

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 69441

Received at London Office 12 AUG 1943 14 NOV 1944

Date of writing Report 19 7. 8. 19 43 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 26th Jan 1943 Last Survey 6th Aug 1943
 Reg. Book. Number of Visits 13
 on the ^{Single} ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel M.V. "WAIWERA"
 Tons { Gross 12028
 Net 7032
 Built at Belfast By whom built Harland & Wolff Ltd Yard No. 1091 When built 1943
 Owners Chan Davell & Albion Co. Ltd. Port belonging to London
 Oil Engines made at Glasgow By whom made British Auxiliaries Ltd Contract No. 487 When made 1943
 Generators made at Belfast By whom made Harland & Wolff Ltd Contract No. 5713 When made 1943
 No. of Sets 1 Engine Brake Horse Power 450 Nom. Horse Power as per Rule 128.5 Total Capacity of Generators 300 Kilowatts.

OIL ENGINES, &c.—Type of Engines Heavy Oil K-46I Type 2 or 4 stroke cycle 2 Single or double acting Single
 Maximum pressure in cylinders 480 lb M.I.P. 95 lb Diameter of cylinders 250 7/8 Length of stroke 420 7/8 No. of cylinders 6 No. of cranks 6
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 7/8 Is there a bearing between each crank Yes
 Revolutions per minute 340 Flywheel dia. 1050 7/8 Weight 1551 lb. Means of ignition Compression Kind of fuel used Diesel
Crank Shaft, dia. of journals as per Rule 158 7/8 Crank pin dia. 160 7/8 Mid. length breadth 214 7/8 Thickness parallel to axis ✓
 as fitted 160 7/8 Crank Webs Mid. length thickness 90 7/8 shrunk Thickness around eye-hole ✓
Flywheel Shaft, diameter as per Rule 158 7/8 Intermediate Shafts, diameter as per Rule ✓ Thickness of cylinder liners 19.5 7/8
 as fitted 160 7/8 as fitted ✓
 Is a governor or other arrangement fitted to prevent racing of the engine when disengaged 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. none fitted Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓
Lubricating Oil Pumps, No. and size One 165 litres per minute
Air Compressors, No. none fitted No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓
Scavenging Air Pumps, No. One Diameter 720 7/8 Stroke 240 7/8 Driven by Main engines

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 end doors.
 Is there a drain arrangement fitted at the lowest part of each receiver Yes.
High Pressure Air Receivers, No. none 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. Two Total cubic capacity 360 litres Internal diameter 16 3/4 thickness 1/2
 Seamless, lap welded or riveted longitudinal joint Yes Material steel Range of tensile strength 24-28 tons 51.2 lb. Working pressure by Rules 450 lb.
 ENDS 26-30 "

ELECTRIC GENERATORS:—Type Open type with drip-proof enclosure
 Pressure of supply 225 volts. Load 1335 Amperes. Direct or Alternating Current D.C.
 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 No.
 are they over compounded 5 per cent. No., 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 7-4-33, 27-8-35 Receivers 17-6-37 Separate Tanks ✓
 (If not, state date of approval)

SPARE GEAR

The foregoing is a correct description.

[Signature]
Inspector and General Manager

Manufacturer.



004653-004661-0050

24
15/8/43

Jan 26-28 Mar 1 Apr 2
 1943 Apr 30 May 7 19 24 Jun 21 July 5-12-23 Aug 6

Dates of Examination of principal parts—Cylinders 6-4-43. Covers 12-4-43. Pistons 26-1-43. Piston rods 2-4-43.
 Connecting rods 2-4-43. Crank and Flywheel shaft 2-4-43. Intermediate shaft ✓
 Crank and Flywheel shaft, Material steel. Identification Mark LLOYDS No. 1280. Intermediate shafts, Material ✓. Identification Marks ✓

Is this machinery duplicate of a previous case? Yes. If so, state name of vessel H.H.S. - Glo report No. 66632.

General Remarks (State quality of workmanship, opinions as to class, &c.) This engine was built under Special Survey in accordance with the Rules and approved plans. The materials and workmanship are good. On completion it was tried on the bench connected to its dynamo at full load with satisfactory results. This engine is to the order of Messrs Harland & Wolff Ltd Belfast and intended as an additional auxiliary engine for their Ship No. 7071. 1161

The engine has been installed on board in an efficient manner and found satisfactory under full working conditions.

*John McAfee
 Belfast*

The amount of Fee ... £ 12. 18. 0. When applied for, 10 AUG 1943
 Travelling Expenses (if any) £ : : When received, 19.....

G. E. Murdoch J. M. Gardiner
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 5 AUG 1943
 Assigned *Keferred for completion*

FRI. 1 DEC 1944
see minute in Kel Hfy



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