Project Application
Land Use Department

P.O. Box 660; 333 Calef Hwy, Barrington, NH 03825 ♦ Phone: 603-664-5798 ♦ Fax: 603-664-0188

Case Number: 254-11-RC-14 SR **Project Name:** 914 Calef Highway **Date** 11/12/2014

Staff Signature required PRIOR to submittal

PRELIMINARY APPLICATION: Preliminary Conceptual Review ____ Design Review ____ Development of Regional Impact ____

FORMAL APPLICATION:
Subdivision Type: Major____ Minor____ Conventional____ Conservation____
Site Plan Review: Major____ Minor____
Conditional Use Permit ____ Sign Permit ____ Boundary Line Adjustment ____ Special Permit ____
Change of Use ✓ Extension for Site Plan or Subdivision Completion ____
Amendment to Subdivision/Site Plan Approval ____ Other ____

Project Name: 914 CALEF HIGHWAY **Area** (Acres or S.F) _____
Project Address: 914 CALEF HIGHWAY (AKA ROUTE 125)
Current Zoning District(s): RCD **Map(s)** 254 **Lot(s)** 10+9
Request: _____

The property owner shall designate an agent for the project. This person (the applicant) shall attend pre-application conferences and public hearings, will receive the agenda, recommendations, and case reports, and will communicate all case information to other parties as required.
All contacts for this project will be made through the *Applicant* listed below.

Owner: 914 CALEF HIGHWAY, LLC
Company _____
Phone: 335-7290 Fax: N/A E-mail: N/A
Address: 5 PINEKNOLL DRIVE ROCHESTER NH 03867

Applicant (Contact): KEVIN MCENEANEY
Company MCENEANEY SURVEY ASSOCIATES, INC.
Phone: 742-0911 Fax: 743-3019 E-mail: kevin@surveynh.com
Address: 24 CHESTNUT STREET DOVER NH 03820

Developer: N/A
Company _____
Phone: _____ Fax: _____ E-mail: _____
Address: _____

Architect: N/A
Company _____
Phone: _____ Fax: _____ E-mail: _____
Address: _____

Engineer: N/A
Company _____
Phone: _____ Fax: _____ E-mail: _____
Address: _____

Owner Signature

Applicant Signature

Barbara Irvine
Staff Signature

11/12/2014
Date

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TOWN OF BARRINGTON - LAND USE DEPARTMENT

PROJECT NARRATIVE

PROJECT NAME 914 CALEF HIGHWAY CASE FILE NUMBER 254-11-RC-14-SR

PROJECT LOCATION 914 CALEF HIGHWAY (AKA ROUTE 125)

DATE OF APPLICATION NOVEMBER 12, 2014

Property Details:

Single-Family Residential Multi-Family Residential (Commercial) Industrial

Current Zoning: RC Lot Area Size ~~2.32 AC.~~ 1.2 acre lot

Setbacks: Front 75' Side 30' Rear 30'

Parking Spaces Required: 5 Parking Spaces Provided: 6

Please describe your project and its purpose and intent. You may attach a typed description.

~~This application is for a change of use on an existing 2800 s.f., one story, commercial structure located at 914 Calef Highway (aka Route 125). The building is located in the Regional Commercial Zoning District, on a 2.32 acre parcel as shown on Assessor's Map 254, Lot 10. Access to this structure is by a paved driveway from Route 125.~~

~~The subject building was formerly used as a cabinet shop, having only one employee, the owner. The proposed use is for an appliance repair shop which would have 2 employees, the owner and his wife.~~

~~Per Section 4.9.13(2), of the Barrington Site Review Regulations, Table 6 (Parking Standards by Use) the required parking spaces for the RC Zoning District for a repair shop would be 1 space per 600 s.f. of gross floor area. Given that the subject building is 2800 s.f., the parking requirement for this proposed use would be 5 spaces. The existing paved parking area in front of the building is sufficient in size to accommodate 6 parking spaces, and therefore fulfills this requirement.~~

Additionally, there is a request for an approval to place a proposed 60KW generator with concrete pad behind the Good and Plenty Restaurant as shown on the attached plan.

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914 Calef Highway Case # 254-11-RC-14-SR

Subdivision, Site Review, and Lot Line Adjustment Application Checklist
Barrington Planning Board
Adopted January 20, 2009

This checklist is intended to assist applicants in preparing a complete application for subdivision as required by the Barrington Subdivision Regulations and must be submitted along with all subdivision applications. An applicant seeking subdivision approval shall be responsible for all requirements specified in the Barrington Subdivision Regulations even if said requirements are omitted from this checklist.

An applicant seeking subdivision approval shall be responsible for providing all the information listed in the column below entitled "Subdivision" and should place an "x" in each box to indicate that this information has been provided. If an item is considered unnecessary for certain applications the "NA" box should be marked instead indicating "Not Applicable". Only certain checklist items are required for lot line adjustments, as noted by the applicable check boxes below.

Check The Appropriate Box or Boxes Below: ☐ **Lot Line Relocation** ☑ **Site Plan** ☐ **Subdivision Plan** **See Section I & II** **See Sections I & II** **See Sections I, II, III, IV & V**				
	Provided	**NA**		
Section I. **General Requirements**				
1. Completed Application Form	☑	☐		
2. Complete abutters list	☑	☐		
3. Payment of all required fees	☑	☐		
4. Five (5) full size sets of plans and six (6) sets of plans 11" by 17"submitted with all required information in accordance with the subdivision regulations and this checklist	☑	☐		
5. Copies of any proposed easement deeds, protective covenants or other legal documents	☑	☐		
6. Any waiver request(s) submitted with justification in writing	☑	☐		
7. Technical reports and supporting documents (see Sections IX & X of this checklist)	☐	☑		
8. Completed Application Checklist	☑	☑		
Section II. **General Plan Information**				
1. Size and presentation of sheet(s) per registry requirements and the subdivision regulations	☑	☐		
2. Title block information:	☑	☐		
a. Drawing title	☑	☐		
b. Name of subdivision	☐	☑		
c. Location of subdivision	☑	☐		
d. Tax map & lot numbers of subject parcel(s)	☑	☐		

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914 Calef Highway Case # 254-11 2C-14-SR

