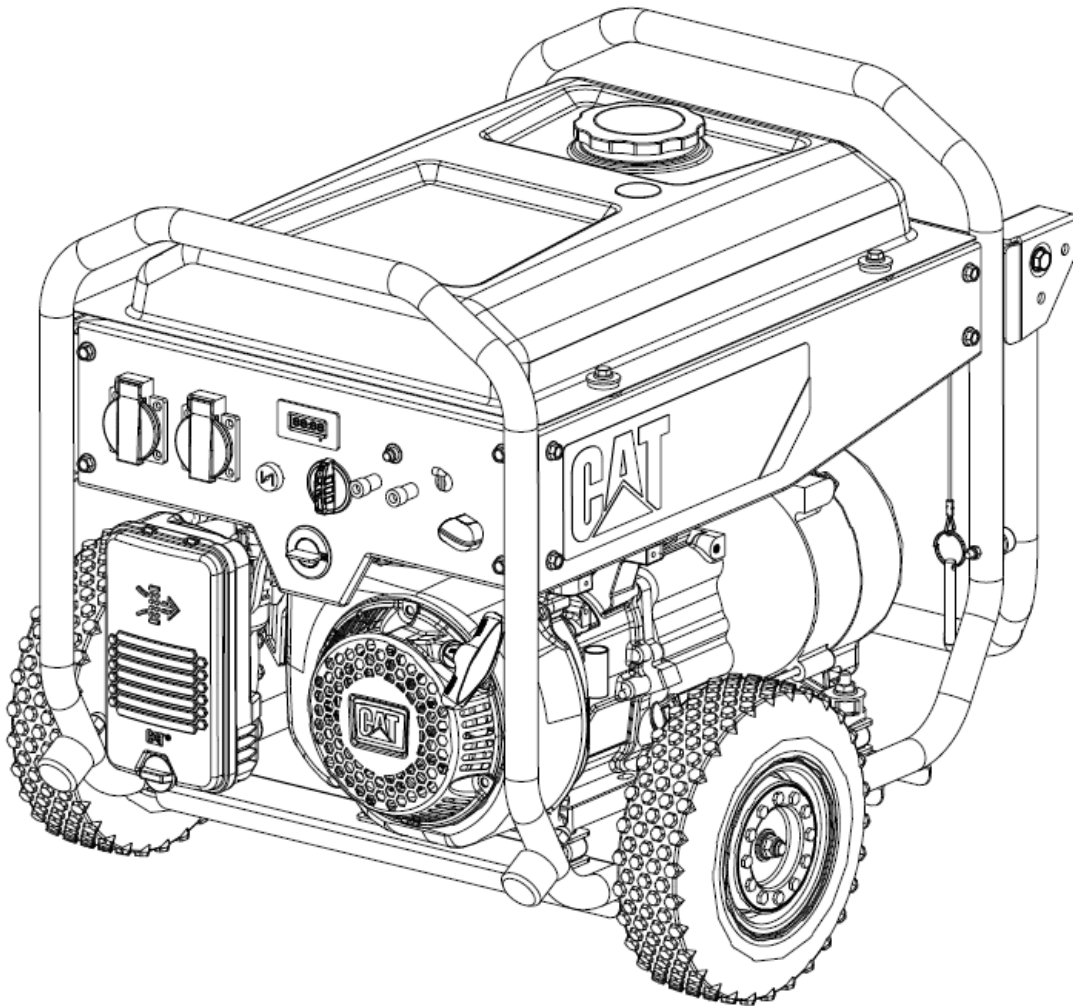


# Owner's Manual

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RP2500, RP3100, and RP4400  
Low Power Generator Set

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## **Important Safety Information**

Most accidents that involve product operation, maintenance and repair are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs. A person must be alert to potential hazards, including human factors that can affect safety. This person should also have the necessary training, skills and tools to perform these functions properly.

Safety precautions and warnings are provided in this manual and on the product. If these hazard warnings are not heeded, bodily injury or death could occur to you or to other persons.

Caterpillar cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this publication and on the product are, therefore, not all inclusive. You must not use this product in any manner different from that considered by this manual without first satisfying yourself that you have considered all safety rules and precautions applicable to the operation of the product in the location of use, including site-specific rules and precautions applicable to the worksite. If a tool, procedure, work method or operating technique that is not specifically recommended by Caterpillar is used, you must satisfy yourself that it is safe for you and for others. You should also ensure that you are authorised to perform this work, and that the product will not be damaged or become unsafe by the operation, lubrication, maintenance or repair procedures that you intend to use.

The information, specifications, and illustrations in this publication are on the basis of information that was available at the time that the publication was written. The specifications, torques, pressures, measurements, adjustments, illustrations, and other items can change at any time. These changes can affect the service that is given to the product. Obtain the complete and most current information before you start any job.

This manual contains safety, operation, and maintenance information. This manual should be stored near the product. Read, study and keep it with the literature and product information.

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## SAFETY MESSAGES

There may be several specific safety messages on your generator. Please become familiar with all safety messages.

Ensure that all of the safety messages are legible. Clean the safety messages or replace the safety messages if the words cannot be read or if the illustrations are not visible. Use a cloth, water, and soap to clean the safety messages. Do not use solvents, petrol, or other harsh chemicals. Solvents, petrol, or harsh chemicals could loosen the adhesive that secures the safety messages.

Replace any safety message that is damaged or missing. If a safety message is attached to a part of the generator that is replaced, install a new safety message on the replacement part.



### Be Alert!

This symbol identifies a potential hazard that could cause injury or property damage.

Protect children by keeping them at a safe distance from the generating set.



### Read the Manual

#### **WARNING**

Do not operate or work on this generator unless you have read and understand the instructions and warnings in the Owner's Manual. Failure to follow the instructions or heed the warnings could result in injury or death. Proper care is your responsibility.



### Carbon Monoxide

Operating a generator indoors can kill you in minutes. Generator exhaust contains carbon monoxide. Carbon monoxide is a poison that you cannot see or smell. Never operate a generator inside a home or garage, even if doors and windows are open. Only operate a generator outdoors and away from windows, doors, and vents. Always consider wind direction

and intensity to ensure carbon monoxide is blown away from structures and other places where people and animals may be present. If anyone experiences dizziness, headaches, nausea, or tiredness get to fresh air immediately and seek medical attention.

## Fuel Warning / No Open Flames



Petrol is a highly flammable liquid and the vapor can explode. Do not refuel the unit near open flames. Do not refuel the unit while the engine is running. Do not smoke while refueling. Allow the engine to cool before refueling. Do not overfill the tank. Only use regular unleaded petrol in the 85 – 100 RON range in this product. Do not use petrol that has more than 10% ethanol content.

## Before Starting the Unit



Be alert! Read the Owner's Manual before starting the unit. You must add fuel and oil before starting the unit.

## Pinching or Crushing Hazard



The handle is a potential pinching or crushing hazard. Use caution when inserting or removing the handle pin. To prevent damage to the handle paint, insert pin before using handle in the up position.

## Use Proper Lifting Techniques



Do not attempt to lift the unit by yourself. Lift as a team or use a proper lifting device such as a sling to lift the unit. If lifting as a team hold the unit by the frame, keep your back straight, and lift with your legs. Use your legs to lower the unit when setting it down.

## Shock/Electrocution



Do not operate this equipment or work on this equipment unless you have read and understand the instructions and warnings in the Owner's Manual. Failure to follow the instructions or heed the warnings will result in serious injury or death.

Do not connect generator to a utility electrical distribution system unless it is isolated from the system. Electrical feedback into the distribution system can occur and could cause personal injury or death.

Do not operate this product in wet conditions.

## Hot Surface / Do Not Touch / Fire



Hot parts or hot components can cause burns or personal injury. Do not allow hot parts or components to contact your skin. Use protective clothing or protective equipment to protect your skin.

Hot exhaust presents a potential fire hazard. Be sure that nothing flammable is within 3 meters of the exhaust.

