



TEREX®

Operator's Manual

T70C

T70P

T90C

T90P

T120C

T120P

with
Maintenance
Information

First Edition
First Printing
Part No. 134207
August 2008

Important

Read, understand and obey these safety rules and operating instructions before operating this machine.

Only trained and authorized personnel shall be permitted to operate this machine. This manual should be considered a permanent part of your machine and should remain with the machine at all times. If you have any questions, call Terex.

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Introduction

Description of equipment

The engine/generator assembly consists of a diesel engine combined with an electrical generator. This assembly is firmly bolted together to form an integral unit and does not require anything other than routine maintenance.

The engine is equipped with a 12-volt starter and can be wired for remote starting capability at the control panel.

A dry-element air cleaner is standard equipment to ensure a clean air supply, and a fuel/water separator is included for additional fuel system protection.

A governor on the engine provides a stable operating speed under varying load conditions. The generator is equipped with a solid-state voltage regulator to stabilize the output voltage under these same conditions. Figures and schematics of both the governor and regulator are provided in the service manual.

An automatic shut down system is incorporated in the generator set to sense low oil pressure and/or high coolant temperature. In either case, the engine/generator assembly will automatically shut down to protect the engine.

A diesel fuel tank is incorporated within the base of the unit to ensure an uninterrupted operating cycle under full load. The engine/generator assembly is mounted to the base using high durometer vibration isolators.

The enclosure for the generator set is constructed from 12 or 14-gauge sheet metal to ensure rigidity, and is bolted together to allow easy access to major components if necessary. Four lockable hinged access doors are provided for routine operation and maintenance.

The enclosure on the Super Quiet Generator is specifically designed for a high degree of sound attenuation. This allows the generator set to be operated in noise-sensitive environments. The interior of the enclosure is coated with sound-dampening polymer foam that is highly effective in noise suppression.

A high ambient temperature radiator and an integral exhaust and muffler system are contained within the enclosure as standard equipment.

A center-point lifting attachment is located on top of the enclosure to allow crane lifting of the entire unit.

The generator set can be mounted on a trailer equipped for highway operation which is available as an option. Hydraulic surge brakes are standard on larger generator sets with the optional trailer package. Electric brakes are also available as an option.

Introduction

Owners, Users and Operators:

Terex appreciates your choice of our generator for your application. Our number one priority is user safety, which is best achieved by our joint efforts. We feel that you make a major contribution to safety if you, as the generator users and operators:

- 1 **Comply** with employer, job site and governmental rules.
- 2 **Read, understand and follow** the instructions in this and other manuals supplied with this generator.
- 3 **Use good safe work practices** in a commonsense way.
- 4 **Only have trained/certified operators**, directed by informed and knowledgeable supervision, operating the generator.

If there is anything in this manual that is not clear or which you believe should be added, please send your comments to the Terex Service Department.

www.terex.com



Danger

Failure to obey the instructions and safety rules in this manual will result in death or serious injury.

Do Not Operate Unless:

- ☒ You learn and practice the principles of safe generator operation contained in this operator's manual.
 - 1 **Avoid hazardous situations.**
Know and understand the general safety rules before going on to the next section.
 - 2 Always perform a pre-operation inspection.
 - 3 Follow the setup instructions.
 - 4 Follow the operating, transport and towing instructions.
 - 5 Only use the generator as it was intended.
- ☒ You read, understand and obey the manufacturer's instructions and safety rules — safety and operator's manuals, and decals.
- ☒ You read, understand and obey employer's safety rules and all applicable governmental regulations.
- ☒ You are properly trained to safely operate the generator.

Introduction

Hazard Classification

Terex uses symbols, color coding and signal words to identify the following:



Safety alert symbol—used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

▲ DANGER

Red

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

▲ WARNING

Orange

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

▲ CAUTION

Yellow

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Blue

Indicates a property damage message.

Intended Use

This generator set is intended to be used only to supply electrical power to a work site.

Safety Sign Maintenance

Replace any missing or damaged safety signs. Keep operator safety in mind at all times. Use mild soap and water to clean safety signs. Do not use solvent-based cleaners because they may damage the safety sign material.

Symbol and Hazard Pictorials Definitions

 <p>Read the operator's manual</p>	 <p>Burn Hazard</p>	 <p>Do not touch. Allow surface to cool</p>	 <p>Carbon Monoxide Poisoning Hazard</p>
 <p>Wear protective clothing and eye wear</p>	 <p>Crushing Hazard</p>	 <p>Keep clear of leveling jack</p>	 <p>Fire extinguisher</p>
 <p>Electrocution Hazard Hazardous voltage</p>	 <p>Lock out/tag out</p>	 <p>Earth ground</p>	 <p>Stay clear</p>
 <p>No open flames</p>	 <p>No smoking</p>	 <p>Stop the engine</p>	 <p>Check for damaged cords</p>
 <p>Coolant in radiator should not be more than 50% antifreeze</p>	 <p>Engine explosion</p>	 <p>Do not use ether or any high energy engine starting aids</p>	 <p>Unauthorized welding</p>

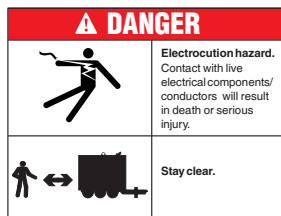
Symbol and Hazard Pictorials Definitions

 <p>Burn Hazard. Fuel and fumes can explode and burn.</p>	 <p>Explosion Hazard</p>	 <p>Burn Hazard</p>	 <p>Flames and Sparks Hazard</p>
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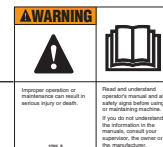
General Safety

Safety Signs and Locations (Word Decals)

133006



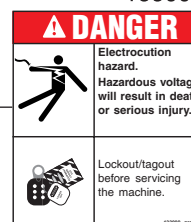
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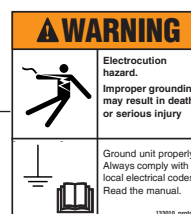
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133010



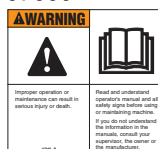
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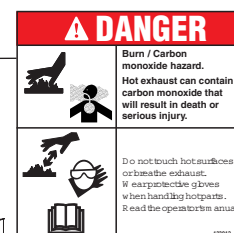
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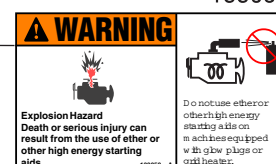
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CU51A305

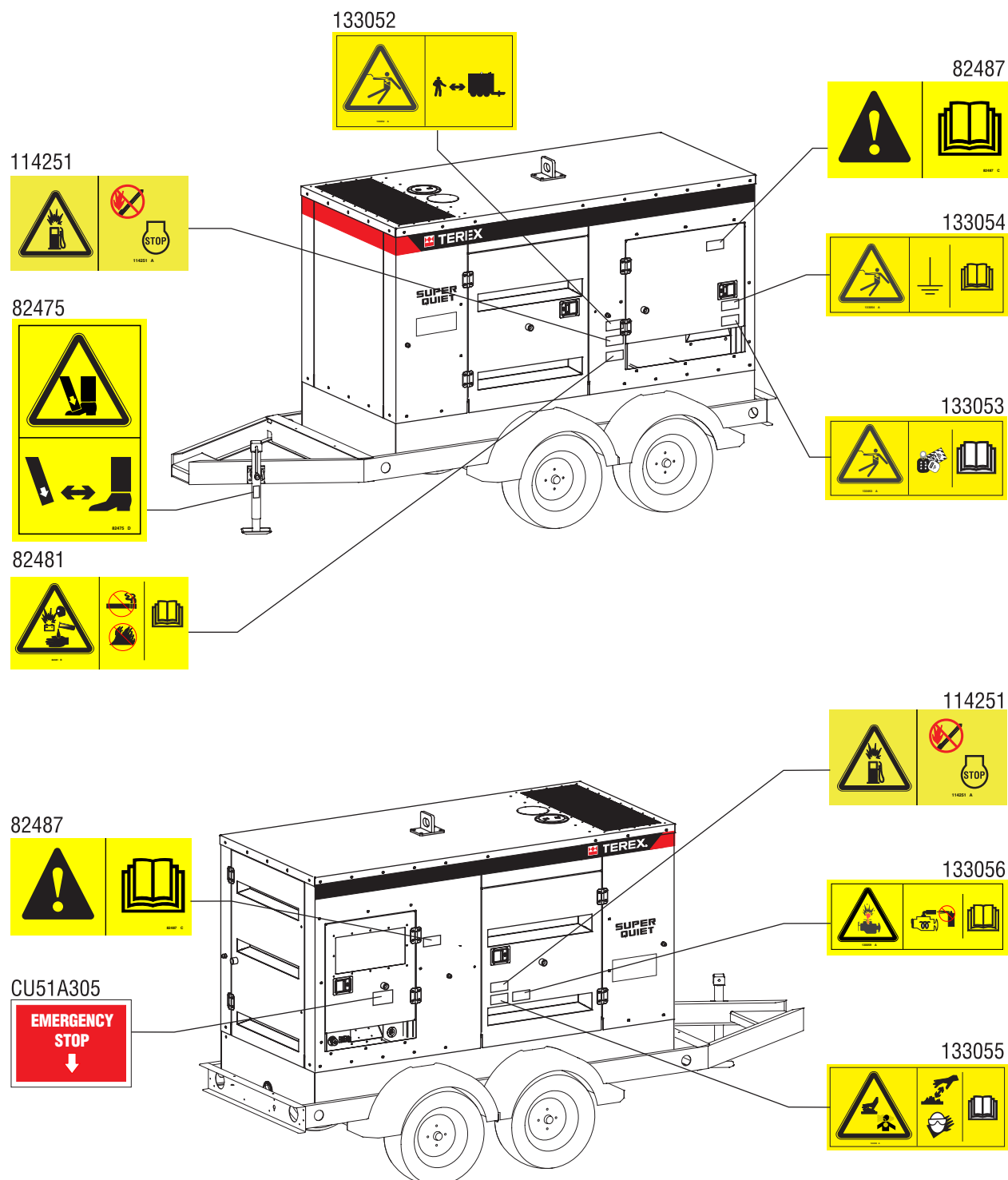


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General Safety

Safety Signs and Locations (Symbol Decals)



Operation Safety

⚠ Personal Safety

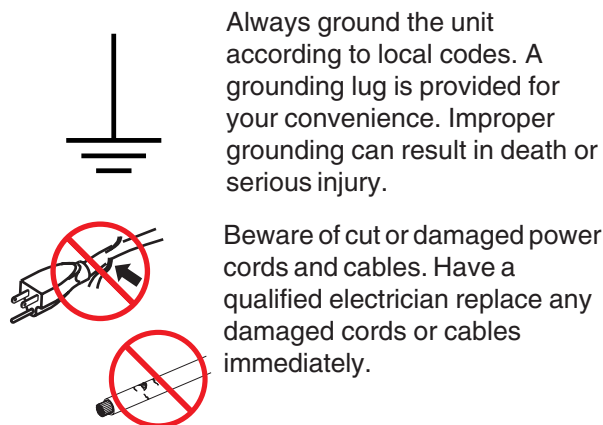
Operators must comply with employer, job site and governmental rules regarding the use of personal protective equipment.



Use protective clothing and safety equipment such as gloves, safety boots, safety hard hat, goggles, ear protection, and dust mask when necessary. Wear protective clothing that is snug and belted where required.