22. Existing easements (identified by type)	☐	☑		
A) Drainage easement(s)	☐	☑		
B) Slope easements(s)	☐	☑		
C) Utility easement(s)	☐	☑		
D) Temporary easement(s) (Such as temporary turnaround	☐	☑		
E) No-cut zone(s) along streams & wetlands (as may be requested by the F) Conservation Commission)	☐	☑		
G) Vehicular & pedestrian access easement(s)	☐	☑		
H) Visibility easement(s)	☐	☑		
I) Fire pond/cistern(s)	☐	☑		
J) Roadway widening easement(s)	☐	☑		
K) Walking trail easement(s)	☐	☑		
a) Other easement(s) Note type(s)	☐	☑		
23. Designation of each proposed lot (by map & lot numbers as provided by the assessor)	☐	☑		
24. Area of each lot (in acres & square feet):	☑	☐		
a. Existing lot(s)	☑	☐		
b. Contiguous upland(s)	☐	☑		
25. Wetland delineation (including Prime Wetlands):	☐	☑		
a. Limits of wetlands	☐	☑		
b. Wetland delineation criteria	☐	☑		
c. Wetland Scientist certification	☐	☑		
26. Owner(s) signature(s)	☑	☐		
27. All required setbacks	☑	☐		
28. Physical features	☑	☐		
a. Buildings	☑	☐		
b. Wells	☑	☐		
c. Septic systems	☑	☐		
d. Stone walls	☐	☑		
e. Paved drives	☑	☑		
f. Gravel drives	☑	☐		
29. Location & name (if any) of any streams or water bodies	☐	☑		
30. Location of existing overhead utility lines, poles, towers, etc.	☑	☐		
31. Two-foot contour interval topography shown over all subject parcels	☑	☐		
32. Map and lot numbers, name, addresses, and zoning of all abutting land owners	☑	☐		
Section III **Proposed Site Conditions Plan** **(Use Sections I General Requirements & Section II General Plan Information)**	N/A			
1. Surveyor's stamp and signature by Licensed Land Surveyor	☑	☑		
2. Proposed lot configuration defined by metes and bounds	☐	☑		
3. Proposed easements defined by metes & bounds. Check each type of proposed easement applicable to this application:	☐	☑		
a. Drainage easement(s)	☐	☑		
b. Slope easement(s)	☐	☑		
c. Utility easement(s)	☐	☑		
d. Temporary easement(s) (such as temporary turnaround)	☐	☑		
e. Roadway widening easement(s)	☐	☑		
f. Walking trail easement(s)	☐	☑		
g. Other easement(s) Note type(s)	☐	☑		
4. Area of each lot (in acres & square feet):	☑	☐		
a. Total upland(s)	☐	☑		

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914 Calef Highway Case# 2514-10 1-RC-14-SR

APPLICATION AGREEMENT

N/A

I hereby apply for Subdivision Plan Review and acknowledge I will comply with all of the ordinances of the Town Of Barrington, New Hampshire State Laws, as well as any stipulations of the Planning Board, in development and construction of this project. I understand that if any of the subdivision Plan or Application specifications are incomplete, the Application will be considered rejected.

In consideration for approval and the privileges accruing thereto, the subdivider thereby agrees:

E. To carry out the improvements agreed upon and as shown and intended by said plat, including any work made necessary by unforeseen conditions which become apparent during construction of the subdivision.

E. To post all streets "Private" until accepted by the Town and to provide and install street signs as approved by the Selectmen of the Town for all street intersections.

E. To give the Town on demand, proper deeds for land or rights-of-way reserved on the plat for streets, drainage, or other purposes as agreed upon.

E. To save the Town harmless from any obligation it may incur or repairs it may make, because of my failure to carry out any of the foregoing provisions.

E. Mr/Mrs _____of _____ to whom all communications to the subdivider may be addressed with any proceedings arising out of the agreement herein.

Signature of Owner: _____

Signature of Developer: _____

Technical Review Signatures: _____

Town Engineer/Planner Approval Signature: _____ The owners, by the filing of this application as indicated above, hereby give permission for any member of the Barrington Planning Board, the Town Engineer, The Conservation Commission and such agents or employees of the Town or other persons as the Planning Board may authorize, to enter upon the property which is the subject of this application at all reasonable times for the purpose of such examinations, surveys, test and inspections as may be appropriate.

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914 Calef Highway - Casett 254-RC-14-SR

(Refusal to sign this permission form does not invalidate an application, but the Planning Board may not be able to make an informed decision regarding unseen lands with potential areas of concerns).

Signature of Owner: _____

Note: The developer/individual in charge must have control over all project work and be available to the Road Agent and Code Enforcement Officer during the construction phase of the project. The Road Agent and Code Enforcement Officer must be notified within two (2) working days of any change by the individual in charge of the project.

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ADMINISTRATIVE AND REVIEW FEES

200' Abutters List Report

Barrington, NH
November 04, 2014

914 Calef Highway
Case # 254-10-RC-14-SR

Subject Property:

(1)

Parcel Number:	254-0010
CAMA Number:	254-0010
Property Address:	914 CALEF HWY
Mailing Address:	914 CALEF HIGHWAY LLC 5 PINEKNOLL DR ROCHESTER, NH 03867

Abutters:

(2)

Parcel Number:	250-0001
CAMA Number:	250-0001
Property Address:	CALEF HWY
Mailing Address:	BORODAVCHUK VLADIMIR & CHRISTI TRS REV FAM TR 14 WINKLEY POND RD BARRINGTON, NH 03825

(3)

Parcel Number:	254-0001
CAMA Number:	254-0001
Property Address:	927 CALEF HWY
Mailing Address:	ANDERSON TR JOHN & KEN BIRCH HILL EST RE TR C/O J&M ANDERSON PO BOX 1194 ALTON, NH 03809

(4)

Parcel Number:	254-0007
CAMA Number:	254-0007
Property Address:	28 IVY LN
Mailing Address:	JEWETT EDWARD 32 HARRIMAN HILL RD RAYMOND, NH 03077

(5)

Parcel Number:	254-0008
CAMA Number:	254-0008
Property Address:	924 CALEF HWY
Mailing Address:	GORMAN DONNA 924 CALEF HWY BARRINGTON, NH 03825

Parcel Number:	254-0009
CAMA Number:	254-0009
Property Address:	CALEF HWY
Mailing Address:	914 CALEF HIGHWAY LLC 5 PINEKNOLL DR ROCHESTER, NH 03867

OWNER OF SUBJECT PARCEL

Parcel Number:	254-0011
CAMA Number:	254-0011
Property Address:	904 CALEF HWY
Mailing Address:	PICARD ENT WAYNE GOOD & PLENTY RESTAURANT 5 PINEKNOLL DR ROCHESTER, NH 03867

Parcel Number:	254-0012
CAMA Number:	254-0012
Property Address:	898 CALEF HWY
Mailing Address:	PICARD PROPERTIES LLC 5 PINEKNOLL DR ROCHESTER, NH 03867

(6) SURVEYOR: MCENEANEY SURVEY ASSOCIATES
24 CHESTNUT STREET
DOVER NH 03820

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CAI Technologies
www.cai-tech.com
The property data available on this site is updated periodically. The Town of Barrington makes no warranties with regard to its accuracy or completeness and assumes no liability associated with the use of this data.