## Hot Surface / Do Not Touch



Hot parts or hot components can cause burns or personal injury. Do not allow hot parts or components to contact your skin. Use protective clothing or protective equipment to protect your skin.

## Additional Messages

### Earth Ground



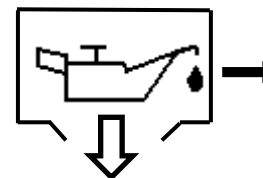
This symbol identifies the earth ground connection. Refer to the article "Generator Grounding" for additional information on grounding the generator.

### Oil Fill / Oil Check



This symbol identifies the location of the oil fill and oil level check.

### Oil Drain



This symbol identifies the location of the oil drain point.

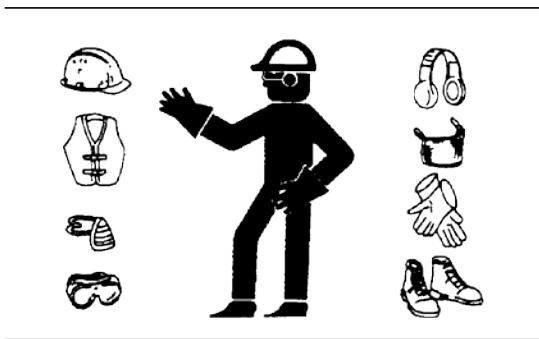
## Special Requirements

Electrical equipment, including lines and plug connections should be covered and protected from moisture.

The circuit breakers should match the generator specifications. If the circuit breakers require replacement, they must be replaced with a circuit breaker of the same rating and performance characteristics.

In any generator set installation, the frame of the generator must be connected to an effective earth ground. A ground terminal is provided.

For 115VAC, use extension cables rated for 115V at 16A or greater. For 230VAC, use extension cables rated for 230V at 32A or greater. Use the shortest extension cable that meets these requirements.



- Wear a hard hat, protective glasses, and other protective equipment, as required.
- When work is performed around an engine that is operating, wear protective devices for ears in order to help prevent damage to hearing.
- Do not wear loose clothing or jewelry that can snag on controls or on other parts of the engine.
- Ensure that all protective guards and all covers are secured in place on the engine.
- Never put maintenance fluids into glass containers. Glass containers can break.
- Use all cleaning solutions with care.

# PRODUCT INFORMATION

## Declaration of Conformity

An EU Declaration of Conformity document was provided with the machine if it was manufactured to comply with specific requirements for the European Union. In order to determine the details of the applicable Directives, review the complete EU Declaration of Conformity provided with the machine. The extract shown below is from an EU Declaration of Conformity for machines that are declared compliant. It applies only to those machines originally "CE" marked by the manufacturer listed and which have not since been modified.

**Original EU Declaration Of Conformity**  
**Dichiarazione di conformità originale UE**  
**Déclaration de conformité UE originale**  
**Originalversion der EU-Konformitätserklärung**  
**Declaración original de conformidad con las directivas de la UE**



**Manufacturer - Produttore - Fabricant - Hersteller - Fabricante:** CATERPILLAR INC. 100 N.E. ADAMS STREET PEORIA, IL 61629, USA

**Person authorised to compile the Technical File and to communicate relevant part or parts of the Technical File to the Authorities of European Union Member States on request - Persona autorizzata a compilare il fascicolo tecnico e a inviare una parte o parti del fascicolo tecnico alle autorità competenti degli Stati membri dell'Unione europea, su richiesta - Personne autorisée à compiler le dossier technique et à communiquer une ou des parties pertinentes dudit dossier technique aux autorités des États membres de l'Union européenne sur demande - Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen und den Behörden der Mitgliedstaaten der Europäischen Union den/die relevanten Teil(e) der technischen Unterlagen mitzuteilen - Persona autorizada para preparar el archivo técnico y comunicar la parte o partes pertinentes del archivo técnico a las autoridades de los Estados miembros de la Unión Europea previa petición:**

Standards & Regulations Manager, Caterpillar France S.A.S  
 40, Avenue Leon-Blum, B.P. 55, 38041 Grenoble Cedex 9, France

**I, the undersigned, \_\_\_\_\_, hereby certify that the equipment specified hereunder - Il sottoscritto, \_\_\_\_\_, con la presente certifica che l'apparecchiatura specificata di seguito - Je, soussigné, \_\_\_\_\_, certifie par la présente que l'équipement spécifié ci-dessous - Ich, der Unterzeichnete, \_\_\_\_\_, bescheinige hiermit, dass die nachfolgende Maschine - Yo, el abajo firmante \_\_\_\_\_, por la presente certifico que el equipo especificado a continuación**

**Description - Descrizione - Description - Beschreibung - Descripción:**

|  |  |
|--|--|
| Generic Denomination - Denominazione generica - Dénomination générique - Allgemeine Bezeichnung - Denominación Genérica: | Low power generator set- Gruppo elettrogeno bassa tensione - Groupe électrogène faible puissance - Niederleistungsstromaggregat - Generator de baja potencia |
| Function - Funzione - Fonction - Funktion - Función:   | Power generator- Generazione di corrente - Groupe électrogène - Generator - Generator de electricidad  |
| Model/Type - Modello / Tipo - Modèle/Type - Modell/Typ - Modelo/tipo:  | <b>RP2500, RP3100, RP4400</b>  |
| Serial Number - Numero di serie - Numéro de série - Seriennummer - Número de serie:                                      |  |
| Commercial Name - Nome commerciale - Nom commercial - Handelsbezeichnung - Nombre commercial:                            | Caterpillar  |

Fulfills all the relevant provisions of the following Directives - É conforme a tutte le rilevanti disposizioni delle seguenti Direttive - Est conforme à toutes les dispositions pertinentes des directives suivantes - Alle einschlägigen Bestimmungen der folgenden Richtlinien erfüllt - Cumple todas las disposiciones pertinentes de las directivas siguientes

| Directives - Direttive - Directives - Richtlinien - Directivas   | Notified Body - Organismo Notificato - Organisme notifié - Benannte Stelle - Organismo notificado | Document no. - Documento n. - Numéro de document - Dokument nr. - n.º de documento |
|--|---|--|
| 2006/42/EC   | N/A   | -  |
| 2014/30/EU   | N/A   | -  |
| 2000/14/EC amended by - modificato da - modifiée par - geändert durch - modificada por: 2005/88/EC (1) |   |  |

- (1) Guaranteed Sound Power Level- Livello di potenza sonora garantito - Niveau de puissance acoustique garanti - Garantierter Schalleistungspegel - Nivel de potencia acústica garantizado- \_\_\_\_\_ dB(A)
- (2) Representative Equipment Type Sound Power Level - Livello di potenza sonora rappresentativo del tipo di apparecchiatura - Niveau de puissance acoustique du type d'équipement représentatif - Maschinentyprepräsentativer Schalleistungspegel - Nivel de potencia acústica del tipo de equipo representativo- \_\_\_\_\_ dB(A)

$P_{e1}$  (ISO 8528-1:1993) - \_\_\_\_\_ kW  
 Technical Documentation accessible through person listed above authorised to compile the Technical File - Documentazione tecnica accessibile tramite la persona sopraindicata autorizzata a compilare il Fascicolo Tecnico - La documentation technique est disponible auprès de la personne listée ci-dessus qui est autorisée à compiler le dossier technique - Sie erhalten die Technische Dokumentation über die oben genannte Kontaktperson, die zur Erstellung der Technischen Unterlagen berechtigt ist - Documentación técnica accesible a través de la persona mencionada anteriormente, autorizada para preparar el archivo técnico

**Harmonised Standards taken into consideration - Norme armonizzate prese in considerazione - Normes harmonisées prises en compte - Angewandte harmonisierte Normen - Estándares armonizados tomados en consideración:** EN 12601:2010; EN 60204-1:2006/A1:2009; EN 61000-6-1:2007; EN 55012:2007+A1

**Done at – Luogo - Fait à - Ort der Unterzeichnung - En**

**Signature - Firma - Signature - Unterschrift - Firma**

**Date - Data - Date - Datum - Fecha**

**Name/Position - Nome / Ruolo - Nom/Titre - Name/Position - Nombre/Cargo**

Note: The above information was correct as at 19 September 2016, but may be subject to change, please refer to the individual declaration of conformity issued with the machine for exact details.



