

SEP 1943

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 67549.

Received at London Office

Date of writing Report

When handed in at Local Office

7. 9. 43 Port of Glasgow.

16 SEP 1943

No. in Survey held at Reg. Book.

Glasgow.

Date, First Survey 13th Jan 1943 Last Survey 6th Sept 1943.

Number of Visits 29.

Single
on the Twin
Triple
(Quadruple)

Screw vessel M.V. "WAIWERA"

Tons { Gross 12028
Net 7032

Built at Belfast.

By whom built Harland & Wolff Ltd

Yard No 1161 When built 1943.

Owners Shaw Savill & Albion Co. Ltd.

Port belonging to London

Oil Engines made at Glasgow.

By whom made British Auxiliaries Ltd

Contract No 456 457 458 459 When made 1943.

Generators made at Belfast.

By whom made Harland & Wolff Ltd

Contract No. When made

No. of Sets 4 Engine Brake Horse Power 1800 Nom. Horse Power as per Rule 514 Total Capacity of Generators Kilowatts.

OIL ENGINES, &c.—Type of Engines Heavy Oil K.46 I Type 2 or 4 stroke cycle 2. Single or double acting Single

Maximum pressure in cylinders 180 lb/sq in Diameter of cylinders 250 7/8 Length of stroke 420 7/8 No. of cylinders 24 No. of cranks 24

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 lbs. Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule 158 7/8 as fitted 160 7/8 Crank pin dia. 160 7/8 Crank Webs Mid. length breadth 214 7/8 Thickness parallel to axis shrunk Thickness around eye hole 90 7/8

Flywheel Shaft, diameter as per Rule 158 7/8 as fitted 160 7/8 Intermediate Shafts, diameter as per Rule 158 7/8 as fitted 160 7/8 Thickness of cylinder liners 19.5 7/8

Is a governor or other arrangement fitted to prevent racing of the engine when disconnected yes Means of lubrication Forced.

Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled 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 each engine 165 litres per minute

Air Compressors, No. none fitted No. of stages 1 Diameters 720 7/8 Stroke 240 7/8 Driven by Main engines

Scavenging Air Pumps, No. One each engine 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 Top Covers.

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. 2 Total cubic capacity 360 litres Internal diameter 15 3/4 thickness 1/2

Seamless, lap welded or riveted longitudinal joint yes Material Steel Range of tensile strength 24-28 tons Working pressure by Rules 450 lbs.

ELECTRIC GENERATORS:—Type

Pressure of supply volts Load Amperes Direct or Alternating Current

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

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

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

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

PLANS. Are approved plans forwarded herewith for Shafting 7-4-33. Receivers 27-8-35. Separate Tanks

SPARE GEAR as per attached list.

The foregoing is a correct description.

For BRITISH AUXILIARIES, LIMITED

Manufacturer.

Director and General Manager



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Lloyd's Register Foundation

004653-004661-0058

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 26.2.43, 22.3.43, 5.4.43. Covers 15.3.43, 29.3.43, 12.4.43, 23.7.43. Pistons 26.1.43, 29.1.43, 1.5.43, 21.7.43. Piston rods 2.4.43, 15.3.43. Connecting rods 2.4.43, 15.3.43. Crank and Flywheel shaft {2.2.43, 18.2.43, 26.2.43, 21.7.43} Intermediate shaft ✓

Crank and Flywheel shaft, Material Steel Identification Mark (See below) Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case Yes. If so, state name of vessel H.M.S. No. 1091. Gls report No. 66632.

General Remarks (State quality of workmanship, opinions as to class, etc.) These engines have been built under Special Survey in accordance with the Rules and approved plans. The materials and workmanship are good. On completion they have been tried on the bench, connected to the brake, and run at full power with satisfactory results. They are to the order of Messrs Harland & Wolff Ltd Belfast and intended for a vessel building at their Yard No. 1161.

Note. Engine No. 459, was tried on the bench, connected to generator No. 5381, and was run at full load for 6 hours with satisfactory results.

Marks on Starting air Receivers aff.

No. S. 11560.
LLOYD TEST
T.P. 900 lbs
W.P. 500 lbs
J.N.B. 24.9.42.

No. S. 11561
LLOYD TEST
T.P. 900 lbs
W.P. 500
J.N.B. 24.9.42.

Crank Shaft Marks. Engine No. 456 LLOYD No. 1219. E.L.K. 4.6.42
" " " " " " 1279. D.R.W. 23.7.42
" " " " " " 1278. D.R.W. 23.7.42
" " " " " " 68. J.N.B. 15.2.43

Engine No. 459 originally intended for Yard No. 1161, has been fitted on board yard No. 1091 (H.M.S. "CAMPANIA"). A copy of this report has been made for this engine. The above two air receivers also fitted to yard No. 1091.

F.D. Clibston.

Belfast.

The 3 remaining engines have been installed on board M.V. "WAILWERA" in an efficient manner and found satisfactory under full working conditions.

John W. W. W.
Belfast.

The amount of Fee ... £ 51. 8. 0. When applied for, 14 SEP 1943
Travelling Expenses (if any) £ : : When received, 19.

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

Committee's Minute GLASGOW 14 SEP 1943

Assigned Superseded for
Cancellation

FRI 1 DEC 1944

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