Called on 4/1/14

Information for Generator Case 254-10 & (11)-RC-14-SR

Milton CAT

Power Systems Division

Southworth-Milton, Inc.
Exit 7 Interstate 89
780 Route 103 East
Warner, NH 03278
Mail to: 554 Maple Street
Hopkinton, NH 03229
Tel: (603) 746.4671
Fax: (603) 746.4630

January 28, 2014
Quotation #14-000143

Attn: Wayne Picard — 603-973-2570 cell
Good & Plenty Restaurant 603-664-5797 Rest.
904 Calef Highway 603-335-7290 Home
Barrington, NH 03825

Subject: Standby Generator

Dear Wayne:

We are pleased to offer the following equipment for consideration:

One outdoor Olympian model G60LG LP Vapor fueled package generator set, rated 60 KW for emergency standby service at 120/240 volts, single phase, 3 wire, 60 Hz. The following accessories are included:

- EPA Certified Engine
- UL2200 listed generator set
- Structural steel base with linear vibration isolators
- Unit mounted radiator
- Unit mounted automatic digital start/stop control panel
- Electronic isochronous governor, ¼ % regulation
- Lead acid battery set with rack and cables, mounted
- Battery charging alternator
- Battery charger, 10 amp rated, mounted
- Jacket water heater
- Unit mounted main circuit breaker
- Stainless steel flexible exhaust connector
- Critical grade exhaust silencer mounted within generator enclosure
- Sheet metal Level 1 sound attenuated generator enclosure, painted white
- Automatic transfer switch, rated 400 amps, 2 pole, NEMA 1 enclosed for indoor use, shipped loose
- Initial fill of lubricating oil and anti-freeze coolant solution
- Formal start up of the generator system, one day on-site
- Warranty will be two years from date of start up

(Continued)

Net Price, F.O.B. Barrington, NH: **$27,185.00**

Terms: Net thirty days with prior credit approval. Please note payment is due in full prior to start up.

Notes:

1. The fuel requirements for the mechanical design are 349.2 cubic feet per hour, with a pressure range of 11 – 14" of water column. It is recommended the unit have 13" of water column and a pressure drop no greater than 1" water column from no load to full load (measured at the generator gas inlet) for proper operation.
2. No specifications or drawings have been reviewed for this project.
3. Delivery via flatbed truck is included. Free and clear access to the site and offloading zone is required. Offloading, rigging and final placement by others.
4. Startup Checklist and confirmation of readiness must be returned prior to scheduling startup, otherwise additional labor charges may apply.
5. Commissioning/test quoted as normal working hours unless noted. Overtime, weekends, holidays will be charged at applicable rates.
6. Please provide all necessary tax exemption forms, if applicable, with the purchase order.
7. Fuel supplied by others.

Estimated delivery:

- Generator set – 8 to 10 weeks after release of order.
- Automatic transfer switch – 3 to 4 weeks after release of order.

This price is firm for sixty days. Please note sales tax, if applicable, is not included in our price. We appreciate this opportunity to quote you on your equipment requirements and hope to be favored with your valued order.

Sincerely,

Tom Gallo
Power Solutions Representative

cc: Mike Gilbert, Power Systems Sales

OLYMPIAN™

G60LG2

6.8L

Industrial Spark-Ignited Generator Set

EPA Certified Stationary Emergency

G60LG2 60 kW

Standby Power Rating
60 kW 75 kVA 60 Hz

Prime Power Rating*
54 kW 68 kVA 60 Hz

ISO 9001:2008 USA ENGINEERED & BUILT

*EPA Certified Prime ratings are not available in the U.S. or its Territories

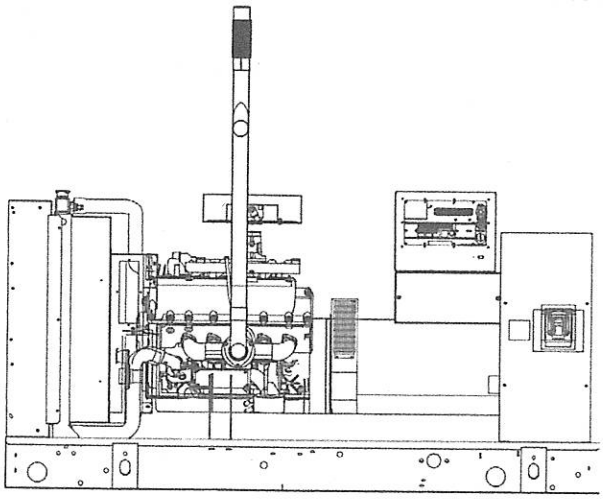


Image used for illustration purposes only

Codes and Standards

Olympian products are designed to the following standards:

c UL us	UL2200, UL508, UL142, UL498
NFPA	NFPA70, 99, 110, 37
nec	NEC700, 701, 702, 708
ISO 9001:2008	ISO9001, 8528, 3046, 7637, Pluses #2b, 4
NEMA	NEMA ICS10, MG1, 250, ICS6, AB1
ANSI American National Standards Institute	ANSI C62.41
ICC oshpd	IBC 2009, CBC 2010, IBC 2012, ASCE 7-05, ASCE 7-10, ICC-ES AC-156 (2012)

Prime power or standby service, Olympian Natural gas or Propane fuel generator sets deliver dependable, clean, economical power – even in the most demanding conditions – and Olympian gensets are available in a wide range of configurations with optional equipment.

Olympian generator sets are designed, engineered and manufactured for optimal performance. All major components are tested individually; once assembled, the entire unit is tested at and above 100% of rated load for safety and operation.

These complete, ready-to-run packages have another distinct advantage. They all come with the comprehensive service and support of Cat® dealers – beginning with prompt delivery and ongoing support throughout the life of the generator set.

