

GAS PKG. GEN SET LOW EMISSION -CSARL (X)
LAFAYETTE, INDIANA

Ship Weight
lbs

List Price
At Factory

Product Consist:

PRICING INFORMATION

These prices are manufacturer suggested resale prices and are subject to change without notice. Shipment will usually be made from source of manufacture, or at factory discretion. Attachment prices are for attachments installed as original equipment unless otherwise specified. Net price items are subject to no further discounts. All prices are installed list prices unless otherwise specified.

SHIPMENT DATE SPECIFIC PRICING IS BEST FOUND THROUGH THE CSQ QUOTING TOOL.

List Price at Factory

AVAILABILITY

For product availability go to Power Net at <https://engines.cat.com> Under the quick links, select Engine Availability Letters.

GLOSSARY OF TERMS

For product abbreviations go to Power Net at <https://engines.cat.com> Under the quick links, select TMI Web. Once in TMI select Abbreviations, listed under TMI Definitions.

DESIGN TO ORDER (DTO)

Orders requiring special engineering (referred to as DTO) will require additional process time. This time is over and above normal order processing or product availability. Attachments listed in the price list are NOT interchangeable between sales models or applications. If attachments are required for a particular model or configuration but are not listed as compatible for this model in a specific price list, the order will require a DTO. This is true even when the same attachment or configuration has been ordered in the past.

A DTO will require an application and installation (A & I) marketing quote. For further information contact the Application Support Center. Requests for special ratings not listed in the Price List should also be sent to the Application Support Center. If the special rating is possible, it may also require a DTO and could require additional processing time if the appropriate details have not yet been established.

Please keep this information in mind when discussing or quoting approximate availability to your customers. DTO quotes are typically valid for six (6) months. If the quote expires, regardless if it has been ordered or not, a new DTO quote will be required before an order can be placed.

DEALER SPECIFIC PRICING TERMS

To obtain the latest specific conditions from Caterpillar to individual Cat dealers please use Engine Order Management Process (EOMP) quoting and order tools like ISA or CSQ. For questions or special requests, please contact your Caterpillar representative.

TECHNICAL PERFORMANCE DATA

Technical performance data and Engine rating information is available

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TECHNICAL PERFORMANCE DATA (CONT.)

in Power Net at <https://engines.cat.com>. Under the quick links, select TMI Web. Once in TMI select TMI Performance Definitions. To request dealer specific authorization, please follow links to Engine Order Management Process (EOMP) at Caterpillar Power Net (<https://engines.cat.com>). CWS logon id is needed to access Power Net.

RATINGS GUIDE

The EPG Ratings Guide may be ordered through Media Logistics by calling +1 (800) 566-7782 or +1 (309) 266-0942. The current EPG Ratings Guide media number for Cat Generator Sets is LEXE7582 or LEXE7581 for Olympian Generator Sets. Current EPG ratings are also available by accessing the Electronic Media Center at <https://emc.cat.com> and on Power Net at <https://engines.cat.com>, select Electric Power then select References/Sales Tools.

AIR INLET SYSTEM

Air cleaner; intermediate duty with service indicator

Installed on:

516GE7K (1.085 MW - 50 Hz)

Shipped loose on:

516GE7I (1.0 MW - 50 Hz)

CONTROL SYSTEM

Governor; Woodward 2301A Speed Control, EG3P Actuator (2301A installed in shipped loose EMCP 4.3 panel).
516GE7I (1.0 MW - 50 Hz)

Governor: Proact Speed Control (shipped loose) and Actuator (shipped loose), Deltec carburetor.
516GE7K (1.085 MW - 50 Hz)

COOLING SYSTEM

Jacket water circuit

Water pump; gear driven, centrifugal, Non-self-priming
Thermostats and housing; maximum outlet temperature 110 C (230 F)
Combined aftercooler and oil cooler circuit.

SCAC - Single stage aftercooler
Water pump; gear driven, centrifugal, Non-self-priming

Aftercooler thermostats & housing; maximum inlet temperature 54C (130F)
516GE7I (1.0 MW - 50 Hz)

Aftercooler thermostats & housing; maximum inlet temperature 43C (110F)
516GE7K (1.085 MW - 50 Hz)

EXHAUST SYSTEM

Exhaust manifolds;
dry - 516GE7K (1.085 MW - 50 Hz)
water cooled - 516GE7I, (1.0 MW - 50 Hz)
Exhaust pyrometer and thermocouples (individual exhaust

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EXHAUST SYSTEM (CONT.)

Ports and right and left bank exhaust stacks)

FLYWHEELS & FLYWHEEL HOUSINGS

Flywheel; SAE No. 00
Flywheel housing; SAE No. 00
SAE standard rotation

FUEL SYSTEM

Gas pressure regulator
Requires 10.3 - 34.5 kPa (1.5 - 5 psi) gas.

Deltec natural gas carburetor (31 - 35 MJ/Nm³ venturi standard)
516GE7L (1.0 MW - 60 Hz)
516GE7K (1.085 MW - 50 Hz)

Rear inlet connectionn
516GE7I (1.0 MW - 50 Hz)
516GE7K (1.085 MW - 50 Hz)

Fuel filter is required but not provided as standard: Customer may provide, or see optional fuel filters.
Fuel system is sized for 17.7 to 23.6 MJ/Nm³ (450 to 600 btu/scf).

TECHNICAL: Dealer/customer must supply an air/fuel ratio control (AFRC).

GENERATORS AND GENERATOR ATTACHMENTS

3-phase brushless, salient pole
6 lead
IEC Platinum Stator RTDs (.00385 Temp coefficient)

CDVR standard offering (mandatory selection)
Caterpillar's Digital Voltage Regulator (CDVR) - CDVR includes droop capability, 3-Phase voltage sensing, KVAR/PF modes, RFI suppression, min/max exciter limiter and exciter diode monitor.

Winding and Bearing temperature detectors
Anti-Condensation space heaters
1400 Frame Generator - LV (50 Hz)
Permanent Magnet Excitation
NEMA Class H insulation, Class F temperature rise at 40C ambient

IGNITION SYSTEM

Caterpillar Ignition System (controlled by ADEM A4)
(includes detonation sensitive timing)

INSTRUMENTATION

Control panel including EMCP 4.3 controller
(package mounted) which includes:

24-volt DC operation
Environmental sealed front face
Text alarm/event descriptions

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INSTRUMENTATION (CONT.)

Kilowatt transducer output
Controls:
Speed/ Voltage adjust
Auto/start/stop control
Alarm acknowledge
Emergency stop pushbutton
Customer Warning/Shutdown Lamp test
True RMS AC metering, 3-phase, +/-2% accuracy
Remote monitoring and Control capability
Warning/shutdown with common LED indication of
shutdowns with indicating lights for:
Low oil pressure
High/Low coolant temperature
High engine oil temp
Low, High and weak battery voltage
Overspeed
Failure to start (Overcrank)
Emergency stop
Loss of sensing
Air filter restriction
Impending shutdown
Digital indication for:
RPM
DC volts
Operating hours
Oil pressure (psi, kPa or bar)
Volts (L-L & L-N), frequency (Hz)
Amps (per phase & average)
Two (2) dedicated digital inputs
Twelve (12) Programmable digital inputs
Two (2) dedicated digital outputs
Sixteen (16) programmable digital outputs
Environmental:
Control module operating temperature:-40C to 70C
Display operating temperature: - 20C to 70C
Humidity: 100% condensing 30C to 60C
Storage temperature: -40C to 85C
Vibration: Random profile, 24-1000Hz, 6.0G rms
Generator protection:
Generator phase sequence
Over/Under voltage
Over/ Under frequency
Reverse power(kW)
Reverse reactive power(kVar)
Over current
Current balance
Over/Loss of Excitation
Generator temperature detectors

LUBE SYSTEM

Crankcase breather; top mounted or rear based on configuration, please consult TMI installation drawings. Lubrication oil - product is shipped without lubricating oil. Dealer is responsible for initial and subsequent fills that meet Caterpillar specifications for the gas

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LUBE SYSTEM (CONT.)

composition at site.
Oil cooler
Oil filter; RH
Shallow oil pan, please refer to TMI for specific lube oil capacity

MOUNTING SYSTEM

Rails; engine-generator mounting

POWER TAKE-OFFS

Front housing; two-sided

PROTECTION SYSTEM

Detonation shutdown
Additional safety shutdown protection (see Instrumentation)
OPTIONAL: Gas valve 50.8 mm (2 in) pipe size.

STARTING SYSTEM

MANDATORY SELECTION: ELSDL16
Dual 24 volt electric starting motor for ambient above 20 C (68 F)
(Jacket water heater recommended for 10 sec. starting.)

GENERAL

Paint; Caterpillar Yellow
Crankshaft vibration damper and guard
Lifting eyes

Note: "Stationary Use Only Label": Effective January 2004, the US EPA Nonroad Mobile SI rule restricts the use of SI gas engines in the United States. Caterpillar's Gas Engines are not certified for mobile applications within the US and are to be used in "stationary use only" applications. All gas engines will have this label attached regardless of the dealer placing the order.

