

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 49157

Received at London Office 8 MAY 1929

of writing Report 30-4-1929 When handed in at Local Office 1-5-1929 Port of GLASGOW

in Survey held at GLASGOW

Date, First Survey 30-8-28

Last Survey 29 APRIL 1929

Book.

Number of Visits 5

Single  
on the Twin  
Triple  
Quadruple

Screw vessel

M.V. RANGITANE

Tons { Gross 16733  
Net 10311

at CLYDEBANK

By whom built JOHN BROWN &amp; CO LTD

Yard No. 522 When built 1929

New Zealand Shipping Co

Port belonging to Plymouth

Engines made at GLASGOW

By whom made G &amp; J WEIR LTD

Contract No. 86669 When made 1929

Generators made at BRADFORD

By whom made ENGLISH ELECTRIC CO

Contract No. L327 When made 1929

of Sets 2

Engine Brake Horse Power 225

Nom. Horse Power as per Rule 64

Total Capacity of Generators 150 Kilowatts.

ENGINES, &amp;c.—Type of Engines SOLID INJECTION 2 or 4 stroke cycle 2 Single or double acting SINGLE

cylinder pressure in cylinders 540 LBS/DI Diameter of cylinders 10 3/4 Length of stroke 14 1/2 No. of cylinders 6 No. of cranks 7

No. of bearings, adjacent to the Crank, measured from inner edge to inner edge 12 3/4 Is there a bearing between each crank YES

Revolutions per minute 320 Flywheel dia. 4'-9" Weight 1375 Means of ignition COMPRESSION Kind of fuel used DIESEL

Crank shaft, dia. of journals as per Rule 5 3/4 Crank pin dia. 6 3/4 Mid. length breadth 15" DIA Thickness parallel to axis ✓

as fitted 6 3/4 Crank Webs Mid. length thickness 3 1/4 shrunk Thickness around eyehole ✓

Wheel shaft, diameter as per Rule Intermediate Shafts, diameter as fitted Thickness of cylinder liners 1 1/8" MAX 7/8" MIN

governor or other arrangement fitted to prevent racing of the engine when declutched YES Means of lubrication FORCED

the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or lagged with non-conducting material EXHAUST WATER COOLED  
SILENCER LAGGED

Sinking 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 - 2" DIA x 2 1/2" STROKE

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

Sucking Air Pumps, No. Diameter 20 1/2 Stroke 14 1/2 Driven by ENGINE SHAFT

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

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 ✓

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

Low Pressure Air Receivers, No. ✓ Total cubic capacity ✓ Internal diameter ✓ thickness ✓

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

ELECTRIC GENERATORS:—Type OPEN CANOPY PROTECTED

Pressure of supply 220/225 volts. Load 668.0 Amperes. Direct or Alternating Current DIRECT

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

Do they over compound 5 per cent. YES, if not compound wound state distance between each generator ✓

Is 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

Are approved plans forwarded herewith for Shafting 14.12.27 Receivers ✓ Separate Tanks ✓

RE GEAR 1 SET STUDS &amp; NUTS FOR CYL COVER 2 LENGTHS PIPE FUEL TO CYLS

CYLINDER COVER 10 SETS RINGS FOR 1 PISTON 1 PR UNIONS FOR ABOVE PIPE

" LINERS 2 CONN ROD TOP END BOLTS &amp; NUTS 1 AIR STARTING VALVE

FUEL INJECTION VALVES 2 " " BOT " " " 1 CYL RELIEF VALVE

" " " NEEDLES 2 MAIN BEARING STUDS &amp; NUTS 1 GROUP SCAN PUMP SUCTION VALVES

" " " GUIDES 1 SET BUSHES FOR 1 CONN. ROD 1 " " " DISCHARGE "

" " " SPRINGS 1 FUEL PUMP PLUNGER 2 GOVERNOR SPRINGS

PISTONS WITH RINGS 1 FUEL PUMP BODY 1 SET BRUSHES

RUBBER RINGS FOR LINERS 1 SET VALVES FOR FUEL PUMP 1 SET MAIN FIELD COILS

The foregoing is a correct description,

John J. Rickman

For G. &amp; J. Weir, Ltd. Manufacturer.



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Lloyd's Register  
Foundation

W1137 - 0129



Dates of Survey while building { During progress of work in shops - - 1928 Aug 30 Sep 10 (1929) Jan 28 Mar 19 Apr 29  
During erection on board vessel - - -  
Total No. of visits

Dates of Examination of principal parts—Cylinders 14.9.28 28.1.29 Covers 28.1.29 Pistons 28.1.29 19.3.29 Piston rods 28.1.29 19.3.29  
Connecting rods 28.1.29 19.3.29 Crank and Flywheel shaft 14.9.28 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 MV "RANGITOTO" & "RANGITI"

General Remarks (State quality of workmanship, opinions as to class, &c.) These Auxiliary Engines has been built

Under Special Survey in accordance with the rules and approved plan

The Material and Workmanship are good  
They were examined while running on the test bed and found satisfactory.

crankshaft Identification marked

Engine No 86669  
CH. 4704 CH. 4671 CH. 4671  
PR. 627 PR. 396 PR. 646  
86669 86669 86669  
LLOYDS LLOYDS LLOYDS  
TL. 4593 TL. 4594 TL. 4595  
17.7.28 17.7.28 17.7.28  
G.E.M. G.E.M. G.E.M.

crankshaft. Identification marked

Engine No 86670  
CH. 4698 CH. 4698 CH. 4671  
PR. 638 PR. 116 PR. 629  
86670 86670 86670  
LLOYDS LLOYDS LLOYDS  
TL. 4392 TL. 4393 TL. 4394  
5.6.28 5.6.28 5.6.28  
G.E.M. G.E.M. G.E.M.

Q.L.  
3/5/29.

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

MONTHLY ACCOUNT

J. G. Trebble  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 7 MAY 1929

Assigned Transmit to London.

See Glasgow Report No. 49810. Lloyd's Register Foundation