

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 6310

Received at London Office 26 OCT 1944

Date of writing Report **6th Sept., 1944** When handed in at Local Office **6th Sept., 1944** Port of **Vancouver, B. C.**

No. in Survey held at **Vancouver, B. C.** Date, First Survey **23rd May, 1944** Last Survey **22nd August, 1944**
Reg. Book. Number of Visits **23**

on the ~~Triple~~ ^{Single} Screw vessel **"FORT ALABAMA" (Refrigerated Victualling Ship)** Tons { Gross **7201.75**
Net **4006.91**

Built at **North Vancouver, B. C.** By whom built **Burrard Dry Dock Co. Ltd.** Yard No. **211** When built **1944**

Owners **Minister of Munitions and Supply of Canada** Port belonging to

Oil Engines made at **Harvey, Ill., U.S.A.** By whom made **The Buda Company** Contract No. **21125** When made **1944**

Generators made at **Bloomfield, N.J.** By whom made **Star Electric Co.** Contract No. **2F84-22** When made **1944**
2F84-15

No. of Sets **Two** Engine Brake Horse Power **86** Nom. Horse Power as per Rule **13.2** Total Capacity of Generators **100** Kilowatts.

IL ENGINES, &c.—Type of Engines **Heavy Oil** 2 or 4 stroke cycle **4** Single or double acting **Single**

Maximum pressure in cylinders **425** Diameter of cylinders **4-3/4"** Length of stroke **6-1/2"** No. of cylinders **6** No. of cranks **6**

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **4-1/4"** Is there a bearing between each crank **Yes**

Revolutions per minute **1200** Flywheel dia. **None** Weight Means of ignition **Compression** Kind of fuel used **Diesel - 150°Min.**

Crank Shaft, dia. of journals as per Rule **3-1/2"** as fitted **3-1/2"** Crank pin dia. **3-1/4"** Crank Webs **Balanced** Mid. length breadth **5-1/4"** Thickness parallel to axis **-**
Mid. length thickness **1-1/32"** shrunk Thickness around eyehole **-**

Flywheel Shaft, diameter as per Rule **None** as fitted **None** Intermediate Shafts, diameter as per Rule **None** as fitted **None** Thickness of cylinder liners **1/8"**

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 **Eng. Manifold Water Cooled.**

Cooling Water Pumps, No. **One Belt Drive from Eng.** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **Yes**

Lubricating Oil Pumps, No. and size **One - Gear pump driven from camshaft**

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. **Electric Starting** 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 **Compound wound**
Generator **120**
Pressure of supply **110** volts. Load **416** Amperes. **Direct or Alternating Current** **Direct**

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 **Yes**

are they over compounded 5 per cent. **Yes**, 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 **- -** Receivers **- -** Separate Tanks **- -**
(If not, state date of approval)

SPARE GEAR

Full list of Spare Gear attached.

The foregoing is a correct description,
Burrard Dry Dock Company, Limited

[Signature]
President

Shipbuilder.
[Signature]



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004486 - 004488 - 004489

Dates of Survey while building { During progress of work in shops - - }
 { During erection on board vessel - - - } 1944 May 23, 25, 27 & 29 June 1, 3, 6, 7, 8, 10, 13, 14, 16, 19, 20 & 21 August 5, 7, 14, 15, 21 & 22
 Total No. of visits 23

Dates of Examination of principal parts—Cylinders _____ Covers _____ Pistons _____ Piston rods _____
 Connecting rods _____ Crank and Flywheel shaft _____ **Partly opened out for examination**
 _____ Intermediate shaft _____

Crank and Flywheel shafts, Material **O.H. Steel** Identification Mark _____ No. L.R. Marks _____

Intermediate shafts, Material - - - Identification Marks _____

Is this machinery duplicate of a previous case **Yes** If so, state name of vessel **S.S. "FORT KILMAR" # Vancouver Report No. 6216.**

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

These auxiliary heavy oil engines and generators sets were installed to take care of the additional electrical load in connection with fans, etc., for the ship's special services as a Refrigerated 'Victualling Ship', and are not required for essential sea services. They were not built under survey, but have been installed on board under Special Survey and examined and tested under full working conditions, afterwards part opened out, examined and found satisfactory.

Manufacturer's Test Certificate for Generator Nos. 2F84-22 and 2F84-15, and results of full power trials after installation on board are attached to Report on Electrical Equipment forwarded herewith.

1m, 3, 28 - Transfer. (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... **Included in Special Survey Fee.** When applied for, 19 _____
 Travelling Expenses (if any) £ : : When received, 19 _____

W.E. Baillie & H.G. Donald
 Surveyors to Lloyd's Register of Shipping.

Committee's Minute **FRI. 3 NOV 1944**

Assigned

see minute on F.S. Rpt.



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