## Sound Information

**Note:** Information of the sound level is for machines in European Union countries and in countries that adopt the directives of the European Union.

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### NOTICE

Hearing protection may be needed when working near an operating generator set.

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Sound levels will vary depending on the configuration of the generator set and the final installation of the generator set.

Refer to the following chart for sound levels:

| Model                              | RP2500<br>EU / UK | RP3100<br>EU / UK | RP4400<br>EU / UK |
|------------------------------------|-------------------|-------------------|-------------------|
| Measured Sound Power Level dB(A)   | 93                | 93                | 96                |
| Guaranteed Sound Power Level dB(A) | 96                | 96                | 97                |
| Sound Pressure Level at 1m dB(A)   | 79                | 80                | 83                |

**Note:** The preceding sound levels are not necessarily safe sound levels. There is a correlation between the emission levels and the level of exposure. The correlation between emission levels and the level of exposure cannot be used to determine if further precautions are required.

Refer to the following for factors that influence the level of exposure:

- The characteristics of the area around the generator set
- Other sources of noise
- The number of machines and other adjacent processes
- The length of time of exposure to the noise

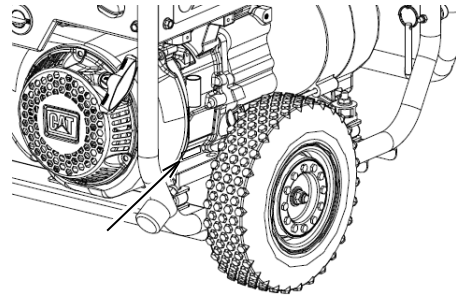
This information will enable the user of the machine to evaluate the hazard and the risk.

## Intended Use

This Cat® Portable Generator is intended for use in generating electrical power in areas where no utility power is available or to provide emergency power in the event of an outage of utility power. DO NOT attempt to power an entire home or facility with this unit. DO NOT attempt to provide

power to an electrical panel without first isolating the panel from the utility power.

## Emissions Certification



The emissions certification is located on the crankcase.

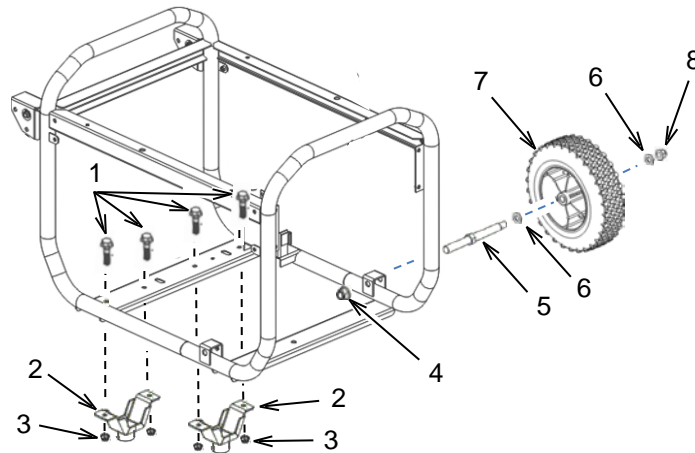
**RP2500EU, RP2500UK, RP3100EU and RP3100UK emissions certification:**

***RATO R210-V***  
*e11\*97/68SA\*2012/46\*3391\*00(II)*

**RP4400EU and RP4400UK emissions certification:**

***RATO R300-V***  
*e11\*97/68SA\*2012/46\*3392\*00(II)*

# ASSEMBLY



## Feet Assembly

1. Set the frame of the unit on blocks to provide sufficient clearance to install the feet and wheels.
2. Align the mounting holes of the foot bracket (2) with the mounting holes in the frame.
3. Insert one 8 mm bolt (1) through each set of mounting holes.
4. Install and hand tighten one 8 mm nut (3) on each bolt.
5. Repeat steps 2 – 4 for the other foot.
6. Tighten all four nuts securely.

## Wheel Assembly

1. Insert short end of axle (5) into the mounting bracket on the frame.
2. Install one 10 mm nut (4) on the axle and tighten securely to frame.
3. Place one large washer (6) on the long end of the axle and install wheel (7) with the bolt design facing out.
4. Install one large washer (6) onto the axle.
5. Install one 10 mm locking nut (8) onto the axle and tighten securely.
6. Repeat steps 1 – 5 for the other wheel.
7. Remove the blocking.

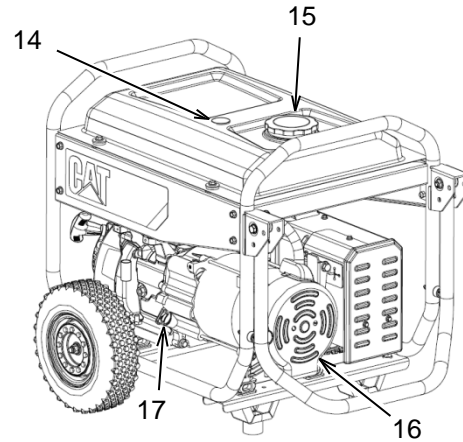
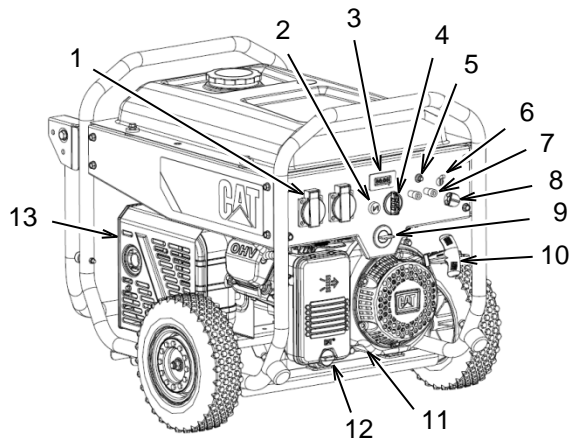
## Oil

Follow the Engine Oil Level-Check procedure to add the proper amount of oil for the unit as described in the Specifications chart

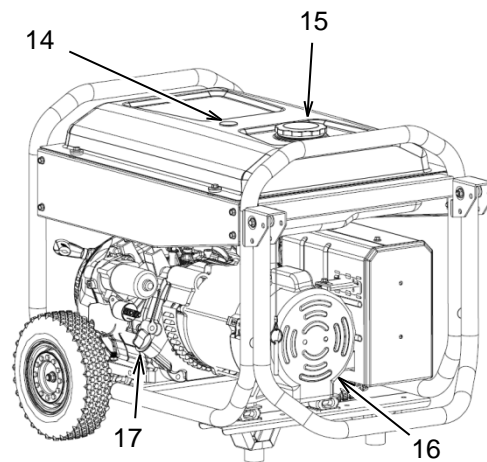
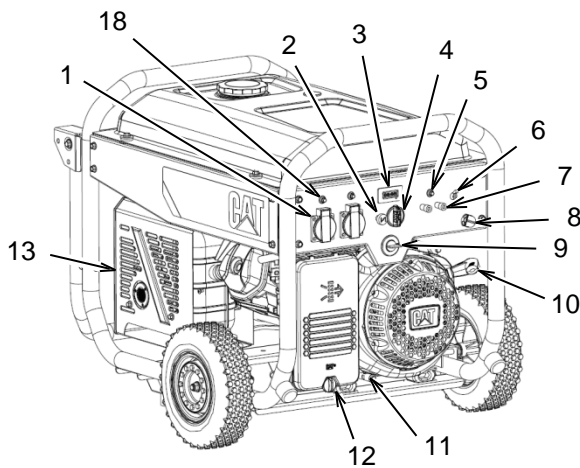
# COMPONENT IDENTIFICATION