⚠ Electrocuting Hazards

This equipment contains high voltage circuits. Contact with high voltage will result in death or serious injury. Exercise extreme caution around any electrical component while operating this unit.



Always ground the unit according to local codes. A grounding lug is provided for your convenience. Improper grounding can result in death or serious injury.

Beware of cut or damaged power cords and cables. Have a qualified electrician replace any damaged cords or cables immediately.

Do not apply voltage to a terminal that is outside the range specified for that terminal.

Do not operate with covers or panel removed.

Extreme caution must be taken when operating the unit in wet or damp conditions.

⚠ Explosion and Fire Hazards

Explosion or fire can cause severe personal injury or machine damage.

Prevent fires by keeping the generator and its surrounding area clean.

Do not place flammable objects near the generator.



Always have a fire extinguisher nearby. Be sure that the extinguisher is properly maintained and be familiar with its use. Extinguishers rated ABC by the NFPA are appropriate for all applications.



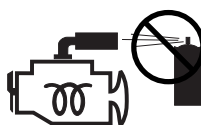
Do not refuel while smoking or when near open flames or sparks.



Fuel is highly flammable and should always be handled with care.



Always stop the engine before fueling. Fill the fuel tank outdoors in a well ventilated area.



Do not use ether or other high energy starting aids on machines equipped with a glow plug or grid heater. Starting fluids, which contain ether, can cause an explosion that can result in death or serious injury. Refer to the engine manufacturer's operating instructions.

Operation Safety

Do not refuel while the engine is still hot. Allow the engine to cool down for several minutes before refueling.

Do not spill fuel inside the engine compartment. If fuel has leaked, wipe it up and have the leak repaired before the next use.

Toxic Gas and Burn Hazard



The exhaust manifold, tail pipe and other parts of the engine get hot. Do not touch hot parts.



Hot exhaust can contain toxic gases like carbon monoxide that, if inhaled, will result in death or serious injury. Do not breathe exhaust gas.



Use protective gloves when handling hot parts.

Never remove the radiator cap while the engine is running or while the engine is hot.

Do not use indoors unless the area is properly ventilated or an exhaust scrubber is used.

Check the exhaust system regularly for leaks and ensure that the exhaust manifolds are secure and not warped. Make sure that the machine is well ventilated.

Welding Hazard



Do not weld on any structural member. Unauthorized welding or repair procedure can result in structural failure or personal injury and will void the warranty.

Bodily Injury and Component Damage Hazards

Loose jackets, shirts, sleeves, jewelry and neck ties should not be worn while working on or operating the generator.

Never remove the fan guards while the unit is operating. Turn the generator off before removing the fan guards or other protective devices from the generator to gain temporary access for maintenance. Replace the fan guards and other protective devices immediately after servicing.

Keep your hands away from moving parts, particularly clear of the radiator fan and alternator belts when the engine is running.

Do not shut the unit down with the main generator circuit breaker in the on position. Shutting the unit down with the breaker in the on position can cause damage to the generator and/or connected apparatus.

Do not change the position of the voltage selector switch while the generator is running. This will result in immediate damage to the switch, the generator or the connected equipment. It may result in serious injury to the operator.

Improper Use Hazard

When leaving the generator set unattended, secure the machine from unauthorized use. Unauthorized personnel may attempt to operate the machine without proper instructions, creating an unsafe condition.

Operation Safety

Transport and Lifting Hazard

Be careful when lifting. Never suspend any other equipment from the shipping tie-downs.

Use the lifting eye for lifting the trailer (with cabinet). Make sure that the tie-downs at the bottom of the trailer are released prior to lifting. Refer to Transport and Towing section for recommended tie-down procedures.

Never climb on top of the cabinet.

Always use the proper trailer hitch and safety chains. Obey all local or state D.O.T. laws when transporting the generator set.

Failure to properly secure the generator set to the transport vehicle may result in death or serious injury.

Towing Hazards

Driving a vehicle/trailer combination is different from driving a vehicle alone. Read, understand and obey all of your tow vehicle manufacturer's recommendations, warning and instructions before towing the trailer.

Increase the distance between your vehicle and the vehicle in front of you to twice the normal following distance when towing a trailer. Allow more following distance in adverse weather condition.

Always slow down for curves, wet roads and downgrades.

Heavy winds, excessive speed, load shifting or passing vehicles can cause the trailer to sway while driving. If this occurs, do not step on the brake, speed up or turn the steering wheel. Applying the brakes or turning the steering wheel can cause the vehicle to jackknife. Release the gas pedal and keep the steering wheel straight.

When passing other vehicle, be sure to leave enough room for the extra length of the trailer.

Check for tire inflation. Do not over or under inflate the tires. Tire pressure goes up while driving. Allow the tires to cool down to get the accurate tire pressure. Refer to the trailer VIN decal for proper tire inflation.

Stay clear of traffic when starting or checking the unit along the road.

Check the fuel tank, oil pan, fuel lines, oil lines and drain plugs for leaks that would spill fuel or oil on the road.

Check fasteners and mounting brackets periodically to insure that all are tight and nothing is in danger of falling off during transit.

Always use the proper trailer hitch and safety chains. Obey all local or state D.O.T. laws when towing the generator set.

Failure to properly secure the trailer to the towing vehicle may result in death or serious injury.

Observe the posted speed limits for trailers.

Operation Safety

Battery Safety

Lead acid batteries can be dangerous. The acid in the battery can cause severe skin and eye burns. The hydrogen gas emitted during charging can explode if an arc or flame is present.

Burn Hazards



Do not remove the vent caps when charging the batteries.

Always wear protective clothing and eye wear when working with batteries. If acid gets on your skin or eyes, immediately flush under running water and obtain medical attention.

Do not expose the batteries or the charger to water or rain during charging.

Explosion and Fire Hazards

Keep sparks, flames and lighted tobacco away from batteries. Batteries emit an explosive gas.

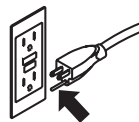
Do not contact the battery terminals or the cable clamps with tools that may cause sparks.

Disconnect the negative terminal of the battery when working on the engine or other parts to prevent accidental arcing.

Component Damage Hazards

Do not use any battery charger greater than 24V to charge the batteries.

Electrocution/Burn Hazards



If using a charger, connect the battery charger to a grounded, AC 3-wire electrical outlet only.



Avoid electrical shock from contact with battery terminals. Remove all rings, watches and other jewelry.

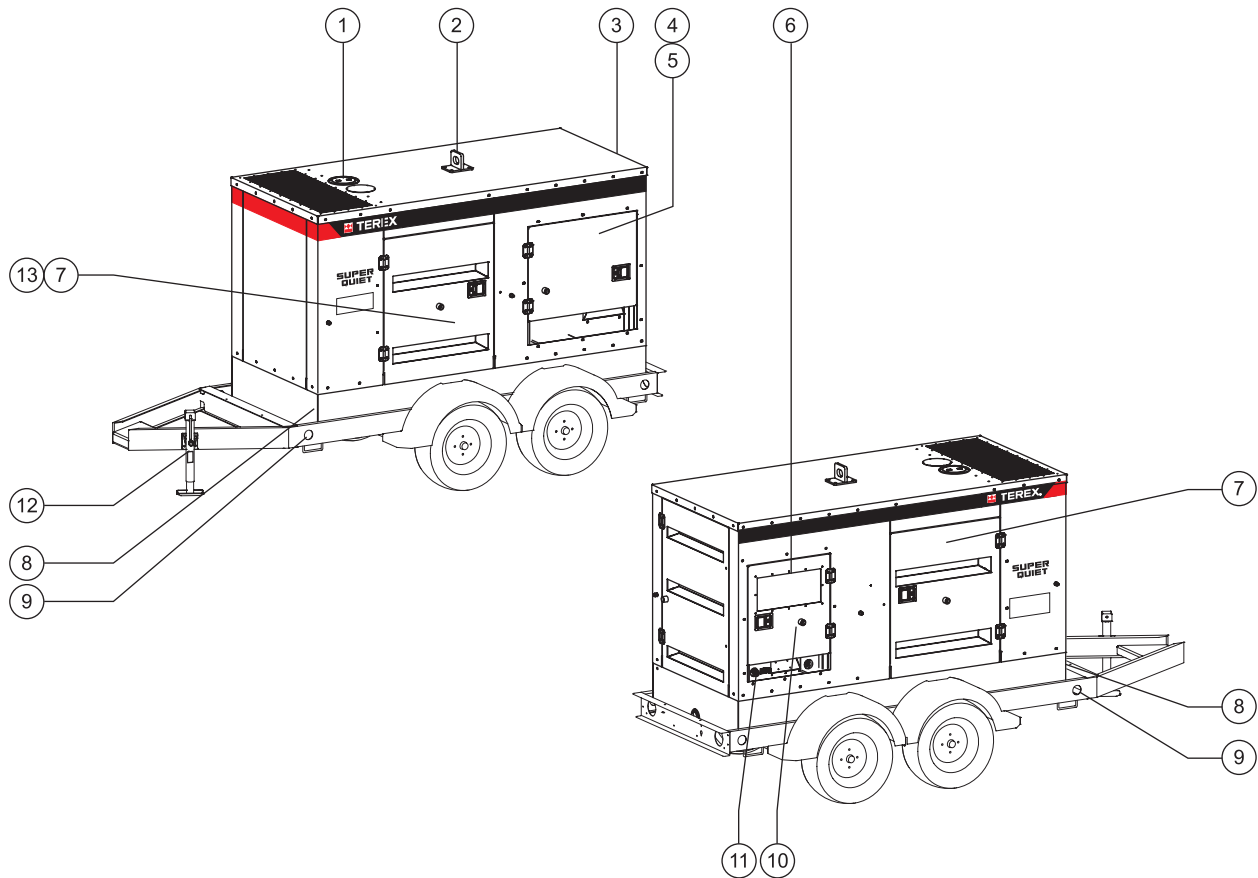
Lifting Hazard

Use the appropriate number of people and proper lifting techniques when lifting batteries.

