

REPORT ON OIL ENGINE ~~ELECTRIC~~ GENERATOR SETS.

No. 8084

19 JUL 1934

Date of writing Report 10th July 1934 When handed in at Local Office 18th July 1934 Port of Manchester
 No. in Survey held at Altrincham nr Manchester Date, First Survey 23rd June 1934 Last Survey 10th July 1934
 Reg. Book. Number of Visits 3 (incl)

Single
on the ~~Twin~~
Triple
Quadruple

M/S "Grit"

Tons { Gross
Net

Built at Greenwich By whom built George Brown & Co Yard No. 188 When built 1924
 Owners F & B. Everard & Son Ltd Port belonging to London

Oil Engines made at Altrincham nr Manchester By whom made Wm Russell, Newbury Contract No. 3143 When made 1934

Generators made at By whom made Contract No. When made

No. of Sets ONE Engine Brake Horse Power 27 Nom. Horse Power as per Rule 4.71 Total Capacity of Generators Kilowatts.

OIL ENGINES, &c.—Type of Engines Vertical, solid injection, with starting by hand 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 900 lbs Diameter of cylinders 4 1/4" Length of stroke 6" No. of cylinders 3 No. of cranks 3

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 4 3/4" Is there a bearing between each crank Yes

Revolutions per minute 1000 Flywheel dia. 22" Weight 2 3/4 Cwts. Means of ignition Compression Kind of fuel used Heavy oil.

Crank Shaft, dia. of journals as per Rule 2.3 as fitted 2 1/8" Crank pin dia. 2 1/8" Crank Webs Mid. length breadth 3 1/4" Thickness parallel to axis Solid
 Mid. length thickness 1 5/16" Thickness around eyehole Solid

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 3/16"

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 No Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

Cooling Water Pumps, No. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size One - Rotary gear type

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

Scavenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule ✓

Can the internal surfaces of the receivers be examined ✓ What means are provided for cleaning their inner surfaces ✓

Is there a drain arrangement fitted at the lowest part of each receiver ✓

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. ✓ Total cubic capacity ✓ Internal diameter ✓ thickness ✓

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

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 19-2-34 Receivers ✓ Separate Tanks ✓
 (If not, state date of approval)

SPARE GEAR 2 Bottom end bolts, 4 Cyl. head studs, 1 Gudgeon pin

2 Main bearing studs 1 Fuel pump delivery valve seat & spring 1 Fuel pump

barrel & plungers 1 Fuel inh. delivery pipe, 1 Fuel pump tappet spring

1 Fuel pump delivery valve spring 1 Injector nozzle.

(see attached letter from Manchester dated 7th August 1934)

The foregoing is a correct description,

per pro. RUSSELL, NEWBELL & Co.

Manufacturer.



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Lloyd's Register
Foundation

Dates of Survey while building { During progress of work in shops - - - 23-6-34, 25-6-34, 10.7.34 (Met)
During erection on board vessel - - -
Total No. of visits

Dates of Examination of principal parts—Cylinders 23-6-34 Covers 25-6-34 Pistons 23-6-34 Piston rods ✓

Connecting rods 23-6-34 Crank and Flywheel shaft 23-6-34 Intermediate shaft ✓

Crank and Flywheel shaft, Material *Best Steel* Identification Mark *Lloyd's No 4184 A* Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case *Yes*. If so, state name of vessel *Mech. Rpt No 8036 Engine No 8128 for Newbury Diesel Co Ltd*

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

This auxiliary engine, Messrs Russell, Newbury's "D3" Type has been built under special survey and the materials tested in accordance with the Rules. The materials, so far as can be seen are sound and the workmanship is good.

The engine has been satisfactorily tested under full load in the shop. This engine has been built to the order of Messrs Newbury Diesel Co Ltd & has been dispatched to their work.

This engine is now securely fitted on board & tested under working conditions, found satisfactory.

W. Gordon Muirhead

The amount of Fee ... £ 4 : 4 : When applied for, 18/8/34

Travelling Expenses (if any) £ : ✓ : When received, 29.11.34

George Anderson
Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 18 SEP 1934

Assigned See Gen. Rpt. No. 19817