## European Union

### RP2500EU and RP3100EU



### RP4400EU

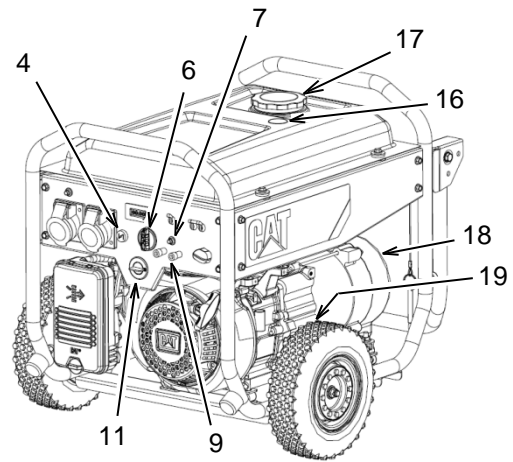
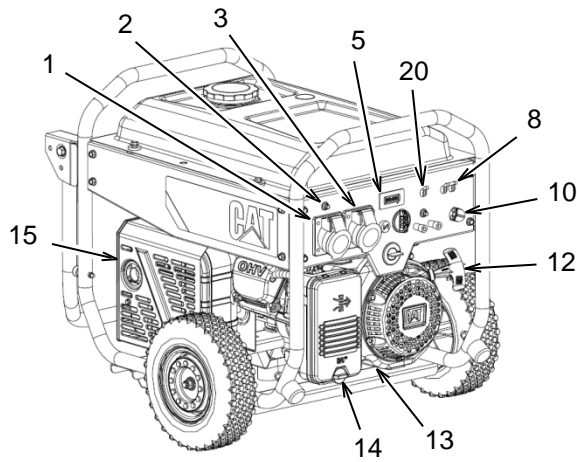


- 1) Receptacle – 230 VAC (2)
- 2) Choke Knob
- 3) Display
- 4) Generator Switch
- 5) DC Circuit Breaker
- 6) AC Circuit Breaker
- 7) DC Terminals
- 8) Panel Light
- 9) Fuel Valve

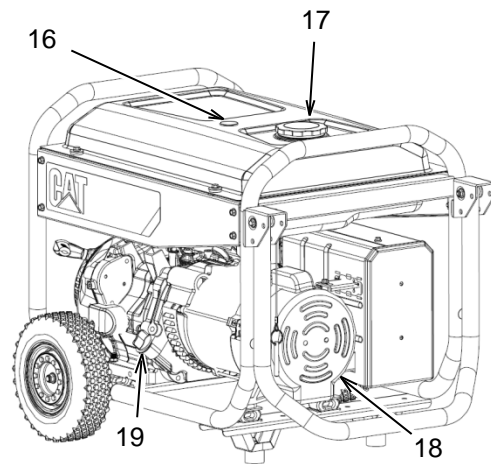
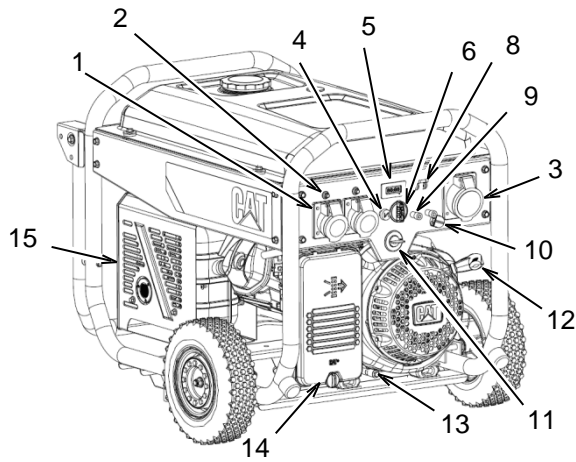
- 10) Recoil Start Assembly
- 11) Oil Drain
- 12) Air Filter Assembly
- 13) Silencer
- 14) Fuel Gauge
- 15) Fuel Cap
- 16) Alternator
- 17) Oil Fill
- 18) AC Circuit Breaker

## United Kingdom

### RP2500UK and RP3100UK



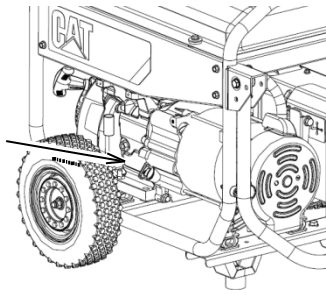
### RP4400UK



- 1) Receptacle – 115 VAC
- 2) Circuit Breaker
- 3) Receptacle – 230 VAC
- 4) Choke Knob
- 5) Display
- 6) Generator Switch
- 7) DC Circuit Breaker
- 8) Circuit Breaker
- 9) DC Terminals
- 10) Panel Light

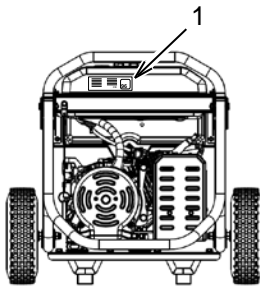
- 11) Fuel Valve
- 12) Recoil Start Handle
- 13) Oil Drain
- 14) Air Filter Assembly
- 15) Silencer
- 16) Fuel Gauge
- 17) Fuel Cap
- 18) Alternator
- 19) Oil Gauge / Oil Fill
- 20) Voltage Selector Switch (UK only)

## Engine Type & Serial Number



Cat® portable generators are identified with model numbers, serial numbers, and with performance specification numbers. The serial number is engraved on the engine block near the oil fill.

## CE and Ratings Plate



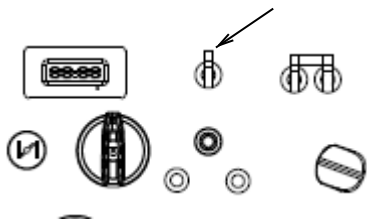
**Note:** The CE plate (1) is on products that are certified to the European Union requirements that were effective at that time.

For machines that are compliant to “2006/42/EC”, the following information is printed on the CE plate.

- Rated Power (kW)
- Power Factor
- Frequency (Hz)
- Typical Machine Weight (kg)
- Voltage (V)
- Rated Current (A)
- Year of Construction
- Machine Type
- Performance Class
- Quality Class
- Sound level

## CONTROLS

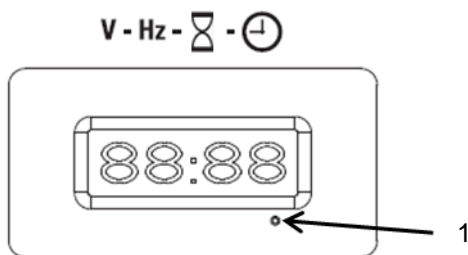
### Voltage Selector Switch (If Equipped)



RP2500UK and RP3100UK units have a voltage selector switch. The voltage selector switch determines which of the receptacles is powered. Setting the switch to 115VAC powers the 115VAC receptacle. Setting the switch to 230VAC powers the 230VAC receptacle. Be sure to select the required voltage BEFORE starting the unit and connecting a cord and equipment.

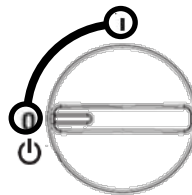
- Set the voltage selector switch according to the voltage requirement of the equipment you are powering.
- DO NOT operate the voltage selector switch while the unit is running and electrical equipment is plugged in. Personal injury, damage to the generator, or damage to the equipment may occur.

### Display



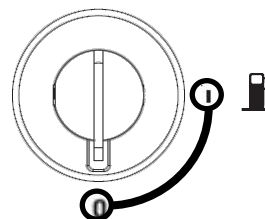
This generator is equipped with a display that can show the Voltage, frequency, total accumulated hours of operation, and current hours. Press the toggle switch (1) to change the readout of the display to the desired setting.

### Generator Switch



To start the generator, turn the generator switch to the on position "I" before starting the generator. To turn off the generator, turn the generator switch to the off "0" position.

