

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 820

Received at London Office MAY 10 1937

Date of writing Report Feb. 20th 1937 When handed in at Local Office 19 Port of Cleveland, Ohio.

No. in Survey held at Grove City, Pa. Date, First Survey Dec. 1st, 1936 Last Survey Feb. 18th, 1937. Reg. Book. Number of Visits 7

Single
on the Twin } Screw vessel
Triple }
Quadruple }

Tons { Gross
Net

Built at Chester, Pa. By whom built Sun Shipbuilding Co. Yard No. 159 When built

Owners Sun Oil Co. Port belonging to

Oil Engines made at Grove City, Pa. By whom made Cooper Bessemer Corp. Engine Nos. 1135 1136 1137 When made 1936-7

Generators made at Schenectady, N.Y. By whom made General Electric Co. Gen. Nos. 1720382 1720381 1720383 When made 1936-7

No. of Sets 3 Engine Brake Horse Power 150 Nom. Horse Power as per Rule Total Capacity of Generators 300 Kilowatts.

OIL ENGINES, &c.—Type of Engines Cooper Bessemer Diesel GND-4 2 or 4 stroke cycle 4 Single or double acting S

Maximum pressure in cylinders 700# / sq. in Diameter of cylinders 10-1/2" Length of stroke 13-1/2" No. of cylinders 4 No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 12-1/4" Is there a bearing between each crank Yes

Revolutions per minute 325 Flywheel dia. 42" Weight 1292# Means of ignition Solid Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule 7-1/2" as fitted Crank pin dia. 7-1/2" Crank Webs Mid. length breadth 12-1/8" Thickness parallel to axis Mid. length thickness 3-1/4" shrunk Thickness around eye hole

Flywheel Shaft, diameter as per Rule 7" as fitted Intermediate Shafts, diameter as per Rule 6-3/4" as fitted Thickness of cylinder liners 7/8" to 7/16"

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 Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes

Cooling Water Pumps, No. 3-5/16" x 3 1/2" DA Capacity 47 GPM Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size 3" x 3-1/2" SA Capacity 20 GPM

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 MPC-6 Form A 100 KW Continuous 40° C.

Pressure of supply 240 volts. Load 417 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 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 Yes

PLANS. Are approved plans forwarded herewith for Shafting Yes Receivers Separate Tanks

SPARE GEAR To Rule requirements plus one set of flywheel studs and dowels for coupling and one set of parts for water pump for each engine.

The foregoing is a correct description,

Cooper Bessemer Corp. D. J. Gallogly Manufacturer. Test Engineer



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Lloyd's Register

004194-004199-0103

Dates of Survey while building { During progress of work in shops - - } Dec. 1st, 29th, 1936, Jan. 16th, Feb. 15th, 16th, 17th and 18th, 1937.
 { During erection on board vessel - - - }
 { Total No. of visits }

Dates of Examination of principal parts—Cylinders 12/1&29/36 Covers 12/1&29/36 Pistons 12/1&29/36 Piston rods

Connecting rods 12/1 & 29/36 Crank and Flywheel shaft 12/1 & 29/36 Intermediate shaft

Crank and Flywheel shafts, Material O.H. Steel Identification Mark LLOYDS 2946 2955 2945
 WJF 8-12-36 8-25-36 8-12-36

Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c) The above mentioned engines (three engines) have been built under Special Survey and on completion were tested, coupled to generators under full and intermediate loads in the shop. The materials and workmanship were found to be sound and efficient and the electrical load tests satisfactory.

Attached hereto is copy of crank shaft drawing and crank shaft forging certificate Nos. 2945, 2946 and 2955.

For identification purposes the generator sets were numbered as follows:-

Engine No.	1135	1136	1137
Cooper Bessemer "MC" No.	1126	1255	1291
Generator No.	1720382	1720381	1720383
Lloyd's Crank Shaft No.	WJF 2946 8-12-36	WJF 2955 8-25-36	WJF 2945 8-12-36

The amount of Fee ... ~~XX~~ \$225.00: When applied for, Feb 25 1937
 Travelling Expenses (if any) ~~XX~~ \$ 35.00: When received, Mar 9 1937

G. Drummond
 Surveyor to Lloyd's Register of Shipping.

NEW YORK APR 28 1937

Committee's Minute

Assigned See First Entry Rpt. on Oil Eng.

1m.9.28 - Transfer.

(The Surveyors are requested not to write on or below the space for Committee Minute.)

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