Note: Radiator not included. Ratings shown are without fan.

Note: Torsional analysis is recommended if other than a Caterpillar generator is used.

G3516LNPL

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X	516GE7I	G3516 LE PACKAGE GEN SET 7I 0 1000 ekW, 50 Hertz, 1500 RPM TECHNICAL:11:1 Compression Ratio; water cooled exhaust manifolds; single stage aftercooler, 1500 rpm. Provides equipment for use with landfill gas or bio-gas applications including: special cylinder heads, crankcase ventilation breathers, high temperature 110 C (230 F) jacket water pump, 2 circuit cooling system (jacket water, combined aftercooler/oil cooler), inlet/outlet connection and corrosion resistant aftercooler core. Gas from 17.7-23.6 MJ/Nm3 (450 - 600 Btu/scf). REQUIRES: KMW1030 or PSTSPCL and WETMANI and TSTAT38 NOTE: Engine factory tested on natural gas. Low energy (Deltec) venture Supplied shipped loose and must be installed by dealer.Dealer responsible for final assembly of fuel and protection systems. MANDATORY GENERATOR SELECTION FOLLOWS		\$517,688
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X	516GE7K	G3516 LE PACKAGE GEN SET 7K 0 1085 ekW, 50 Hertz, 1500 RPM TECHNICAL:11:1 Compression Ratio; dry exhaust manifolds; single stage aftercooler, 1500 rpm. Provides equipment for use with landfill gas or bio-gas applications including: special cylinder heads, crankcase ventilation breathers, high temperature 110 C (230 F) jacket water pump, 2 circuit cooling system (jacket water, combined aftercooler/oil cooler), inlet/outlet connection and corrosion resistant aftercooler core. Gas from 17.7-23.6 MJ/Nm3 gas (450 - 600 Btu/scf). REQUIRES: KV01100 or PSTSPCL and DRYMANI and ACTEMPA NOTE: Engine factory tested on natural gas. Low energy (Deltec) venture Supplied shipped loose and must be installed by dealer. Dealer responsible for final assembly of fuel and protection systems. MANDATORY GENERATOR SELECTION FOLLOWS		\$561,691
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GRID CODE COMPLIANCE

X	GDCDNRE	GRID CODE COMPLIANCE NOT REQ 0 Dynamic grid codes, also known as electrical network codes, provide conditions under which a generator connected to the public electrical grid must meet to help ensure safe, secure operation of the grid. These codes can vary depending on the regional, national, or international grid authority. If you have a project with a specific electrical grid code requirement, and you anticipate quoting Electric Power Gas genset products from the price list of a US source facility, please contact the ASC for assistance. Cat gas genset products are not guaranteed compliant with any specific country's grid code requirements. By working with the ASC, we can evaluate the project requirements and quote products that will meet specific electrical network codes.		NC
X	GDCDGER	GERMANY GRID CODE COMPLIANCE 0 This provides a genset, with the proper components, that has been verified to be compliant with the German requirements as described in the guideline 'generating plants connected to the medium-voltage network' (BDEW Technical Guideline, issued June 2008, with a fourth amendment taking effect January 1 2013). Substitutions of the generator that has been verified to be with this grid code are not allowed and will void this certification. REQUIRES: 50H0400		\$1,121 NET

EURASIAN CONFORMITY

X	NOEACRT	NO EA CERT REQUEST-SEE DETAILS 0		NC
X	EACCERT	EURASIAN CONFORMITY (EAC) MARK 0 A mandatory attachment that provides Eurasian Economic Union (EAEU) compliance to: Low Voltage (CU TR 004) and EMC (CU TR 020). The EAC compliance process allows the free movement of goods in the Eurasian Economic Union and other countries with applicable EAEU trade agreements. Includes EAC and Month/Year of manufacture label. REQUIRES: EUDGDOI		NC

NSPS Emission Rule

US EPA SI (Spark Ignited) Stationary NSPS (New Source Performance Standard) Regulations:
Effective July 2007, the US EPA will enforce the new Spark Ignited New Source Performance Standard (SI NSPS) for gas stationary engines operating in the United States equal to or above 500 bhp. Effective January 1 2008 this standard will apply to all gas engines rated below 500 bhp. This rule will affect all applications including landfill and ag biogas. Effective Jan 1 2009, this rule will apply to all Standby units. For more information see Cat Power Net website: Product News dated April 2007, media no. LEXE7149.

X	NSPSNUS	NON-U.S. GENSET 0 Application - gas generator sets used outside of the United States of America. The SI NSPS rule does not apply.		NC
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GRID CODE COMPLIANCE (CONT.)

NSPS Emission Rule (Cont.)

X	NONNSPS	NSPS NON-COMPLIANT ENG 0 Application--gas generator sets to be used in continuous power applications in the United States (all gasses including digester, landfill and ag bio-gas). Even after extensive modifications these gensets are not expected to meet the SI NSPS customer conducted field emissions test. Examples are the G3300 and G3400 ratings. Nearly all these rich burn ratings have 2 to 4 % excess oxygen in the exhaust. To use a 3-way catalyst, the excess oxygen must be near 0% or ratings must be labeled as "Cat" or "catalyst" ratings. The G3500 LE products have a nominal 2 g/bhp hr ratings. The G3500 LE products have a nominal 2 g/bhp hr Nox setting. NSPS requires a not-to-exceed 2 g/bhp-hr limit. Possible lower Nox settings are available for G3500 LE products through an SRR (Special Rating Request).		NC
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VOLTAGE INDICATORS

Voltage Indicators

All package gen set orders REQUIRE a voltage be specified. Choose the appropriate voltage feature code from the following list based on frequency and generator arrangement being ordered.

50 Hertz Voltage Indicator

X	50H0400	VOLTAGE INDICATOR 400V (WYE) 0 TECHNICAL: 50 Hz, Wye connection.		NC
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Special Voltage Indicator

X	VLIND1	VOLTAGE INDICATOR - SPECIAL 0 TECHNICAL: Non-standard voltage, frequency & connection to be specified in custom quote on order.		NC
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CERTIFICATIONS

European Union Certifications

X	EUDGDOI	EUROPEAN DIRECTIVE GENSET DOI 0 TECHNICAL: Provides Declaration of Incorporation document per 2006/42/EC (Machinery Safety Directive), and 2006/95/EC (Low Voltage Safety Directive). The Declaration of Incorporation allows free movement of goods in the EU per the Machinery Safety Directive, 2006/42/EC, and references demonstrated compliance to other applicable directives. This is required by OEM manufacturers when the subject product is installed in a more complex installation.		\$271 NET
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CERTIFICATIONS (CONT.)

European Union Certifications (Cont.)

X	NOEUCRT	NO EU CERT REQUEST-SEE DETAILS 0 TECHNICAL: If full CE certification (Declaration of Conformity, complete gensets) or Declaration of Incorporation (partially completed gensets) is not selected then this product cannot be legally placed on the market in the EU/EEA or any country where the product would otherwise be subject to national legislation implementing the requirements of the machinery directive (2006/42/EC) (collectively "the Region"). If shipped to an address in the Region without the necessary certification/documentation, the buyer has undertaken that the product will then be exported from the Region.		NC
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APPLICATION INDICATORS

X	PARGRID	PARALLEL-TO-GRID MODE 0 TECHNICAL: Refer to LEXE0593 for 50Hz and LEXE0791 for 60Hz, for load and unload capability. It is the dealer's responsibility to match the customers' needs to the product's capability.		NC
X	ISLMDE2	ISLAND MODE 0 TECHNICAL: Primary application is: 1) Stand-alone without any connection to the utility grid. 2) Parallel with other units not connected to the utility grid. 3) Connected to a small utility grid which can experience frequency and voltage changes. 4) Paralleled to grid, but when grid is "down", the genset must operate stand-alone with minimum freq/voltage variation. Selecting this feature code confirms that the Island Mode Product update LEXE0593 for 50Hz and LEXE0791 for 60Hz has been read and understood. Any transient applications beyond what is specifically identified in LEXE0593 for 50Hz and LEXE791 for 60Hz will not be supported by Caterpillar. Further questions regarding the Product Update or the capabilities of this genset must be directed to the Application Support Center (ASC). Additional information is available in the Gas Engine Controls A&I guide (LEBW4982) and through the ASC. Caution: Gas engine gen sets cannot accept transient conditions equal to a diesel gen set or a large utility grid. It is the dealer's responsibility to be sure the customers' needs are matched to this product's capability.		NC

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APPLICATION INDICATORS (CONT.)