### Fuel Switch



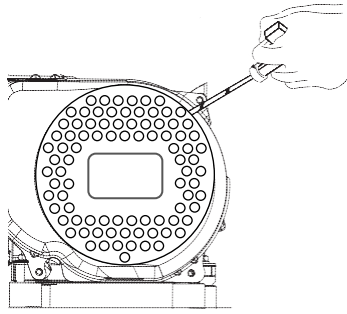
The fuel switch controls the flow of the fuel from the fuel tank to the carburetor. Turn the fuel switch to the on "I" position before starting the engine. Always turn the fuel switch to the off "0" position after stopping the engine.

### Choke



The choke is used to enrich the mixture when starting a cold engine. If the engine is cold, pull the choke knob out before starting the engine. Once the engine starts, slowly push the choke knob in.

## Recoil Starter

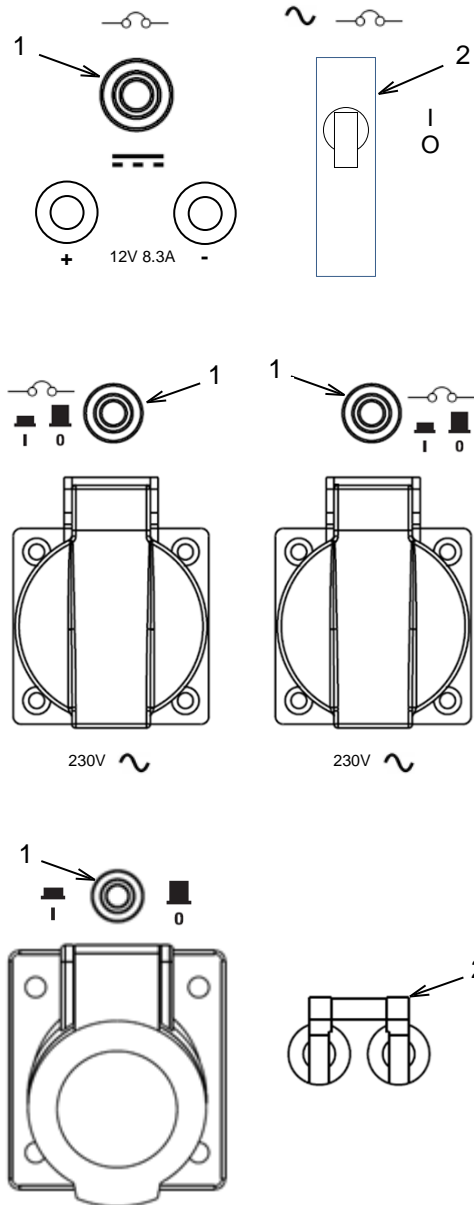


To start the engine, slowly pull the starter handle until resistance is felt, then quickly pull the starter handle the rest of the way, making sure that your hand does not contact the frame.

Under normal circumstances you should not release the starter handle and allow the starter handle to snap back against the engine. Return it gently in order to prevent damage to the starter. However, in some circumstances the engine rotation could reverse during an attempted start. This could result in the handle being pulled back toward the engine with much greater force. If this occurs the recoil handle should be released immediately to avoid any personal injury.

## Circuit Breakers

The generator comes equipped with circuit breakers that protect the unit and the load from short circuit or overload conditions. If the circuit breaker opens, determine why the circuit breaker tripped before closing the circuit breaker again.



The units come with both with both pushbutton (1) and switch style (2) circuit breakers. These breakers will automatically trip in the event of an overload or fault. Once the fault has been corrected the breakers must be manually reset. The switch style breakers can also be tripped manually to turn off the power to the receptacles.

## Low Oil Level Shutdown

The generator is equipped with a low oil level shutdown that is designed to protect the engine from damage caused by an insufficient amount of oil in the crankcase. When the oil level in the crankcase falls below the safe operating limit, the low oil level shutdown will automatically shut off the engine.

## GENERATOR OPERATION

### Optimal Generator Operating Conditions

- Temperature: -5°C to 40°C
- Humidity below 95%
- Height above sea level: 1000 m.

If the operating conditions fall outside the optimal values, output power will be reduced. Power typically reduces by 1% for every 100 m above sea level.

### Transportation

**Note:** If the unit has had fuel added DO NOT transport the unit in the passenger compartment of a vehicle. Inhalation of vapors could present a safety hazard. For transportation in commercial vehicles, it is recommended that only vehicles with a bulkhead between the body and the passenger cab are used.



Drain the fuel from the fuel tank. Ensure that the product will not start. Place the unit in a trailer or in the back of a truck. Do not attempt to lift the unit by yourself. Lift as a team or use a proper lifting device such as a sling to lift the unit. If lifting as a team, hold the unit by the frame, keep your back straight, and lift with your legs. Use your legs to lower the unit when setting it down.

### Parking

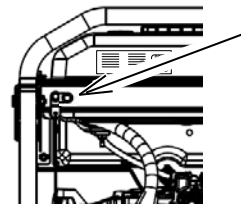
Only operate the unit outdoors and away from windows, doors, and vents. Place the unit on as level an area as possible. The slope should not exceed 4 degrees.

## Connection to Household Power Supply

This generator must be installed in accordance with all applicable local laws and electrical codes. The generator must be isolated from the utility and the connection must be verified by a qualified electrician.

## Generator Grounding

Correct grounding for the generator is necessary for optimum engine performance and reduces the risk of electric shock. Use the ground terminal to properly ground the generator. Before using the ground terminal, consult a qualified electrician, electrical inspector, or local agency having jurisdiction for local codes or ordinances that apply for the intended use of the generator.



The ground connection is located next to the bolt that attaches the handle pin assembly to the frame.

## AC Usage

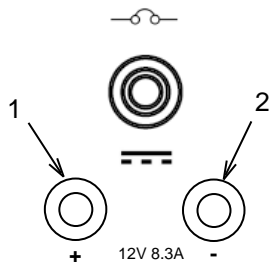
Do NOT overload the generator. Exceeding the rated power of the generator can damage the generator and the electrical devices connected to it.

Motor-driven devices require a large starting current. Make sure that the total power requirement of these types of loads does not exceed the rated power of the generator.

When the generator is used to power multiple loads or electric appliances, start by connecting the appliance with the highest starting power requirements, followed by the second highest and ending with the lowest.



## DC Usage



The DC “+” terminal (1) and the DC “-” terminal (2) are used to provide power for lower power DC loads and for charging batteries.

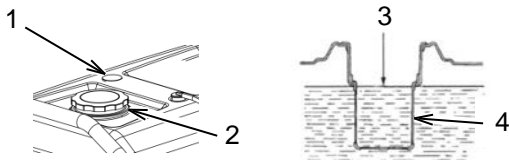
To avoid damage to the unit or the device being powered be sure to connect the load properly. The red (+) terminal is positive and the black (-) terminal is negative. Do not exceed 100W. The DC overcurrent protector will automatically activate if it is overloaded or if there is a poor connection. If the overcurrent protector activates, the indicator button will pop out. If this happens, wait a few minutes and then push the button in to turn the circuit back on. If the button pops out again, you will need to identify what is causing it to shutoff and correct the situation before trying again.

## BEFORE STARTING ENGINE

### Engine Oil

Check the oil level before each use. Refer to the Engine Oil - Check procedure in this manual.

### Fuel



1. Check the fuel level gauge (1).
2. If the fuel level is low, remove fuel cap (2)
3. Check the strainer. If the strainer is dirty, clean the strainer. Refer to Fuel Tank Cap and Strainer – Clean for instructions.
4. Add fuel. The use of a fuel stabiliser is

highly recommended as the unit may sit for long periods of time before needed.

5. Install the fuel cap after fueling.

To avoid personal injury always use caution when you are adding fuel:

- Fuel the generator in a well-ventilated area.
- Always stop the engine before fueling.
- Allow the engine to cool before fueling.
- Do not smoke while you are fueling the generator.
- Do not fuel the generator near open flames or sparks.
- Do not fill the fuel tank above the full line (3).
- Avoid repeated or prolonged contact with skin
- Avoid prolonged breathing of fuel vapor.