Lockout After Each Use

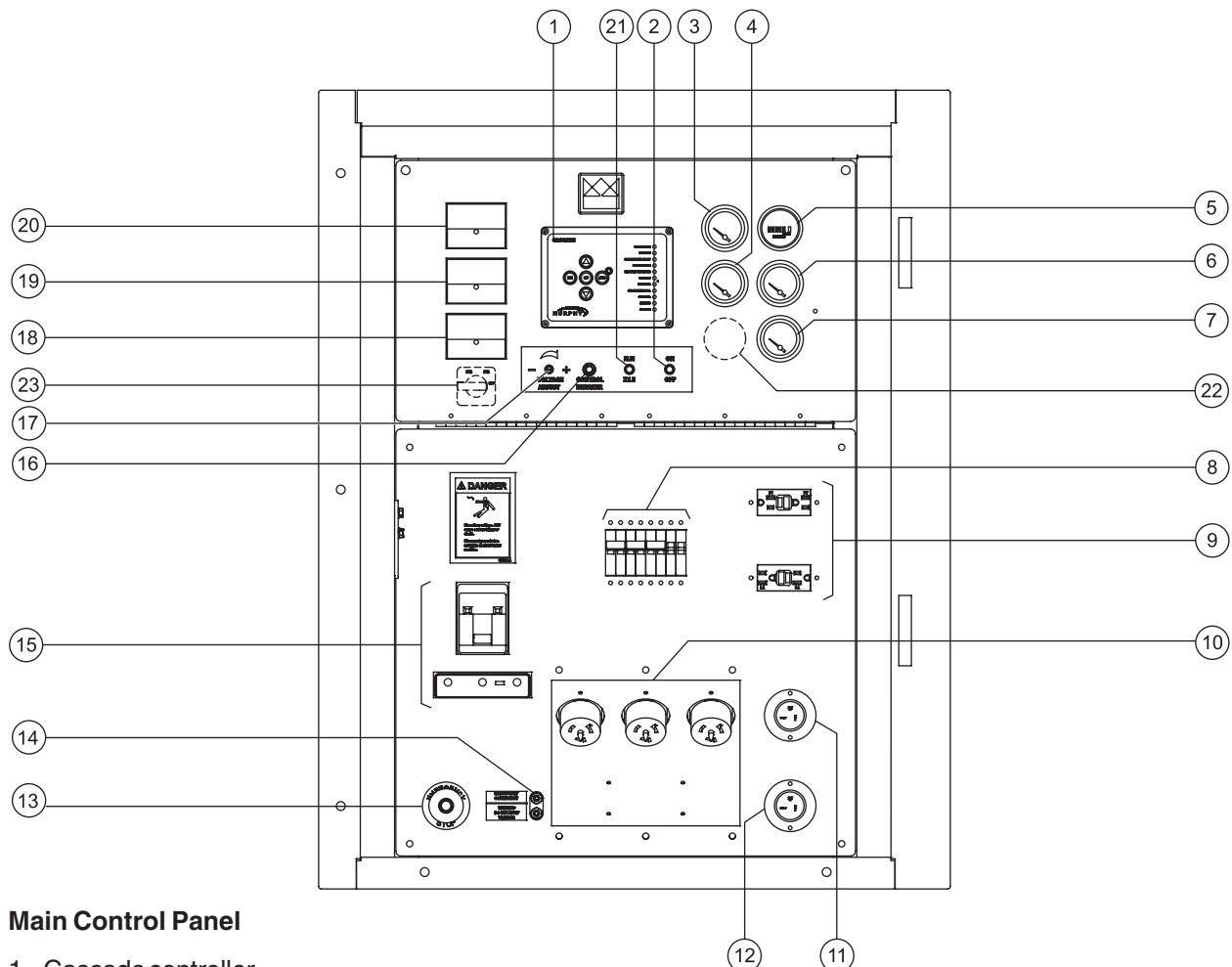
- 1 Select a safe parking location-firm level surface, clear of obstruction and traffic.
- 2 Turn all generator breakers to the off position.
- 3 Allow the engine to run for 5 minutes under no load until the coolant temperature gauge reads approximately 175° F (79° C) as a cool down cycle.
- 4 Push the Cascade controller off button to stop the engine.
- 5 Switch toggle switch to the off position.
- 5 Chock the wheels.
- 6 Lock the doors.

Legend



- | | |
|------------------------------------|-----------------------------------|
| 1 Radiator fill | 10 Document holder (back of door) |
| 2 Lifting eye | 11 Red emergency stop button |
| 3 Generator compartment | 12 Tongue jack |
| 4 Three-phase door | 13 Battery compartment |
| 5 Distribution panel (behind door) | |
| 6 Main control panel | |
| 7 Engine (behind door) | |
| 8 Tie-down points (generator set) | |
| 9 Tie-down points (trailer) | |

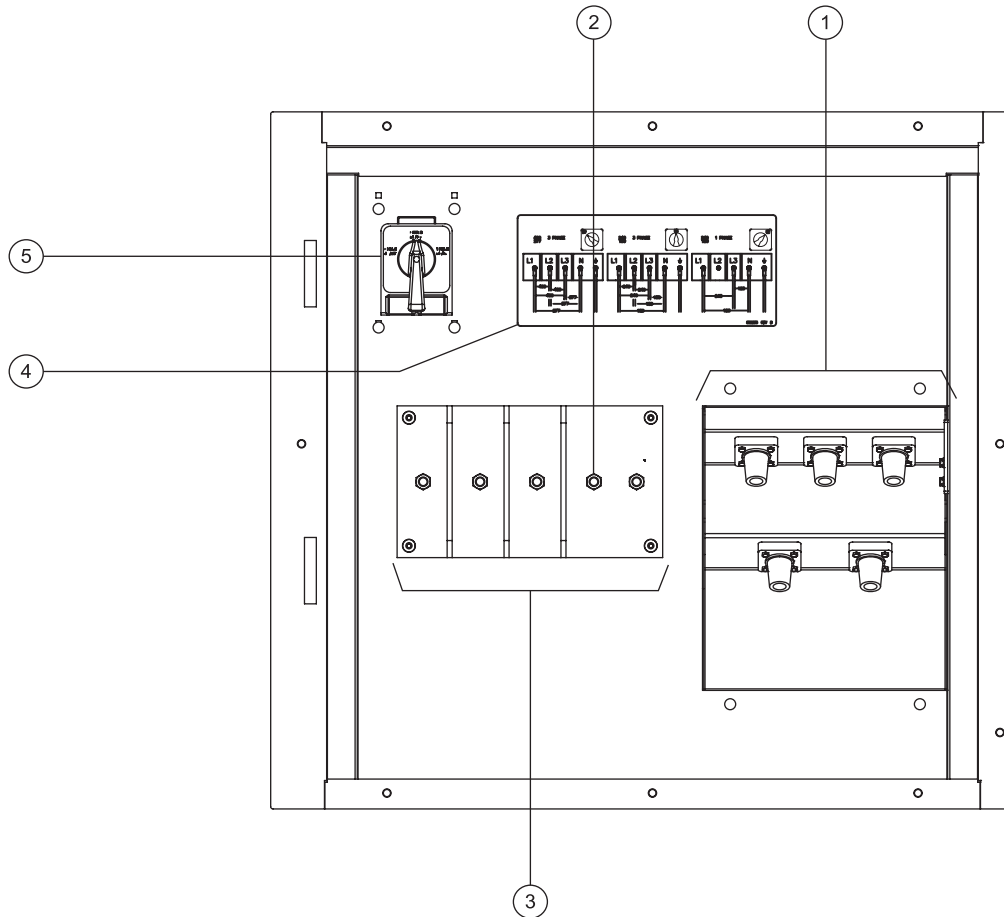
Legend



Main Control Panel

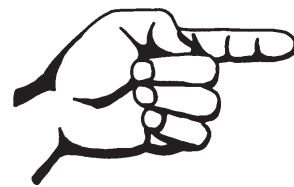
- | | |
|--|--|
| 1 Cascade controller | 13 Emergency Stop button |
| 2 On/off toggle switch | 14 Remote start switch |
| 3 Engine voltmeter | 15 Shunt trip breaker |
| 4 Engine oil pressure gauge | 16 Control breaker |
| 5 Engine hour meter | 17 Voltage adjustment switch |
| 6 Engine coolant gauge | 18 Generator ammeter |
| 7 Engine fuel gauge | 19 Generator frequency meter |
| 8 Single phase breakers | 20 Generator voltmeter |
| 9 Receptacle - 120V, 20 Amp GFI | 21 Idle/run switch (Cummins only) |
| 10 Receptacle - 50 Amp, twist lock | 22 Murphy fault code gauge (If equipped) |
| 11 Receptacle - Battery charger (optional) | 23 Load balance monitor switch (option) |
| 12 Receptacle - Block heater (optional) | |

Legend



Distribution Panel

- 1 Cam-lock panel (optional)
- 2 Ground lug
- 3 Distribution lugs
- 4 3-Phase distribution panel diagram
- 5 Voltage selector switch



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Inspections



Do Not Operate Unless:

- ☑ You learn and practice the principles of safe generator operation contained in this operator's manual.

1 Avoid hazardous situations.

2 Always perform a pre-operation inspection.

Know and understand the pre-operation inspection before going on to the next section.

3 Follow setup instructions.

4 Follow operating, transport and towing instructions.

5 Only use the generator as it was intended.

Pre-operation Inspection Fundamentals

It is the responsibility of the operator to perform a pre-operation inspection and routine maintenance.

The pre-operation inspection is a visual inspection performed by the operator prior to each work shift. The inspection is designed to discover if anything is apparently wrong with the generator set before putting it in service.

The pre-operation inspection also serves to determine if routine maintenance procedures are required. Only routine maintenance items specified in this manual may be performed by the operator.

Refer to the list on the next page and check each of the items.

If damage or any unauthorized variation from factory delivered condition is discovered, the generator set must be tagged and removed from service.

Repairs to the generator set may only be made by a qualified service technician, according to the manufacturer's specifications. After repairs are completed, the operator must perform a pre-operation inspection again before putting the generator into service.

Scheduled maintenance inspections shall be performed by qualified service technicians, according to the manufacturer's specifications.

Inspections

Pre-operation Inspection

- Be sure that the operator's manuals are complete, legible and in the storage container located at the back of the control panel access door.
- Be sure that all decals are legible and in place. See decal inspection section.
- Check the engine fuel level.
- Check for fuel leaks.
- Check for engine oil leaks and proper oil level. Add oil if needed. See maintenance section.
- Check for engine coolant leaks and proper level of coolant. Add coolant if needed. See Maintenance section.
- Check the fuel/water separator for water in the fuel system.

Check the following components or areas for damage, improperly installed or missing parts and unauthorized modifications:

- Electrical components, wiring and electrical cables
- Nuts, bolts and other fasteners

Check entire generator for:

- Cracks in welds or structural components
- Excessive rust, corrosion or oxidation
- Be sure that all structural and other critical components are present and all associated fasteners are in place and properly tightened.

Inspections

Inspection for Decals with Words

Determine whether the decals on your machine have words or symbols. Use the appropriate inspection to verify that all decals are legible and in place.

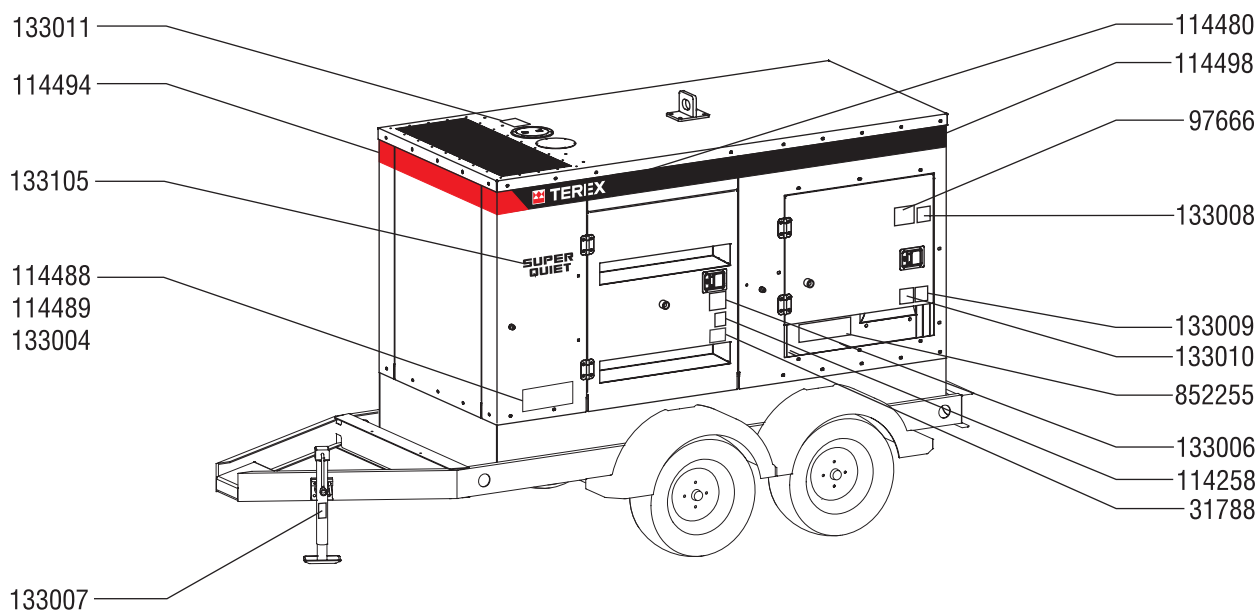
Below is a numerical list with quantities and description.

