

REVISED JUNE 2011

NIGHT LITE PRO V-SERIES SE POWER OWNER'S MANUAL

Part No. 103413

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NIGHT LITE PRO V SERIES

California Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

California Proposition 65 Warning

Battery posts, terminials, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm.

Wash hands after handling.

RECORD IMPORTANT INFORMATION

Company Equipment No.:	
Unit Model No.:	
Unit VIN:	
Engine Model No.:	Serial No.:
Generator Model No.:	Serial No.:
Accessories:	

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Congratulations on the purchase of your new Allmand **NIGHT LITE PRO V SERIES** light tower and welcome to the Allmand family of equipment owners.

The Allmand **NIGHT LITE PRO V SERIES** light tower offers many advantages to make operation safer, more convenient and more cost-effective. The **NIGHT LITE PRO V SERIES** light towers will provide you with high-quality performance and durability which translates into more productivity on the job site.

ABOUT THIS MANUAL

Take time to read this manual thoroughly.

This *Operator's Manual* provides information necessary for the safe operation of the Allmand Bros. Inc. **NIGHT LITE PRO V SERIES** light tower.

NOTICE: Keep this manual accessible during operation to provide convenient reference. Store this manual in a safe place for future reference.

If you are uncertain about any of the information in the manual, contact Allmand or your Allmand dealer for clarification before operation.

Specific operating instructions and specifications are contained in this publication to familiarize the operator and maintenance personnel with the correct and safe procedures necessary to maintain and operate the equipment.

Engine— specific operating instructions and specifications are contained in the engine owner's manual provided in your owner's kit. Always refer to engine owner's manual for operation and maintenance procedures.

The graphics and text in this manual generally describe the Allmand **NIGHT LITE PRO V SERIES** light tower. Allmand light tower differ by model and optionally installed equipment. Your Allmand light tower may not exactly match the graphics and /or text descriptions in this manual.

NOTICE: The information found in this manual was in effect at the time of printing. Allmand Bros. may change contents without notice and without incurring obligation.

NOTICE: Any reference in this manual to left or right shall be determined by looking at the trailer from the rear.



SAFETY DEFINITIONS

Safety statements are one of the primary ways to call your attention to potential hazards. Follow the precautions listed throughout the manual before operation, during operation and during periodic maintenance procedures for your safety, the safety of others and to protect the performance of the equipment. Keep the decals from becoming dirty or torn and replace them if they are lost or damaged. Also, if a part needs to be replaced that has a decal attached to it, make sure to order the new part and decal at the same time.



This safety alert symbol appears with most safety statements. It means attention, become alert, your safety is involved! Please read and abide by the message that follows the safety alert symbol.

A DANGER

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

A WARNING

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

A CAUTION

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

NOTICE

Indicates a situation which can cause damage to the equipment, personal property and/or the environment, or cause the equipment to operate improperly.

Note: Provides key information to make procedures easier or clearer.

SAFETY PRECAUTIONS

There is no substitute for common sense and careful practices. This information contains general safety precautions and guidelines that must be followed to reduce risk to personal safety. Special safety precautions are listed in specific procedures. Read and understand all of the safety precautions before operating or performing repairs or maintenance. This safety section cannot cover every situation that may occur that is incidental to the use of the equipment. Use common sense if you encounter a situation that is not covered to help avoid a hazardous situation.

Refer to the *Engine Operator's Manual and Generator Operator's Manual* for additional safety precautions.

A DANGER

The safety messages that follow have DANGER level hazards.

Electrocution Hazard



- Always check for overhead wires and obstructions before raising or lowering the light tower. Allow 35 feet (10.6 m) of clearance.
- High voltage is present when engine is running. Never attempt to service electrical components while engine is running.
- Do not operate the light tower if the insulation on the electrical cord or other electrical wiring is cut or worn, or if bare wires are exposed. Repair or replace damaged wiring before starting the engine.

A WARNING

The safety messages that follow have WARNING level hazards.

Unsafe Operation Hazard



- Never permit anyone to install or operate the equipment without proper training.
- Read and understand this Operator's
 Manual, the Engine Operator's Manual and
 Generator Operator's Manual before
 operating or servicing the light tower to
 ensure that safe operating practices and
 maintenance procedures are followed.
- Safety signs and decals are additional reminders for safe operating and maintenance techniques.

Fall Hazard

Never carry riders on the equipment.

Modification Hazard

Never modify the equipment without written consent of the manufacturer. Any modification can affect the safe operation of the equipment.

Exposure Hazard



Always wear personal protective equipment, including appropriate clothing, gloves, work shoes, and eye and hearing protection, as required by the task at hand.

Rollover Hazard

- Do not raise, lower or use light tower unless all outriggers and jacks are positioned on firm ground.
- Never move or reposition the light tower while the light tower is in the vertical position.

Explosion Hazard



- While the engine is running or the battery is charging, hydrogen gas is being produced and can be easily ignited. Keep the area around the battery well-ventilated and keep sparks, open flame and any other form of ignition out of the area.
- Always disconnect the negative (-) battery cable before servicing the equipment.
- Only use the starting procedure as described in the Engine Operator's Manual to start the engine.
- Never charge a frozen battery. Always slowly warm the battery to room temperature before charging.

Fire and Explosion Hazard

- Diesel fuel is flammable and explosive under certain conditions.
- Never use a shop rag to catch the fuel.
- Wipe up all spills immediately.
- Never refuel with the engine running.
- Store any containers containing fuel in a well-ventilated area, away from any combustibles or sources of ignition.

A WARNING

The safety messages that follow have WARNING level hazards.

Exhaust Hazard



All internal combustion engines create carbon monoxide gas during operation and special precautions are required to avoid carbon monoxide poisoning:

- Never block windows, vents or other means of ventilation if the equipment is operating in an enclosed area.
- Always ensure that all connections are tightened to specifications after repair is made to the exhaust system.