G60LG2 60 kW

OLYMPIAN™

LG Series

Standard Features

ENGINE SYSTEM

General

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel flexible exhaust connection
- Critical Exhaust Silencer (enclosed only)
- Factory Filled Oil
- Radiator duct adapter (open set only)

Fuel System

- Primary and Secondary Fuel Shutoff
- Flexible Fuel Line - NPT Connection

Cooling System

- Closed Coolant Recovery System
- UV/Ozone resistant hoses
- Factory-installed Radiator
- Radiator drain extension
- 50/50 Ethylene glycol antifreeze

Engine Electrical System

- Battery charging alternator
- Battery Cables
- Battery Tray
- Solenoid activated starter motor
- Rubber-booted engine electrical connections

ALTERNATOR SYSTEM

- Class H insulation material
- 2/3 Pitch
- Skewed Stator
- Brushless Excitation
- Sealed Bearings
- Amortisseur winding
- Full load capacity alternator

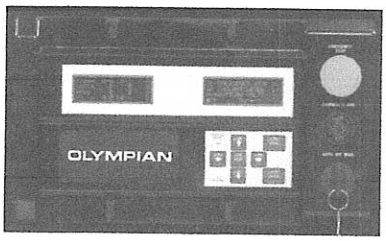
GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of circuits - high/low voltage
- Separation of circuits - multiple breakers
- Wrapped Exhaust Piping
- Standard Factory Testing
- 2 Year Limited Warranty (Standby rated Units)
- 1 Year Warranty (Prime rated units)
- Silencer mounted in the discharge hood (enclosed only)

ENCLOSURE (if selected)

- Rust-proof fasteners with nylon washers to protect finish
- High performance sound-absorbing material
- Gasketed doors
- Stamped air-intake louvers
- Air discharge hoods for radiator-upward pointing
- Stainless steel lift off door hinges
- Stainless steel lockable handles

CONTROL SYSTEM



Control Panel

- Digital H Control Panel - Dual 4x20 Display
- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable PLC
- RS-232/485
- All-Phase Sensing DVR
- Full System Status
- Utility Monitoring
- Low Fuel Pressure Indication
- 2-Wire Start Compatible
- Power Output (kW)
- Power Factor
- kW Hours, Total & Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage
- Frequency
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus protocol
- Predictive Maintenance algorithm
- Sealed Boards
- Password parameter adjustment protection
- Single point ground
- 15 channel data logging
- 0.2 msec high speed data logging
- Alarm information automatically comes up on the display

Alarms

- Oil Pressure (Pre-programmable Low Pressure Shutdown)
- Coolant Temperature (Pre-programmed High Temp Shutdown)
- Coolant Level (Pre-programmed Low Level Shutdown)
- Low Fuel Pressure Alarm
- Engine Speed (Pre-programmed Over speed Shutdown)
- Battery Voltage Warning
- Alarms & warnings time and date stamped
- Alarms & warnings for transient and steady state conditions
- Snap shots of key operation parameters during alarms & warnings
- Alarms and warnings spelled out (no alarm codes)

LG Series

Configurable Options

ENGINE SYSTEM

General

- ○ Engine Block Heater
- ○ Oil Heater
- ○ Air Filter Restriction Indicator
- ○ Stone Guard (Open Set Only)
- ○ Critical Exhaust Silencer (Open Set Only / Standard on Ultra Low Emissions Option)

Engine Electrical System

- ○ 10A UL battery charger
- ○ 2.5A UL battery charger
- ○ Battery Warmer

ALTERNATOR SYSTEM

- ○ Alternator Upsizing
- ○ Anti-Condensation Heater
- ○ Tropical coating
- ○ Permanent Magnet Excitation

GENERATOR SET

- ○ Extended Factory Testing (3 Phase Only)
- ○ IBC Seismic Certification
- ○ 8 Position Load Center
- ○ 2 Year Extended Warranty
- ○ 5 Year Warranty
- ○ 5 Year Extended Warranty

CIRCUIT BREAKER OPTIONS

- ○ Main Line Circuit Breaker
- ○ 2nd Main Line Circuit Breaker
- ○ Shunt Trip and Auxiliary Contact
- ○ Electronic Trip Breakers

ENCLOSURE

- ○ Standard Enclosure
- ○ Level 1 Sound Attenuation
- ○ Level 2 Sound Attenuation
- ○ Steel Enclosure
- ○ Aluminum Enclosure
- ○ 150 MPH Wind Kit
- ○ 12 VDC Enclosure Lighting Kit
- ○ 120 VAC Enclosure Lighting Kit
- ○ AC/DC Enclosure Lighting Kit
- ○ Door Alarm Switch

CONTROL SYSTEM

- ○ 21-Light Remote Annunciator
- ○ Remote Relay Panel (8 or 16)
- ○ Oil Temperature Sender with Indication Alarm
- ○ Remote E-Stop (Break Glass-Type, Surface Mount)
- ○ Remote E-Stop (Red Mushroom-Type, Surface Mount)
- ○ Remote E-Stop (Red Mushroom-Type, Flush Mount)
- ○ Remote Communication - Modem
- ○ Remote Communication - Ethernet
- ○ 10A Run Relay
- ○ Ground fault indication and protection functions

Engineered Options

ENGINE SYSTEM

- ○ Coolant heater ball valves
- ○ Fluid containment pans

ALTERNATOR SYSTEM

- ○ 3rd Breaker Systems

GENERATOR SET

- ○ Special Testing
- ○ Battery Box

ENCLOSURE

- ○ Motorized Dampers
- ○ Enclosure Ambient Heaters

CONTROL SYSTEM

- ○ Spare inputs (x4) / outputs (x4) - H Panel Only
- ○ Battery Disconnect Switch

Rating Definitions

Standby – Applicable for a varying emergency load for the duration of a utility power outage with no overload capability.
Prime – Applicable for supplying power to a varying load in lieu of utility for an unlimited amount of running time. A 10% overload capacity is available for 1 out of every 12 hours. The Prime Power option is only available on International applications.

Power ratings in accordance with ISO 8528-1, Second Edition dated 2005-06-01, definitions for Prime Power (PRP) and Emergency Standby Power (ESP).

G60LG2 60 kW

OLYMPIAN™

LG Series

application and engineering data

ENGINE SPECIFICATIONS

General

Cylinder #	10
Type	V
Displacement - L (Cu In)	6.8 (414.96)
Bore - mm (in)	90.17 (3.55)
Stroke - mm (in)	105.992 (4.17)
Compression Ratio	9:01
Intake Air Method	Naturally Aspirated
Number of Main Bearings	7
Connecting Rods	Forged
Cylinder Head	Aluminum
Cylinder Liners	No
Ignition	High Energy
Pistons	Aluminum Alloy
Crankshaft	Steel
Lifter Type	Overhead Cam
Intake Valve Material	Steel Alloy
Exhaust Valve Material	Steel Alloy
Hardened Valve Seats	Yes

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	+/- 0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full-flow spin-on cartridge
Crankcase Capacity - L (qts)	5.7 (6)

Cooling System

Cooling System Type	Pressurized Closed Recovery
Water Pump Flow - gpm (lpm)	38 (144)
Fan Type	Pusher
Fan Speed (rpm)	2300
Fan Diameter mm (in)	558 (22)
Coolant Heater Wattage	1500
Coolant Heater Standard Voltage	120 V

Fuel System

Fuel Type	Natural Gas, Propane Vapor
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard
Operating Fuel Pressure	11" - 14" H2O

Engine Electrical System

System Voltage	12 VDC
Battery Charging Alternator	Standard
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	390
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<50
Standard Excitation	Brushless
Bearings	Sealed Ball
Coupling	Flexibile Disc
Prototype Short Circuit Test	Yes