Part No.	Description	Quantity
31788	Warning - Battery Safety	1
97666	Warning - Read the Manual	2
114258	Danger - No Smoking	2
114480	Cosmetic - Terex, left panel	1
114481	Cosmetic - Terex, right panel	1
114488	Cosmetic - T70	2
114489	Cosmetic - T120	2
114494	Red Stripe - 45 inches / 1.1 m	1
114498	Black Stripe - 140 inches / 3.5 m	2
133004	Cosmetic - T90	2
133006	Danger - Electrocution Hazard	1
133007	Warning - Foot Crushing Hazard	1
133008	Instructions - Do not open 3-Phase Door	1

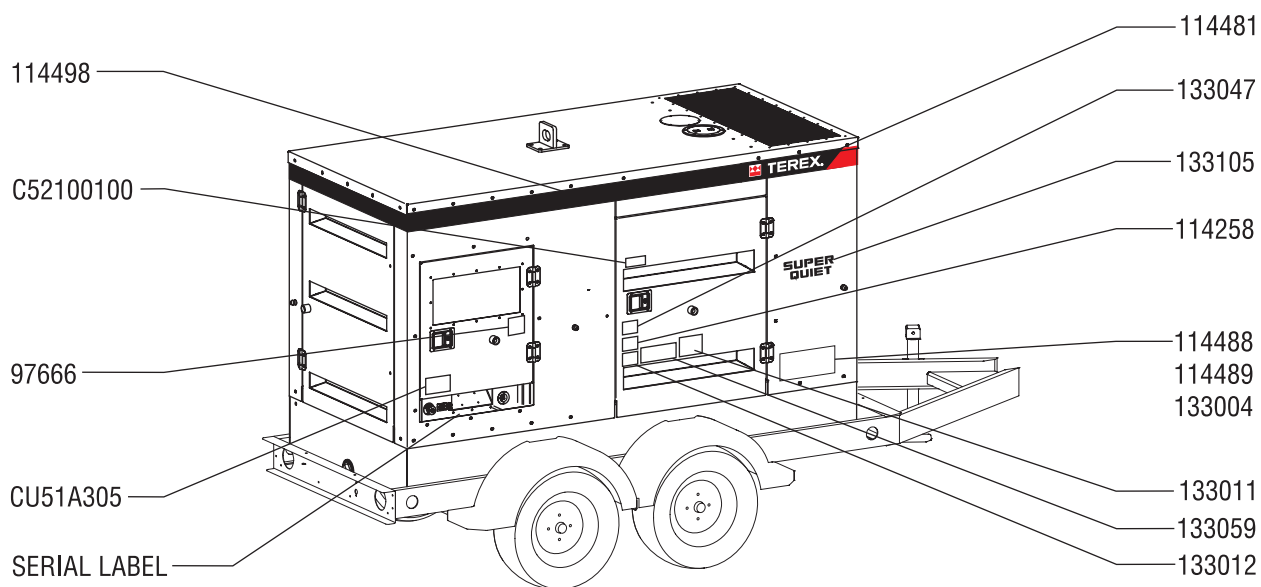
Part No.	Description	Quantity
133009	Danger - Electrocution Hazard, Lockout/Tagout	1
133010	Warning - Electrocution Hazard, Ground Unit	1
133011	Notice - Radiator Fill	1
133012	Danger - Burn/Carbon Monoxide Hazard	1
133047	Label - Number 2 Diesel Fuel	1
133059	Warning - Engine Explosion	1
133105	Cosmetic - Super Quiet	2
852255	Label - 3-Phase Distribution Panel	1
C52100100	Label - California Proposition 65	1
CU51A305	Label - Emergency Stop	1

Inspections

Distribution Panel Side



Control Panel Side



Inspections

Inspection for Decals with Symbols

Determine whether the decals on your machine have words or symbols. Use the appropriate inspection to verify that all decals are legible and in place.

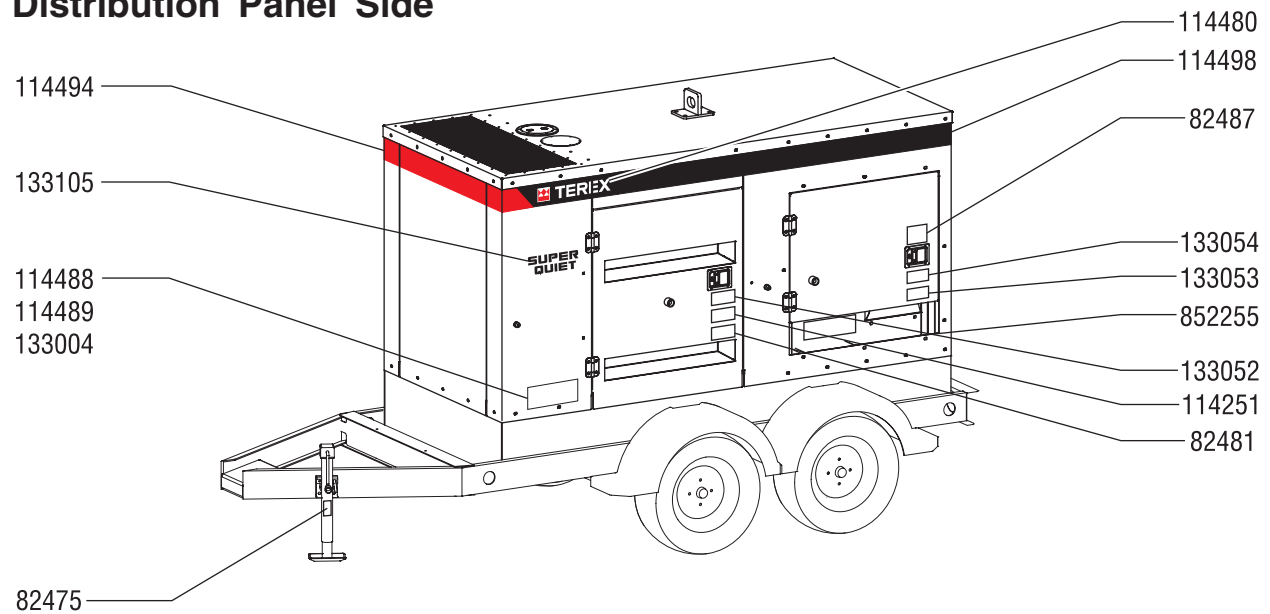
Below is a numerical list with quantities and description.

Part No.	Description	Quantity
82475	Label - Foot Crushing Hazard	1
82481	Label - Battery/Charger Safety	1
82487	Label - Read the Manual	2
114251	Label - Explosion Hazard	2
114480	Cosmetic - Terex, left panel	1
114481	Cosmetic - Terex, right panel	1
114488	Cosmetic - T70	2
114489	Cosmetic - T120	2
114494	Red Stripe - 45 inches / 1.1 m	1
114498	Black Stripe - 140 inches / 3.5 m	2
133004	Cosmetic - T90	2
133047	Label - Number 2 Diesel	1

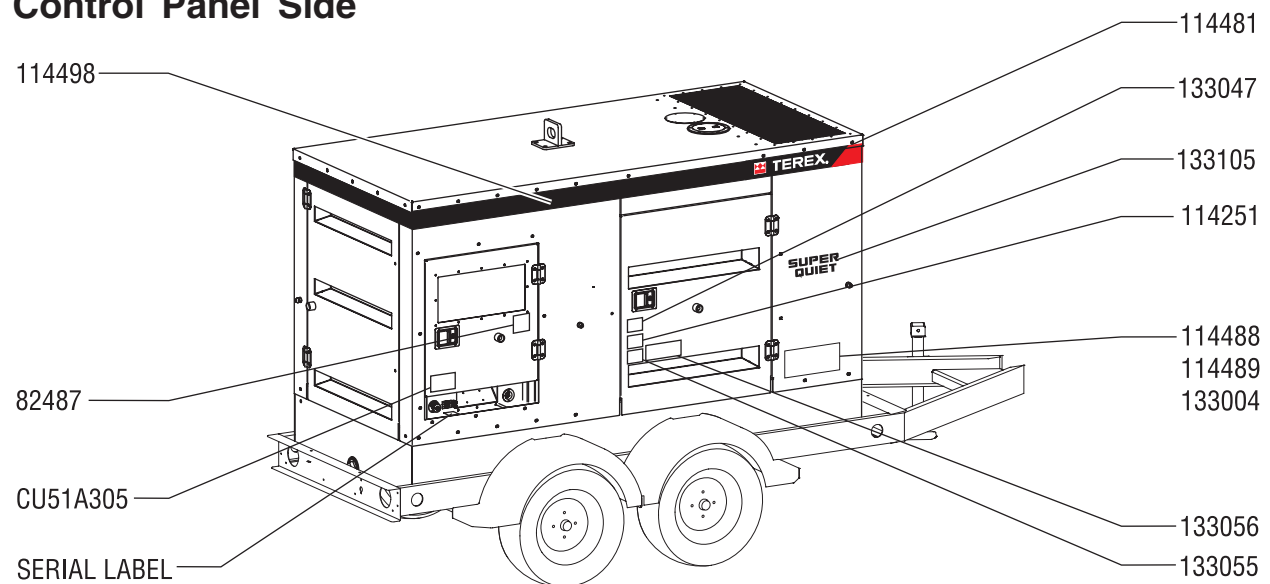
Part No.	Description	Quantity
133052	Label - Electrocution Hazard, High Voltage	1
133053	Label - Electrocution Hazard, Lockout/Tagout	1
133054	Label - Electrocution Hazard, Ground Unit Properly	1
133055	Label - Burn / Carbon Monoxide Hazard	1
133056	Label - Engin Explosion Hazard Do Not Use Engine Starting Aid	1
133105	Cosmetic - Super Quiet	2
852255	Label - 3-Phase Distribution Panel	1
CU51A305	Label - Emergency Stop	1

Inspections

Distribution Panel Side



Control Panel Side



Setup



Do Not Operate Unless:

- ☑ You learn and practice the principles of safe generator operation contained in this operator's manual.
 - 1 Avoid hazardous situations.
 - 2 Always perform a pre-operation inspection.
 - 3 Follow the setup instructions. Know and understand the setup instructions before going on to the next section.**
 - 4 Follow the operating, transport and lifting instructions.
 - 5 Only use the generator set as it was intended.

Fundamentals

The setup section provides instructions for setting up the generator set in the work place so it can be used safely.

It is the operator's responsibility to follow all the safety rules and instructions in the operator's manual.

Move the generator set to the desired location with the following in mind:

- The spot where the generator set is positioned should be relatively level.
- The location selected should be centrally located to the equipment requiring the loads to minimize voltage drop in the power cord.
- Locate the machine so the power cords can be routed without crossing roads and access routes.
- Locate the machine where the engine will get proper ventilation. Avoid locations where fumes can enter a building.
- Do not place the machine beside a building wall that would reflect and intensify noise.