Entanglement / Sever Hazard



- Always stop the engine before beginning service.
- If the engine must be serviced while it is operating, remove all jewelry, tie back long hair and keep hands, other body parts and clothing away from moving/rotating parts.
- Verify that all guards and covers are attached properly to the equipment before starting the engine. Do not start the engine if any guards or covers are not properly installed on the equipment.
- Attach a "Do Not Operate" tag near the key switch while performing maintenance on the equipment.

Alcohol and Drug Hazard



Never operate the light tower while under the influence of alcohol or drugs, or when ill.

Piercing Hazard



- Avoid skin contact with highpressure hydraulic fluid or
 diesel fuel spray caused by a
 hydraulic or fuel system leak
 such as a broken hydraulic
 hose or fuel injection line.
 High-pressure hydraulic fluid
 or fuel can penetrate your skin
 and result in serious injury. If
 you are exposed to
 high-pressure hydraulic fluid or
 fuel spray, obtain prompt
 medical treatment.
- Never check for a hydraulic fluid or fuel leak with your hands. Always use a piece of wood or cardboard.

Flying Object Hazard



Always wear eye protection when cleaning the equipment with compressed air or high-pressure water. Dust, flying debris, compressed air, pressurized water or steam may injure your eyes.

Coolant Hazard



Wear eye protection and rubber gloves when handling engine coolant. If contact with the eyes or skin should occur, flush eyes and wash immediately with clean water.

A WARNING

The safety messages that follow have WARNING level hazards.

Burn Hazard



- Light fixtures and some of the engine surfaces become very hot during operation and shortly after shutdown.
- Keep hands and other body parts away from hot engine surfaces.
- Handle hot components, such as light fixtures, with heat-resistant gloves.

A CAUTION

The safety messages that follow have CAUTION level hazards.

Tool Hazard

Always use tools appropriate for the task at hand and use the correct size tool for loosening or tightening equipment parts.

Slip Hazard

- Immediately clean up any spilled liquid on the shop floor.
- Clean up accumulated dirt and debris on the shop floor at the end of each shift.

NOTICE

The safety messages that follow have NOTICE level hazards.

Any part which is found defective as a result of inspection or any part whose measured value does not satisfy the standard or limit must be replaced.

Always tighten components to the specified torque. Loose parts can cause equipment damage or cause it to operate improperly.

Only use replacement parts specified. Other replacement parts may affect warranty coverage.



Follow the guidelines of the EPA or other governmental agencies for the proper disposal of hazardous materials such as engine oil, diesel fuel and engine coolant. Consult the local authorities or reclamation facility.

Clean all accumulated dirt and debris away from the body of the equipment and its components before you inspect the equipment or perform preventive maintenance procedures or repairs.

Operating equipment with accumulated dirt and debris will cause premature wear of equipment components. Accumulated dirt and debris also hinders effective equipment inspection.

Never dispose of hazardous materials by dumping them into a sewer, on the ground, or into groundwater or waterways.

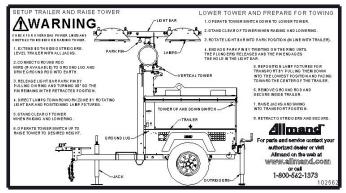
Retrieve any tools or parts that may have dropped inside of the equipment to avoid improper equipment operation.

If any alert indicator illuminates during equipment operation, stop the engine immediately. Determine the cause and repair the problem before continuing to operate the equipment.

SAFETY LABELS AND LOCATION

WARNING! Unsafe Operational Hazard. Always replace any safety and instruction decals that become damaged, painted or otherwise illegible.

Refer to These representations of the safety warning decals used on the **NIGHT LITE PRO V SERIES** to insure correct ordering if replacing becomes necessary.



PART NO: 100663

CALIFORNIA Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproduction harm.

090179

PART NO: 090179



Do not stand under lamp fixtures or near the mast when raising or lowering.

101404

! DANGER
HIGH VOLTAGE

PART NO: 090002

PART NO: 101404



EXCESSIVE TOWING SPEED

Can Cause Serious Personal Injury or Death.

Do NOT Exceed 50 mph (80 km/hr.)

090160

PART NO: 090160



PART NO: 090005



PART NO: 090159



PART NO: 090159

WARNING

OVERHEAD HAZARD

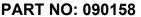
To Prevent Serious

Injury or Death:

. Do not raise, lower or use light tower unless all outriggers and jacks are positioned on firm ground.

Level trailer before use.





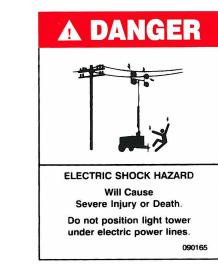
ELECTRIC SHOCK HAZARD

Failure to use ground rod

could cause severe injury or death.

· Drive ground rod into earth and attach ground wire to grounding lug

on front of trailer.



PART NO: 090165

PART NO: 090163



090166





HAZARDOUS VOLTAGE

To prevent serious injury or death from electrocution:

- Do not enter electrical compartment while engine is running.
 - Close cover before operating.
- · Keep components in good repair.

PART NO: 090162



ROLL OVER HAZARD

To Prevent Injury or **Equipment Damage:**

 Avoid high speeds and sharp turns when towing.

090226

PART NO: 090226

WARNING

FAILURE TO TURN OFF LIGHTS BEFORE STOPPING ENGINE MAY RESULT IN GENERATOR DAMAGE AND VOID WARRANTY.

