

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 23,034

29 APR 1949

Received at London Office

Date of writing Report 23<sup>rd</sup> March 1949 When handed in at Local Office 23<sup>rd</sup> March 1949 Port of Sydney N.S.W.  
No. in Survey held at Sydney N.S.W. Date: First Survey 14<sup>th</sup> May 1948 Last Survey 16<sup>th</sup> February 1949  
Reg. Book Number of Visits 5

70040 on the Single Screw vessel "NYORA" Tons Gross 1356  
Triple  
Quadruple Net 676

Built at Emden Germany By whom built Mordsee Werke GmbH Yard No. 175 When built 1935

Owners Commonwealth of Australia (Dept. Shipping & Fuel) Port belonging to Sydney N.S.W.

Oil Engines made at Openhaw, Manchester By whom made Crossley Bros. Ltd Contract No. P.134444 When made 1944

Generators made at Howich & Manchester By whom made Lawrence Scott & Electromotors Contract No. P.94224 When made 1944

No. of Sets 2 Engine Brake Horse Power 105 EACH Nom. Horse Power as per Rule 14.6 Total Capacity of Generators 120 Kilowatts.

**OIL ENGINES, &c.**—Type of Engines Crossley BWC 6 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders \_\_\_\_\_ Diameter of cylinders 5" Length of stroke 6" No. of cylinders 6 No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 12 1/2" Is there a bearing between each crank No, 4 bearings

Revolutions per minute 1250 Flywheel dia. 24 1/8" Weight \_\_\_\_\_ Means of ignition Compression Kind of fuel used Distillate

Crank Shaft, dia. of journals as per Rule \_\_\_\_\_ as fitted 3 1/2" Crank pin, dia. 3 1/4" Crank Webs Mid. length breadth 5 1/4" sbrunk Thickness parallel to axis ✓

Flywheel Shaft diameter as per Rule Bolted to as fitted crankshaft Intermediate Shafts, diameter as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Thickness of cylinder liners \_\_\_\_\_

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 Lagged

Cooling Water Pumps, No. 1 S.W. circ. Gear type 1 F.W. circ. Bent Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Lubricating Oil Pumps, No. and size 1 Plunger type

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

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

**AIR RECEIVERS:**—Have they been made under Survey No. Admiralty Inspection State No. of Report or Certificate ✓

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 No What means are provided for cleaning their inner surfaces Unscrewing valve heads

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

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. 2 Total cubic capacity \_\_\_\_\_ Internal diameter \_\_\_\_\_ thickness \_\_\_\_\_

Seamless, lap welded or riveted longitudinal joint Seamless Material M.S. Range of tensile strength \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_

**ELECTRIC GENERATORS:**—Type Compound Wound. Marked: Port DAE 346 Starboard DAE 346

Pressure of supply 225-230 volts. Full Load Current 267-261 Amperes. Direct or Alternating Current Direct

If alternating current system, state the periodicity ✓ Has the Automatic Governor been tested and found as per rule when full load is suddenly thrown on and off Yes

Generators, are they compounded as per rule Yes is an adjustable regulating resistance fitted in series with each shunt field 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

If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test \_\_\_\_\_ and do the results comply with the requirements \_\_\_\_\_

If the generators are 100 kw. or over have they been built and tested under survey ✓

**PLANS.** Are approved plans forwarded herewith for Shafting ✓ Receivers ✓ Separate Tanks ✓  
(If not, state date of approval)

**SPARE GEAR**

See list attached hereto.

The foregoing is a correct description,

A. Gessard.

Manufacturer.



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4c / 23034

Dates of Survey while building: During progress of work in shops - - }  
During erection on board vessel - - } 14, 21/5/48. 19/1/49. 16/2/49.  
Total No. of visits 5

Dates of Examination of principal parts - Cylinders 19/1/49 Covers " Pistons " Piston rods ✓

Connecting rods " Crank and Flywheel shafts " Intermediate shafts ✓

Crank and Flywheel shafts, Material M.S. Identification Marks PORT. EBL 787 STARBD. EBL 782

Intermediate shafts, Material ✓ Identification Marks ✓

Identification marks on Air Receivers PORT. CTCO 364613 (JAP) ANLD 26.10.43 TD 2000 LBS 28.10.43  
STARBD. CTCO Y43512 (JAP) ANLD 10.6.44 TD 2000 LBS 12.6.44

Is this machinery duplicate of a previous case No If so, state name of vessel ✓

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

These engines were not constructed under Special Survey but were supplied from surplus R.A.N. stocks and have been apparently constructed under Admiralty inspection. They have been opened up, examined and found in good condition and the materials and workmanship appear to be good. The engines have been examined under working conditions, found satisfactory and in my opinion the machinery of this vessel is eligible to be classed as recommended in Report on main engines forwarded herewith.

100-2142-J. & O'S. PTY. LTD. - TRANSFER (PRINTED IN AUSTRALIA)  
(The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee £ Charged on Main Engine When applied for, 19  
Travelling Expenses (if any) £ Report 4 b. When received, 19

H. Gervard.  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI, 27 MAY 1949  
Assigned See minute on fe. rpl.

