2" Crank pin dia. 2 3/8" Crank Webs Mid. length breadth 3 1/2" Mid. length thickness 1 5/16" shrunk Thickness parallel to axis SOLID Thickness around eyehole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 3/32"

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 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. GEAR TYPE.

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

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 29.440. Receivers — Separate Tanks —
 (If not, state date of approval)

SPARE GEAR

The foregoing is a correct description.

per pro. RUSSELL NEWBERRY & Co. Ltd.

Manufacturer.



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011536-011543-0164

Dates of Survey while building { During progress of work in shops - - } 1940. July 18. 27. Aug 13.
{ During erection on board vessel - - - }
Total No. of visits 3

Dates of Examination of principal parts—Cylinders 18.7.40. Covers 27.7.40 Pistons 18.7.40 Piston rods —
Connecting rods 18.7.40 Crank and Flywheel shafts 18.7.40 Intermediate shafts —
Crank and Flywheel shafts, Material D.H. INCOY STEEL Identification Marks 404DS / 53. WTM. 14.5.40.
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 MCH. RPT. 6/110.

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

THIS ENGINE HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. THE MATERIALS AND WORKMANSHIP ARE OF A GOOD QUALITY AND THE ENGINE WHEN TESTED IN SHOP UNDER FULL LOAD CONDITIONS SHOWN SATISFACTORY RESULTS. IN MY OPINION THIS ENGINE IS SUITABLE TO BE PLACED ON BOARD A VESSEL, CLASSED WITH THIS SOCIETY, FOR THE PURPOSE INTENDED.

This engine has been mounted with a centrifugal pump on a portable frame work. Two sets were ordered for each of the following salvagerships: "Assurance", "Delight", "Prodent" & "Rescue". and are being sent as may be determined by the Admiralty to bases for use with any of the above vessels.

R. J. P. [Signature]
28/10/40
Hull

INCLUSIVE FEE
CASE

The amount of Fee ... £ : : When applied for, 19. M
Travelling Expenses (if any) £ : : When received, 19.

[Signature]
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 10 DEC 1940

Assigned

See Hull S.C. 50966



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