090084

PART NO: 090179





MOVING PART HAZARD

To prevent serious injury from moving parts:

- · Close and secure guards and shields before starting.
- · Keep hand, feet, hair and clothing away from moving parts.
- Disconnect battery before adjusting or servicing. 090161

PART NO: 090161

NOTES 6/9/2011

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TRAILERING, TRANSPORTING AND LIFTING

6/9/2011

PREPARING THE NIGHT LITE PRO V SERIES FOR DELIVERY OR RENTAL

The **NIGHT LITE PRO V SERIES** light tower requires service as well as proper operation in order to provide the performance and safety it has been designed for. Never deliver or put machine into service with known defects or missing instructions or decals. Always instruct the customer in proper operation and safety procedures as described in this *Operator's Manual*. Always provide the manual with the equipment for proper and safe operation.

CHECK LIST

- Visually inspect the equipment to ensure that all instructions and decals are in place and legible.
- Inspect the light tower locking bar latch assembly which locks the light tower in the vertical position for proper operation.
- Check the hitch assembly and safety chains.
- Check the outriggers and jacks to make sure they operate properly.
- Inspect the light assemblies for damage and test for proper operation.
- Inspect the electrical wiring for signs of damage. **Danger!** *Electrocution Hazard.*

Do not operate the light tower if the insulation on the electrical cord or other electrical wiring is cut or worn, or if bare wires are exposed. Repair or re place damaged wiring before starting the engine.

- Check ground rod cable and the ground lug. Make sure they are clean, undamaged and functional.
- Inspect tires to insure good condition and proper inflation.
- Check engine oil, fuel, engine coolant levels and hydraulic fluid levels, if equipped.
- Check to make sure the *Light Tower Operator's Manual and Generator Operator's Manual* are with the equipment.
- Check to make sure the quick reference operation card is with the equipment and properly tethered.
- Inspect the machine physically for damage and repair if necessary.

<u>NOTICE:</u> See appropriate section of the Engine Operator's Manual and Generator Operator's Manual for additional pre-operation checks.

TRAILERING, TRANSPORTING AND LIFTING 6/9/2011

After completing the pre-operation check list, operate the tower through a complete operation cycle, following the operating instructions in the NIGHT LITE PRO V SERIES Operator's Manual.

Warning! Unsafe operation Hazard. Never permit anyone to install or operate the equipment without proper training.

ALWAYS READ AND UNDERSTAND THE INSTRUCTIONS FIRST.

TRAILERING, TRANSPORTING AND LIFTING

6/9/2011

Before trailering, transporting or lifting, read *Safety* on page 8.

The complete engine and generator set is housed in a lockable enclosure with the frame fabricated from heavy gauge steel mounted on a two-wheel, leaf spring axle.

BEFORE TRAILERING OR TRANSPORTING

Perform the following before trailering / transporting:

- Lower the light tower and shut down the tower lights and the engine; See *Shutdown prepare* for trailering on page 20.
- Visually inspect the trailer and equipment for damage. Repair or replace any components as needed before trailering.
- Check the trailer lights for proper operation
- Inspect the tires to insure good condition and proper inflation.
- Inspect trailer springs and undercarriage for damage or loose parts.
- Check the hitch assembly and safety chains.
- Ensure the outriggers and jacks are properly stowed.
- Ensure the ground rod and cable are disconnected and properly stowed.
- Clean any spills from inside the trailer bilge area around the outside of the trailer; they may have occurred during operation.
- Ensure all compartment doors are closed and securely locked.

Shutdown - Prepare for Trailering

- **1.** With the tower lights off, lower the light tower to the full DOWN position; See *Raising and Lowering the light tower* on page 43.
- 2. Turn the engine off. Refer to your *Engine Operator's Manual* for stopping procedure.
 - Notice: See appropriate section of the Engine Operators Manual and Generator Operator's

 Manual for additional post operation and shutdown procedures.
- Adjust the light bar and light fixtures for trailering; see Tower lights Stowage for trailering on Page 21.
 - **Notice:** Visually inspect the light mounting brackets and hardware for loose fasteners or damaged brackets. Repair any problems before trailering.
- Secure the light cords into the hook on the rear mast support
- 5. Disconnect the ground rod cable from the ground lug. Remove the ground rod from the earth and clean and secure the ground rod and cable in the trailer.
- 6. Close, secure and lock all compartment doors.
- 7. Raise each rear stabilizer jack and rotate into trailering position (horizontal with outrigger bar).
- 8. Retract each outrigger bar and secure in the stowed position with latch pin.
 - **Notice**: Be sure each outrigger jack is securely latched in transporting position by installing the outrigger lock pins before transporting.

Tower Lights - Stowage for Trailering

The light bar and fixtures must be stowed before trailering or transporting.

WARNING! Burn Hazard. The light fixtures become extremely hot during use.

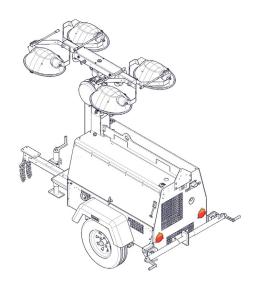
Always use caution and heat - resistant gloves when handling the

Lights or allow to the lights to sufficiently cool down before

handling.

- 1. Ensure lights are off and tower is lowered to the full DOWN position; see *Raising and lowering the light Tower* on page 43.
- 2. Release the light bar park pin by pulling the ring and turning it 90 degrees so that the pin remains in the retracted position.
- 3. Rotate the light bar into the trailering / transport park position (in line with trailer) and engage the park pin by twisting the park pin ring until the plunger is released and the pin engages and locks into the hole in the light bar.
- 4. Reposition the light fixtures for trailering / transport by pulling them down into the lowest position and face the fixtures toward the center of the trailer. (**see below**)

NOTE: If lights are to be removed for trailering / transporting, see *Tower Lights - Removal for trailering / transporting* (Optional) on page 22.



