

PORT HAMILTON REFINING AND TRANSPORTATION, LLLP

Equipment for Sale: No. 8 Gas Turbine Unit

Summary:

Gas Turbine No. 8 (GT-8) is a General Electric Model P enclosed, packaged-turbine that reliably supplied 13kV electricity to the refinery electrical grid and recovered waste heat from the turbines to generate steam. The 22 MW Frame 5 HRSG has a steam generator.

The inlet and compressor casing are made of cast iron while the compressor discharge and turbine casings are made of nodular iron. The compressor stator blades are made of stainless-steel alloys.

The turbine is a single-shaft type with axial flow. The unit is designed to operate in single or combined cycle and is equipped with thrust bearings, active and inactive, to maintain the rotor stator axial position. The unit has a folded back combustion chamber on a single base mount. This configuration provides the maximum design for the mixing zones for turbine fuel and air.

GT-8 runs 28,550 HP @ 5100 RPM. The GT is governor controlled by Mark IV Speedtronic Analog & Digital Systems Normal operating conditions proved 940°F with compress discharge pressure of 120 psig and 5100 rpm (overspeed trip set point is 110% of rated speed).

Generator

Metallurgy: Copper stationary windings with copper and stainless-steel wound rotor and rotor slots

60 Hz, three (3) Phase, WYE connected, two pole, air cooled with a Phase Rotation of Phase A, B, and C.

Generator Rating: 22 MW
Generator Amperes: 1,410

Exciter Voltage: 250
Exciter Amperes: 253

Average Generator VAR (Volt-Amperes Reactive) Power Loading: 8 MVAR
Average Power Factor: 0.80 to 0.90 running on the lag side

Normal Operating Conditions:
Zero load to full load at 3600 rpm



No. 8 Gas Turbine

FOR MORE INFORMATION

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