To avoid damaging the generator:

- Use unleaded petrol with an octane rating (RON) greater than 85.
- Do not mix oil with the petrol.
- Do not use petrol with greater than 10% ethanol content.
- Do not use old petrol.
- Avoid getting dirt or water into the fuel tank.

## Walk-Around Inspection

Perform the Walk-Around Inspection before each use as described later in this manual.

## STARTING THE ENGINE

1. Isolate the generator from the utility
2. Unplug any electrical devices from the receptacles.
3. Turn the fuel switch to the on "I" position.
4. Turn the manual AC circuit breakers to the off "O" position.
5. If the engine is cold, pull out the choke knob.
6. Turn the generator switch to the on "I" position.
7. Slowly pull the starter handle until resistance is felt, then quickly pull the starter handle the rest of the way, making sure that your hand does not contact the frame. If the engine does not start, repeat step 7 until the engine does

- start.
- After the engine has warmed, push the choke knob in.
  - Turn the AC circuit breaker to the on "I" position.

## STOPPING THE ENGINE

- Disconnect the generator / unplug all electrical devices.
- Turn the manual AC circuit breaker to the off "0" position.
- Turn the generator switch to the off "0" position.
- Turn the fuel switch to the off "0" position.

**Note:** To stop the engine in an emergency, turn the generator switch to the off "0" position.

## MAINTENANCE

Ensure that all safety information, warnings, and instructions are read and understood before any maintenance procedures are performed.

Use service hours or calendar time, WHICH EVER OCCURS FIRST, to determine the correct maintenance intervals.

Stop the engine before servicing. Put the engine in horizontal position and remove the spark plug cap to prevent the engine from starting. Do not operate the engine in an unventilated room or other enclosed area.

### When Required:

Fuel Tank Cap and Strainer – Clean

### Every Use:

Engine Oil Level – Check  
Walk-Around Inspection

### First 20 Service Hours or 1 Month:

Engine Oil – Change

### Every Month:

Generator – Inspect

### Every 50 Service Hours or 3 Months:

Air Filter – Check  
Spark Arrester – Inspect/Clean/Replace

### Every 100 Service Hours or 6 Months:

Engine Oil – Change  
Spark Plug – Inspect/Adjust/Replace

### Every 300 Service Hours or 1 Year:

Cylinder Head – Clean  
Engine Valve Lash – Check

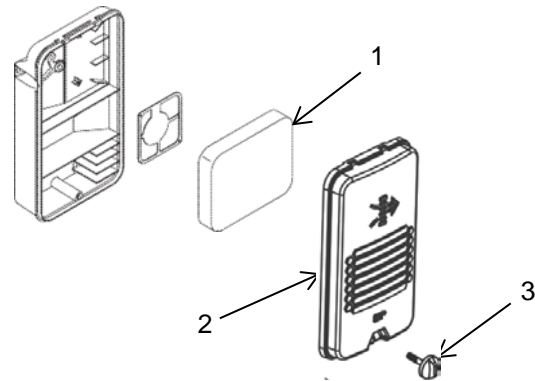
### Every 2 Years:

Fuel Line – Replace

## Air Filter – Check

A dirty air filter will restrict air flow into the carburetor, cause poor fuel economy, and may damage the engine. To keep the generator in good operating condition, service the air filter regularly. Service more frequently when operating the generator in extremely dusty areas.

**Note:** Never operate the generator without the air filter in place. Operating the generator without the air filter in place will result in rapid engine wear.



Remove the air filter cover bolt (3) and remove the air filter cover (2). Make sure that the air filter (1) is clean and not damaged. If the air filter is dirty, wash the filter. If the air filter is damaged, replace the air filter.

Use a nonflammable solvent or a mixture of household detergent and warm water to wash the filter. Rinse the filter thoroughly to remove all of the cleaning solution. After the filter has dried, pour some engine oil onto the filter. Then squeeze the filter to distribute the oil throughout the filter and remove any excess oil.

**Note:** Do not wring out the filter. Wringing out the filter may damage the filter.

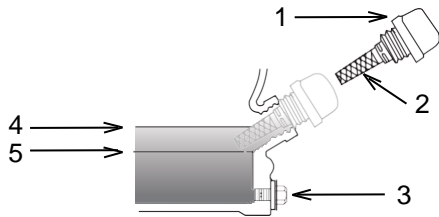
Install the filter into the filter housing. Place the air filter cover over the filter and reinstall the air filter cover bolt. Tighten the cover bolt by hand.

## Cylinder Head - Clean

Only qualified service personnel should perform this maintenance procedure. Contact your local service center to schedule this maintenance.

## Engine Oil Level – Check

Always check the engine oil with the generator on a level surface and with the engine stopped.



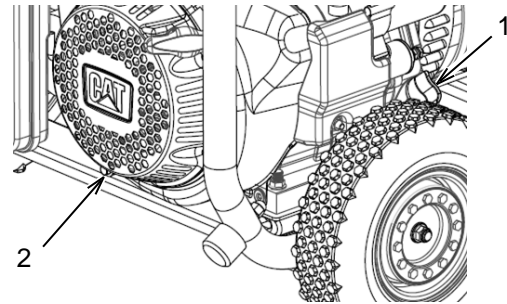
1. Remove the oil filler cap (1) and wipe the oil level gauge (2) to clean it.
2. Check the oil level by inserting the oil level gauge into the filler neck. Do not screw the oil filler cap in when checking the oil level.
3. If the oil level is low (5), add the recommended engine oil until the oil level reaches the upper mark (4) on the oil level gauge. Use the chart below to determine which viscosity oil to use.

| Recommended Lubricant Viscosities for Ambient Temperature |     |     |     |     |
|---|-----|-----|-----|-----|
| Oil Viscosities   | °C  |     | °F  |     |
|   | Min | Max | Min | Max |
| SAE 0W-40   | -40 | 40  | -40 | 104 |
| SAE 5W-40   | -30 | 50  | -22 | 122 |
| SAE 10W-30  | -18 | 40  | 0   | 104 |
| SAE 15W-40  | -10 | 50  | 14  | 122 |

4. After adding oil, install and tighten the oil filler cap.

**Note:** Non-detergent and 2-stroke engine oils will damage the engine and must not be used.

## Engine Oil – Change



1. Operate the engine until it reaches normal operating temperature (about 20 minutes). Stop the engine.
2. Remove the oil filler cap (1) and drain plug (2) to drain the oil. Drain the oil into a suitable container.
3. Reinstall the drain plug and tighten to  $11 \pm 1$  N·m.
4. Refill the oil and check the oil level. Refer to Engine Oil Level – Check.
5. Install and tighten the oil filler cap.
6. Dispose of the used oil using approved waste disposal services.

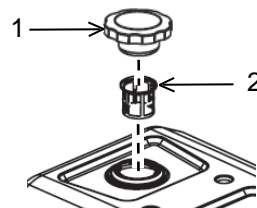
## Engine Valve Lash – Inspect/Adjust

Only qualified service personnel should perform this maintenance procedure. Contact your local service center to schedule this maintenance.

## Fuel Line – Replace

Only qualified service personnel should perform this maintenance procedure. Contact your local service center to schedule this maintenance.

## Fuel Tank Cap and Strainer – Clean



Wipe off the fuel cap (1) and surrounding area before removing the fuel cap. Wiping off the fuel cap and surrounding area before removing the

fuel cap helps to reduce the amount of contaminants allowed into the fuel system.

If there is a build-up of debris in the fuel strainer (2), remove the strainer and rinse out the strainer. Allow the strainer to dry before installing the strainer.

## Generator - Inspect

Once a month start the engine and run the engine until it reaches normal operating temperature (about 20 minutes). Plug in a device and turn on the device to ensure that the generator is providing power. Once you have verified that the generator is providing power, turn off the device and unplug it. Then turn the generator off.

