

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 67441

Received at London Office 12 AUG 1943 14 NOV 1944

Date of writing Report 19 When handed in at Local Office 7.8.43 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 3

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 1K-46I. Type 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 780 lb. Diameter of cylinders 250 7/8 Length of stroke 420 7/8 No. of cylinders 6 No. of cranks 6

M.I.P. 95 lb. 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

as per Rule 158 7/8 Crank pin dia. 160 7/8 Crank Webs Mid. length breadth 214 7/8 Thickness parallel to axis.

Crank Shaft, dia. of journals as fitted 160 7/8 Mid. length thickness 90 7/8 Thickness around eye-hole.

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 disclutched 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 24.24-28 tons 57.2 lb. Working pressure by Rules 450 lb.

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

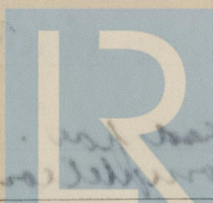
(If not, state date of approval)

SPARE GEAR

The foregoing is a correct description.

Signature of Surveyor

Manufacturer.



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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 Survey while building { During progress of work in shops - - }  
{ During erection on board vessel - - - }  
Total No. of visits

Dates of Examination of principal parts—Cylinders 6-4-43. Covers 12-4-43. Pistons 26-1-43. 28-1-43. 1-3-43. 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 P.A.W. 30742 Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case 440. If so, state name of vessel H.H.S. - 460 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. 7021. 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  
Travelling Expenses (if any) £ : :  
When applied for, 10 AUG 1943  
When received, 19

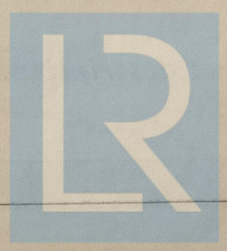
G. E. Murdoch J. M. Gardiner  
Surveyors to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 10 AUG 1943

Assigned Keppel for completion

FRI 1 DEC 1944

See minute in Kel Hq.



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1m, 7.20—Transfer.  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)