Voltage Regulator Type	Full Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	+/- 0.25%

LG Series

operating data

POWER RATINGS

	Natural Gas		Propane Vapor	
Single-Phase 120/240 VAC @1.0pf	60 kW	Amps: 250	60 kW	Amps: 250
Three-Phase 120/208 VAC @0.8pf	60 kW	Amps: 208	60 kW	Amps: 208
Three-Phase 120/240 VAC @0.8pf	60 kW	Amps: 180	60 kW	Amps: 180
Three-Phase 277/480 VAC @0.8pf	60 kW	Amps: 90	60 kW	Amps: 90
Three-Phase 346/600 VAC @0.8pf	60 kW	Amps: 72	60 kW	Amps: 72

STARTING CAPABILITIES (sKVA)

sKVA vs. Voltage Dip

		480 VAC						208/240 VAC					
Alternator	kW	10%	15%	20%	25%	30%	35%	10%	15%	20%	25%	30%	35%
Standard	60	42	63	83	104	125	146	32	47	62	78	94	110
Upsize 1	70	59	88	117	147	176	205	44	66	88	110	132	154
Upsize 2	100	79	118	157	197	236	275	59	89	118	148	177	206
Upsize 3*	130	116	174	232	290	348	406	87	131	174	218	261	305

*Brushless excitation only

FUEL CONSUMPTION RATES*

Natural Gas – ft³/hr (m³/hr)	
Percent Load	Standby
25%	323 (9.1)
50%	554 (15.7)
75%	748 (21.2)
100%	923 (26.1)

Propane Vapor – ft³/hr (m³/hr)	
Percent Load	Standby
25%	122.2 (3.5)
50%	209.5 (5.9)
75%	282.8 (8.0)
100%	349.2 (9.9)

*Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby
Air Flow (inlet air combustion and radiator)	ft³/min (m³/min)	5785 (163.8)
Coolant Flow per Minute	gpm (lpm)	38 (144)
Coolant System Capacity	gal (L)	6.3 (23.9)
Heat Rejection to Coolant	BTU/hr	252,000
Max. Operating Air Temp on Radiator	°F (°C)	122 (50)
Max. Operating Ambient Temperature (before derate)	°F (°C)	104 (40)
Maximum Radiator Backpressure	in H_2O	0.5

COMBUSTION AIR REQUIREMENTS

		Standby
Flow at Rated Power	cfm (m3/min)	185 (5.2)

ENGINE

		Standby
Rated Engine Speed	rpm	1800
Horsepower at Rated kW**	hp	96
Piston Speed	ft/min (m/min)	1251 (381)
BMEP	psi	102

** Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

EXHAUST

		Standby
Exhaust Flow (Rated Output)	cfm (m³/min)	520 (14.7)
Maximum Recommended Back Pressure	inHg	1.5
Exhaust Temp (Rated Output)	°F (°C)	1050 (565.6)
Exhaust Outlet Size (Open Set)	in	2.5" I.D. Flex (No muffler)

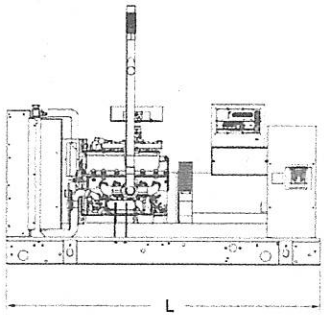
Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a CAT® Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.

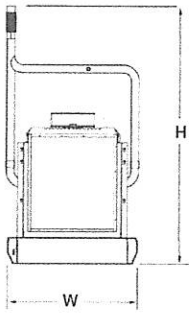
G60LG2 60 kW

OLYMPIAN™

LG Series

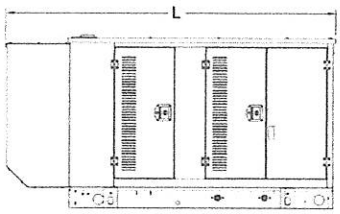
dimensions and weights

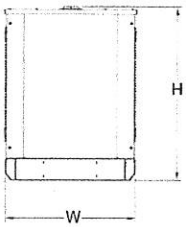




OPEN SET (Includes Exhaust Flex)

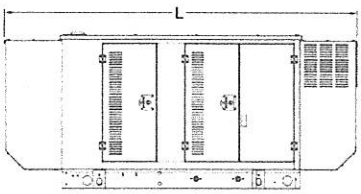
L x W x H in (mm)	92.9 (2360) x 40 (1015.9) x 75.4 (1914.1)
Weight lbs (kg)	1929 (875)

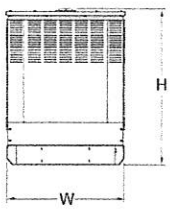




STANDARD ENCLOSURE

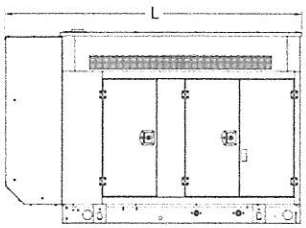
L x W x H in (mm)	111.8 (2839.7) x 40.5 (1027.8) x 55.3 (1405.7)
Weight lbs (kg)	Steel: 2370 (1075) Aluminum: 2074.5 (941)

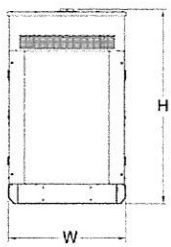




LEVEL 1 ACOUSTIC ENCLOSURE

L x W x H in (mm)	129.4 (3287.2) x 40.5 (1027.8) x 55.3 (1405.7)
Weight lbs (kg)	Steel: 2590 (1175) Aluminum: 2147 (974)





LEVEL 2 ACOUSTIC ENCLOSURE

L x W x H in (mm)	111.8 (2839.7) x 40.5 (1027.8) x 67.8 (1721.5)
Weight lbs (kg)	Steel: 2811 (1275) Aluminum: 2220 (1007)