Market Segmentation

X	MSEPGGS	END USE: GENERAL EPG GAS 0 All gaseous fueled, spark ignited generator sets utilized in the generation of electrical power and or combined heat and power applications including cogen, trigen, and quadgen. These gas genset products are applied in, but not limited to commercial, industrial, agricultural, utility, public and civil service sectors. These products are often leveraged in utility applications, food processing plants, landfill sites, agriculture livestock facilities, wastewater treatment plants, biofuel manufacturing plants, communication sites, data centers, commercial/residential buildings, manufacturing plants, greenhouses, and mining sites. These gensets are often applied in base load, load management, and standby applications. This category should not be used for EP Rental, Petroleum, Locomotive, or Marine electric power applications.		NC
X	MSPMDXQ	END USE:EPG Rental-All Product 0 All Power Modules and Rental units, utilized in energy utilities, communications, commercial and residential buildings, agricultural, construction, mining, manufacturing, public and civil services. This category should not be used for Petroleum, Locomotive, or Marine electric power applications. Please ensure the selected unit complies with regional emission standards.		NC
X	MSPETDR	PETROLEUM LAND DRILLING 0 Engines, transmissions and packages used to drill oil and gas wells (including auxiliary GEN Sets mounted on drill rigs). This includes Petroleum, Industrial, EPG, and Marine price list products.		NC
X	MSPETPG	END USE: PETRO PRODUCTION/PUMP 0 All engines utilized in the generation of mechanical and electrical power for exploration, recovery and transmission of petroleum products including gathering, production, pumping, and refining, (but not gas compression or drilling). Applications include camp power, emergency gen sets (non-drilling), prime power at production and storage facilities, cranes, fire pumps, air compressors, primary or secondary recovery systems such as down hole pumps, water flood or disposal systems, etc. This includes rental products which fit Petroleum Production/Pumping market segment description. This includes industrial, marine, and EPG price list products.		NC
X	MSPETOD	PETRO OFFSHORE DRILLING 0 Engines and genset packages used as main sources of power for drilling duty or for emergency power on offshore oil & gas drill rigs (but not on production rigs, platforms, or facilities). Does not include firepumps or cranes for drilling or production rigs, platforms, or facilities.		NC

Application Indicators

Provides power setting and name plate for use in specified applications.

X	CONTINU	CONTINUOUS POWER APPLICATION 0 For application at continuous rating.		NC
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ENGINE RATING AND SPEED

Ratings

X	PSTSPC1	SPECIAL SETTING REQUEST 0 TECHNICAL: Approved Special Rating Request (SRR) before order is submitted.		NC
X	KV01100	1100 EKW W/O FAN (43C/110F) 0 TECHNICAL: 1085 EKW W/O FAN REQUIRES: 516GE7K		NC
X	KMW1030	1030 EKW W/O FAN (54C/130F) 0 TECHNICAL: 1030 EKW W/O FAN (54C/NA) 54C/130F aftercooler temperature. REQUIRES: 516GE7I		NC

MANDATORY ATTACHMENTS

MANIFOLDS

X	WETMANI	WET MANIFOLD 0 REQUIRES: 516GE7I		NC
X	DRYMANI	DRY MANIFOLD 0 REQUIRES: 516GE7K		NC

AFTERCOOLER TEMPERATURE

X	TSTAT38	THERMOSTATIC VALVE (54 DEG C) 0		\$552
X	ACTEMPA	THERMOSTATIC VALVE (43 DEG C) 0 REQUIRES: 516GE7K		\$464

CONTROL SYSTEM

2301A Speed Control Governor

Required for 516GE7J

X	GOVSC02	2301A SPEED CONTROL GOVERNOR 0 TECHNICAL: Provides EMCP4.3 with installed 2301A speed control governor. REQUIRES: 516GE7J		\$2,502
X	GOVLS15	2301A LOAD SHARING GOVERNOR 0 TECHNICAL: Shipped loose. Woodward 2301A speed controller. REQUIRES: 516GE7J		\$1,594

2301E Governor:

X	GOVDG06	2301E DUAL GAIN GOVERNOR 0 TECHNICAL: Recommended when auto paralleling and tied to utility grid REQUIRES: 516GE7J		\$1,938
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CIRCUIT BREAKERS

3-Pole (IEC - 947-2 Rated) Circuit Breakers

With Shunt Trip and Auxiliary Contacts.

X	NOCBRKR	NO CIRCUIT BREAKER REQ. 0		NC
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CIRCUIT BREAKERS (CONT.)

3-Pole (IEC - 947-2 Rated) Circuit Breakers (Cont.)

X	CBK0039	CIRCUIT BKR W/ST 2500 A 0 TECHNICAL: Generator mounted		\$9,372
X	CBK0041	CIRCUIT BKR W/ST 3200 A 0 TECHNICAL: Generator mounted		\$11,965

CONTROL PANELS

EMCP 4.3

X	EMCP43I	EMCP 4.3 CONTROL PANEL 0 TECHNICAL: EMCP 4.3 provides an 8-line graphical screen, additional I/O, and Ethernet (Modbus TCP).		\$15,976
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EMCP Controller Location

Right Side Location

X	UIPBRHS	CONTROL PANEL MOUNTING - RH 0		NC
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Left Side Location

X	UIPBLHS	CONTROL PANEL MOUNTING - LH 0		NC
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Rear Location

X	UIPBBHS	CONTROL PANEL MOUNT - REAR 0		NC
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Empty Upper Box

X	AUXBOXR	EMPTY RIGHT UPPER BOX 0 TECHNICAL: Provides empty right mounted upper box with a hinged door. CANNOT BE USED WITH: Right hand mounted EMCP panel (UIPBRHS), or top cable entry (TOPCR01).		\$834
X	AUXBOXL	EMPTY LEFT UPPER BOX 0 TECHNICAL: Provides empty left mounted upper box with a hinged door. CANNOT BE USED WITH: Left hand mounted EMCP panel (UIPBLHS) or cable entry (TOPCL01).		\$834
X	AUXBOXB	EMPTY REAR UPPER BOX 0 TECHNICAL: Provides empty rear mounted upper box with a hinged door. CANNOT BE USED WITH: Rear mounted EMCP panel (UIPBBHS) or top cable entry (TOPCBLB)		\$834

Side Extension Box

X	EMPTYPR	RIGHT SIDE EXTENSION BOX 0 TECHNICAL: Provides lower right side empty enclosure. REQUIRES: RIGHT EXTENSION BOX ROOF (EXTBRFR)		\$1,214
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CONTROL PANELS (CONT.)				
<i>Side Extension Box (Cont.)</i>				
X	EMPTYPL	LEFT SIDE EXTENSION BOX 0 TECHNICAL: Provides lower left side empty enclosure. REQUIRES: LEFT EXTENSION BOX ROOF (EXTBRFL)		\$1,214
X	EMPTYPB	REAR EXTENSION BOX 0 TECHNICAL: Provides lower rear empty enclosure. REQUIRES: REAR EXTENSION BOX ROOF (EXTBRFB)		\$2,345
<i>Rear Extension Box Close Out</i>				
X	EXTBCLB	REAR EXTENSION BOX CLOSE OUT 0 TECHNICAL: Provides rear box roof close out. REQUIRES: Rear extension box (EMPTYPB)		\$173
<i>Cable Shroud</i>				
X	SHROUTR	TOP RIGHT SHROUD 0 TECHNICAL: Provides cable shroud on the top right extension box REQUIRES: RIGHT SIDE EXTENSION BOX (EMPTYPR) CANNOT BE USED WITH: BOTCR03, AUXBOXR, UIPBRHS		\$904
X	SHROUTL	TOP LEFT SHROUD 0 TECHNICAL: Provides cable shroud on the top left extension box. ONLY FOR USE WITH: Left Side Extension Box CANNOT BE USED WITH: Bottom Cable Entry-Left, Empty Left Control Box, or LH EMCP Mounting		\$904
X	SHROUTL	TOP LEFT SHROUD 0 TECHNICAL: Provides cable shroud on the top left extension box. REQUIRES: RIGHT SIDE EXTENSION BOX (EMPTYPL) CANNOT BE USED WITH: BOTCL03, AUXBOXL, UIPBLHS		\$904
X	SHROUTB	TOP REAR SHROUD 0 TECHNICAL: Provides cable shroud on the top rear extension box. REQUIRES: RIGHT SIDE EXTENSION BOX (EMPTYPB) CANNOT BE USED WITH: BOTCB03, AUXBOXB, UIPBBHS		\$588
X	SHROUDR	BOTTOM RIGHT SHROUD 0 TECHNICAL: Provides cable shroud on the bottom of the right ext. box. REQUIRES: RIGHT SIDE EXTENSION BOX (EMPTYPR) CANNOT BE USED WITH: TOPCR01		\$904
X	SHROUDL	BOTTOM LEFT SHROUD 0 TECHNICAL: Provides cable shroud on the bottom of the left ext. box. REQUIRES: RIGHT SIDE EXTENSION BOX (EMPTYPL) CANNOT BE USED WITH: TOPCL01		\$904
X	SHROUDB	BOTTOM REAR SHROUD 0 TECHNICAL: Provides cable shroud on the bottom of the rear ext. box. REQUIRES: RIGHT SIDE EXTENSION BOX (EMPTYPB) CANNOT BE USED WITH: TOPCBLB		\$588
<i>Annunciator - Local</i>				
X	CVR0048	COVERS-NO LOCAL ANNUNC MODULES 0 TECHNICAL: Provides a cover when an installed annunciator is NOT selected.		\$55
X	ANFPA01	LOCAL NFPA ANNUNCIATOR 0 TECHNICAL: Labeled for NFPA 99-110/CSA282 (installed), accessory (RS485) data link.		\$570

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CONTROL PANELS (CONT.)