Setup

Unhitching from the towing vehicle:

- 1 Position the generator set in the desired location.

Note: If the axle is sloped downhill, turn the generator set so that the axle is level.

- 2 Chock the wheels.
- 3 Unhook the safety chains and running lights.
- 4 Rotate the tongue jack into position (90°).
- 5 Release the hitch pin and raise the tongue off the towing vehicle.
- 6 Level the generator set with the tongue jack.

Note: The wheels must be properly chocked if the generator is on unlevel ground. Do not operate the generator set until it has been properly secured.

Preparing to start the generator set:

- 1 Check the coolant level in the radiator. Add coolant if necessary. See maintenance section.

Note: If adding coolant, only use a 50/50 mixture of antifreeze and water. Refer to your engine manufacturer's maintenance manual for specific antifreeze information.

- 2 Check the oil level in the engine crankcase. Add oil if necessary. See maintenance section.

Note: Use class API, CC, or CD grade engine oil. Refer to the engine manufacturer's manual for viscosity and quantity.


- 3 If the battery is not a maintenance free battery, check the electrolyte level. Add distilled water if necessary.


- 4 Check the fuel/water separator for water in the fuel system. Drain water from the separator if necessary.
- 5 Check the fuel level in the fuel tank. Add as required. Make sure that the fuel tank vent is open and not clogged.

 Use number 2 diesel fuel only.

- 6 Verify that the generator main circuit breaker is in the off position.
- 7 Connect the grounding lug in the distribution panel to a mechanical earthground as per your local electrical code.

Note: Always follow the local code for grounding.

 Make sure that the generator set is properly grounded.

 The generator set produces voltages that may cause severe shock or death. Only qualified electricians should perform electrical work.

Operating Instructions



Do Not Operate Unless:

- ☒ You learn and practice the principles of safe generator operation contained in this operator's manual.
 - 1 Avoid hazardous situations.
 - 2 Always perform a pre-operation inspection.
 - 3 Follow the setup instructions.
 - 4 Follow the operating, transport and lifting instructions. Know and understand the operating instructions before going on to the next section.**
 - 5 Only use the generator set as it was intended.

Fundamentals

The Operating Instructions section provides instructions for the general operation of the unit. For more in-depth information in operating the unit, refer to the generator and engine manufacturer's operating instructions.

It is the operator's responsibility to follow all the safety rules and instructions in the operator's manual.

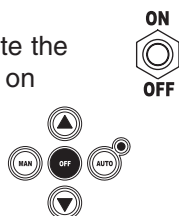
Operating Instructions

Starting the engine / generator set

- 1 Follow the setup procedure.
- 2 Make sure that the circuit breakers, located on the control panel, are in the off position.
- 3 At the distribution panel side of the generator set, locate the voltage selector switch and set it to the desired range.

- 4 At the control panel side, locate the toggle switch. Switch it to the on position.

- 5 Press the manual button (MAN) on the Cascade controller to start the generator.



The generator will make three attempts at starting before it must be reset with the switch.

Note: The installation and operations manual for the Cascade CD101 auto-start controller is available at www.fwmurphy.com

- 6 Allow the generator to warm up for 5 minutes after starting.

Listen for unusual sounds or excess vibrations that could signal problems and require immediate shutdown of the unit. If unusual sounds are detected, shut the unit down and contact Terex Service at 1-800-433-3026.

- 7 Once the engine is running smoothly, monitor the gauges as stated in the table below.

Oil Pressure	equal to or greater than 30 psi
Coolant Temperature	170-200 °F / 77-93 °C
DC Voltmeter (indicates that the diesel engine's alternator is charging)	13-15 volts
AC Voltmeter	reflects the proper voltage selected
Refer to potentiometer (Voltage Adjustment) on page 27.	
AC Ammeter	0 (main breaker in off position)
Note: The ammeter will register the appropriate reading once load is applied to the generator.	

⚠ Never change the position of the voltage selector switch while the generator is running. This will result in immediate damage to the switch, the generator, or the connected equipment. It may result in serious injury to the operator.

Loading instructions

- 1 Shut down the generator set.
- 2 Press the off button on the Cascade control panel. Switch toggle to the off position.
- 3 Connect the desired electrical apparatus to the generator set.
- 4 Restart the engine and monitor the gauges as tabulated in step 7 in starting the generator set on this page.
- 5 Turn the required circuit breakers to the on position.
- 6 Monitor the AC ammeter. If the needle deflects severely to the right and stays there, immediately turn the required generator circuit breakers to the off position.

Note: Severe deflection of the ammeter indicates a wiring problem or an overload problem. Continued operation under this condition will cause damage to the generator and/or connected apparatus.

The needle on the ammeter will deflect to the right temporarily and then return to a normal reading if the unit is operating properly.

Operating Instructions

Voltage Selector Switch Operation

The voltage selector switch can affect the single-phase receptacles provided on the unit. The indicated voltages should be checked after selecting the setting of the switch. The Y voltage configuration of 480 and 240 will produce a voltage of 139 on the GFI receptacles.

⚠ This generator set produces voltages that can cause severe shock or death. Only qualified electricians should perform electrical work. Exercise extreme caution around any electrical component when operating this unit.

⚠ Never operate the voltage selector switch while the generator is running. This will result in immediate damage to the switch, the generator or the connected equipment and may result in serious injury to the operator.

Note: Always make sure that the voltage selector switch has been set to the desired range before starting the generator set.

The voltage selector switch for all the generators has three positions marked 480 / 277 - 3 phase, 240 / 139 - 3 phase, and 240 / 120 - 1 phase. Each position gives a different output to the three-phase distribution lugs (designated as L1, L2, L3 and N) located on the distribution panel.

480 / 277, 3 - phase position (Hi Wye configuration)	Output
---	--------

Line - to - Line (L1 to L2, / L2 to L3 / L1 to L3)	480 VAC / 3P
---	--------------

Line - to - Neutral (L1, L2 or L3 to N)	277 VAC / 1P
--	--------------

240 / 139, 3 - phase position (Lo Wye configuration)	Output
---	--------

Line - to - Line (L1 to L2, / L2 to L3 / L1 to L3)	240 VAC / 3P
---	--------------

Line - to - Neutral (L1, L2 or L3 to N)	139 VAC / 1P
--	--------------

240 single phase (Zig Zag configuration - L2 not used)	Output
---	--------

Line - to - Line (L1 to L3)	240 VAC / 1P
-----------------------------	--------------

Line - to - Neutral (L1 or L3 to N)	120 VAC 1P
-------------------------------------	------------

Note: The Hi Wye and the Low Wye configurations can be adjusted by using the voltage adjustment.

Once the required voltages are known, the combination of the proper switch position and voltage adjustment potentiometer allows for fine tuning the voltage to the exact needs of the application.

When the proper voltage selector switch position is selected, lock the switch in that position. This prevents the switch from being moved while the unit is operating or by unauthorized personnel. Damage to the unit and any connected equipment will be avoided.

Operating Instructions

⚠ Do not operate the unit unless the voltage has been checked at the receptacles. If you have any questions, call Terex Service at 1-800-433-3026.

Installation and any work performed on this unit should be done only by a qualified electrician.

Potentiometer (Voltage adjustment)

The potentiometer is set at the factory. However, if the voltage reading on the voltmeter is not as desired, follow the procedure below to make the necessary adjustments.

- 1 With the unit running under no load, observe the AC voltmeter.
- 2 Locate the voltage adjustment knob on the control panel. To increase the voltage, turn the knob to the right. To decrease the voltage, turn the knob to the left.
- 3 Slowly turn the adjustment knob in the desired direction while observing the AC voltage meter.
- 4 Stop when the desired voltage is reached.

The unit is now ready to load. If the desired voltage cannot be reached, contact the Terex Service Department at 1-800-433-3026.

For more information, refer to the Murphy Cascade Controller Installation and Operations Manual part number 00-02-0594 (Terex part number 833011), supplied with the unit for configuration and operation.

Overcurrent Protection

The overcurrent protection relay is mounted behind the control panel. It monitors the current draw to protect the generator set. The trip setting is set at the factory with the proper kW using a loadbank.

Note: Do not change the setting. Generator failure can occur. Call Terex Service for wiring and trouble shooting information.

Shutdown Procedures

⚠ Never shut the unit down while under load. This may cause serious injuries to the operator or damage the generator.

⚠ Never shut the unit down with the main generator circuit breaker in the on position. This can cause damage to the generator and/or the connected apparatus.

- 1 Turn all generator breakers to the off position.
- 2 Allow the engine to run for 5 minutes under no load until the coolant temperature gauge reads approximately 175° F (79° C) as a cool down cycle.
- 3 Push the Cascade controller off button to stop the engine.
- 4 Switch the toggle switch to the off position.
- 5 Lock the doors.

Transport and Lifting Instructions



Observe and Obey:

- ☑ Terex Corporation provides this securement information as a recommendation. Drivers are solely responsible for making sure that the generator set is properly secured and the correct trailer is selected pursuant to US Department of Transportation regulations, other localized regulations and company policy.
- ☑ Terex customers needing to containerize any Terex product should source a qualified freight forwarder with expertise in preparing, loading and securing Terex equipment for international shipment.
- ☑ The transport vehicle must be parked on a level surface.
- ☑ The transport vehicle must be secured to prevent rolling while the equipment is being loaded.
- ☑ Be sure the vehicle capacity, loading surfaces and chains or straps are sufficient to withstand the unit weight. See Specifications section for unit weight.

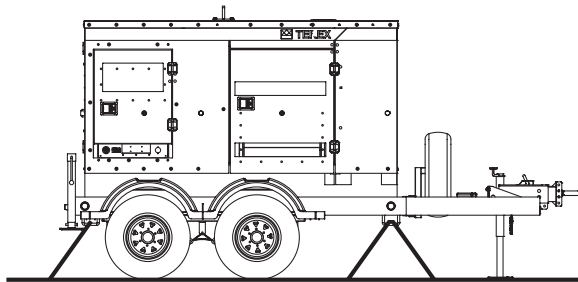
Securing to truck or trailer for transit.

- 1 Close, latch and lock all doors.
- 2 Lower the tongue jack.
- 3 Inspect the entire machine for loose and unsecured items.
- 4 Place a chock on both sides of each axle behind the wheels. Use the four tie-down points on the machine for anchoring down to the transport surface.
- 5 Use chain or straps of ample load capacity.
- 6 Adjust the tie-downs to prevent damage to the chains.