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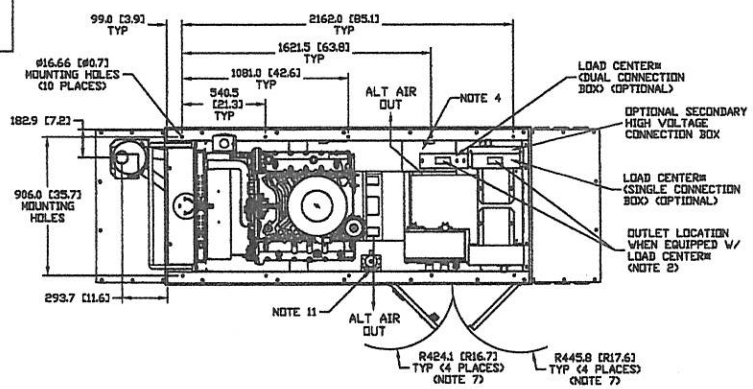
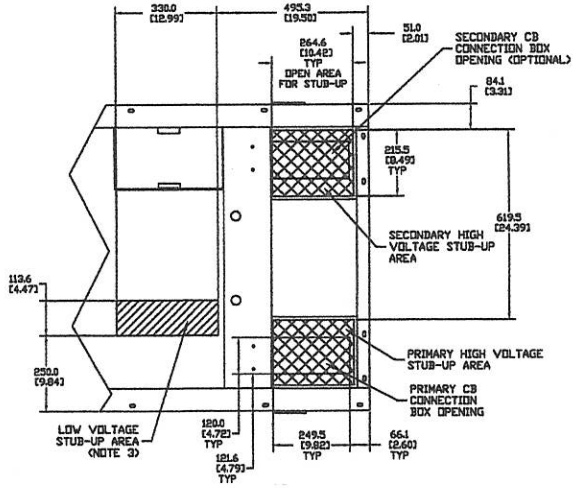
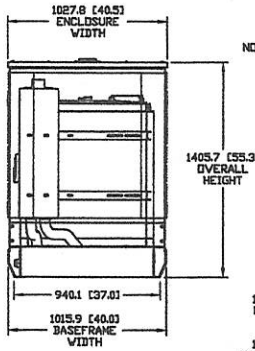
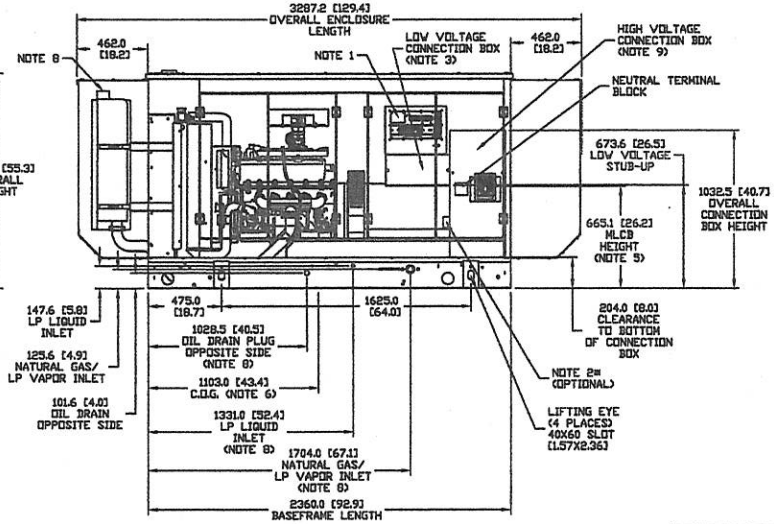




STUB-UP AREA DETAILED VIEW



REAR VIEW



LEFT SIDE VIEW

RECOMMENDED ELECTRICAL STUB-UPS (SEE DETAILED VIEW & TOP VIEW)	
(HIGH VOLTAGE STUB UP) AC LOAD LEAD CONDUIT FOR PERMANENT MAGNET EXCITATION CONNECTION BOX	
(LOW VOLTAGE STUB UP)	

WEIGHT DATA

OPEN SET: 875KG [1929LBS]
STEEL ENCLOSURE: 300KG [661LBS]
ALUMINUM ENCLOSURE: 99KG [218LBS]
(SEE NOTE 6)

NOTE:

1. CONTROL PANEL. (OPTIONAL BATTERY CHARGER INSIDE)
2. 120V, 20A GFCI & 250V, 15A OUTLET≡
3. CONNECTION POINTS FOR CONTROL WIRES PROVIDED IN THE LOW VOLTAGE CONNECTION BOX (USE LOW VOLTAGE STUB UP AREA)
4. BATTERY (12 VOLT NEGATIVE GROUND SYSTEM)
5. MAIN LINE CIRCUIT BREAKER (MLCB), AC LOAD LEADS CONNECT DIRECTLY TO MLCB. (MLCB HEIGHT MAY VARY WITH CB SELECTION)
6. CENTER OF GRAVITY AND WEIGHT MAY SHIFT SLIGHTLY DUE TO UNIT OPTIONS
7. DOORS MUST BE ABLE TO OPEN AT LEAST 90° TO BE REMOVED
8. ENGINE SERVICE CONNECTIONS:
   - INLET L/P GAS = 1-1/4" NPT COUPLING
   - INLET L/P LIQUID = 1/4" NPT COUPLING
   - INLET NATURAL GAS = 1-1/4" NPT COUPLING
   - OIL DRAIN = 1/2" NPT COUPLING
   - EXHAUST OUTLET = 3.0" I.D.
9. AUXILIARY AC CONNECTION FOR UNIT OPTIONS ARE LOCATED IN HIGH VOLTAGE CONNECTION BOX, UNLESS AN OPTIONAL LOAD CENTER≡ IS INSTALLED
10. EPA AIR QUALITY REGULATIONS REQUIRE THE CATALYST TO REMAIN MOUNTED IN THE FACTORY INSTALLED POSITION OR WITHIN THE SPECIFIED MOUNTING POSITION DETAILED ON THIS DRAWING UNDER PENALTY OF FEDERAL LAW (US/CANADA ONLY)
11. BLOCK HEATER
12. BOTTOM OF GENERATOR SET MUST BE CLOSED TO PREVENT PEST INTRUSION AND RECIRULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.
13. GENERATOR SET MUST BE INSTALLED SUCH THAT DISCHARGE AIR IS NOT RECIRCULATED.
14. CIRCUIT BREAKER
    - AC LOAD LEADS CONNECT DIRECTLY TO BOTTOM OF BREAKER.