Annunciator - Local (Cont.)

X	ANNCL01	1ST CUSTOM LOCAL ANNUNC RS485 0 TECHNICAL: Provides 16 point (32 light) annunciator module installed, accessory RS485 data link, with label kit shipped loose for customer installation.		\$570
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Control Panel Mounting & Covers

X	CPMNTBY	RR CP MTG W/RR EXT BOX 0 TECHNICAL: Used to mount the Control Panel on the Rear when an Extension box is mounted below. REQUIRES: Rear EMCP mount (UIPBBHS) and Rear Ext Box (EMPTYPB)		NC
X	CPMNTBN	RR CP MTG W/O RR EXT BOX 0 TECHNICAL: Used to mount the Control Panel on the Rear when an Extension box is mounted below. REQUIRES: Rear EMCP mount (UIPBBHS) CANNOT BE USED WITH: Rear Extension Box (EMPTYPB)		NC
X	CPMNTRY	RH CP OR AUX BOX MTG W/RH EXT 0 TECHNICAL: Used to mount Aux Box on the Right side when an Extension box is mounted below. REQUIRES: Right EMCP mount (UIPBRHS) and Right Ext Box (EMPTYPR)		NC
X	CPMNTRN	RH CP OR AUX BOX MTG W/O RH EX 0 TECHNICAL: Used to mount the Aux Box on the Right side when an Extension box is mounted below. REQUIRES: Right EMCP mount (UIPBRHS) CANNOT BE USED WITH: Right Ext Box (EMPTYPR)		NC
X	CPMNTLY	LH PANEL W/ LH EXT BOX 0 TECHNICAL: Used to mount the Control Panel on the Left side when an Extension box is mounted below. REQUIRES: R: Left EMCP mount (UIPBLHS) and Left Ext Box (EMPTYPL)		NC
X	CPMNTLN	LH CP OR AUX BOX MTG W/O LH EX 0 TECHNICAL: Used to mount the Control Panel on the Left side when an Extension box is mounted below. REQUIRES: Left EMCP mount (UIPBLHS) CANNOT BE USED WITH: Left Ext Box (EMPTYPL)		NC

Generator Main Terminal Box

X	BOXGN30	MAIN GENERATOR ENCLOSURE 0		\$7,880
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Generator Main Terminal Box Wiring

X	MBLVW01	LOW VOLTAGE WIRING 0		NC
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Extension Box Floors

X	EXBXFLR	RIGHT SIDE EXTENSION BOX FLOOR 0 TECHNICAL: Provides right mounted extension box floor when no lower shroud is installed. REQUIRES: Right Side Extension Box (EMPTYPR) CANNOT BE USED WITH: Right Side Bottom Shroud (SHROUDR)		\$72
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USE	REF NO.	MANDATORY ATTACHMENTS	Ship Weight lbs	List Price At Factory
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CONTROL PANELS (CONT.)

Extension Box Floors (Cont.)

X	EXBXFLL	LEFT SIDE EXTENSION BOX FLOOR 0 TECHNICAL: Provides left mounted extension box floor when no lower shroud is installed. REQUIRES: Left Side Extension Box (EMPTYPL) CANNOT BE USED WITH: Left Side Bottom Shroud (SHROUDL)		\$72
X	EXBXFLB	REAR SIDE EXTENSION BOX FLOOR 0 TECHNICAL: Provides rear mounted extension box floor when no lower shroud is installed. REQUIRES: Rear Extension Box (EMPTYPB) CANNOT BE USED WITH: Rear Bottom Shroud (SHROUDB)		\$115

Side Extension Box Plugs

X	BOXPLGR	RH EXTENSION BOX PLUGS 0 REQUIRES: Right hand extension box (EMPTYPR) CANNOT BE USED WITH: RH bus bars (BUSBRI1)		NC
X	BOXPLGL	LH EXTENSION BOX PLUGS 0 REQUIRES: left hand extension box (EMPTYPL) CANNOT BE USED WITH: LH bus bars (BUSBLI1)		NC

Lower Covers

X	BOTCVRR	LOWER RIGHT COVER 0		\$154
X	BOTCVRL	LOWER LEFT COVER 0		\$154
X	BOTCVRB	LOWER REAR COVER 0 CANNOT BE USED WITH: Circuit Breakers		\$250

Upper Covers

X	TOPCVRR	UPPER RIGHT COVER 0 CANNOT BE USED WITH: Empty Right Control Box (AUXBOXR) or Top Right Shroud (SHROUTR)		\$71
X	TOPCVRL	UPPER LEFT COVER 0 CANNOT BE USED WITH: Empty Left Control Box (AUXBOXL) or Top Left Shroud (SHROUTL)		\$71
X	TOPCVRB	UPPER REAR COVER 0 CANNOT BE USED WITH: Rear EMCP or Empty Rear Control Box Top Rear Shroud (SHROUTB)		\$71

Extension Box Roof Covers

X	EXTBRFR	RIGHT EXTENSION BOX ROOF 0 REQUIRES: Right side extension box (EMPTYPR) CANNOT BE USED WITH: Empty Right Control Box (AUXBOXR) or top right shroud (SHROUTR)		NC
X	EXTBRFL	LEFT EXTENSION BOX ROOF 0 REQUIRES: Left side extension box (EMPTYPL) CANNOT BE USED WITH: Empty Left Control Box (AUXBOXL) or top left shroud (SHROUTL)		NC

USE	REF NO.	MANDATORY ATTACHMENTS	Ship Weight lbs	List Price At Factory
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CONTROL PANELS (CONT.)

Extension Box Roof Covers (Cont.)

X	EXTBRFB	TOP REAR COVER 0		NC
		REQUIRES: Rear extension box (EMPTYPB) CANNOT BE USED WITH: Rear EMCP or Empty Rear Control Box Empty Rear Control Box (AUXBOXB) or top rear shroud (SHROUTB)		

Cable Management

X	SUPCBL3	CABLE SUPPORT 0		\$425
		REQUIRES: Side mounted bus bars (BUSBRI1, BUSBLI1)		

GENERATORS

SR5 GENERATORS

Installed brushless generators. Includes generator, package length rails, hardware and generator coupling.

Ratings shown are generator set electrical output without fan. Specify EkW rating. Power terminal strip INCLUDED on LOW VOLTAGE generators.

50 Hz - CDVR standard offering (mandatory selection)
Caterpillar's Digital Voltage Regulator (CDVR) - CDVR includes droop capability, 3-Phase voltage sensing, KVAR/PF modes, RFI suppression, min/max exciter limiter and exciter diode monitor.

50 Hertz, 3 Phase, 1500 RPM, 400 VAC

X	OGPM031	GEN-1447-400V-PM-RW-1B 0		\$79,952
		TECHNICAL: 440/480 volts at 60 hertz. Generator Argt = 252-3808. RTDs not included.		
X	OGPM473	GENERATOR 864 FRAME PM 0		\$90,297
		TECHNICAL: 480 VAC @ 60Hz Generator Argt = 158-6416, Frame = 864, Pitch = 0.75 Winding = Form Wound, No. of Bearings = 2, PM excited, 6 poles 6 leads, VPI, PRT-PT With 115-230 volt, 1200 watt space heater, and 100 ohm platinum RTD's REQUIRES: 60H0480 or VLTIND1		
X	OGPM040	GEN-1488-400V-PM-FW-1B 0		\$155,950
		TECHNICAL: Generator Argt = 252-3928, Frame = 1488 Pitch = 0.6667, Winding = Form Wound, No. of Bearings = 1, PM excited, 4 poles, 6 leads Includes 115-230 volt, 1200 watt space heater and 100 ohm platinum RTD's. REQUIRES: 50H0400 or VLTIND1		

USE	REF NO.	MANDATORY ATTACHMENTS	Ship Weight lbs	List Price At Factory
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GOVERNING SYSTEM

Load Share Module

X	ALSLSM1	LOAD SHARING MODULE 0 Shipped loose TECHNICAL: Woodward load sharing module. Provides load sharing functions compatible with electric actuator and "H" series electronics.		\$1,673
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LUBE SYSTEM

Lubricating Oil

X	NOLUB01	NO LUBRICATING OIL DESIRED 0 TECHNICAL: Engine shipped dry. Dealer and customer are responsible for initial fill and subsequent fill oil that meets Caterpillar specifications to the site gas composition.		NC
X	LUBOILU	LUBRICATING OIL - ULTRA 0 TECHNICAL: Cat NGE0, ULTRA 40 Wt, 416 L (110 gal).		\$2,406

Simplex Oil Filter

X	SINOIL1	STANDARD SINGLE OIL FILTER 0		\$2,332
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Duplex Oil Filter

X	DUOFR00	DUPLEX OIL FILTER-RH SERVICE. 0 Replaces standard oil filter with duplex oil filters. TECHNICAL: Cannot be used in applications where the fan is mounted in close proximity to the engine.		\$4,186
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PRELUBE SYSTEMS

Electric Prelube Pumps - AC

Continuous duty. Reference wiring diagram 113-7313.

