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REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 74974

of writing Report 29.1.50 1949 When handed in at Local Office 10 JAN 1950 Port of Glasgow Received at London Office 12 JAN 1950

Survey held at Glasgow Date, First Survey 28.10.49 Last Survey 28.12.49 Number of Visits 1

on the Single Screw vessel Motors Vessel "BRITISH PATRIOT" Tons { Gross..... Net.....

at Glasgow By whom built Wm Litgows. Ltd. Yard No. 1042 When built 1950

British Tank Company. Ltd. Port belonging to London

Engines made at Glasgow By whom made Wm British Polar Engine Co. Contract No. 24.157-8 When made 1950

Generators made at Sunderland By whom made S. Sunderland Long. Eng. Co. Contract No. When made 1949

of Sets 2 Engine Brake Horse Power 112 x 2 M.N. as per Rule 56 Total Capacity of Generators 150 Kilowatts.

et intended for essential services Yes

ENGINES, &c.—Type of Engines Heavy oil Engine 4.5.3.5. 4 1/2" 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 925 lbs. Diameter of cylinders 180 % Length of stroke 300 % No. of cylinders 8 No. of cranks 3

Indicated pressure 83 lbs./sq. in. Firing order in cylinders 1. 3. 2. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 220 %

There a bearing between each crank Yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 240 lb. 3 in. 0 Revolutions per minute 500

Wheel dia. 800 % Weight 630 lb. Means of ignition Compression Kind of fuel used Oil

Crank Shaft, dia. of journals as per Rule Crank pin dia. 120 % Crank Webs Mid. length breadth 2 1/4 % Thickness parallel to axis shrunk

Wheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia (16 m² or Kg.-cm.²) 241 lb. 3 in. 0

Means provided to prevent racing of the engine when declutched Yes Means of lubrication Forced Kind of damper if fitted Yes

Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes

Working 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 1500 Gallons per Hour

Compressors, No. Blower No. of stages 1 Diameters 1 Stroke 1 Driven by 1

Engining Air Pumps, No. 1 Diameter 1 Stroke 1 Driven by 1

RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate 886 188. 836 191.

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 Removal of head.

Are there a drain arrangement fitted at the lowest part of each receiver Yes

Pressure Air Receivers, No. 1 Cubic capacity of each 1 Internal diameter 1 thickness 1

Less, lap welded or riveted longitudinal joint 1 Material 1 Range of tensile strength 1 Working pressure by Rules 1

Engining Air Receivers, No. Two Total cubic capacity 70 litres Internal diameter 279 % thickness 13 %

Less, lap welded or riveted longitudinal joint Seamless Material S.A. 316 Range of tensile strength 28 1/2 % Working pressure by Rules 710 lb.

ELECTRIC GENERATORS:—Type Open type. Grip Proof.

Voltage of supply 110 volts. Full Load Current 682.5 Amperes. Direct or Alternating Current D.C.

Alternating current system, state the periodicity 1 Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown off Yes

Generators, are they compounded as per Rule Yes is an adjustable regulating resistance fitted in series with each shunt field Yes

Are all terminals accessible, clearly marked, and furnished with sockets Yes Are they so spaced Yes

Are the generators welded that they cannot be accidentally earthed, short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes

Are the generators under 100 kw. full load rating, have the makers supplied certificates of test Yes and do the results comply with the requirements Yes

Are the generators 100 kw. or over have they been built and tested under survey Yes

Are there any other driven machinery other than generator Yes

NS.—Are approved plans forwarded herewith for Shafting Yes Receivers Yes Separate Tanks Yes

Torsional Vibration characteristics if applicable been approved Yes 18.11.49 Armature shaft Drawing No. 29.4.49

RE GEAR As per Rule requirements

The foregoing is a correct description,

Manufacturer.

DIRECTOR BRITISH POLAR ENGINES LTD



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Lloyd's Register
Foundation

00347-00353-0085

Dates of Survey while building { During progress of work in shops - - 1949 25. 26. 31. Dec. 4. 7. 10. 11. 24. 25. Jan. 27. 28. Dec.
During erection on board vessel - - -
Total No. of visits 11 in 5 mos.

Dates of Examination of principal parts - Cylinders 7. 11. 49. 11. 11. 49. Covers 25. 10. 49. Pistons 26. 10. 49. 4. 11. 49. Piston rods 26. 10. 49.

Connecting rods 26. 10. 49. Crank and Flywheel shafts 14. 11. 49. Intermediate shafts -

Crank shaft { Material D.N. Steel. Tensile strength 33.8 and 34.0 Ton/in.²
Elongation 32.0% in 3" Identification Marks 17352/2786 4.4.1. 18.3.48.
6116. G.S.T. 28.5.49.

Flywheel shaft, Material - Identification Marks -

Identification marks on Air Receivers 2 off. 836.88. 836.91.
R.R.
TEST PRESS. 1420 lbs/in.² The Chesterfield Tube Co. Ltd.

Is this machinery duplicate of a previous case? No If so, state name of vessel. To "Sanda"

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
This engine has been built in
Special Survey in accordance with the approved Plans and Rules.
The materials used and workmanship are good.
The Generating Set has now been dispatched to Port Glasgow to Messrs
Fitzgibbon Ltd. No. 1042. to be installed on board the "British Patriot" and
an eligible in my opinion for the record of the L.M.C. (with details).
Subject to satisfactory governing test being carried out after installation
on board.

These engines & generator have been efficiently installed in the vessel & tested under
full load with satisfactory results. For recommendations please see Greenock Report
No. 11

Charles W. Hunter
Greenock

The amount of Fee ... £ 11 : 4 : 0 When applied for 11 JAN 1950 19

Travelling Expenses (if any) £ : : When received 19

Committee's Minute GLASGOW 11 JAN 1950

Assigned Defined for completion

Surveyor to Lloyd's Register of Shipping.
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