≡ - GFCI OUTLET AND LOAD CENTER AVAILABLE US/CANADA ONLY

INSTALLATION DRAWING

G60LG1, G60LG2, G70LG1, G70LG2

6.8 LITER DIRECT DRIVE

NATURALLY ASPIRATED

LEVEL 1 ACOUSTIC ENCLOSURE

ISSUE DATE 3/2013

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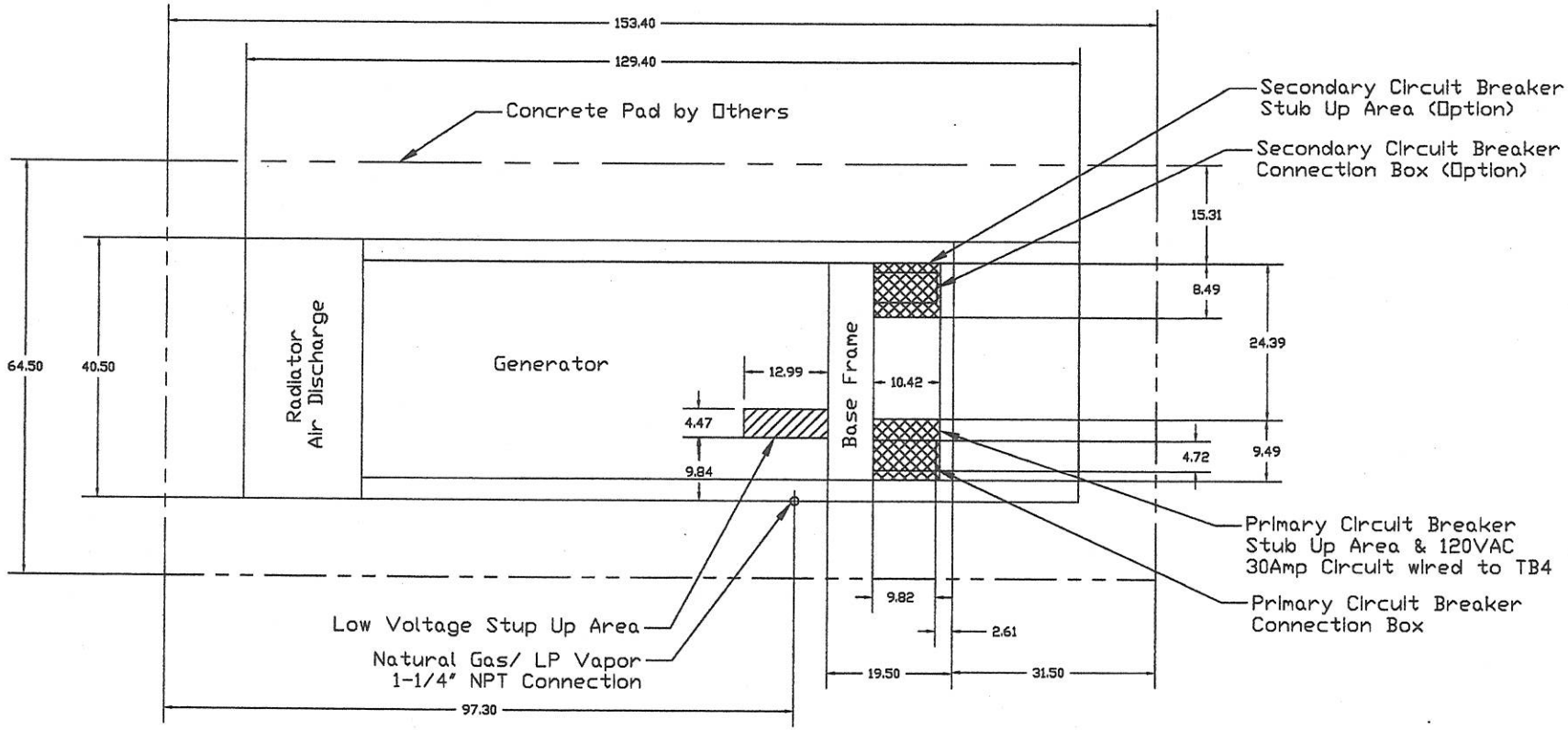
FILE NAME	0J4198BY09.DWG	SIZE	B
SCALE	NTS	FIRST USE	6.8L
DWG NO.	0J4198BY09	REV	B



I: Primary Circuit Breaker Stub Up Area (All wiring in their own conduits):
  A) Main Building Load
  B) 120VAC, 30 Amp Circuit for Battery Charger, Block Heater and Optional Accessories Battery Heater, Alternator Heater, if Supplied
II) Low Voltage Stub Up Area (All wiring in their own conduits):
  A) Generator Start Wires
  B) Remote Annunciator, if Supplied
III: Secondary Circuit Breaker Stub Up Area- Optional

REVISION HISTORY		
REV	BY	DATE
04	___	___
03	___	___
02	___	___
01	___	___
00	.	.

MILTON CAT
POWER SYSTEMS DIVISION

Model G60-G70LG Level 1 SA Enclosure Pad
MILTON-CAT POWER SYSTEMS

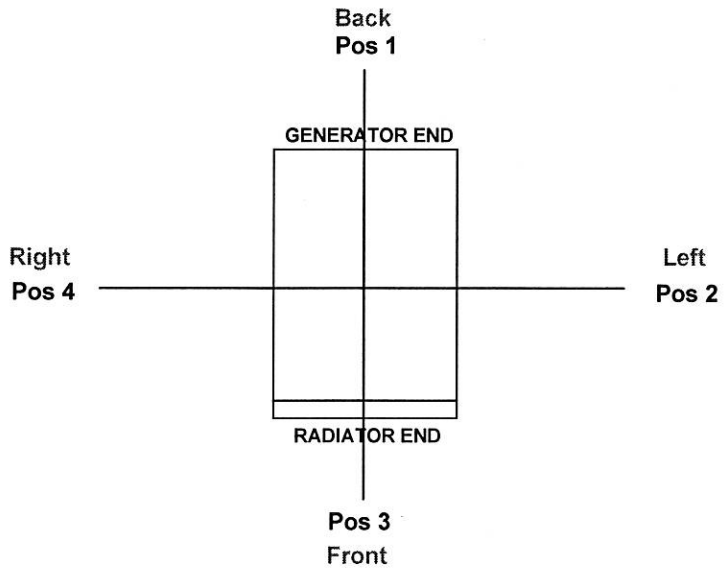
ALL DIMENSIONS IN INCHES	DRAWN BY:
NOT TO SCALE	CHECKED: T. STANLEY
DATE: 1/29/2014	APPROVED: _____
DWG No. XXXXXXX	SHEET 1 OF 1