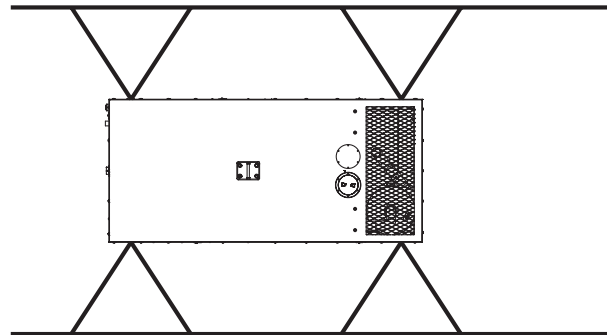
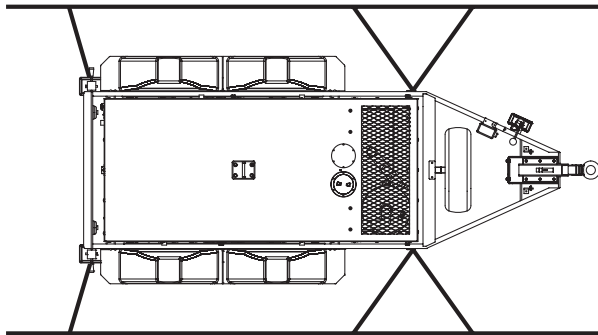
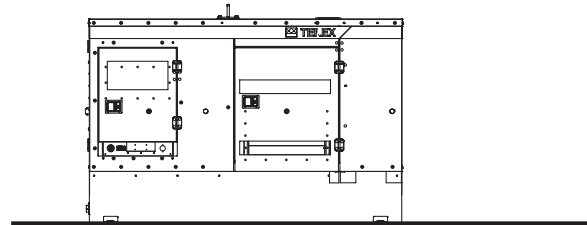
Transport and Lifting Instructions

Tie-down Configuration for all models

Tie-down configuration, with trailer



Tie-down configuration, no trailer



Lifting Instructions



Observe and Obey:

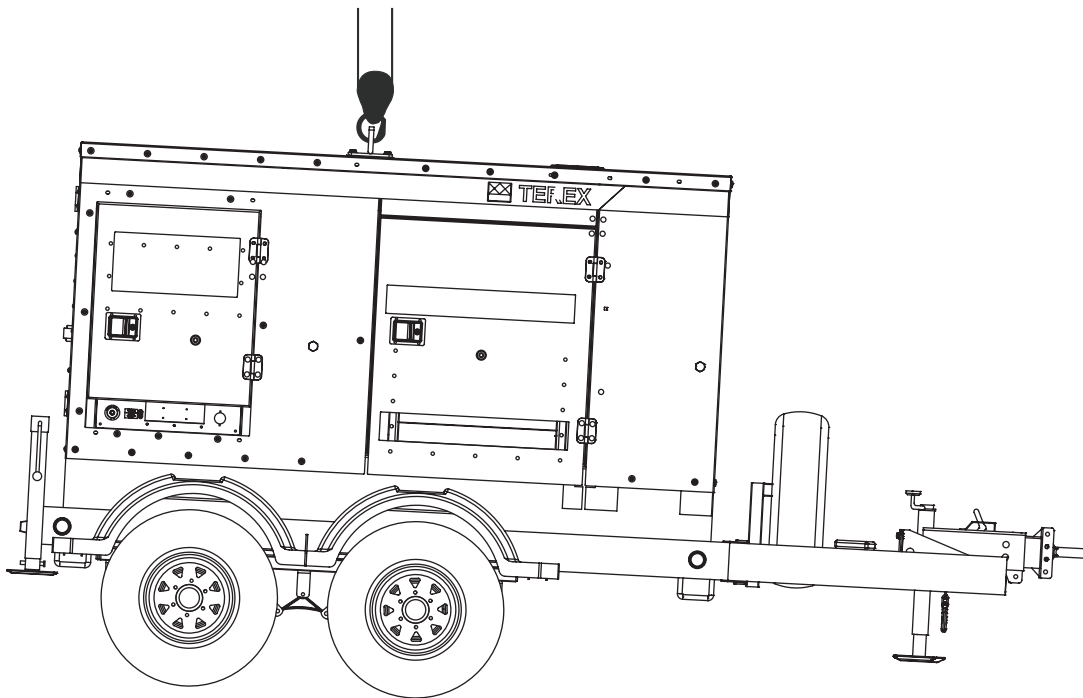
- ☑ Only qualified riggers should rig and lift the machine
- ☑ Be sure the crane capacity, loading surfaces and straps or lines are sufficient to withstand the machine weight. See Specifications section for unit weight.

Lifting

- 1 Close, latch and lock all doors.
- 2 Inspect the entire machine for loose or unsecured items.
- 3 Use the lifting eye mounted on the top to lift the machine.

Note: Make sure that tie-downs at the bottom of the trailer or cabinet are released prior to lifting.

Lifting Configuration



Towing Instructions



Observe and Obey:

Hitching

- ☒ Make sure that the hitch is sufficient to tow the generator set.
- ☒ Make sure that the hitch is properly attached to the tow vehicle.
- ☒ Make sure that the safety chains are properly attached.
- ☒ Inspect the tires and make sure that all tires are properly inflated. Refer to the trailer VIN decal for proper cold tire inflation.
- ☒ Make sure that all lights are connected and working.

Towing:


- ☒ Do not exceed 60 mph / 97 km/h.
- ☒ Check connections and tire pressure at each stop.
- ☒ Slow down for hazardous conditions.
- ☒ Allow extra distance for following and passing other vehicles.

All trailer-mounted Terex generator sets are designed for highway and off the road towing capabilities. Consult state and local transportation codes before transporting the generator set. Additionally, all state and local traffic laws take precedence over the following instructions whenever differences arise between them.


Note: Make sure the towing vehicle is of adequate size to both tow and stop the unit.

- 1 Disconnect all wiring and cabling (including the ground wire) from the generator set.
- 2 Close, latch and lock all access doors.
- 3 With the leveling jack, raise the trailer hitch to an adequate height so that the generator can be securely attached to the towing vehicle.
- 4 Secure the coupler to the vehicle and attach the safety chains. Attach the "breakaway" chain on the surge brake and the electrical coupler (if equipped).

Always use the proper trailer hitch and safety chains. Obey all local or state D.O.T. laws when towing a generator.

 Failure to properly secure the trailer to the towing vehicle may result in death or serious injury.

- 5 Retract the front leveling jack into its stowed position.
- 6 Check the tires for proper inflation and verify lug nuts are tight. See maintenance section.
- 7 If equipped with towing light, connect the electrical coupler to the towing vehicle.
- 8 Inspect all connections at each stop.

 Observe the posted speed limits for trailer. Generally, do not exceed 60 mph / 97 km/h on paved roads and 10 mph / 16 km/h on unpaved roads.

Note: Exceeding these recommended speeds can cause severe damage to the unit. Damage caused by these unsafe practices will void the manufacturer's warranty.

Towing Instructions

Towing Information

Use the checklist provided on the back cover of this manual before towing and while on the road.

Inspect all connections at each stop.

Driving a vehicle/trailer combination is different from driving a vehicle alone.

All tires must be properly inflated. Find the recommended cold tire pressure on the tire sidewall or trailer VIN decal. Do not overinflate the tires. Tire pressures go up during driving. Checking the tire pressure when the tires are warm will give you inaccurate pressure and reading.

Increase the distance between your vehicle and the vehicle in front of you to twice the normal following distance when towing a trailer. Allow more following distance in adverse weather.

Slow down for downgrades and shift your transmission into a lower gear.

Slow down for curves, hazardous road conditions, freeway exits, and when driving in adverse weather.

Heavy winds, excessive speed, load shifting or passing vehicles can cause the trailer to sway while driving. If this occurs, do not brake, speed up or turn the steering wheel. Turning the steering wheel or applying the brakes can cause the vehicle and trailer to jackknife. Let up on the gas pedal and keep the steering wheel straight.

If the vehicle and/or trailer travels off the paved road, hold the steering wheel firmly and let up on the gas pedal. Do not apply the brakes. Do not turn sharply. Slow down to under 25 mph / 40 km/h. Gradually turn the steering wheel to get back on the road. Proceed with caution when entering traffic.

When passing other vehicles, be sure to leave enough room for the extra length of the trailer. You will need to go much farther beyond the passed vehicle before you can return to your lane.

Avoid jerky or sudden movements when turning.

Maintenance



Observe and Obey:

- ☑ Only routine maintenance items specified in this manual shall be performed by the operator.
- ☑ Scheduled maintenance inspections shall be completed by qualified service technicians, according to the manufacturer's specifications.
- ☑ Use only Terex approved replacement parts.

Maintenance Symbols Legend

The following symbols have been used in this manual to help communicate the intent of the instructions. When one or more of the symbols appear at the beginning of a maintenance procedure, it conveys the meaning below.



Indicates that new parts will be required to perform this procedure.



Indicates that a cold engine is required before performing this procedure.

Maintenance

Check the Batteries



Proper battery condition is essential to good engine performance and operational safety. Improper fluid levels or damaged cables and connections can result in engine component damage and hazardous conditions.

⚠ Electrocution/burn hazard. Contact with hot or live circuits may result in death or serious injury. Remove all rings, watches and other jewelry.

⚠ Bodily injury hazard. Batteries contain acid. Avoid spilling or contacting battery acid. Neutralize battery acid spills with baking soda and water.

- 1 Put on protective clothing and eye wear.
- 2 Be sure that the battery cable connections are tight and free of corrosion.
- 3 Be sure that the battery hold-down bracket is in place and secure.
- 4 Remove the battery vent caps.
- 5 Check the battery acid level. If needed, replenish with distilled water to the bottom of the battery fill tube. Do not overfill.
- 6 Install the vent caps.

Note: Adding terminal protectors and a corrosion preventative sealant will help eliminate corrosion on the battery terminals and cables.

Check the Engine Oil Level



Maintaining the proper engine oil level is essential to good engine performance and service life. Operating the machine with an improper oil level can damage engine components.

Note: Check the oil level with the engine off.

- 1 Check the oil dipstick. Add oil as needed.

Refer to the engine manufacturer's operating instructions manual for more information regarding engine oil recommendations.

Check the Engine Coolant Level



Maintaining the engine coolant at the proper level is essential to engine service life. Improper coolant level will affect the engine's cooling capability and damage engine components. Daily checks will allow the inspector to identify changes in coolant level that might indicate cooling system problems.

⚠ Burn hazard. Beware of hot engine parts and coolant. Contact with hot engine parts and/or coolant may cause severe burns.

⚠ Adding coolant to a hot engine can damage the casting. Allow the engine to cool down to below 120° F (50° C) before adding the coolant.

- 1 Allow the engine to cool down to below 120° F (50° C).
 - 2 Open the radiator cap.
 - 3 Visually check the coolant level. Add fluid as needed.
- ⦿ Result: The fluid level should be at the bottom of the fill neck.

Maintenance

The engine manufacturer recommends using a 50/50 mixture of good quality water and fully formulated antifreeze.

Antifreeze type	must meet TMC 329 or TMC RP 330
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Refer to the engine manufacturer's operating instructions manual for more information.

Check the Tires and Wheels



⚠ Bodily injury hazard. An over-inflated tire can explode and may cause death or serious injury.

⚠ Collision hazard. An excessively worn tire can cause poor handling and continued use could result in tire failure.

⚠ Tip-over hazard. Do not use temporary flat tire repair products.

Maintaining the tires and wheels in good condition is essential to safe operation and good performance. Tire and/or wheel failure could result in a machine tip-over. Component damage may also result if problems are not discovered and repaired in a timely fashion.

- 1 Check the tire surface and sidewalls for cuts, cracks, punctures and uneven or excessive tread wear. Replace the tire if uneven or excessive tread wear is found.
- 2 Check each wheel for damage, bends and cracks. Replace the wheel if any damage is found.

Note: Tires and wheels must be replaced with tires and wheels of the specifications listed.

- 3 Check each tire with an air pressure gauge and add air as needed.
- 4 Check the torque of each lug nut.

Tire Specifications, U.S.

Tire size	ST225/75R15 Load D	
T70, T90 & T120		
Lug nut torque	80 ft/lbs	108 Nm
Tire pressure (cold)	65 psi	4.5 bar

Scheduled Maintenance

Scheduled maintenance must be completed by a person trained and qualified to perform maintenance on this generator set according to the schedule and procedures found in the service manual for this unit.

nameplate rating. The proper installation and use of a loadbank can prevent loss of capacity and increased maintenance caused by unburned fuel due to wet stacking.