Tower Lights - Removal for Trailering (Optional)

Your light tower may be equipped with lights that can be removed for trailering / transport or for theft prevention.

WARNING! Burn Hazard. The light fixtures become extremely hot during use.

Always use caution and heat - resistant gloves when handling the

Lights or allow to the lights to sufficiently cool down before

handling.

- 1. Ensure lights are off and tower is lowered to the full DOWN position; see *Raising and lowering the light Tower* on page 43.
- 2. Disconnect the electrical cord from each light fixture.
- 3. While supporting the light fixture, remove the nut and washer assembly fastening the main fixture Bracket and remove each light fixture and bracket (**Figure 23**).
- 4. Store each light fixture to avoid any damage during transport.



FIGURE 23

TRAILERING / TOWING

Before trailering / towing the light tower trailer, read *Before Trailering / Transporting* on page 19 and read *Safety* on page 8.

<u>NOTICE</u>: Maximum highway speed is 50 mph (80 km/h) and maximum off highway speed is 10 mph (16 km/h). Do not exceed these limits or damage to light tower may occur.

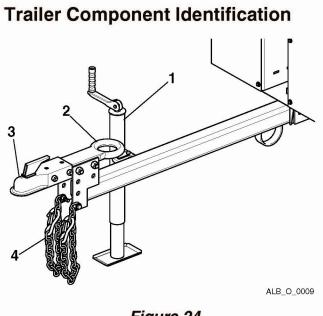


Figure 24

- 1 -Tongue Jack Used to raise, lower and level trailer tongue
- 2 -Pintle Ring Hitch Coupler (3 in.)
- 3 -Ball Hitch Coupler (2 in.)
- 4 –Safety Chains Safety connection to tow vehicle in case coupler disconnects

Towing Vehicle and Hitch Considerations

The towing vehicle must be able to safely pull the full trailer load. Never pull a trailer load that exceeds the vehicle's towing capacity; you risk losing control of the trailer and/or vehicle. Before trailering, always check your vehicle owner's manual for maximum towing/trailering load specifications and maximum gross vehicle weight specifications that include the fully loaded trailer.

The vehicle must have a towing hitch that is capable of safely handling the trailering load and tongue weight of the trailer.

WARNING! Control Hazard. A vehicle hitch that is underrated or improperly installed can lead to loss of control of the trailer and/or vehicle. Never use a hitch size or rating that does not match the trailer coupler specifications.

Connecting the Trailer Hitch Coupler and Lights

The trailer is equipped with a combination trailer coupler for a 2-inch ball hitch and a 3-inch lunette ring for a pintle hitch.

The trailer coupler must be reversed to use either the ball or lunette hitch coupler. To reverse the coupler, remove the two bolts and reposition the coupler as needed.

WARNING! Control Hazard. Ensure the coupler bolts are tightened before trailering.

Typical Lunette Ring Pintle Type Hitch and Coupler

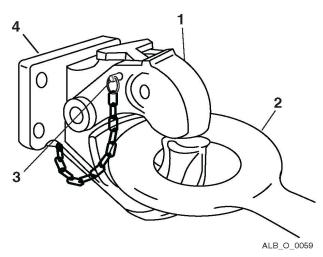


Figure 25

- 1 -Latch and Release Lever
- 2 -Trailer Coupler Lunette Ring
- 3 -Latch Lever Safety Pin
- 4 -Vehicle Hitch

Typical Ball Type Hitch and Coupler

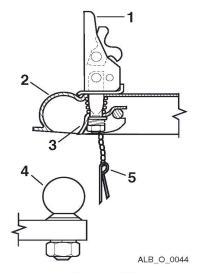


Figure 26

- 1 -Latch and Release Lever
- 2 -Trailer Coupler Socket
- 3 -Coupler Clamp
- 4 -Vehicle Hitch and Ball
- 5 -Latch Lever Safety Pin

The trailer's safety chains prevent the trailer from completely detaching from the towing vehicle when underway.

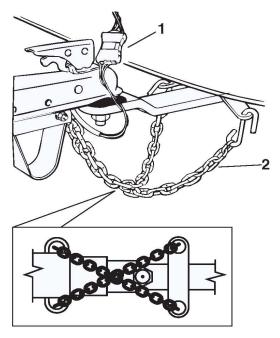
NOTICE: Safety chains must be rated at the same or greater weight capacity as the trailer's GVWR.

Before trailering, read *Before Trailering / Transporting on page19*.

- Connect the tow vehicle hitch to the trailer coupler. Make sure the coupler is securely attached to the tow vehicle's hitch.
- 2. Connect the safety chains (Figure 27, 2) to the vehicle's hitch frame and crisscross the chains under the trailer tongue to prevent the tongue from dropping to the road if the trailer separates from the hitch ball. Rig the chains as tight as possible with enough slack to permit free turning.

WARNING! Control Hazard. Attach the safety chains properly and securely between the towing vehicle and trailer before trailering. Never allow the chains to drag on the ground when trailering.

- Connect the 4-pin light connector (Figure 27, 1) from the vehicle harness to the trailer harness.
- 4. Ensure there is adequate slack in the harness to prevent binding or disconnection when turning.
 - NOTICE: Do not allow excessive harness slack or the harness can be damaged from scraping the ground.
- 5. Before trailering, check all lights for proper operation.



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Figure 27

- 1 –4-pin Trailer Light Harness Connector
- 2 -Trailer Safety Chains

LIFTING THE LIGHT TOWER

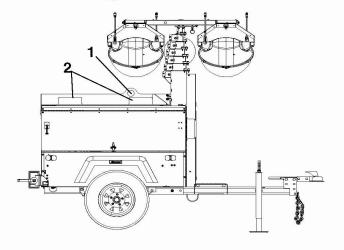
The approximate fully loaded weight of the light tower and trailer is 1807 lb (820 kg).