X	ELEPAC2	ELECTRIC PRELUBE PUMP-50 HZ. 0 TECHNICAL: Requires 115-230 VAC 50 Hz power source.		\$3,825
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Electric Prelube Pumps - DC

Intermittent duty. Includes pump and j-box with pressure switch, start switch, and relay. Wiring and PLC must be provided by customer.

X	ELEPP29	ELECT PRELUBE PUMP 24V/3500B 0 TECHNICAL: Requires 24V DC power source		\$3,384
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Manual Prelube Pump

X	OPAPLC9	PRELUBE CONVERSION-RH. 0 TECHNICAL: Allows sump pump to function as manual prelube pump. REQUIRES: RH Sump Pump SPMPRH1.		\$463
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USE	REF NO.	MANDATORY ATTACHMENTS	Ship Weight lbs	List Price At Factory
LUBE SYSTEM (CONT.)				
<i>No PreLube Pump</i>				
X	NOPLUBE	NO PRELUBE DESIRED 0 Provides crankcase cover and other components that are needed when prelube is not desired.		\$31
<i>Sump Pumps</i>				
X	CVR0086	COVER GP 0 TECHNICAL: No sump pump		NC
X	SPMPLH1	SUMP PUMP LH 0 TECHNICAL: Mounts on industrial type rails.		\$279
X	SPMPRH1	SUMP PUMP RH 0 TECHNICAL: Mounts on industrial type rails.		\$279
POWER CONNECTIONS				
<i>Grounding Groups</i>				
X	GRND011	GROUND GP -1400 FRAME LV 0 TECHNICAL: Provides Ground Cable between Generator and Terminal Box		\$305
<i>Center Post Bus Bar</i>				
X	BS14IEC	CENTER 5000A LV IEC BUS 0 TECHNICAL: Provides Center Mounted 5000A IEC Bus Bars for CANNOT BE USED WITH: Power Connections BUSBR, BUSBL or BUSBB or Circuit Breakers.		\$1,370
X	BS14MUL	CENTER 5000A LV MULTI BUS 0 TECHNICAL: Provides Center Mounted 5000A Bus Bars. REQUIRES: Power Connections BUSBR, BUSBL or BUSBB		\$1,079
X	BS14NEM	CENTER 5000A LV NEMA BUS 0 TECHNICAL: Provides Center Mounted 5000A NEMA Bus Bars		\$1,424
<i>Right Side Power Connections</i>				
X	NONPCR	NO CONNECTION - RIGHT 0		NC
X	BUSBRI1	RIGHT LV IEC BUS 0 TECHNICAL: Provides Right Mounted IEC Bus Bars for Low Volt Generators. REQUIRES: RIGHT SIDE EXTENSION BOX (EMPTYPR) CANNOT BE USED WITH: Other Buss Bar connections (BUSBLxx or BUSBBxx)		\$5,064
X	BUSBRN4	RIGHT LV NEMA BUS 0 TECHNICAL: Provides Right Mounted NEMA Bus Bars REQUIRES: RIGHT SIDE EXTENSION BOX (EMPTYPR)		\$5,907
<i>Left Side Power Connections</i>				
X	NONPCL	NO CONNECTION - LEFT 0		NC
X	BUSBLI1	LEFT LV IEC BUS 0 TECHNICAL: Provides Left Mounted IEC Bus Bars REQUIRES: LEFT SIDE EXTENSION BOX (EMPTYPL)		\$3,324

USE	REF NO.	MANDATORY ATTACHMENTS	Ship Weight lbs	List Price At Factory
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POWER CONNECTIONS (CONT.)

Left Side Power Connections (Cont.)

X	BUSBLN4	LEFT LV NEMA BUS 0 TECHNICAL: Provides Left Mounted NEMA Bus Bars REQUIRES: LEFT SIDE EXTENSION BOX (EMPTYPL)		\$5,907
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Rear Power Connections

X	NOCBKB1	NO CONNECTION - REAR 0		NC
X	BUSBBI1	REAR LV IEC BUS 0 TECHNICAL: Provides Rear Mounted IEC Bus Bars REQUIRES: REAR SIDE EXTENSION BOX (EMPTYPB)		\$4,246
X	BUSBBN4	REAR LV NEMA BUS 0 TECHNICAL: Provides Rear Mounted NEMA Bus Bars REQUIRES: REAR SIDE EXTENSION BOX (EMPTYPB)		\$6,127
X	BOTCB03	BOTTOM CABLE ENTRY-REAR 0 REQUIRES: Circuit Breakers		NC
X	BOTCL03	BOTTOM CABLE ENTRY-LEFT 0 REQUIRES: Circuit Breakers		NC
X	BOTCR03	BOTTOM CABLE ENTRY-RIGHT 0 REQUIRES: Circuit Breakers		NC
X	TOPCL01	TOP CABLE ENTRY-LEFT 0 REQUIRES: Top Left Shroud (SHROUTL) and Circuit Breaker CANNOT BE USED WITH: Left hand mounted EMCP panel (UIPBLHS) or Empty Left Control Box (AUXBOXL), or Left Side Bottom Shroud (SHROUDL).		NC
X	TOPCR01	TOP CABLE ENTRY-RIGHT 0 REQUIRES: Top Right Shroud (SHROUTR) and Circuit Breaker CANNOT BE USED WITH: Right hand mounted EMCP panel (UIPBRHS) or Empty Right Control Box (AUXBOXR), or Right Side Bottom Shroud (SHROUDR).		NC
X	TOPCBLB	TOP CABLE ENTRY-LEFT 0 REQUIRES: Top Rear Shroud (SHROUTB) and Circuit Breaker CANNOT BE USED WITH: Rear Mounted EMCP Panel (UIPBHS) or Empty Rear Hand Upper Box (AUXBOXB), or Bottom Rear Shroud (SHROUDB).		NC

Circuit Breaker Mounting

X	CBMRNB1	R/NS FRAME CB REAR MOUNT 0 TECHNICAL: R or NS Frame breakers mounted on the Rear REQUIRES: Circuit Breakers		NC
X	CBMRNR1	R/NS FRAME CB RIGHT MOUNT 0 TECHNICAL: R or NS Frame breakers mounted on the Right REQUIRES: Circuit Breakers		NC
X	CBMRNL1	R/NS FRAME CB LEFT MOUNT 0 TECHNICAL: R or NS Frame breakers mounted on the Left REQUIRES: Circuit Breakers		NC

Circuit Breaker Wiring

X	PRNWIR1	L-P-R-NS FRAME CB WIRING 0 TECHNICAL: Provides wiring to factory installed L-P-R-NS circuit breaker and package mounted Control Panel REQUIRES: Circuit Breakers		NC
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USE	REF NO.	MANDATORY ATTACHMENTS	Ship Weight lbs	List Price At Factory
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POWER CONNECTIONS (CONT.)

Circuit Breaker Connections

X	RCONB3R	R FRAME CONN 3P BCE RIGHT 0 TECHNICAL: Provides power connections for R-Frame, 3-Pole Circuit Breakers, Bottom Cable Entry, mounted on the right REQUIRES: Circuit Breaker and Bottom Cable Entry - RIGHT		\$2,043
X	RCONB3L	R FRAME CONN 3P BCE LEFT 0 TECHNICAL: Provides power connections for R-Frame, 3-Pole Circuit Breakers, Bottom Cable Entry, mounted on the left REQUIRES: Circuit Breaker and Bottom Cable Entry - LEFT		\$2,043
X	RCONB3B	R FRAME CONN 3P BCE REAR 0 TECHNICAL: Provides power connections for R-Frame, 3-Pole Circuit Breakers, Bottom Cable Entry, mounted on the rear REQUIRES: Circuit Breaker and Bottom Cable Entry - REAR		\$1,228
X	RCONT3R	R FRAME CONN 3P TCE RIGHT 0 R-Frame and NS-Frame (2000A and above) TECHNICAL: Provides power connections for R-Frame, 3-Pole Circuit Breakers, Top Cable Entry, mounted on the right REQUIRES: Circuit Breaker and Top Cable Entry - RIGHT		\$2,043
X	RCONT3L	R/NS FRAME CONN 3P TCE LEFT 0 TECHNICAL: Provides power connections for R-Frame, 3-Pole Circuit Breakers, Top Cable Entry, mounted on the left REQUIRES: Circuit Breaker and Top Cable Entry - LEFT		\$2,043
X	RCONT3B	R/NS FRAME CONN 3P TCE REAR 0 TECHNICAL: Provides power connections for R-Frame, 3-Pole Circuit Breakers, Top Cable Entry, mounted on the rear REQUIRES: Circuit Breaker and Top Cable Entry - REAR		\$1,228

Jacket Water Heater Wiring

X	WIRJW33	WIRING GP-JW HEATER 0 REQUIRES: Jacket Water Heater (JWH0017)		\$390
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Jacket Water Heater Control

X	HTRCG02	208/220/240V JWH CONTROL 0 TECHNICAL: Provides control for 240/220/208V Jacket Water Heaters. REQUIRES: Jacket Water Heater (JWH0017)		\$91
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Space Heater

X	SHK0003	SPACE HEATER KIT 0 TECHNICAL: Provides heating for condensation control. REQUIRES: 1400 CD or 1600 or 1800 frame generator.		\$348
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Space Heater Control

X	SPHCT01	SPACE HEATER CONTROL 0 TECHNICAL: Provides control for Space Heaters.		\$363
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USE	REF NO.	MANDATORY ATTACHMENTS	Ship Weight lbs	List Price At Factory
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POWER TAKE-OFFS

Front Stub Shaft

X	NOSHAF	NO FRONT STUB SHAFT DESIRED	0	\$75
		Consult TMI.		
X	SHAFT03	FRONT STUB SHAFT	0	\$659
		Consult TMI.		

