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REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 12233

Received at London Office

10 JUL 1945

Date of writing Report 4th July, 1945 When handed in at Local Office 9th July, 1945 Port of Manchester.

No. in Survey held at ALTRINCHAM Date, First Survey 18.1.45. Last Survey 25.5.1945.
Reg. Book. Number of Visits 5

on the ^{Single} ^{Twin} ^{Triple} ^{Quadruple} Screw vessel "João Alvares Fagundes"

Tons { Gross
Net

Built at LISBON By whom built CIA. UNIAO FABRIL Yard No. 117 When built

Owners SOCIEDADA NACIONAL DOS ARMADORES DE BACALHAU Port belonging to

Oil Engines made at ALTRINCHAM By whom made RUSSELL NEWBERRY & CO. LD ENGINE 3877 Contract No. 3878 When made 1945.

Generators made at By whom made Contract No. When made

No. of Sets 2 Engine Brake Horse Power 40 each Nom. Horse Power as per Rule 11.4 each Total Capacity of Generators Kilowatts.

Oil ENGINES, &c.—Type of Engines Vertical Solid Injection Heavy or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 860 lb/in² Diameter of cylinders 4 1/8" Length of stroke 6" No. of cylinders 4 No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 5 1/8" Is there a bearing between each crank Yes

Revolutions per minute 1200 Flywheel dia. 22" Weight 263 lbs. Means of ignition Compression Kind of fuel used Diesel 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" Thickness parallel to axis -
Thick. length thickness 1 5/16" shrunk Thickness around eye-hole -

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 11/32"

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. 1 - Plunger Type 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

For alternating current system, state the periodicity Has the Automatic Governor been tested and found as per rule when full load is suddenly thrown on and off

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

unit 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

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

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

Are approved plans forwarded herewith for Shafting 24.1.45. Receivers Separate Tanks

ARE GEAR AS PER RULE REQUIREMENTS.

The foregoing is a correct description,

per pro. RUSSELL, NEWBERRY & Co. Ltd.

J. C. Russell

DIRECTOR

Manufacturer.



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Lloyd's Register Foundation

004502-004511-0199

Dates of Survey while building { During progress of work in shops - 1945. Jan 18, Feb. 15, 24, Mar. 2, May 28. During erection on board vessel - - - Total No. of visits

Dates of Examination of principal parts - Cylinders 18.1.45 & 15.2.45. Covers 15.2.45. Pistons 18.1.45 & 15.2.45. Piston rods - Connecting rods 18.1.45 & 15.2.45. Crank and Flywheel shafts 18.1.45 & 15.2.45. Intermediate shafts - Crank and Flywheel shafts, Material O.H. Steel. Identification Marks LLOYD'S 1877 FH 13.12.43 LLOYD'S 2094 FH 1.11.43 Intermediate shafts, Material - Identification Marks - Identification marks on Air Receivers -

Is this machinery duplicate of a previous case NO If so, state name of vessel -

General Remarks (State quality of workmanship, opinions as to class, &c. THESE ENGINES HAVE BEEN CONSTRUCTED UNDER SPECIALLY SURVEY OF TESTED MATERIALS AND IN ACCORDANCE WITH APPROVED PLANS, SECRETARY'S LETTERS AND THE RULES REQUIREMENTS. WORKMANSHIP IS GOOD AND THE ENGINES, WHEN TESTED IN THE SHOP UNDER FULL LOAD CONDITIONS COUPLED TO AN ELECTRIC BRAKE, SHOWED SATISFACTORY RESULTS. THE REQUIREMENTS OF NOTICE NO. 1803 HAVE NOT YET BEEN COMPLIED WITH BUT, WHEN THIS HAS BEEN DONE, THESE ENGINES WILL BE SUITABLE IN MY OPINION TO BE PLACED ABOARD A VESSEL CLASSED WITH THIS SOCIETY FOR THE PURPOSE INTENDED, VIZ:- TO DRIVE EXISTING ELECTRIC GENERATORS.

M. 439. - Transfer, (MADE AND PRINTED IN ENGLAND) (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ 8 : 8 : 0 When applied for, 9/7/45. S.M. Travelling Expenses (if any) £ 1 : 7 : 6 When received, 19

E. Knowles, Surveyor to Lloyd's Register of Shipping.

FRI. 14 SEP 1945

Committee's Minute Assigned Su F.E. machinery opt.