The **NIGHT-LITE PRO V-Series** light tower is equipped with top forklift pockets and a lifting eye for lifting or hoisting.

The safety messages that follow have WARNING level hazards.

- Rollover Hazard. Before lifting, lower the light tower and shut down the tower lights and the engine; see Shutdown -Prepare for Trailering on page 20.
- Crush Hazard. Always make sure the lifting device you are using is in good condition and is rated for the maximum capacity of the task to safely lift the light tower trailer.
- Crush Hazard. Always acquire assistance when using a forklift, crane or hoist and when loading and unloading.
- Crush Hazard. Only use the lifting eye on the lifting bar to lift or hoist the unit with a hoist or crane.
- Crush Hazard. Always use shackles or a locking-type hook when lifting.
- Crush Hazard. Do not stand or walk under the unit when lifted and keep others away.

Lifting Attachment Points



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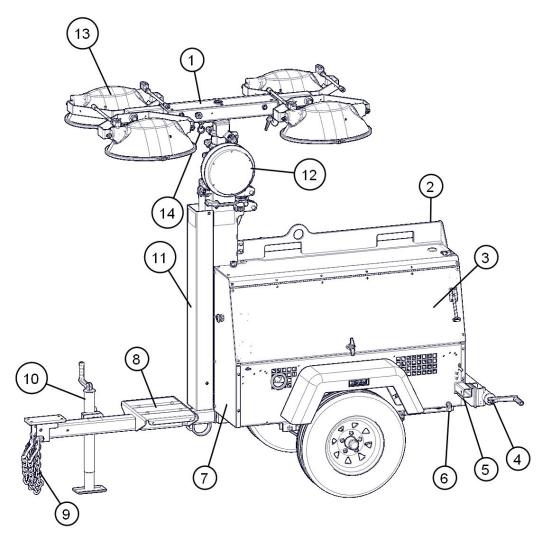
Figure 28

1 -Lifting Eye
2 -Forklift Lift Pockets

TRANSPORTING ON A TRAILER

When transporting on a truck or trailer, always secure the unit using properly rated tie-down chains or straps connecting the light tower trailer frame to the towing trailer. The operator of the towing vehicle is responsible for securing the load properly.

EQUIPMENT IDENTIFICATION



NO	DESCRIPTION
1	LIGHT BAR
2	LIFTING BAR (LIFTING EYE AND FORKLIFT SLOTS)
3	LEFT ENGINE AND CONTROL ACCESS DOOR
4	REAR STABILIZER JACK
5	REAR OUTRIGGER
6	REMOTE OIL DRAIN FITTING
7	BALLAST ACCEESS COVER PANEL W/ E-STOP
8	STEP PLATE
9	SAFETY CHAIN
10	TONGUE JACK
11	HYDRAULIC LIGHT TOWER
12	CORD REEL
13	LAMP ASSEMBLY
14	LIGHT BAR ADJUSTMENT PARK PIN

MODEL AND SERIAL NUMBERS

Model and serial number information is required for product support and repair parts. The following descriptions show model and serial number locations of the primary components.

Trailer

All **NIGHT LITE PRO V SERIES** trailers have a serial number plate (**Figure 3,1**) attached to the rear panel.

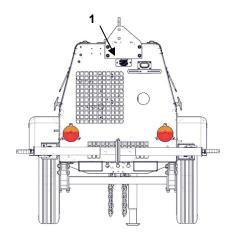


FIGURE 3

Generator

The generator has a serial number plate (Figure 4, 1) attached to the side of the housing.

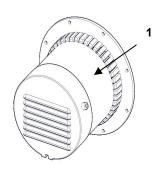
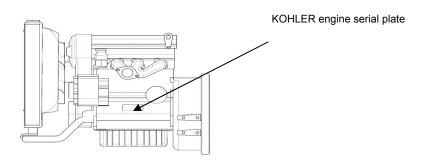


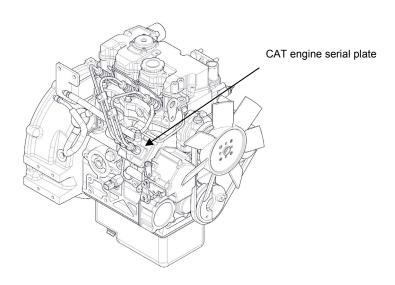
FIGURE 4

Engine

The KOHLER Engine has the serial number plate (**Figure 5**) attached to left side of the engine block by the oil filter

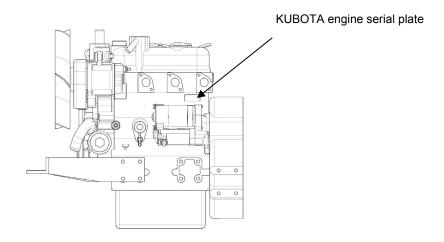


The CATERPILLAR® engine has a serial number plate (**Figure 6**) attached on the upper right side of the engine block above the fuel injection pump.



Engine

The KUBOTA engine has the serial number stamped (**Figure 7**) on the engine block just below the exhaust manifold.



SPECIFICATIONS (STANDARD AND OPTIOANAL FEATURES)

NOTICE: Refer to the Engine or Generator operator's Manual for specific engine or generator specifications.