Front Crankshaft Mounted Pulley

X	NOCRPY1	NO CRANKSHAFT PULLEY	0	NC
K	CRKPL01	CRANKSHAFT PULLEY	0	\$302
		TECHNICAL: 197 mm (7.75 in) diameter. Provides 6 grooves. REQUIRES: Front stub shaft SHAFT03.		
X	CRKPL02	CRANKSHAFT PULLEY	0	\$220
		TECHNICAL: 248 mm (9.75 in) diameter. Provides 6 grooves. REQUIRES: Front stub shaft SHAFT03.		

Starting Aids

Components of jacket water heater are UL recognized. Fixed thermostat. Set for cut in at 60 C (140 F). Includes low water temperature switch.

X	NOJWHTR	NO JW HEATER REQ'DHEATER	0	NC
		TECHNICAL: If this option is selected, Customer must provide Jacket water heater.		
X	JWH0017	JACKET WATER HEATER	0	\$1,042
		TECHNICAL: LH mounted. 240/480 volt, single phase, 6kW.		

Engine Barring

X	NOBAR00	NO BARRING GROUP	0	NC
X	BARGP04	ENGINE BARRING GROUP	5	\$214
		TECHNICAL: Used to manually turn engine crankshaft.		

PROTECTION SYSTEM

Crankcase Covers / Explosion Relief Valves

X	NOEXRV5	NO EXPLOSION RELIEF VALVES	0	\$646
		TECHNICAL: Provides crankcase covers, no explosion relief valve covers are provided. REQUIRES: No engine prelube (NOPLUBE) CANNOT BE USED WITH: Tier 4 (CERTF4B)		
X	NOEXRV1	NO EXPLOSION RELIEF VALVE	0	\$962
		TECHNICAL: Provides crankcase covers, no explosion relief valve covers are provided. REQUIRES: Engine prelube (ELEPAC2 or ELEPP29 or OPAPLC9)		
X	EXRVL13	EXPLOSION RELIEF VALVE	0	\$1,451
		TECHNICAL: Provides three pressure relief valves for crankcase protection. Requires 7 kpa (1.0 psi) per valve to open.		

USE	REF NO.	MANDATORY ATTACHMENTS	Ship Weight lbs	List Price At Factory
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PROTECTION SYSTEM (CONT.)

Charging Alternators

Belt driven. Heavy duty with integral regulator.
 RH mounted.
 Includes voltmeter. Customer must provide wiring between alternator, voltmeter, and batteries.

X	ALT2469	CHARGING ALTERNATOR 24V 35 AMP	0	\$1,144
X	ALT2471	CHARGING ALTERNATOR 24V 60 AMP TECHNICAL: RH mounted. Includes voltmeter.	0	\$1,262

COOLING SYSTEM

COOLING WATER & AFTERCOOLER LINES

X	INADPT1	INLET ADAPTER Shipped loose TECHNICAL: Provide a hose adapter to JW pump inlet (144.5 mm).	0	\$68
X	CLIOC2	INLET/OUTLET CONNECTION/JW Shipped loose. TECHNICAL: Flange connections for jacket water inlet and outlet. Outlet moves from LH to RH connection.	0	\$112
X	COLMJA0	MECH JOINT ASSEMBLY Shipped loose. TECHNICAL: Mechanical flexible connection for jacket water inlet and outlet. Two pieces required for complete installation.	0	\$169

STARTING SYSTEM

X	ELSDL16	ELECTRIC STARTING MOTOR LH Jacket water heater recommended for 20-second starting. TECHNICAL: Above 20 C (68 F) ambient	175	\$2,118
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Voltage regulator

X	MBACC01	1400 FRAME ACCESSORIES TECHNICAL: Provides installed CDVR on package. For use with low and medium voltage	0	\$2,056
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Damper Guard

X	DPRGD03	DAMPER GUARD, LEDGE RAIL MTG	0	\$332
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INSTRUMENTATION

CAT CONNECT

X	TMCETH1	ETHERNET TELEMATICS TECHNICAL: Provides installed Ethernet telematics module.	0	NC
X	TMCSAT1	SATELLITE TELEMATICS TECHNICAL: Provides installed Ethernet telematics module and shipped loose satellite antenna kit.	0	\$959 NET

USE	REF NO.	MANDATORY ATTACHMENTS	Ship Weight lbs	List Price At Factory
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INSTRUMENTATION (CONT.)

CAT CONNECT (Cont.)

X	TMCCEL1	CELL TELEMATICS 0 TECHNICAL: Provides installed Ethernet telematics module and shipped loose cellular antenna kit.		\$459 NET
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LANGUAGE OPTIONS

Control panels - Language Options

Provides Language for genset controller

X	LANENGC	ENGLISH LANGUAGE- GENSET CNTL 0		NC
X	LANARAC	ARABIC LANGUAGE-GENSET CNTL 0		NC
X	LANCHIC	CHINESE LANGUAGE-GENSET CNTL 0		NC
X	LANDANC	DANISH LANGUAGE-GENSET CNTL 0		NC
X	LANDUTC	DUTCH LANGUAGE-GENSET CNTL 0		NC
X	LANFINC	FINNISH LANGUAGE-GENSET CNTL 0		NC
X	LANFREC	FRENCH LANGUAGE- GENSET CNTL 0		NC
X	LANGERC	GERMANLANGUAGE-GENSET CNTL 0		NC
X	LANGREC	GERMAN LANGUAGE-GENSET CNTL 0		NC
X	LANITAC	ITALIAN LANGUAGE-GENSET CNTL 0		NC
X	LANJAPC	JAPANESE LANGUAGE-GENSET CNTL 0		NC
X	LANPORC	PORTUGUESE LANGAUGE-GENSET CNT 0		NC
X	LANRUSC	RUSSIAN LANGUAGE-GENSET CNTL 0		NC
X	LANSPAC	SPANISH LANGUAGE- GENSET CNTL 0		NC
X	LANSWEC	SWEDISH LANGUAGE-GENSET CNTL 0		NC
X	LANTURC	TURKISH LANGUAGE-GENSET CNTL 0		NC

PACKAGE Language Options

Provides nameplate, decals, and operator’s manual in specified language. For other Language Options contact your Marketing Profit center. Additional literature available through Corporate Literature System.

X	LANARAO	LANGUAGE MARKINGS-ARABIC. 0		NC
X	LANCHIO	LANGUAGE MARKINGS-CHINESE. 0		NC
X	LANDUTO	LANGUAGE MARKINGS-DUTCH. 0		NC

USE	REF NO.	MANDATORY ATTACHMENTS	Ship Weight lbs	List Price At Factory
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LANGUAGE OPTIONS (CONT.)

PACKAGE Language Options (Cont.)

X	LANENGO	LANGUAGE MARKINGS-ENGLISH	0	NC
X	LANFREQ	LANGUAGE MARKINGS-FRENCH.	0	NC
X	LANGERO	LANGUAGE MARKINGS-GERMAN.	0	NC
X	LANPORO	LANGUAGE MARKINGS-PORTUGUESE.	0	NC
X	LANRUSO	LANGUAGE MARKINGS-RUSSIA.	0	NC
X	LANSPAO	LANGUAGE MARKINGS-SPANISH.	0	NC

LITERATURE

English and Other Languages

Includes Operation and Maintenance Instruction Book, Parts Book (provided in CD for English language only) and other miscellaneous forms. These groups remove the English literature that is included in the engine reference numbers. One group shipped free of charge with each engine.