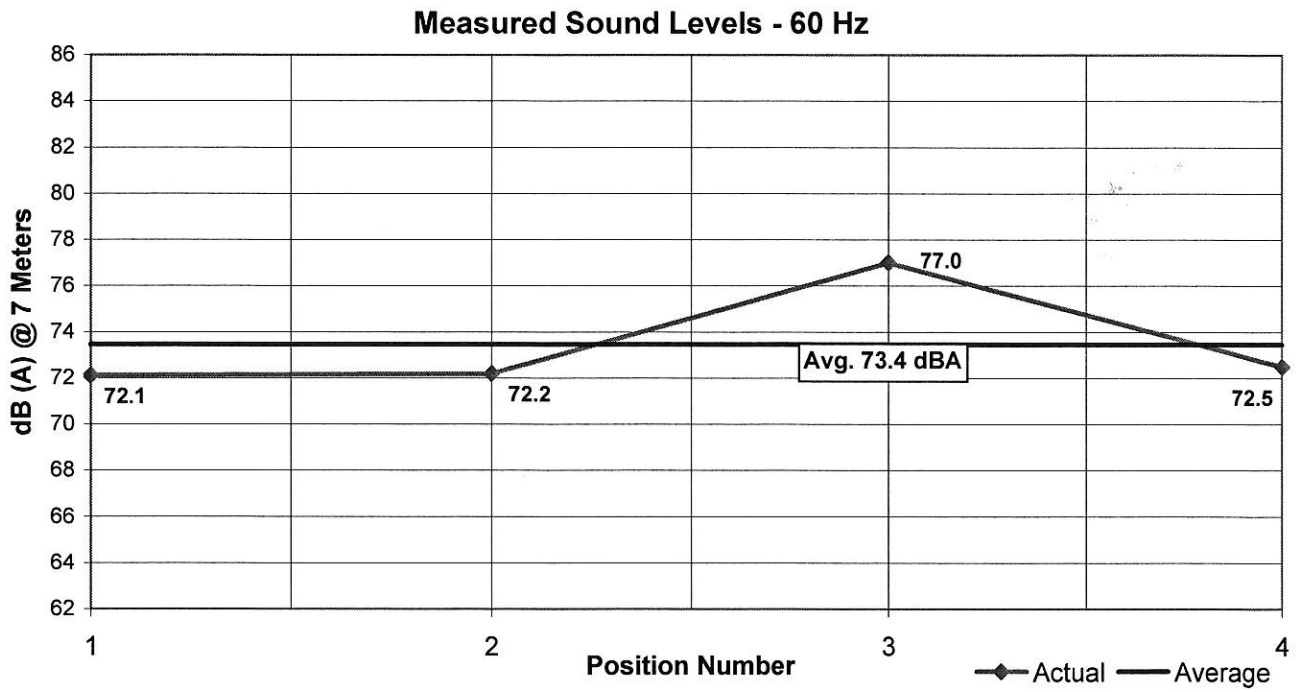
OLYMPIAN™

Sound Test Results

Genset: G60LG 6.8L

Enclosure: Level 1 Acoustic Enclosure





Notes:

1. All positions 23 ft (7M) from side faces of generator set.
2. Generator operating at full load.
3. Test conducted on a 100 foot diameter asphault surface.
4. Non-enclosed sets do not include exhaust sound during testing.

OLYMPIAN™

Sound Test Results

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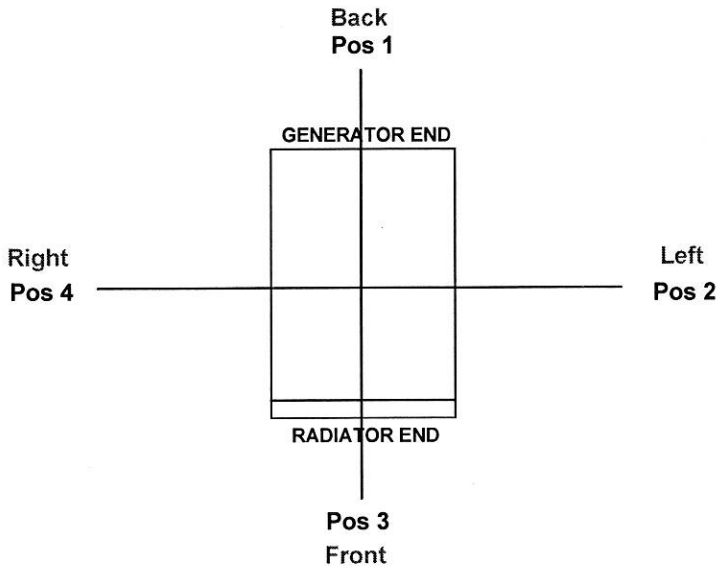
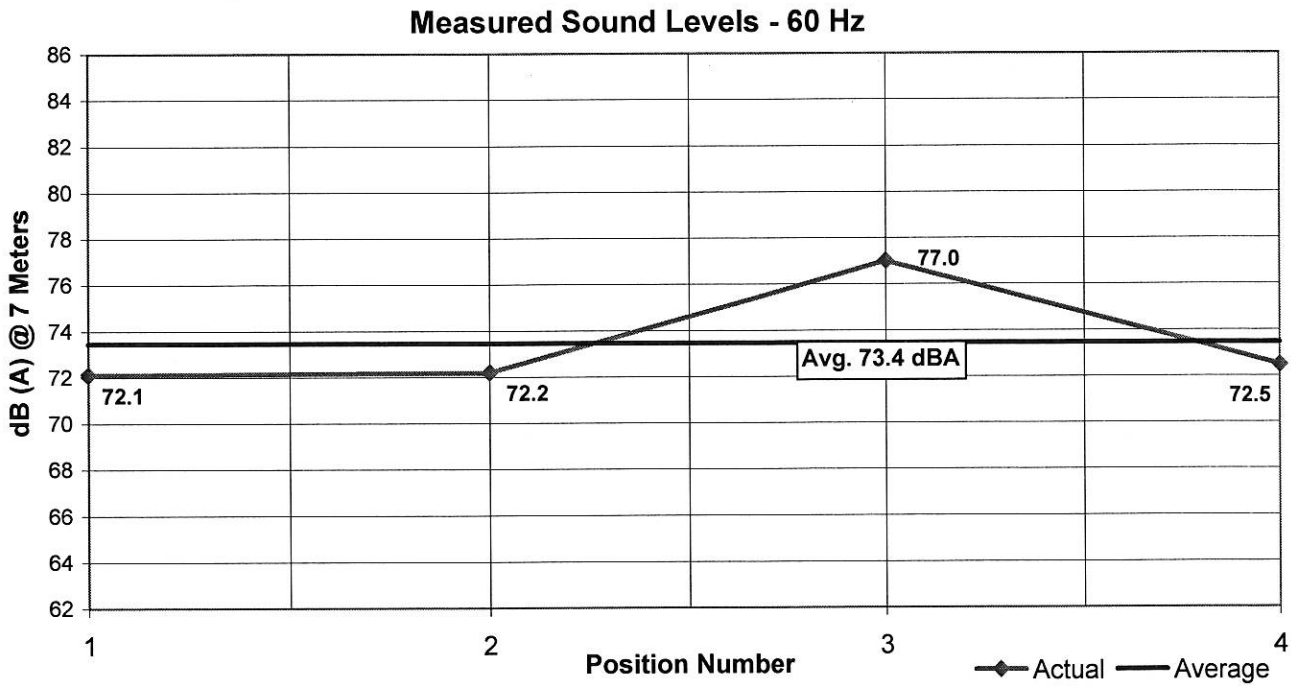
Enclosure: Level 1 Acoustic Enclosure





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