Trailer

Hitch Coupler	SUPPLIED BY CUSTOMER
Max. Road Speed	
(paved road)	50 mph (80 km/h)
Max. Off - road Speed	10 mph (16.1 km/h)
Number of Axles	1
Axle Rating	2000 lbs (907.1 kg)
Tire Size & Rating	13 in. B
Max Tire Pressure	See Tire Manufacture Specification
Door Locks	Standard
Trailer Lights: Stop,	
Turn and Running	D.O.T. Approved
Trailer ILight Connector	4 - Pin Plug
Lifting Eye	Standard
Tie - Down Rings	Standard
Rear Forklift Pockets	Standard
Side Forklift Pockets	Standard
Top Forklift Pockets	Standard
Number of Stablizers	3
Number of Outrigger	
Stabilizers	2
Tongue Jack	Standard
Ground Rod	Standard

Light Tower

Sections	7
Hydraulic Cylinder	Standard
Vertical	Standard
Max Wind Load 53 mph	
(85.3 km/h)	Standard
Light Bar Rotation	360°
Tower Cord Reel	Standard

Overall Dimensions

Height Light Tower Lowered	7 Ft 1 in. (2.2 m)
Height Light Tower Raised	25 ft (7.9 m)
Width (outriggers retracted)	4 ft 3 in. (1.3 m)
Width (outriggers extended)	7 ft 9 in. (2.24 m)
Length w/o Fixtures	9 ft 5 in. (2.9 m)
Length with Fixtures	9 ft 5 in. (2.9 m)
Dry Weight	1540 lbs (699 kg)
Operating Weight	1807 lbs (820 kg)

Generator

6 kW	Standard
8 kW	N/A
120VAC Convenience Outlet	N/A
125/250VAC Twist - Lock	N/A
50A Service Outlet	N/A
220VAC 1-Phase Twist - Lock Outlet	N/A
220VAC 3-Phase Convenience Outlet	N/A
2 ea. 220V 1-Phase Convenience Outlet	Standard
Main Disconnect Breaker	Standard

Tower Lights

SHO - HD 1250W Metal Halide (lumen rating: 150,000)	N/A
SHO - HD 1000W Metal Halide (lumen rating: 110,000)	STANDARD
SHO - HD 1000W and 1250W Metal Halide	Warm - up time: 2-4 minutes
SHO - HD 1000W and 1205W Metal Halide	Re - start time: 10 to 15 minutes
Four Fixtures	Standard (sealed for all weather use)
Light Fixture Weight	15 lbs (6.75 kg)
Indivdual Light Switches	
1000W Light Switch (2 per 4 lights)	Standard
1000W Light Switch (4 per 4 lights)	N/A
1250W Light Switch (2 per light)	N/A
Individual Ballast (1 ballast per light)	Standard

GENERAL SERVICE INFORMATION

Engine

Model	Kubota D1105BG	Lombardini LDW 1003 (Standard)	Cat C1.1
	(Optional)	(Optional)	
Туре	Water-cooled 4-cycle diesel		
Bore	2.99 in. (76 mm)	2.96 in. (75 mm)	3.03 in. (77 mm)
Stroke	2.90 in. (73.6 mm)	3.05 in. (77.6 mm)	3.19 in. (81 mm)
Displacement	61.1 cu. in. (1002 cc)	62.6 cu. in. (1028 cc)	69 cu. in. (1100 cc)
Power@1800 rpm	13.6 hp (11.4 kW) 13.4 hp (11.2 kW) 14.3		14.3 hp (11.9 kW)
Power Output Derating	3% per 1000 ft above 360 ft 1% per 10° above 77° F		
Note: Horsepower rat Engine Test Code - J		ordance with Society of Au	
Fuel System	Indirect inje	ected diesel	Cassette type fuel injected diesel
Starting System		12VDC Negative Ground	
Electrical System		12VDC Negative Ground	
Battery Type		Group 24	
Battery Rating		550 CCA	
Number of Batteries		1	
Compression Ratio	22:1	22.8:1	22:1
Weight	205 lb (93 kg)	191 lb (87 kg)	191 lb (87 kg)
Oil Capacity	5.4 qt (5.1 L)	2.5 qt (2.4 L)	3.9 qt (3.7 L)
Lubrication	Forced lubrication by pump		
Oil Filtration	Cartridge type		
Cooling System	Pressurized radiator forced circulation with water pump		
Low oil pressure engine shutdown			
High engine temperature shutdown	Standard (All Engines)		
Glow plug cold start assist			
Fuel	Use a clean No. 2 Diesel fuel oil (SAE J313 JUN87) according to ASTM D975. Do not use alternative fuel, because its quality is unknown or it may be inferior in quality, and kerosene, which is very low in cetane rating, adversely affects the engine. Refer to the <i>Engine Operator's Manual</i> for more detailed fuel requirements.		
Engine Oil	Use a high-quality engine oil of API (American Petroleum Institute) service class CC/CD/CE. Refer to the <i>Engine Operator's Manual</i> for more detailed engine oil requirements.		
Fuel Tank	30 gal (114 L)		
Cooling System	See Engine Operator's Manual		
Engine Oil	See Engine Operator's Manual		

OPTIONAL ACCESSORY EQUIPMENT

- Saf t Visor
- LSC100 Light Sequence Commander
- Heavy Duty Battery (675 CCA)
- Battery Heating Pad
- Engine Block Heater
- Sound Attenuation package
- 7 Blade RV Taillight Connector
- Bulldog Hitch (ball/pintle)
- VIN Package (for licensing)
- Quick Disconnect Lamp Fixtures
- Chalwyn Emergency Air Shutoff (Caterpillar or Kubota engines only)

Before performing any operation procedures, read *Safety on page 8*.

PRE-OPERATION SETUP

Work Site Safety Considerations

Height

DANGER! Electrocution Hazard. Always check for overhead wires and obstructions before raising or lowering the light tower. Allow 35 feet (10.6 m) of clearance.

Ground Surface

WARNING! Rollover Hazard. Do not set up on an incline of more than 5° front-to-back and side-to-side.

WARNING! Rollover Hazard. Do not position or set up on unlevel or instable ground. Only set up on smooth, flat and solid ground surfaces.

Wind

WARNING! Rollover Hazard. Do not operate with the light tower extended in winds exceeding 53 mph (85.3 km/h).

