Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 58752 (58702)

Received at London Office 1937 GLASGOW

Date of writing Report ..... 19 .... When handed in at Local Office 28. 8. 1937 Port of

No. in Reg. Book. Survey held at ..... Date, First Survey 18. 8. 36 Last Survey 29-8-1937 Number of Visits 29

23973 on the ~~Single~~ Twin ~~Triple~~ ~~Quadruple~~ Screw vessel M.V. "Dunera" Tons Gross 11162 Net 6634

Built at Glasgow By whom built Barclay Curle & Co Ltd. Yard No. 663 When built 1934

Owners British India Steam Navigation Co. Ltd. Port belonging to London.

Oil Engines made at Glasgow By whom made British Auxiliaries Ltd. Contract No. 2446/9 When made 1934

Generators made at Rugby By whom made British Thomson Houston Contract No. ..... When made 1934

No. of Sets 4. Engine Brake Horse Power 330. Nom. Horse Power as per Rule 377 Total Capacity of Generators 880. Kilowatts.

OIL ENGINES, &c.—Type of Engines Heavy oil (K44I type) 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 400 lb. M.I.P. 95. Diameter of cylinders 250 m/m Length of stroke 420 m/m No. of cylinders 4 No. of cranks 4.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 m/m Is there a bearing between each crank Yes.

Revolutions per minute 345. Flywheel dia. 1300 m/m Weight 1.08 Tons Means of ignition Comp. Kind of fuel used Diesel oil.

Crank Shaft, dia. of journals as per Rule 155 m/m as fitted 160. Crank pin dia. 160 m/m Crank Webs Mid. length breadth 214 m/m Mid. length thickness 90. Thickness parallel to axis ..... shrunk Thickness around eyehole .....

Flywheel Shaft, diameter as per Rule 155 m/m as fitted 160. **Intermediate Shafts**, diameter as per Rule ..... as fitted ..... Thickness of cylinder liners 19.5 m/m

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. — Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes.

Lubricating Oil Pumps, No. and size 1 each Eng @ 2230 galls/hr

Air Compressors, No. — No. of stages ..... Diameters ..... Stroke ..... Driven by .....

Scavenging Air Pumps, No. 1 each Eng. Diameter 580 m/m Stroke 240 m/m Driven by Eng. Crankshaft

AIR RECEIVERS:—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 Cover

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 .....

Starting Air Receivers, No. 2. Total cubic capacity 7. Internal diameter 340 m/m thickness 12.5 m/m

Seamless, lap welded or riveted longitudinal joint Seamless Material S Range of tensile strength 28-32 Tons Working pressure by Rules 985 lb. actual 600

ELECTRIC GENERATORS:—Type Drip Proof.

Pressure of supply 220 volts. **Load** 1000 Amperes. **Direct or Alternating Current** Direct

If alternating current system, state frequency of periods per second —

Has the **Automatic Governor** been tested and found efficient when the whole load is suddenly thrown on or off Yes

Generators, do they comply with the requirements regarding rating Yes are they compound wound Yes

are they over compounded 5 per cent. Yes, if not compound wound state distance between each generator —

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

PLANS. Are approved plans forwarded herewith for Shafting 5. 2. 35. (If not, state date of approval) Receivers 12. 4. 35. Separate Tanks .....

SPARE GEAR

As per list attached.

The foregoing is a correct description,

BRITISH AUXILIARIES, LIMITED,

Manufacturer.

MANAGER.

Dates of Survey while building — During progress of work in shops: 1936 Aug:- 18 Oct:- 1.8.12.30 Nov:- 13.17.27 Dec:- 7.14.28 (1937) Jany:- 13.14.22.29 Feb:- 2.5.8.11.12.15.17.19.22.26 Mar:- 1.5.11 Aug:- 24

During erection on board vessel

Total No. of visits 29

Dates of Examination of principal parts—Cylinders 19.2.37. Covers 19.2.37. Pistons 15.2.37. Piston rods —

Connecting rods Crank and Flywheel shaft 17.9.36 & 8.10.36 (FR) Intermediate shaft

Crank and Flywheel shaft, Material S.M. Ingot Steel Identification Mark 96440/3-PK. Intermediate shafts, Material — Identification Marks

Is this machinery duplicate of a previous case yes. If so, state name of vessel M.V. "Dilwar"

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

These generators have been built under special Survey and in accordance with the Rules. The materials and workmanship are good. They have been efficiently secured in position on board and afterwards tried under full working conditions with satisfactory results.

The amount of Fee ... ... £37 : 14 :

When applied for, 23 AUG 1937

Travelling Expenses (if any) £ : :

When received, 13.10.1937 W 14/10

Geo F Simmons — A Hagger

Surveyors to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 31 AUG 1937

Assigned SEE ACCOMPANYING MACHINERY REPORT. || See Glasgow Report No. 58752

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

1m.7.36—Transfer.

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