If you have a generator set that is already wet stacked, it is recommended that the load bank be used in progressive steps outlined below.

- 1 Assure that the generator set is properly grounded and connected to the load bank as instructed by the manufacturer.
- 2 Set the generator at 240 VAC, 3 - phase.
- 3 Start using less than 25% of the nameplate rating until the engine has warmed up.
- 4 Progressively increase the load as the generator will allow without shutting down.
- 5 Continue to run for 20 minutes per step.
- 6 When you reach 80% of the nameplate rating, run the generator for a minimum of 45 minutes or until the exhaust on the unit runs clean.
- 7 Allow the machine to fully cool down.
- 8 Start the unit again.
- 9 Load at 80% for an additional 30 minutes.

A full engine service is recommended after this type of wetstack burns off.

Specifications

T70C Specifications

System power output

Prime 3 phase power	69 kVA / 55 kW
Standby 3 phase power	75 kVA / 60 kW
Available 3 phase voltage	208 / 220 / 240 / 440 / 480
Associated 3 phase amps (0.8 power factor)	191 / 181 / 166 / 90 / 83
Prime 1 phase power	42 kW
Prime 1 phase kVA	42 kVA
Available 1 phase voltage	120 / 240
Associated 1 phase amps (1.0 power factor)	350 / 175
Max amp rating (main breaker size)	225 A

Engine specifications

Manufacturer	Cummins
Model	QSB5-G1 NR3
Horsepower - prime (1,800 rpm)	91 hp (68 kWm)
Description	4 cylinder, 4-cycle, water cooled, OHV, in-line, direct injection, turbocharged and charge air cooled
Bore & stroke	4.21 x 4.88 in / 107 x 124 mm
Piston displacement	275 in ³ / 4.5 L
Compression ratio	17.3 : 1
Monitoring gauges	oil pressure, water temperature, fuel level, battery voltage, hours
Coolant capacity - engine only	9.6 qts / 9.0 L
Cooling system	liquid cooled - rated to 105° F (41° C) ambient

Continuous improvement of our products is a Terex policy. Product specifications are subject to change without notice or obligation.

Fuel system

Specification	#2 diesel
Filter	fuel / water separator

Capacity	160 gal / 606 L
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Tank and containment	internal fuel tank with 110% fluid spill containment
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Fuel consumption (run time)

Full load	5.6 gal per hr / 21.0 L per hr	28 hr
¾ load	4.5 gal per hr / 17.0 L per hr	35 hr
Half load	3.0 gal per hr / 11.0 L per hr	53 hr

System Controls and Distribution

Engine governor	electronic (+/- 0.5%)
Protection (safety shutdowns)	low oil pressure, high water temp., overcrank, overspeed & underspeed
Generator gauges	voltmeter, ammeter, Hz meter
Receptacles, 120 V	2 Each 20 Amp GFCI Duplex
Receptacles, 240 V	3 Each 50 Amp Tempower T/L
Primary Distribution	5 lug terminals with mainline circuit breaker

Generator specifications

Manufacturer	Stamford
Model	UCI224FIL73D
Rating (0.8 power factor)	60 kW 3 Phase @ 480 / 240 V
Description	brushless, 4 pole, synchronous, single bearing
Insulation	Class H
Temperature rating	125° C rise over 40° C ambient
Automatic voltage regulator	external, solid state, adjustable
Voltage regulation	+/- 1%
Frequency (speed)	60 Hz / 1,800 RPM

Specifications

Packaging

Enclosure	sound attenuated, weatherproof with lockable doors	
Sound levels	66 dBA at 23 ft / 7 meters	
Lifting system	roof mounted, single point	
Weight (no trailer)	empty	5,390 lbs / 2,445 kg
	full	6,782 lbs / 3,076 kg
Dimensions - L x W x H (no trailer)	110 x 47 x 64 in 279 x 119 x 162 cm	
Weight (with trailer)	empty	6,887 lbs / 3,124 kg
	full	8,279 lbs / 3,755 kg
Dimensions - L x W x H (with trailer)	171 x 75 x 82 in 434 x 190 x 208 cm	

T70 Trailer

Tire	225/75R15	
Tongue weight	electric brakes	884 lbs / 401 kg
	hydraulic brakes	631 lbs / 286.2 kg
Trailer weight	electric brakes	1023 lbs / 464 kg
	hydraulic brakes	1110 lbs / 503.5 kg

Specifications

T70P Specifications

System power output

Prime 3 phase power	70 kVA / 54 kW
Standby 3 phase power	74 kVA / 59 kVA
Available 3 phase voltage	208 / 220 / 240 / 440 / 480
Associated 3 phase amps (0.8 power factor)	188 / 177 / 163 / 89 / 81
Prime 1 phase power	42 kW
Prime 1 phase kVA	42 kVA
Available 1 phase voltage	120 / 240
Associated 1 phase amps (1.0 power factor)	350 / 175
Max amp rating (main breaker size)	225 A

Engine specifications

Manufacturer	Perkins
Model	1104DE-44TG1
Horsepower - prime (1,800 rpm)	78 hp (58 kWm)
Description	4 cylinder, 4-cycle, water cooled, OHV, in-line, direct injection, turbocharged
Bore & stroke	4.13 x 5.00 in / 105 x 127 mm
Piston displacement	269 in ³ / 4.41 L
Compression ratio	18.2 : 1
Monitoring gauges	oil pressure, water temperature, fuel level, battery voltage, hours
Coolant capacity - engine only	7.4 qts / 7.0 L
Cooling system	liquid cooled - rated to 105° F (41° C) ambient

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Fuel system

Specification	#2 diesel
Filter	fuel / water separator

Capacity	160 gal / 606 L
Tank and containment	internal fuel tank with 110% fluid spill containment

Fuel consumption (run time)

Full load	4.4 gal per hr / 16.6 L per hr	36 hr
¾ load	3.4 gal per hr / 12.8 L per hr	47 hr
Half load	2.4 gal per hr / 9.0 L per hr	67 hr

System Controls and Distribution

Engine governor	electronic (+/- 0.5%)
Protection (safety shutdowns)	low oil pressure, high water temp., overcrank, overspeed & underspeed
Generator gauges	voltmeter, ammeter, Hz meter
Receptacles, 120 V	2 Each 20 Amp GFCI Duplex
Receptacles, 240 V	3 Each 50 Amp Tempower T/L
Primary Distribution	5 lug terminals with mainline circuit breaker

Generator specifications

Manufacturer	Stamford
Model	UCI224EIL73D
Rating (0.8 power factor)	60 kW 3 Phase @ 480 / 240 V
Description	brushless, 4 pole, synchronous, single bearing
Insulation	Class H
Temperature rating	125° C rise over 40° C ambient
Automatic voltage regulator	external, solid state, adjustable
Voltage regulation	+/- 1%
Frequency (speed)	60 Hz / 1,800 RPM

Specifications

Packaging

Enclosure	sound attenuated, weatherproof with lockable doors	
Sound levels	66 dBA at 23 ft / 7 meters	
Lifting system	roof mounted, single point	
Weight (no trailer)	empty	5,390 lbs / 2,445 kg
	full	6,782 lbs / 3,076 kg
Dimensions - L x W x H (no trailer)	110 x 47 x 64 in 279 x 119 x 162 cm	
Weight (with trailer)	empty	6,887 lbs / 3,124 kg
	full	8,279 lbs / 3,755 kg
Dimensions - L x W x H (with trailer)	171 x 75 x 82 in 434 x 190 x 208 cm	

T70 Trailer

Tire	225/75R15	
Tongue weight	electric brakes - 884 lbs / 401 kg hydraulic brakes - 631 lbs / 286.2 kg	
Trailer weight	electric brakes - 1023 lbs / 464 kg hydraulic brakes - 1110 lbs / 503.5 kg	

Specifications

T90C Specifications

System power output

Prime 3 phase power	90 kVA / 72 kW
Standby 3 phase power	100 kVA / 80 kW
Available 3 phase voltage	208 / 220 / 240 / 440 / 480
Associated 3 phase amps (0.8 power factor)	250 / 236 / 217 / 118 / 108
Prime 1 phase power	59 kW
Prime 1 phase kVA	59 kVA
Available 1 phase voltage	120 / 240
Associated 1 phase amps (1.0 power factor)	492 / 246
Max amp rating (main breaker size)	300 A

Engine specifications

Manufacturer	Cummins
Model	QSB5-G2 NR3
Horsepower - prime (1,800 rpm)	103 hp (77 kWm)
Description	4 cylinder, 4-cycle, water cooled, OHV, in-line, direct injection, turbocharged and charge air cooled
Bore & stroke	4.21 x 4.88 in / 107 x 124 mm
Piston displacement	275 in ³ / 4.5 L
Compression ratio	17.2 : 1
Monitoring gauges	oil pressure, water temperature, fuel level, battery voltage, hours
Coolant capacity - engine only	10.0 qts / 9.5 L
Cooling system	liquid cooled - rated to 105° F (41° C) ambient

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Fuel system

Specification	#2 diesel
Filter	fuel / water separator

Capacity	160 gal / 606 L
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Tank and containment	internal fuel tank with 110% fluid spill containment
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Fuel consumption (run time)

Full load	6.0 gal per hr / 23.0 L per hr	26 hr
¾ load	5.0 gal per hr / 19.0 L per hr	32 hr
Half load	3.4 gal per hr / 13.0 L per hr	47 hr

System Controls and Distribution

Engine governor	electronic (+/- 0.5%)
Protection (safety shutdowns)	low oil pressure, high water temp., overcrank, overspeed & underspeed
Generator gauges	voltmeter, ammeter, Hz meter
Receptacles, 120 V	2 Each 20 Amp GFCI Duplex
Receptacles, 240 V	3 Each 50 Amp Tempower T/L
Primary Distribution	5 lug terminals with mainline circuit breaker

Generator specifications

Manufacturer	Stamford
Model	UCI274CIL32D
Rating (0.8 power factor)	60 kW 3 Phase @ 480 / 240 V
Description	brushless, 4 pole, synchronous, single bearing
Insulation	Class H
Temperature rating	125° C rise over 40° C ambient
Automatic voltage regulator	external, solid state, adjustable
Voltage regulation	+/- 1%
Frequency (speed)	60 Hz / 1,800 RPM

Specifications

Packaging

Enclosure	sound attenuated, weatherproof with lockable doors
-----------	---

Sound levels	66 dBA at 23 ft / 7 meters
--------------	----------------------------

Lifting system	roof mounted, single point
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Weight (no trailer)	empty	5,390 lbs / 2,445 kg
	full	6,782 lbs / 3,076 kg

Dimensions - L x W x H (no trailer)	110 x 47 x 64 in 279 x 119 x 162 cm
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Weight (with trailer)	empty	6,887 lbs / 3,124 kg
	full	8,279 lbs / 3,755 kg

Dimensions - L x W x H (with trailer)	171 x 75 x 82 in 434 x 190 x 208 cm
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T90 Trailer

Tire	225/75R15
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Tongue weight	electric brakes - 903 lbs / 410 kg
	hydraulic brakes - 645 lbs / 293 kg

Trailer weight	electric brakes - 1023 lbs / 464 kg
	hydraulic brakes - 1110 lbs / 503.5 kg