X	LITENGO	ENGLISH INSTRUCTION LANG	0	NC
X	LITFREQ	FRENCH LITERATURE.	0	NC
X	LITSPAO	SPANISH LITERATURE.	0	NC

TRANSFORMERS, DRY TYPE

Current Transformers

X	CT25006	CT 2500:5 RATIO REQUIRES: 400 VAC (50H0400)	0	\$432
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USE	REF NO.	OPTIONAL ATTACHMENTS	Ship Weight lbs	List Price At Factory
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AIR INLET SYSTEM

Remote Air Inlet Adapters

X	AIARE01	AIR INLET ADAPTER-RECTANGULAR. 0 Shipped loose TECHNICAL: Rectangular (See TMI for installation).		\$369
X	AIARM05	AIR INLET ADAPTER-ROUND. 0 Shipped loose TECHNICAL: 305 mm (12 in) round outside diameter inlet.		\$465

CHARGING SYSTEM

Battery Chargers

24-VDC output for use with lead acid or nicad batteries.
Current limiting...need for crank disconnect relay. Not warranted or serviced by Caterpillar Inc.

X	BTC1032	BATTERY CHARGER 10 AMP 0 Shipped loose TECHNICAL: Includes high voltage, low voltage and AC failure alarm outputs, DC ammeter and voltmeter. Meets requirements of NFPA 99 and NFPA 110. For 120-208-240 VAC input, 50 or 60 Hz regulated. 2-rate charging with automatic switching from equalize to float.		\$1,171
X	BTC20A2	BATTERY CHARGER 20 AMP 0 Shipped loose TECHNICAL: Includes high voltage, low voltage and AC failure alarm outputs. DC ammeter and voltmeter, NEMA 1 enclosure. For 120-208-240 VAC input. 50/60 Hz. Regulated. Meets requirements for NFPA 99 and NFPA 110. UL 1564 and CSA C22.2 No. 107 listed 2-rate charging with automatic switching from equalize to float.		\$1,486

CONTROL SYSTEM

Remote DIO Module

X	EMCSDP2	DISCRETE I/O MODULE 0 Shipped loose TECHNICAL: Provides 12 digital inputs and 8 form "C" relay outputs for customer use. Not programmed. May Select Up To Five		\$567
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RTD Module

X	GENRTDF	GEN MONITORING PACKAGE 0 TECHNICAL: Provides RTD module and RTDs to supply generator bearing and stator temperature monitoring capability for single bearing generators. Parameters are viewable on the EMCP 4.3		\$1,399
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USE	REF NO.	OPTIONAL ATTACHMENTS	Ship Weight lbs	List Price At Factory
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CONTROL SYSTEM (CONT.)

Annunciator - Remote

X	ANNC001	REMOTE CUSTOM ANNUNCIATOR 0 TECHNICAL: Provides custom remote RS485, 32 light annunciator in an enclosure, with label kit shipped loose. Dealer may order up to 5 (five).		\$966
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Modbus Monitor Local Packages

X	LPCMONS	LOCAL PC MONITORING 0 Shipped Loose TECHNICAL: Local PC Monitoring, provides RS485 to RS 232 Converter		\$237
X	RPCMONS	REMOTE PC MONITORING 0 Shipped Loose. TECHNICAL: Local PC Monitoring, provides RS485 to RS 232 Converter, and provides DIN Rail Mountable Industrial Dial-up Modem.		\$1,375

Vandal Proof Panel Cover

X	VANDALD	VANDAL PROOF PANEL DOOR 0 TECHNICAL: Provides an installed lockable cover for the EMCP		\$165
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Neutral Ground Connections

X	NGRDC01	NEUTRAL GROUND-LV 0 TECHNICAL: Provides a neutral grounding connection		\$173
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COOLING SYSTEM

Exhaust connections

X	COLMJA0	MECH JOINT ASSEMBLY 0 Shipped loose. TECHNICAL: Mechanical flexible connection for jacket water inlet and outlet. Two pieces required for complete installation.		\$169
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EXHAUST SYSTEM

Flexible Fittings

Includes one set hardware and gasket to bolt to engine.

X	EXCFF12	FLEXIBLE FITTING/203MM/8IN 0 Shipped loose. TECHNICAL: 203 mm (8 in) x 305 mm (12 in) long with 8 bolt flanges at both ends.		\$477
X	EXCFF11	FLEXIBLE FITTINGS 0 Shipped loose. TECHNICAL: 305 mm (12 in) x 305 mm (12 in) long with 12 bolt flanges at both ends.		\$1,062

USE	REF NO.	OPTIONAL ATTACHMENTS	Ship Weight lbs	List Price At Factory
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EXHAUST SYSTEM (CONT.)

Elbows

Weldable, 90 degree bend.

X	EXCEL10	ELBOW - 254 MM (10 IN) 0 Shipped loose. TECHNICAL: 254 mm (10 in) standard schedule short radius elbow. Intended for use with flange and exhaust expander EXCFE03 and customer supplied 254 mm (10 in) pipe.		\$720
X	EXCEL08	ELBOW - 305 MM (12 IN) 0 Shipped loose. TECHNICAL: 305 mm (12 in) standard schedule short radius elbow. Intended for use with flange and exhaust expander EXCFE02 and customer supplied 305 mm (12 in) pipe. REQUIRES: Flange and exhaust expander EXCFE02		\$870

Flange and Exhaust Expanders

X	EXCFE03	FLANGE & EXH EXP/203 TO 254MM 0 Shipped loose. TECHNICAL: 203 to 254 mm (8 to 10 in) expander. Includes gaskets, hardware and 254 mm (10 in) mating flange for welding to customer supplied 254 mm (10 in) pipe.		\$427
X	EXCFE02	FLANGE & EXH EXP/203 TO 305MM 0 Shipped loose. TECHNICAL: 203 to 305 mm (8 to 12 in) expander. Includes gaskets, hardware and 305 mm (12 in) mating flange for welding to customer supplied 305 mm (12 in) pipe.		\$818

Mufflers

X	MUF0010	MUFFLER/15DBA/254MM/10IN 0 Shipped loose. TECHNICAL: 15 dBA typical sound reduction. Includes mating flanges for welding to 254 mm (10 in) pipe. Intended for use with flange and exhaust expander EXCFE03 and customer supplied 254 mm (10 in) pipe. REQUIRES: Flange and exhaust expander EXCFE03		\$1,760
X	MUF0011	MUFFLER. 0 Shipped loose. TECHNICAL: 18 dBA typical sound reduction. Includes mating flanges for welding to 305 mm (12 in) pipe. Intended for use with flange and exhaust expander EXCFE02 and customer supplied 305 mm (12 in) pipe. REQUIRES: Flange and exhaust expander EXCFE02.		\$2,528
X	MUFSA04	MUFFLER-SPARK/20DBA/10IN 0 TECHNICAL: Spark arresting muffler with 10 in. flat face 150# ANSI flange connections. Does not include mating flanges. 20 dBA typical sound reduction.		\$2,229

USE	REF NO.	OPTIONAL ATTACHMENTS	Ship Weight lbs	List Price At Factory
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LUBE SYSTEM

Oil Pan Accessories

X	OLVLRG4	OIL LEVEL REGULATOR 0 TECHNICAL: Maintains safe oil level in pan from customer provided gravity-fed oil supply.		\$545
IX	OILDRN3	OIL PAN DRAIN 0 TECHNICAL: Includes standard cover gp and drain valve. Customer may provide hose or pipe for remote drain. Includes 2-11 1/2 NPTF threaded female connection for customer connection. CANNOT BE USED WITH: Sump pumps SPMPPLH1 or SPMPRH1.		\$223

MOUNTING SYSTEM

Vibration Isolators

X	VIBIS05	VIBRATION ISOLATORS 0 Shipped loose. TECHNICAL: Includes 10 coil spring isolators. For installation under rails. Load range 10,896 to 16,344 kg (24,000 to 36,000 lbs).		\$1,263
X	FLXISP1	FLEXIBLE ISOLATOR PAD 0 Shipped loose. TECHNICAL: Used to accommodate minor misalignment in applications where vibration control is not severe. Pads will not isolate building structure from engine vibration or protect an inoperative engine from nearby equipment. See A&I guide for complete vibration isolation recommendations. Rubber isolator pad for installation between base and foundation. 108mm (4.25 in) X 457 mm (18 in) x 25 mm (1 in) Recommended loading 50 lbs per sq. inch. TEN suggested for a package genset.		\$86

PROTECTION SYSTEM

Gas Valve

X	SOV2403	GAS SHUTOFF VALVE 0 Shipped loose. TECHNICAL: Provides a gas shutoff valve in addition to the one standard on the engine.		\$562
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SPECIAL TESTS/REPORTS

Special Tests/Reports

X	TRSGEN2	PGS TEST REPORT @ 1.0 PF 0 CANNOT BE USED WITH: PGS test report TRSGEN7.		\$324 NET
X	TRSGEN7	PGS TEST REPORT @ 0.8 PF 0 CANNOT BE USED WITH: PGS test report TRSGEN2.		\$324 NET

USE	REF NO.	OPTIONAL ATTACHMENTS	Ship Weight lbs	List Price At Factory
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SPECIAL TESTS/REPORTS (CONT.)

Special Tests/Reports (Cont.)