When the light tower is in the operating position it is located in the middle of a three-point outrigger system for optimum balance and stability. This system was engineered to allow the light tower to remain operational in sustained winds of 53 mph (85.3 km/h) with the light tower extended to full height and the outriggers in position.

Pre-Operation Check List

Always perform the following checks before traveling to the work site and before operation. Repair or replace any components as required before operation.

NOTICE: See appropriate section of the Engine Operator's Manual and Generator Operator's Manual for additional pre-operation checks.

After completing the pre-operation check list, operate the light tower through a complete operation cycle.

- Visually inspect the equipment to ensure that all instructions and decals are in place and legible.
- Inspect the light tower locking bar latch assembly, which locks the light tower in the vertical position, for proper operation.
- Check the hitch assembly and safety chains.
- Check the outriggers and jacks to make sure they operate properly.
- Inspect the light assemblies for damage and test for proper operation.
- Inspect the electrical wiring for signs of damage.

WARNING! Electrocution Hazard. Do not operate the light tower if the insulation on the electrical cord or other electrical wiring is cut or worn, or if bare wires are exposed.

- Check the ground rod cable and the ground lug. Make sure they are clean, undamaged and functional.
- Inspect the tires to ensure good condition and proper inflation.
- Check engine oil, fuel, engine coolant levels and hydraulic fluid levels, if equipped.
- Check to make sure the Light Tower Operator's Manual, Engine Operator's Manual and Generator Operator's Manual are with the equipment.
- Check to make sure the quick reference operation card is with the equipment and properly tethered.

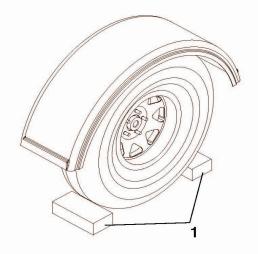
 Physically inspect the machine for damage and repair if necessary.

Leveling and Stabilizing the Trailer

WARNING! Rollover Hazard. Do not set up on unlevel or instable ground. Only set up on smooth, flat and solid ground surfaces. Always level the light tower trailer before raising the light tower.

The **NIGHT-LITE PRO V-Series** must be leveled to 5° or less, front-to-back and side-to-side.

- 1. Position **NIGHT-LITE PRO V-Series** on an adequate site; see *Work Site Safety Considerations on page 36*.
- 2. Block each wheel on each side with a suitable wheel chock (Figure 8, 1).

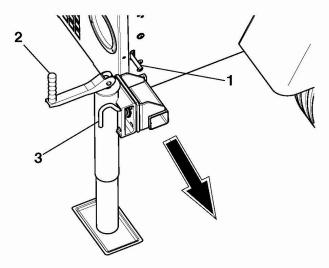


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Figure 8

- 3. Extend the rear outrigger stabilizers out and lock in place (Figure 9).
- 4. Rotate each rear stabilizer jack perpendicular with the ground and lock in place.
- Adjust each rear stabilizer jack and the tongue jack to achieve proper leveling. Turning the handles clockwise will raise the jacks, and counterclockwise will lower the jacks.

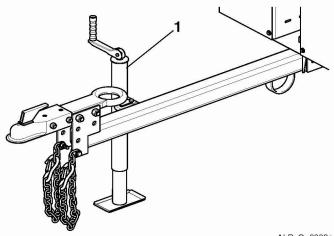
WARNING! Rollover Hazard. All stabilizer jacks must be supported by a flat, level solid ground surface.



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Figure 9

- 1 –Outrigger Lock Pin Locks outrigger in position
- 2 -Jack Handle (rear)- Used to raise or lower outrigger jack
- 3 Jack Pin Locks jack in position to prevent jack from rotating



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Figure 10

1 –Jack Handle (front) - Used to raise or tongue jack

Installing the Ground Rod

The ground rod is a safety device that may reduce the chance of personal injury from stray electrical current. Therefore, Allmand recommends using the ground rod. However, it is the user's responsibility to determine the requirements and/or applicability of local, state or national electrical code which governs the use of the ground rod.

Drive the ground rod fully into the ground using a hammer. Attach the supplied cable to the rod and then attach the cable to the ground lug on the unit. Make sure the cable connections are tightened.

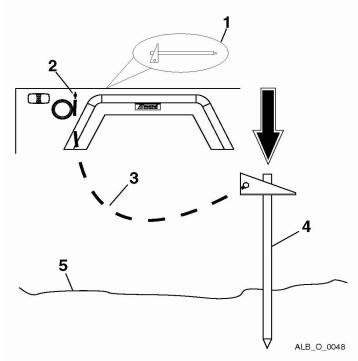


Figure 11

- 1 –Ground Rod Storage Location (inside left panel)
- 2 –Ground Rod Connection Stud and Wingnut
- 3 Ground Rod Wire
- 4 Ground Rod
- 5 -Earth / Ground

ENGINE OPERATION

Before starting the engine or operating the light tower, review *Safety on page 8*.

The Allmand **NIGHT-LITE PRO V-Series** hydraulic light tower is powered by a diesel engine and generator unit.

Pre-Start Checks

- Check the engine oil and add oil if required. Fill the engine with the proper grade of lubricating oil; refer to Engine Operator's Manual for oil specifications.
- 2. Check and add diesel fuel as required.
- Ensure that the air cleaner is firmly attached and air cleaner seals and hose clamps are properly sealed. Air cleaner element should be checked and replaced if necessary.

Engine Control Panels

The engine control panel consist of the engine start/stop key or button, hour meter, glow plug indicator and engine warning indicators.