## Screen - Inspect/Clean/Replace

This unit has a screen fitted to the exhaust outlet of the silencer. The screen should be cleaned with a soft wire brush after every 50 hours or 3 months of use. The screen should be replaced after every 100 hours of operation or if it becomes damaged.

### Hot Surface



### WARNING

Hot parts or hot components can cause burns or personal injury. Do not allow hot parts or components to contact your skin. Use protective clothing or protective equipment to protect your skin.

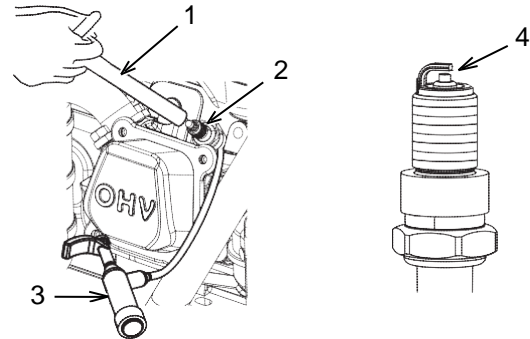
DO NOT perform this maintenance procedure until the muffler has cooled.

Remove the screws that hold the screen to the silencer. Remove the screen. Check the screen. Carefully clean the screen with a soft wire brush. If the screen is damaged, replace the screen.

To install the screen, align the mounting holes in the screen with the mounting holes on the silencer. Insert the screws and tighten securely.

## Spark Plug – Inspect/Adjust/Replace

Refer to the Specifications section of this manual to determine the proper spark plug part number and spark plug gap for your product.



1. Remove the side panel.
2. Remove the spark plug cap (3)
3. Use the plug wrench (1) or a ratchet and a spark plug socket to remove the spark plug (2).
4. Visually check the spark plug to see if it is damaged. If the insulator is cracked, replace the spark plug. If the electrode is damaged, replace the spark plug.
5. Measure the plug gap (4) with a feeler gauge. Adjust the gap as necessary by carefully bending the side electrode. Refer to Specifications for the correct gap for your product.
6. Check the spark plug washer to ensure proper working condition. If the washer is damaged, replace the washer.
7. Install spark plug and tighten to  $22 \pm 2$  N·m. DO NOT overtighten as this may damage the engine.

## Walk-Around Inspection

Before starting the engine perform a visual inspection of the unit. Look for:

- Proper oil level
- Proper fuel level
- Good quality fuel
- Fluid leaks
- Loose clamps
- Loose bolts
- Cracked fuel line
- Loose or frayed wiring
- Built up debris

In addition, make sure that:

- The ground strap is properly connected
- The circuit breakers are in off "0" position

## STORAGE

When a generator is in storage, moisture may condense in the windings. In order to minimize condensation, always store the generator in a dry area. Cover the generator with a protective cover that extends to the ground. The cover should remain loose around the generator in order to allow proper ventilation.

### Storage for 1 to 3 months

Remove any dirt, rust, grease, and oil from the generator. DO NOT use a pressure washer to clean the generator. Inspect the exterior. Make any necessary repairs.

Add fuel stabiliser to the fuel tank to slow the deterioration of the fuel. Start and run the engine for 10 minutes to ensure that the fuel stabiliser has been pulled in to the carburetor. Shut off the engine and allow the engine to cool.

Turn the fuel valve to the off "0" position. Move the generator to the storage place. Cover the generator.

### Storage for more than 3 months

Remove any dirt, rust, grease, and oil from the generator. DO NOT use a pressure washer to clean the generator. Inspect the exterior. Make any necessary repairs.

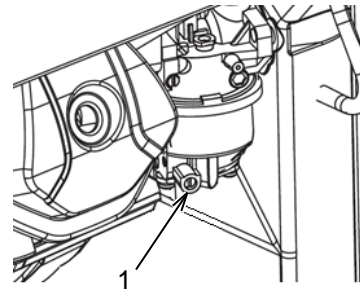
### No Open Flames



## WARNING

Petrol is extremely flammable and is explosive under certain conditions. Drain the fuel in a well-ventilated area with the engine stopped and cool. Never smoke or allow flames or sparks in the area during this procedure.

**Note:** Only use fuel containers that comply with the relevant United Nations Economic Commission for Europe ("UNECE") specifications and are marked with the UN number for petrol (UN1203). Dispose of any waste fuel using approved waste disposal services.



Make sure that the fuel valve is in the on "I" position. Remove the fuel cap and the drain plug (1) from the carburetor bowl and drain the fuel into a suitable container. DO NOT save the fuel for future use in the generator. Once the fuel has completely drained from the system install the drain plug into the carburetor. Turn the fuel valve to the off "0" position. Apply a small amount of oil to the threads on the fuel tank filler neck and install the cap.

Change the engine oil.

Remove the spark plug and pour a small amount of oil into the cylinder. Install the spark plug but do not install the spark plug cap. Pull the starter handle 3 times to distribute the oil over the cylinder walls.

Move the generator to the storage place. Cover the generator.

## TROUBLESHOOTING

| <b>Issue:</b>  | <b>Possible Cause:</b>                   | <b>Solution:</b>   | <b>Check:</b>                              |
|--|--|--|--|
| <b>Engine Will Not Start</b>                             | Generator switch in the off "0" position | Turn the generator switch to the correct position.         | Start the engine.                          |
|  | Choke knob in the wrong position         | Place the choke knob in the correct position.              |  |
|  | No fuel                                  | Fill the fuel tank.  |  |
|  | Bad or contaminated fuel                 | Check the fuel.  |  |
|  | Not enough oil in the engine             | Check the oil level. If low, add the recommended oil.      |  |
|  | Dirty air filter                         | Clean the air filter.                                      |  |
|  | No fuel at the carburetor                | Make sure the fuel switch is in the on "I" position.       |  |
|  | Engine flooded                           | Wait 5 minutes.  |  |
|  | No spark                                 | Replace the spark plug.                                    |  |
|  | If the engine still will not start:      | Take the unit to an authorised service provider.           |  |
| <b>Engine Runs Rough (no load)</b>                       | Dirty air filter                         | Stop the engine and check the air filter. Clean if needed. | Start the engine / check if it runs rough  |
|  | Choke knob in the wrong position         | Place the choke knob in the correct position.              |  |
|  | If the engine still runs rough:          | Take the unit to an authorised service provider.           |  |
| <b>Engine Shuts Down</b>                                 | Out of fuel                              | Check the fuel. Fill the tank if necessary.                | Start the engine / check if it shuts down. |
|  | Not enough oil in the engine             | Check the oil level. If low, add the recommended oil.      |  |
|  | Dirty air filter                         | Clean the air filter.                                      |  |
|  | Generator overloaded                     | Unplug some of the devices.                                |  |
|  | If the engine still shuts down:          | Take the unit to an authorised service provider.           |  |
| <b>Engine Runs Rough (with load)</b>                     | Dirty air filter                         | Stop the engine and check the air filter. Clean if needed. | Start the engine / check if it runs rough. |
|  | Generator overloaded                     | Unplug some of the devices.                                |  |
|  | Defective device plugged in              | Unplug defective device.                                   |  |
|  | If the engine still runs rough:          | Take the unit to an authorised service provider.           |  |
| <b>Engine Runs, But Generator Does Not Provide Power</b> | Circuit breaker is open                  | Close the circuit breaker.                                 | Start the engine / check for power.        |
|  | Bad connection                           | Stop the engine and check the connections.                 |  |
|  | Defective power cord                     | Replace the cord.  |  |
|  | Defective device plugged in              | Unplug defective device.                                   |  |
|  | If there is still no power:              | Take the unit to an authorised service provider.           |  |

