



# PURCHASE SPECIFICATIONS

FOR

ONE (1) UNUSED SOLAR CENTAUR 50  
GAS TURBINE GENERATOR SET

# ONE (1) X SOLAR CENTAUR 50 GAS TURBINE GENERATOR SET

## SCOPE OF SUPPLY

### TURBINE MODEL

- Centaur 50-6201S (Requires 2J or 2K selection)
- Inlet Orientation: Up
- Fuel: Gas fired
- Emissions: w/SOLONOX GAS FUEL: 15 ppm NOx Emissions

### GENERATOR:

- Main Reduction Drive: 1800 Rpm 60 Hz
- Generator Supplier: Kato, KW 4,000 \*\*\*\*\*
- Generator is 4,600 KW derated Kato will recert upon request & Kato inspection.
- Generator Rating: 4160 Volts, 60 Hz, F Insulation, B Rise
- Start System Type: Direct-Drive Ac Motor Driven (Standard Torque)



### ELECTRICAL SYSTEM TYPE:

- Class I, Group D, Division 2
- 3 Phase AC Power Rating: 460 Volts / 60 Hz
- Single Phase AC Power Rating (Battery Charger): 240 Volts 50/60 Hz
- Single Phase AC Lighting and Heater Power: 120 Volts 50/60 Hz

### FUEL SYSTEM TYPE:

- Natural Gas

### FUEL CONTROL VALVE MATERIAL:

- Gas Fuel Aluminium Valve Body

### LUBE FILTER SYSTEM MATERIAL:

- Carbon Steel

### LUBE OIL TANK AND TANK COVER MATERIAL:

- Carbon Steel

### LUBE OIL COOLER:

- Air/Oil Lube Oil Cooler (Custom Lube Oil Cooler)
- Lube Oil Tank Heater System
- 3 Phase AC Lube Oil Tank Heater

### LUBE OIL TYPE:

- Synthesized Hydrocarbon, Viscosity Grade C32

CONTROL SYSTEM TYPE:

- Onskid Control System: Space Heaters for Cold Ambient Temperatures

OFFSKID AUXILIARY CONTROL INTERFACE:

- Auxiliary Control Console

SUPERVISORY COMMUNICATIONS INTERFACE:

- ControlNet Redundant Media Interface
- Ethernet Network Interface

ENGINEERING UNITS:

- English

LANGUAGE, CONTROL SCREEN DISPLAY:

- English

PERFORMANCE MAP DISPLAY:

- Engine Performance Map

PRINTER LOGGER:

- 120 Vac., 1 Phase, 1 Per Unit

GENERATOR CONTROL AND MONITORING

ELECTRIC METERING PANEL:

- Electric Control and Metering Panel

GENERATOR SEQUENCING:

- Auto Start and Synchronizing

VIBRATION MONITORING SYSTEM - GENERATOR

- 2X and 2Y Proximity Probes, 4 Channels

GENERATOR KEYPHASOR

- Connect Generator Keyphasor

AIR SUPPLY - SELF CLEANING FILTER

- Customer Supplied Air

120 VDC CONTROL AND ACCESSORY POWER SUPPLY:

120 VDC Power Supply with VRLA Batteries

ENGINE CLEANING SYSTEM:

On-Crank Cleaning System

**ENGINE CLEANING SYSTEM TANK:**

Cleaning Tank - ASME Certified

**PACKAGE LIFTING KIT:**

Package Lift Kit, Single Lift

**PREPARATION FOR SHIPMENT:**

Short Term Preservation

**OMI LANGUAGE:**

English Language OMI

**OMI MANUALS FORMAT & QUANTITY:**

CD-ROM OMI, Standard Quantity

**PACKAGE & CONSOLE LABELS, LANGUAGE:**

- English Language Labels

**PACKAGE DRAWINGS:**

- Complexity A Package

**VIBRATION ANALYSIS:**

- Torsional Vibration Analysis / Lateral Vibration Analysis

**ALIGNMENT TOOL:**

- Alignment Tool

**STANDARD TESTING:**

- Standard Testing per Solar Specifications

**CUSTOMER PARTICIPATION - OBSERVE**

- Observe on Non-interference Basis, Level 1

**WELD RADIOGRAPHY, PIPING AND MANIFOLDS:**

- Gas Fuel System, 100% of Welds

**QUALITY CONTROL DOCUMENTATION, FORMAT & QUANTITY:**

- CD-ROM QC Data Book, Standard Quantity
- NEC, CEC OR OTHER CERTIFICATION
- U.S. Package Certification (CSA Intl), Level A