X	TRSGEN1	GENERATOR TEST REPORT 0 Provides copy of generator test report, for orders when no engine is involved or when customer requires separate generator test report, even with gen set units.		\$324 NET
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NOTE: Generators may be tested to a Frequency or Voltage that is higher than advertised on the price list. A passed test at 60Hz indicates the product will meet and exceed the requirements of a 50Hz rating. A passed test at a higher voltage indicates the product will meet and exceed the requirements of the lower voltage rating.

USE	REF NO.	OPTIONAL ATTACHMENTS	Ship Weight lbs	List Price At Factory
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SPECIAL TESTS/REPORTS (CONT.)

Special Tests/Reports (Cont.)

X	TVATRS2	GEN SET TORS VIB ANALYSIS 0 NOTE: Consult factory on compound and tandem installations. There may be additional charges for analysis of applications where more than one engine drives a single load. A separate torsional analysis is required for each engine with different driven equipment in multiple engine installations. One complete set of technical data (see below) must be submitted to Caterpillar before calculations are undertaken. The report will include a mathematical determination of the natural frequency, critical speeds, relative amplitudes of angular displacement, approximate nodal locations of the complete elastic system (both engine and driven equipment). NOTE: IF ALL TECHNICAL DATA REQUIRED IS NOT RECEIVED, ANALYSIS MAY BE DELAYED UNTIL THE MISSING INFORMATION IS PROVIDED. TECHNICAL DATA REQUIRED: 1. The operating speed range. 2. Load demand curve on sets which have a load dependent variable rigidity coupling. 3. General arrangement drawing or sketch of complete system, including data on special crankshaft pulleys and equipment driven from front of engine. 4. With driven equipment on both ends of the engine, the horsepower demand of each end is required. In addition, simultaneous front and rear horsepower (maximum engine load) is required. 5. Make, model, WR2 and torsional rigidity on all couplings used between the engine and driven equipment. 6. WR2 of each rotating mass. Weight of each reciprocating mass. (Needed for all pumps, compressors, gears, pinions, propellers, and generators). 7. Torsional rigidity and minimum shaft diameter or detailed dimensions of all shafting in the driven system whether separately mounted or installed in a housing. ADDITIONALLY, if an order has not been placed, the following information must also be submitted: 1. Damper part number (not top level or pricing arrgt.) 2. Flywheel part number (not top level or pricing arrgt.) 3. Horsepower 4. Operating speed 5. Coupling part number; or indicate one or two-bearing	\$1,047 NET
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X	TSP0001	FUEL CONSUMPTION TEST 0 Fuel rate and specific fuel consumption determined at 3 points at rated speed (full load, three quarters load and half load). This 3L-0291 Test must be requested prior to factory build. This is a fuel consumption test and, as such, is not a substitute for and does not provide the kind of performance information provided by TRSENG1. NOTE: Test is run as basic engine before generator is attached. Order can include a generator but a generator is not part of unit when engine is tested. See TSP0002.	\$1,039 NET
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USE	REF NO.	OPTIONAL ATTACHMENTS	Ship Weight lbs	List Price At Factory
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SPECIAL TESTS/REPORTS (CONT.)

Special Tests/Reports (Cont.)

X	TSP0002	GENSET FUEL CONSUMPTION TEST 0 Testing with Caterpillar generator-mounted switchgear or when no switchgear ordered. Test will be performed in accordance with 3L-0293 (electrical output (kW), current and voltage readings, engine speed, fuel rate, and specific fuel consumption are determined at 3 points at rated speed. (Full load, three quarters load, and half load.) Test must be requested prior to factory build. REQUIRES: Generator.		\$1,039 NET
X	TRSENG1	STD ENGINE TEST CHARGE 0 Test will be performed in accordance with 3L-0436 and must be requested prior to factory build. The test takes about one hour. There is no assurance that the engine will be tested at the rating specified in the order. Test results reported are: throttle position setting, full load BHP, turbocharger boost (if applicable), fuel rate at full load, lube oil pressure, RPM at rated speed and high idle.		\$324 NET

SPECIAL PACKING/INSPECTIONS FOR SHIPMENT

Export Packing

X	DPX0001	DOMESTIC PACK-EXPORT CONTAINER 0 NOTE: CONTAINER SHIPMENTS - Charge per container added to included in freight forwarding invoice. 40 ft. open top containers -- \$450 NET 40 ft. standard containers -- \$360 NET 20 ft. open top containers -- \$300 NET 20 ft. standard containers -- \$240 NET		NC
X	DPX0002	DOMESTIC PACK FOR EXPORT 0 Does not include any packing. Only adds markings for export shipment. ONLY FOR USE WITH: Engines or miscellaneous parts and attachments (all models on rails or requiring skids)		NC
X	EXB0010	BOX FOR EXPORT 0		\$1,695 NET
X	EXP0003	PACK FOR AIR FREIGHT 0 Provides labels and documents for air freight.		NC

Shipment Protection

X	SWP0001	SHRINK WRAP PROTECTION 0		\$315 NET
X	SWPT002	SHRINK WRAP+ TARP-GENSET PKG 0		\$1,634 NET

Storage Preservation

X	SRP0014	PRESERVATION - CORROSION INHIB 0 Provides vapor corrosion inhibitor in all internal engine compartments and the cooling system. Protects engine and accessories from functional deterioration for a minimum of one year under inside storage conditions.		\$939 NET
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USE	REF NO.	OPTIONAL ATTACHMENTS	Ship Weight lbs	List Price At Factory
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SPECIAL PACKING/INSPECTIONS FOR SHIPMENT (CONT.)

Inspection Charges

Caterpillar miscellaneous handling charges for customer-requested inspection by a private agency for inspection of engines, generators transmissions and miscellaneous material. Includes visual inspection before boxing. No special test involved. Import license number must be supplied to factory prior to inspection.

X	MISCHC1	SGS INSPECTION	0	\$432 NET
		S.G.S. inspection covers all contents of a given order.		
X	MISCHC2	MISCELLANEOUS INSPECTION.	0	\$432 NET
		All other inspection agencies. Specify agency name, address, contact, and phone number.		

STARTING SYSTEM

Battery Sets - 24 Volt - Dry

Low maintenance, high output. Jacket water heater recommended for 10 second starting above 20 C (68 F).

X	BAT2417	24 VOLT BATTERY SET - DRY	0	\$2,536
		Shipped loose. TECHNICAL: CCA rating 2600, 380 ampere hours. Includes 4 batteries. -30 to -12 C (-22 to 10 F).		
X	BAT2418	24 VOLT BATTERY SET - DRY	0	\$1,762
		Shipped loose. TECHNICAL: CCA rating 2000, 280 ampere hours. Includes 4 batteries. -12 to 20 C (10 to 68 F).		
X	BAT2401	24V BATTERY SET-DRY 1300 CCA	0	\$1,268
		Shipped loose. TECHNICAL: CCA rating 1300, 190 ampere hours. Includes 2 batteries. Ambient above 20 C (68 F).		

Battery Cables

X	BTRCBL1	BATTERY CABLES/1880MM/74IN	0	\$164
		Shipped loose. TECHNICAL: Allows battery to be set on the ground. 1880 mm (74 in) long.		

Battery Rack

X	BTR0022	2 BATTERY RACK/FLOOR	0	\$187
		Shipped loose. Floor type. Will hold 2 batteries. TECHNICAL: Floor type. Will hold 2 batteries. 1035 mm (40.75 in) long by 265 mm (10.5 in) wide.		

USE	REF NO.	OPTIONAL ATTACHMENTS	Ship Weight lbs	List Price At Factory
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GENERAL

X	AIDEMB	US AID EMBLEM 0 Provides emblem to indicate Agency for International Development (AID) financing is involved. AID provides economic assistance to advance U.S. economic and political interests in countries located in Africa, Asia, Latin America, Central and Eastern Europe, and the New Independent States of the former Soviet Union. Only available for U.S. built products. Requires one emblem for each side of the engine.	0	NC
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Tool Set

Tool set. Contains basic tools for regular maintenance; such as wrenches, grease gun, feeler gauges, etc. For a complete breakdown, refer to the Tool Guide for Caterpillar Dealers. Order 9S-7977.
 AVAILABLE ONLY FROM PARTS DISTRIBUTION

Digital Diagnostic Tool

Digital diagnostic tool. Required to set engine timing for EIS engines. Requires service program module NEXG4529 to make operational. Order 7X1400.
 AVAILABLE ONLY FROM PARTS DISTRIBUTION.

SVCE TOOLS/SHIP PROT/FACTORY SUPPORT

Factory Commissioning

X	FACCOM1	FACTORY COMMISSIONING 0 Commissioning will be invoiced at \$1,400 per day, plus expenses, to the selling dealer. This \$7,000 Net charge will be deducted from the total cost of the commissioning.	0	\$7,575 NET
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EXTENDED SERVICE COVERAGE

ESC (Extended Service Coverage)

New procedures must be followed to purchase ESC with the gen sets offered in this price list. The new procedures are:
 Complete the ESC Special Quote Request Form found at dealer.cat.com/EPESC. Please submit the completed form to engineesc@cat.com.
 Contact engineesc@cat.com if you have any questions.