## SPECIFICATIONS

|  | RP2500EU   | RP3100EU | RP4400EU |
|--|--|----------|----------|
| Engine Type                            | Single Cylinder, 4-Stroke, Forced Air Cooling, OHV |          |          |
| Displacement (cc)                      | 212  |          | 301      |
| Ignition System                        | Transistorized Magneto                             |          |          |
| Spark Plug Gap                         | 0.7 – 0.8mm  |          |          |
| Fuel Volume                            | 16L  |          | 30L      |
| Fuel Consumption (g/(kW·h))            | ≤ 395  |          | ≤ 374    |
| 100% load continuous running time (hr) | 7  |          | 10       |
| 50% load continuous running time (hr)  | 13.5   |          | 18.5     |
| Oil Capacity                           | 0.6 quart (0.6L)                                   |          | 1.1L     |
| Rated Frequency (Hz)                   | 50   |          |          |
| Rated Voltage (V) (EU)                 | 230  |          |          |
| Rated Power (kW)                       | 2.3  | 2.8      | 4.0      |
| Maximum Power (kW)                     | 2.5  | 3.1      | 4.4      |
| Phase                                  | Single   |          |          |

|  | RP2500UK   | RP3100UK | RP4400UK |
|--|--|----------|----------|
| Engine Type                            | Single Cylinder, 4-Stroke, Forced Air Cooling, OHV |          |          |
| Displacement (cc)                      | 212  |          | 301      |
| Ignition System                        | Transistorized Magneto                             |          |          |
| Spark Plug Gap                         | 0.7 – 0.8mm  |          |          |
| Fuel Volume                            | 16L  |          | 30L      |
| Fuel Consumption (g/(kW·h))            | ≤ 395  |          | ≤ 374    |
| 100% load continuous running time (hr) | 7  |          | 10       |
| 50% load continuous running time (hr)  | 13.5   |          | 18.5     |
| Oil Capacity                           | 0.6 quart (0.6L)                                   |          | 1.1L     |
| Rated Frequency (Hz)                   | 50   |          |          |
| Rated Voltage (V) (UK)                 | 115 / 230  |          |          |
| Rated Power (kW)                       | 2.3  | 2.8      | 4.0      |
| Maximum Power (kW)                     | 2.5  | 3.1      | 4.4      |
| Phase                                  | Single   |          |          |

# WARRANTY

## CATERPILLAR LIMITED WARRANTY

### FOR PORTABLE GENERATOR MODELS:

RP2500, RP3100, RP4400

Purchased in Germany, Spain, and the UK

#### COMMERCIAL WARRANTY

Caterpillar (NI) Limited, Old Glenarm Rd., Co Antrim, Larne BT401EJ (Northern Ireland) (Caterpillar) warrants to the original purchaser that any new Cat® branded portable generator products of the models RP2500, RP3100 and RP4400 purchased in Germany, Spain, Belgium and the United Kingdom are free from defects in materials and workmanship for the warranty period set forth below, provided that the product is operated, maintained and used in accordance with Caterpillar's instructions and manuals. This warranty is in addition to, and does not affect, the warranty obligations of the vendor to the original purchaser, or other applicable statutory rights if any. Caterpillar will, at its option, free of charge, repair or replace any part thereof which, upon inspection by Caterpillar or a Caterpillar authorised service representative, is found to be defective. Any product that the purchaser claims to be defective must be returned to and examined by the nearest Caterpillar authorised service representative. Transportation and associated costs and risk of loss are the responsibility of the purchaser.

#### Warranty Period:

All new portable generator products are warranted under normal use for a period of two (2) years from the date of original purchase or 1000 operating hours, whichever occurs first (the "Warranty Period"). If proof of original purchase is not presented, the manufacturer's shipping date will be used to determine the start of the Warranty Period. To help with any warranty claims, the original purchaser should register the product on [www.cat.com/homeandoutdoorpower](http://www.cat.com/homeandoutdoorpower) immediately following the purchase.

By means of registering the product on [www.cat.com/homeandoutdoorpower](http://www.cat.com/homeandoutdoorpower) within thirty (30) days from the date of purchase, original purchasers have the option to extend the Warranty Period by one additional year for a total of three (3) years calculated from the date of original purchase of the product subject to the limitation of 1000 operating hours in total for the duration of the Warranty Period.

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#### This Warranty shall NOT apply to the following:

1. Damage or deterioration caused by normal wear and tear.
2. Failures caused by any external cause or act of God, such as accident, collision, theft, vandalism, riots, wars, fire, freezing, lightning, earth-quakes, windstorms, hail, volcanic eruptions, floods, tornados or hurricanes.
3. Failures due to alterations, adjustments, unauthorized fuel setting changes, neglect or improper storage, repair and/or maintenance.
4. Failures due to abuse or application of the product for uses other than for which it is designed or intended to be by the manufacturer, including but not limited to, improper installation or location in a harsh, corrosive or saltwater environment.
5. Failures resulting from attachments, accessory items, and parts not sold by Caterpillar.
6. Failures caused by contaminated or improper fuels, oils or other operating media or improper fluid levels.
7. Repair by any party other than a Caterpillar authorised service representative.
8. Failures resulting from user's delay in making the product available after being notified of a potential product problem.
9. Cosmetic damage, discolorations, rusting, corrosion or scratches to applied paint.
10. Replacement of consumables such as, but not limited to, fuses, lamps, filters, etc.
11. Additional expenses for repair after normal business hours, i.e. overtime or holiday labor rates.
12. Expenses for rental of equipment during downtime and/or performance of warranty repairs.
13. Expenses related to investigating performance complaints and/or troubleshooting where no manufacturing defect is found.
14. Starting batteries are NOT covered under this warranty but will be covered under the portable generator parts and accessories warranty.

Note: New, remanufactured, or Caterpillar approved repaired parts or assembled components provided under the terms of this warranty are warranted for the remainder of the warranty period applicable to the parts or assembled components being replaced as if such parts or assembled components were the original parts or assembled components. Items replaced under this warranty become the property of Caterpillar.

To obtain warranty service or if you have questions concerning this warranty or its applications, please call 0800 0853370 (UK), 0800-0001007 (Germany), or 900 816 521 (Spain), please visit [www.cat.com/homeandoutdoorpower](http://www.cat.com/homeandoutdoorpower), where you can also search for your nearest Caterpillar authorised service representative.

#### Limitations

##### TO THE MAXIMUM EXTENT PERMITTED BY LAW:

1. THIS WARRANTY IS IN PLACE OF ALL OTHER CONDITIONS WARRANTIES OR OTHER TERMS EXPRESSED OR IMPLIED SPECIFICALLY CATERPILLAR MAKES NO OTHER WARRANTIES AS TO THE MERCHANTABILITY SATISFACTORY QUALITY OR FITNESS FOR A PARTICULAR PURPOSE. CATERPILLAR'S ONLY LIABILITY SHALL BE THE REPAIR OR REPLACEMENT OF PART(S) AS STATED ABOVE.
2. IN NO EVENT SHALL CATERPILLAR BE LIABLE UNDER THIS WARRANTY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES EVEN IF SUCH DAMAGES ARE A DIRECT RESULT OF CATERPILLAR'S NEGLIGENCE.
3. ANY CLAIMS AGAINST CATERPILLAR ARE LIMITED TO THE REMEDIES AS EXPRESSLY SET FORTH IN THIS WARRANTY AND ANY OTHER OR FURTHER CLAIMS, SUCH AS BUT NOT LIMITED TO, COMPENSATION FOR ANY DAMAGE INCURRED OTHER THAN TO THE CATERPILLAR PRODUCT, ARE HEREBY EXCLUDED.

#### Severence:

If any provision or part-provision of this warranty is or becomes invalid, illegal or unenforceable, it shall be deemed modified to the minimum extent necessary to make it valid, legal and enforceable. If such modification is not possible, the relevant provision or part-provision shall be deemed deleted. Any modification to or deletion of a provision or part-provision under this clause shall not affect the validity and enforceability of the rest of this warranty.

For further information contact: Caterpillar (NI) Limited, Electric Power Division, Old Glenarm Rd., Co Antrim, Larne BT401EJ (Northern Ireland). Attention: OMNI Customer Service Manager, Telephone: 0800 0853370 (UK) or email [homeandoutdoorpower@cat.com](mailto:homeandoutdoorpower@cat.com).

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