## ELECTRICAL SYSTEM

### TYPE:

- NEC, Class I, Group D, Div 2

### CARBON STEEL SELF CLEANING BARRIER AIR FILTER:

- Self-Cleaning Barrier, Updraft Type (Donaldson)

Air Inlet Silencer, Carbon Steel, 36 in. Long

### CARBON STEEL DUCTING COMPONENTS:

- 4 Unlined Duct, 5 x 6 ft., 36 in. Long
- Unlined Duct, 5 x 6 ft., 48 in. Long
- Unlined Elbow, 90 Degrees, 5 x 6 ft.

### ANCILLARY SUPPORT FRAME:

- Ancillary Support Frame for Lube Oil Cooler

### INLET SYSTEM SCOPE/PROCESS:

- Standard System

### EXHAUST SILENCER, CARBON STEEL:

- Exhaust Silencer, Floor Standing, Carbon Steel
- Custom Exhaust System [0000000893 Ver. -. 16]

### EXHAUST SYSTEM DUCTING, CARBON STEEL:

- Duct, Exhaust, Downstream Silencer ( 42 Dia. 60 Long )
- Custom Exhaust System [0000000893 Ver. -. 16]
- Bellows, Exhaust, Upstream Silencer ( 36 Dia. )
- Stack, Rain Protection ( 42 Dia. Connection )
- Rain stack [Technical Note]

### EXHAUST SYSTEM SCOPE/PROCESS:

- Standard System

### BASIC ENCLOSURE:

- Enclose Complete Package

### ELECTRICAL SYSTEM:

- NEC, Class I, Group D, Div 2

### DUST AND/OR MOISTURE PROTECTION:

- Barrier Type Filters (w/18A2)

#### FIRE AND GAS DETECTION:

- MIR & Rate of Rise, Dual Gas Sensors (w/18A2)

#### FIRE SUPPRESSION SYSTEM:

§ CO2 (W/18A2)

- FIRE CYLINDER CABINET

§ CO2 (W/18A2)

- Space Heater for Fire Cylinder Cabinet [0000019488 Ver. - .5]

#### EQUIPMENT HANDLING SYSTEM:

- Equipment Handling System

#### EQUIPMENT HEALTH MANAGEMENT:

- RM&D Enabled TT4000 only

#### CUSTOMIZED OPTIONS:

A custom lube oil cooler is provided for this application. Features of the lube oil cooler are as follows:

- Standard cooler will be provided with snow hood.
- Solar is to provide space heaters to accommodate cold ambient temperatures for packages with on- skid control systems.
- Space heaters for the following boxes will be required to accommodate a minimum temperature of - 20 deg. F with the following modifications:
  - Add four (4) 120 VAC, 140 W heaters and control thermostat to the Turbine Control box
  - Add three (3) 120 VAC, 140 W heaters and control thermostat to the Generator Control box
  - Add temperature monitoring internal to each box with a high box temp alarm.
  - The customer will be responsible for supplying the 120 VAC, Solar will install in each box temperature switch to shutoff the heaters.
  - Solar will add guidance to the OMI describing cold start upsequence.

Use customized version of 1046865-100. Silencer will be used in self-supported floor mounted exhaust system de-rated to 90 mph wind load. Total stack height of 45 feet.

Use a customized version of AX-5628-103. Duct will be used in self-supported floor mounted exhaust system de-rated to 90 mph wind load. Total stack height of 45 feet.

The fire cylinder cabinet is provided with an electric space heater. The space heater will maintain the temperature inside the cabinet above 4°C (40°F) and is sized for the minimum ambient temperature.

A 1-phase space heater is provided. Units will be mirrored with regards to enclosure inlet, generator enclosure exhaust, and engine removal.

Original Design Conditions:

- Min Ambient: -20 Deg F Max Ambient: +105 Deg F
- Elevation: 5000 Ft above sea level
- Use standard AX-5621-100 for rain stack."

Unit #1 Engine S/N 0979H

Package S/N. CG09342

Sales Price USD (As Is)

Solar Transferrable Warranty  
is available to End Buyer at  
additional cost.

Total Combined Gross Weight: 98,000 Lbs