Specifications

T90P Specifications

System power output

Prime 3 phase power	90 kVA / 72 kW
Standby 3 phase power	100 kVA / 80 kW
Available 3 phase voltage	208 / 220 / 240 / 440 / 480
Associated 3 phase amps (0.8 power factor)	250 / 236 / 217 / 118 / 108
Prime 1 phase power	59 kW
Prime 1 phase kVA	59 kVA
Available 1 phase voltage	120 / 240
Associated 1 phase amps (1.0 power factor)	492 / 246
Max amp rating (main breaker size)	300 A

Engine specifications

Manufacturer	Perkins
Model	1104D-E44TAG1
Horsepower - prime (1,800 rpm)	110 hp / 82 kWm
Description	4 cylinder, 4-cycle, water cooled, OHV, in-line, direct injection, turbocharged and charge air cooled
Bore & stroke	4.13 x 5.00 in / 105 x 127 mm
Piston displacement	269 in ³ / 4.41 L
Compression ratio	16.2 : 1
Monitoring gauges	oil pressure, water temperature, fuel level, battery voltage, hours
Coolant capacity - engine only	7.4 qts. / 7.0 L
Cooling system	liquid cooled - rated to 105° F (41° C) ambient

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Fuel system

Specification	#2 diesel
Filter	fuel / water separator

Capacity	160 gal / 606 L
Tank and containment	internal fuel tank with 110% fluid spill containment

Fuel consumption (run time)

Full load	6.3 gal per hr / 23.7 L per hr	25 hr
¾ load	4.9 gal per hr / 18.7 L per hr	32 hr
Half load	3.5 gal per hr / 13.5 L per hr	45 hr

System Controls and Distribution

Engine governor	electronic (+/- 0.5%)
Protection (safety shutdowns)	low oil pressure, high water temp., overcrank, overspeed, underspeed
Generator gauges	voltmeter, ammeter, Hz meter
Receptacles, 120 V	2 Each 20 Amp GFCI Duplex
Receptacles, 240 V	3 Each 50 Amp Tempower T/L
Primary Distribution	5 lug terminals with mainline circuit breaker

Generator specifications

Manufacturer	Stamford
Model	UCI274CIL32D
Rating (0.8 power factor)	83 kW 3 Phase @ 480 / 240 V
Description	brushless, 4 pole, synchronous, single bearing
Insulation	Class H
Temperature rating	125° C rise over 40° C ambient
Automatic voltage regulator	external, solid state, adjustable
Voltage regulation	+/- 1%
Frequency (speed)	60 Hz / 1,800 RPM

Specifications

Packaging

Enclosure	sound attenuated, weatherproof with lockable doors	
Sound levels	66 dBA at 23 ft / 7 meters	
Lifting system	roof mounted, single point	
Weight (no trailer)	empty	5,390 lbs / 2,445 kg
	full	6,782 lbs / 3,076 kg
Dimensions - L x W x H (no trailer)	110 x 47 x 64 in 279 x 119 x 162 cm	
Weight (with trailer)	empty	6,887 lbs / 3,124 kg
	full	8,279 lbs / 3,755 kg
Dimensions - L x W x H (with trailer)	171 x 75 x 82 in 434 x 190 x 208 cm	

T90 Trailer

Tire	225/75R15	
Tongue weight	electric brakes - 903 lbs / 410 kg hydraulic brakes - 645 lbs / 293 kg	
Trailer weight	electric brakes - 1023 lbs / 464 kg hydraulic brakes - 1110 lbs / 503.5 kg	

Specifications

T120C Specifications

System power output

Prime 3 phase power	120 kVA / 95 kW
Standby 3 phase power	125 kVA / 100 kW
Available 3 phase voltage	208 / 220 / 240 / 440 / 480
Associated 3 phase amps (0.8 power factor)	330 / 312 / 286 / 156 / 143
Prime 1 phase power	72 kW
Prime 1 phase kVA	72 kVA
Available 1 phase voltage	120 / 240
Associated 1 phase amps (1.0 power factor)	600 / 300
Max amp rating (main breaker size)	350 A

Engine specifications

Manufacturer	Cummins
Model	QSB5-G5NR3
Horsepower - prime (1,800 rpm)	139 hp / 104 kWm
Description	4 cylinder, 4-cycle, water cooled, OHV, in-line, direct injection turbocharged and charge air cooled
Bore & stroke	4.21 x 4.88 in / 107 x 124mm
Piston displacement	275 in ³ / 4.5 L
Compression ratio	17.3 : 1
Monitoring gauges	oil pressure, water temperature, fuel level, battery voltage, hours
Coolant capacity - engine only	10 qts / 8.5 L
Cooling system	liquid cooled - rated to 105° F (41° C) ambient

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Fuel system

Specification	#2 diesel
Filter	fuel / water separator

Capacity	160 gal / 606 L
Tank and containment	internal fuel tank with 110% fluid spill containment

Fuel consumption (run time)

Full load	7.9 gal per hr / 30 L per hr	20 hr
$\frac{3}{4}$ load	6.6 gal per hr / 25 L per hr	24 hr
Half load	4.4 gal per hr / 17 L per hr	36 hr

System Controls and Distribution

Engine governor	electronic (+/- 0.5%)
Protection (safety shutdowns)	low oil pressure, high water temp., overcrank, overspeed, underspeed
Generator gauges	voltmeter, ammeter, Hz meter
Receptacles, 120 V	2 Each 20 Amp GFCI Duplex
Receptacles, 240 V	3 Each 50 Amp Tempower T/L
Primary Distribution	5 lug terminals with mainline circuit breaker

Generator specifications

Manufacturer	Newage
Model	UCI274DIL32D
Rating (0.8 power factor)	117 kW 3 Phase @ 480 / 240 V
Description	brushless, 4 pole, synchronous, single bearing
Insulation	Class H
Temperature rating	125° C rise over 40° C ambient
Automatic voltage regulator	external, solid state, adjustable
Voltage regulation	+/- 1%
Frequency (speed)	60 Hz / 1,800 RPM

Specifications

Packaging

Enclosure	sound attenuated, weatherproof with lockable doors	
Sound levels	68 dBA at 23 ft / 7 meters	
Lifting system	roof mounted, single point	
Weight (no trailer)	empty	5,390 lbs / 2,445 kg
	full	6,782 lbs / 3,076 kg
Dimensions - L x W x H (no trailer)	110 x 47 x 64 in 279 x 119 x 162 cm	
Weight (with trailer)	empty	6,887 lbs / 3,124 kg
	full	8,279 lbs / 3,755 kg
Dimensions - L x W x H (with trailer)	171 x 75 x 82 in 434 x 190 x 208 cm	

T120 Trailer

Tire	225/75R15	
Tongue weight	electric brakes -	912 lbs / 414 kg
	hydraulic brakes -	652 lbs / 296 kg
Trailer weight	electric brakes -	1023 lbs / 464 kg
	hydraulic brakes -	1110 lbs / 503.5 kg

Specifications

T120P Specifications

System power output

Prime 3 phase power	113 kVA / 90 kW
Standby 3 phase power	122 kVA / 98 kW
Available 3 phase voltage	208 / 220 / 240 / 440 / 480
Associated 3 phase amps (0.8 power factor)	316 / 296 / 271 / 148 / 135
Prime 1 phase power	72 kW
Prime 1 phase kVA	72 kVA
Available 1 phase voltage	120 / 240
Associated 1 phase amps (1.0 power factor)	600 / 300
Max amp rating (main breaker size)	350 A

Engine specifications

Manufacturer	Perkins
Model	1104D-44TAG2
Horsepower - prime (1,800 rpm)	134 hp / 100 kWm
Description	4 cylinder, 4-cycle, water cooled, OHV, in-line, direct injection turbocharged and charge air cooled
Bore & stroke	4.13 x 5.00 in / 105 x 127mm
Piston displacement	269 in ³ / 4.41 L
Compression ratio	16.2 : 1
Monitoring gauges	oil pressure, water temperature, fuel level, battery voltage, hours
Coolant capacity - engine only	7.4 qts / 7.0 L
Cooling system	liquid cooled - rated to 105° F (41° C) ambient

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Fuel system

Specification	#2 diesel
Filter	fuel / water separator

Capacity	160 gal / 606 L
Tank and containment	internal fuel tank with 110% fluid spill containment

Fuel consumption (run time)

Full load	7.3 gal per hr / 27.8 L per hr	21 hr
¾ load	5.8 gal per hr / 22 L per hr	27 hr
Half load	4.3 gal per hr / 16.1 L per hr	37 hr

System Controls and Distribution

Engine governor	electronic (+/- 0.5%)
Protection (safety shutdowns)	low oil pressure, high water temp., overcrank, overspeed, underspeed
Generator gauges	voltmeter, ammeter, Hz meter
Receptacles, 120 V	2 Each 20 Amp GFCI Duplex
Receptacles, 240 V	3 Each 50 Amp Tempower T/L
Primary Distribution	5 lug terminals with mainline circuit breaker

Generator specifications

Manufacturer	Stamford
Model	UCI274DIL32D
Rating (0.8 power factor)	117 kW 3 Phase @ 480 / 240 V
Description	brushless, 4 pole, synchronous, single bearing
Insulation	Class H
Temperature rating	125° C rise over 40° C ambient
Automatic voltage regulator	external, solid state, adjustable
Voltage regulation	+/- 1%
Frequency (speed)	60 Hz / 1,800 RPM

Specifications

Packaging

Enclosure	sound attenuated, weatherproof with lockable doors	
Sound levels	68 dBA at 23 ft / 7 meters	
Lifting system	roof mounted, single point	
Weight (no trailer)	empty	5,390 lbs / 2,445 kg
	full	6,782 lbs / 3,076 kg
Dimensions - L x W x H (no trailer)	110 x 47 x 64 in 279 x 119 x 162 cm	
Weight (with trailer)	empty	6,887 lbs / 3,124 kg
	full	8,279 lbs / 3,755 kg
Dimensions - L x W x H (with trailer)	171 x 75 x 82 in 434 x 190 x 208 cm	

T120 Trailer

Tire	225/75R15	
Tongue weight	electric brakes - 912 lbs / 414 kg hydraulic brakes - 652 lbs / 296 kg	
Trailer weight	electric brakes - 1023 lbs / 464 kg hydraulic brakes - 1110 lbs / 506 kg	

Serial Number Registration

Terex Model Number : _____

Serial Number : _____

Engine Model Number: _____

Engine Serial Number: _____

Generator Model Number: _____

Generator Serial Number: _____

Owner : _____

Options: _____

Receipt of Delivery Checklist

The generator will be serviced, tested and ready for operation upon delivery. Terex recommends the following checks upon delivery.

- Insure there is no freight handling damage. Any freight damaged should be charged against the carrier.
- Check the front jack for security and proper operation.
- Check the tires for damage, proper inflation or loosened lugs.
- Check the engine/generator for visual damage, loose connections or leaks.
- Check the control panel for damage or loose connections.
- Check the exhaust system for damage.
- Check all fluid levels; battery, radiator, and engine oils.
- Ensure the manuals are in the pocket provided inside the unit.

Warning

The exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Towing Checklist

(Use at each stop)

Before Towing

- Towing hitch is properly secured to tow vehicle
- Safety chains (if required) are properly attached and secure (chains are crossed below hitch)
- All lights are connected and working
- Tires are properly inflated

Before Driving

- Fasten safety restraints
- Properly adjust mirrors

On The Road

- Do not exceed 60 mph / 97 km/h. Obey all local and national towing speed laws
- Check connections and tire pressure at each stop
- Slow down for hazardous conditions
- Allow extra distance for following and passing other vehicles

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