

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 849
SEP 11 1937

Date of writing Report **June 2, 1937** When handed in at Local Office **Port of Cleveland, Ohio.**
 No. in Survey held at **Cleveland, Ohio.** Date, First Survey **March 9th,** Last Survey **May 4th, 1937**
 Reg. Book. **Number of Visits 13**
 on the ~~Six~~ **Twin** Screw vessel **M/S "MERCURY"** Tons { Gross: Net:
 Built at **Beaumont, Texas.** By whom built **Pennsylvania Shipyards** Yard No. **116** When built **1937**
 Owners **Cleveland Tankers, Inc.** Port belonging to **Cleveland, Ohio.**
 Oil Engines made at **Cleveland, Ohio** By whom made **Winton Engine Corp.** Serial ~~XXXXX~~ No. **5136** When made **1937**
 Generators made at **East Pittsburgh, Pa.** By whom made **Westinghouse Elec. Co.** Serial ~~XXXXX~~ No. **8130455** When made ✓
 No. of Sets **1** Engine Brake Horse Power **15 KW** Nom. Horse Power as per Rule **7.5** Total Capacity of Generators **15** Kilowatts.

OIL ENGINES, &c.—Type of Engines **Winton - Model 185-3** 2 or 4 stroke cycle **4** Single or double acting **S**
 Maximum pressure in cylinders **700#** Diameter of cylinders **5"** Length of stroke **7"** No. of cylinders **3** No. of cranks **3**
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **5-1/4"** Is there a bearing between each crank **Yes**
 Revolutions per minute **600** Flywheel dia. **26"** Weight **300#** Means of ignition **Comp.** Kind of fuel used **Diesel Oil**
 Crank Shaft, dia. of journals as per Rule **2.88"** as fitted **3"** Crank pin dia. **3"** Crank Webs Mid. length breadth **4-1/2"** Mid. length thickness **1-7/16"** Thickness parallel to axis ✓ Thickness around eye hole ✓
 Flywheel Shaft, diameter as per Rule ✓ as fitted ✓ Intermediate Shafts, diameter as per Rule ✓ as fitted ✓ Thickness of cylinder liners **5/16"**
 Is a governor or other arrangement fitted to prevent racing of the engine when declutched **Yes** Means of lubrication **Forced feed**
 Are the cylinders fitted with safety valves **Yes** Are the exhaust pipes and silencers water cooled or lagged with non-conducting material ✓
 Cooling Water Pumps, No. **1 - Gear Type 5 G.P.M.** Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓
 Lubricating Oil Pumps, No. and size **1 - Gear Type, 1.8 G.P.M.**
 Air Compressors, No. **1** No. of stages **two** Diameters **4" & 3-1/2"** Stroke **4** Driven by **Gears**
 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 **Compound wound, Westinghouse Electric & M. Co.**
 Pressure of supply **135** volts. Load **111** Amperes. Direct or Alternating Current **Direct 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 **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 **No** Receivers **No** Separate Tanks **No**
 (If not, state date of approval)

SPARE GEAR **2 - exhaust valves complete with springs, etc.**
1 - injection valve complete with cage, springs, etc.
3 - fuel injection valve needles.
1 - set of piston rings for one piston.
1 - set of working parts for one cylinder of fuel pump.
1 - set of working parts for one lubricating oil pump.
1 - wrist pin and bushing.
1 - complete crank pin bearing.
2 - crank pin bearing bolts and nuts.
2 - main bearing bolts and nuts.
1 - set of studs and nuts for cylinder heads.

The foregoing is a correct description.

Winton Engine Mfg. Corp. & R.R.B. Manufacturer.

Dates of Survey while building { During progress of work in shops - - } March 9, 12, 17, 20, 27; April 11, 12, 15, 18, 23, 30; May 3, 4, 1937.
{ During erection on board vessel - - - }
Total No. of visits

Dates of Examination of principal parts—Cylinders 3/9-27/37 Covers 3/9-27/37 Pistons 3/9-27/37 Piston rods ✓

Connecting rods 3/9-27/37 Crank and Flywheel shaft 3/12/37 Intermediate shaft ✓

Crank and Flywheel shafts, Material O. H. Steel Identification Mark Drop Forged

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 subject engine has been built under Special Survey and on completion was tested, coupled to the generator, under full and intermediate loads, at the Builder's plant.

The materials, workmanship and electrical load tests, were found satisfactory.

The generator was not examined during construction.

The amount of Fee ... £ ✓ : When applied for, ✓ 19
Travelling Expenses (if any) £ ✓ : When received, 19

Edmund
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned See Gal. Rpt. 3238



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