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REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 77288.

Received at London Office
 Date of writing Report 19th June 1951. When handed in at Local Office 28.6.1951. Port of Glasgow. 4 JUL 1951
 No. in Survey held at Glasgow Date, First Survey 9-8-50 Last Survey 15-6-1951
 eg. Book. on the Single Triple Quadruple Screw vessel M.S. "BRITISH MAPLE" Number of Visits 12.
 Tons { Gross.....
 Net.....
 Built at Sunderland By whom built Messrs J. R. R. Ltd. Yard No. 192 When built 1951
 Owners Messrs British Tanker Co. Ltd. Port belonging to London
 Engines made at Glasgow By whom made Messrs British Polar Eng. Co. Ltd. Contract No. P.V. 163/4 When made 1951
 Generators made at Sunderland By whom made The Sunderland Forge & Eng. Co. Ltd. Contract No. 40957/40958 When made 1950
 No. of Sets 2 Engine Brake Horse Power 112 x 2 M.N. as per Rule 56 Total Capacity of Generators 150 Kilowatts.
 Set intended for essential services Yes.

OIL ENGINES, &c.—Type of Engines Heavy Oil Engines H.S. 3.E Type 2 or 4 stroke cycle 2 Single or double acting single
 Maximum pressure in cylinders 925 lbs/sq. in. Diameter of cylinders 180 mm Length of stroke 300 mm No. of cylinders 3 No. of cranks 3
 Mean indicated pressure 83 lbs/sq. in. Firing order in cylinders 2-1-3 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 220 mm
 Is there a bearing between each crank YES Moment of inertia of flywheel (16 m² or Kg.-cm.²) 24076 in sq. in. Revolutions per minute 500
 Flywheel dia. Weight Means of ignition Kind of fuel used
 Crank Shaft, dia. of journals as per Rule 125 mm as fitted 125 mm Crank pin dia. 120 mm Crank Webs Mid. length breadth 214 mm Thickness parallel to axis 56 mm shrunk
 Mid. length thickness 56 mm Thickness round eye-hole
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia (16 m² or Kg.-cm.²)

Are means provided to prevent racing of the engine when declutched YES Means of lubrication FORCED Kind of damper if fitted NONE
 Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or lagged with non-conducting material LAGGED

Boiling 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 1500 GAL. per HOUR

Compressors, No. NONE No. of stages Diameters Stroke Driven by
 Sucking Air Pumps, No. BLOWER Diameter Stroke Driven by ENG.

AIR RECEIVERS:—Have they been made under Survey YES State No. of Report or Certificate
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule YES

Are the internal surfaces of the receivers be examined YES What means are provided for cleaning their inner surfaces END FLANGE
 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

Sucking Air Receivers, No. TWO Total cubic capacity 200 LITRE Internal diameter 13 1/2 inches thickness 1/2 inch
 Seamless, lap welded or riveted longitudinal joint SEAMLESS Material M.S. Range of tensile strength 26/30 T.1 Working pressure by Rules 710 lbs/sq. in.

ELECTRIC GENERATORS:—Type Sunderland Forge 75 K.W. Compound wound, continuous rating
 Voltage of supply 110 volts Full Load Current 682 Amperes Direct or Alternating Current D.C.

Is an alternating current system, state the periodicity Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown
 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 Are they so spaced
 shielded that they cannot be accidentally earthed, short circuited, or touched Are the lubricating arrangements of the generators as per Rule

Do the generators are under 100 kw. full load rating, have the makers supplied certificates of test and do the results comply with the requirements
 Do the generators are 100 kw. or over have they been built and tested under survey

Are there any other driven machinery other than generator

ANS.—Are approved plans forwarded herewith for Shafting 26-4-49 Receivers 16-7-47 Separate Tanks
 (If not, state date of approval)
 Are Torsional Vibration characteristics if applicable been approved 26-4-49 Armature shaft Drawing No.

ARE GEAR As per rule requirements

The foregoing is a correct description,

James S. R. R. Ltd. Manufacturer.



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003948-003957-0017

Dates of Survey while building
 During progress of work in shops - - 9-8-50, 16-8-50, 18-8-50, 23-8-50, 24-8-50, 25-8-50, 15-9-50, 4-10-50, 18-10-50, 1-6-51, 11-6-51, 15-6-51
 During erection on board vessel - -
 Total No. of visits ENG 12.
 Dates of Examination of principal parts—Cylinders 9-8-50 Covers 24-8-50 25-8-50 Pistons 23-8-50 Piston rods ✓
 Connecting rods 16-7-48 Crank and Flywheel shafts 5-7-49, 6-10-48 Intermediate shafts ✓
 Crank shaft Material O. H. STEEL Tensile strength 35.5 T.T. 35.4 T.T.
 Elongation 36% 32% Identification Marks 19231 H.R.I. 18020 H.R.I.
 Flywheel shaft, Material Identification Marks ✓
 Identification marks on Air Receivers Chatterfield & Co Ltd No 836194 28-4-49 No 836194 3-4-49

Is this machinery duplicate of a previous case YES. If so, state name of vessel H.V. BRITISH PEER.
 GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These engines have been built under Special Survey in accordance with the Secretary's letters and approved plans. The materials and workmanship are good and on completion the engines were tried on the test bed at the makers works with satisfactory results. The torsional vibration characteristics have been approved for a service speed of 500 R.P.M.

5m 4.48.-T. (MADE AND PRINTED IN ENGLAND)

The amount of Fee ... £ 11 : 4 : 0 ✓ When applied for 19
 Travelling Expenses (if any) £ : : When received 19

Committee's Minute

Assigned

GLASGOW

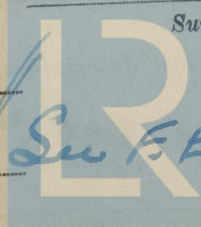
3 JUL 1951

Deferred for completion

A. G. Smith.

Surveyor to Lloyd's Register of Shipping.

FRI. 8 FEB 1952.



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