CAT Control Panel

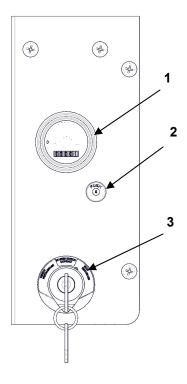


Figure 12

- 1. Hour Meter Shows the Total elapsed hours of engine operation.
- 2. Start Button (Keyless start models only).
- 3. Glow Plug Indicator.
- 4. Key Switch (Key start models only).

KOHLER Control Panel

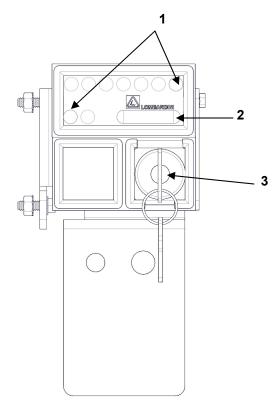


Figure 13

- 1. Engine Warning Indicator Lights.
- 2. Hour Meter Shows the total elapsed hours of engine operation.
- 3. Key Switch.

KUBOTA Control Panel

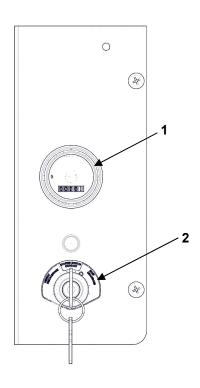


Figure 13

- 1. Hour Meter Shows the total elapsed hours of engine operation.
- 2. Key Switch.

KUBOTA Deep Sea Control Panel (OPTION)

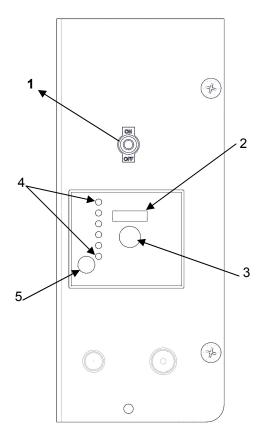


Figure 14

- 1. Main Panel ON/OFF Switch.
- 2. Hour Meter Shows the total elapsed hours of engine operation.
- 3. Start Button.
- 4. Engine Warning Indicator Lights.
- 5. Glow Plug Indicator.

Starting the Engine

The Starting procedure is different Depending on the engine model used. Refer to your *Engine Operator's Manual* for the starting procedure.

Cold - Weather Starting

The cold - weather Staring procedure is different Depending on the engine model used. Refer to your *Engine Operator's Manual* for the cold - starting procedure.

If Engine has Run Out of Fuel

- 1. Refill the fuel tank.
- Refer to your Engine Operator's Manual for the starting procedure.

Notice: Do not operate starter for more than 10 seconds without allowing 30 seconds to pass between starting attempts. Possible starter damage could result from excessive heat caused by cranking too long.

Notice: If the engine develops sufficient speed to disengage the starter but does not keep running (a false start), the engine rotation must be allowed to come to a complete stop before attempting to restart the engine.

If starter is engaged while the flywheels rotating, the starter pinion and flywheel ring gear may clash, resulting in damage to the starter or flywheel ring gear.

Stopping the Engine

The engine stopping procedure may differ depending on the engine model. Refer to your *Engine Operator's Manual* for engine stopping procedures.

Automatic Engine shutdown System

The engine is equipped with an automatic engine shutdown system to prevent excessive engine damage in the event of a low oil or overheat condition. For additional information, refer to your *Engine Operator's Manual*.

Low Oil Pressure Shutoff

Should a low oil pressure condition occur, the oil pressure sending unit breaks the circuit between the circuit between the battery and the fuel solenoid, allowing the spring load to immediately move the fuel control to the shutoff position.

High Coolant Temperature Shutoff

Should a high coolant temperature condition occur, the temperature sending unit breaks the circuit between the battery and the fuel solenoid, allowing the spring load to immediately move the fuel control to the shutoff position.

TOWER LIGHT OPERATION

Before operating the tower light, review *Safety on page 8*.

The light tower is raised and lowered by a hydraulic pump actuating a 7-section telescoping mast.

WARNING! Rollover Hazard. Before raising, lowering or operating the tower lights, the trailer must be set up, properly leveled and stabilized, and ground rod installed; see Pre-Operation Setup section on page 36.

WARNING! Crush Hazard. Allow adequate clearance around and above trailer when raising or lowering the light tower. Ensure that there are no obstructions or persons near the light tower when raising or lowering the light tower.

Light Bar and Light Fixture Adjustment

Lights - Work Site Adjustment

The light bar and light fixtures must be adjusted to the desired work angle before raising the light tower.

With the light tower fully lowered and the lights off, the light bar assembly and light fixtures can be manually rotated into the desired working position.

To adjust the light bar, release the light bar park pin (Figure 16, 1) by pulling the ring and turning it 90 degrees so that the pin remains in the retracted position.

With the light bar park pin released, the light bar is designed to be manually rotated with enough resistance so that the bar will stay in the desired position once the operator has directed the lights on the work zone.

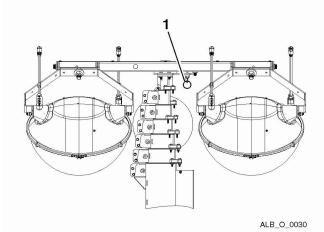


Figure 16

1 -Park Pin

If the light bar rotates too easily or does not stay in position, remove the cap plug from the center of the light bar cover and tighten the nut to achieve the desired resistance and replace the cap plug.

To adjust each light fixture, manually swivel each light fixture at its base into the desired working position (Figure 17).

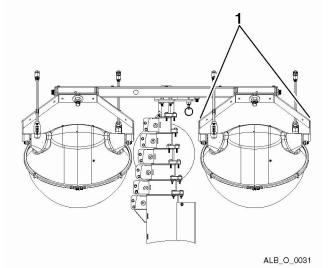


Figure 17

1 -Grasp light fixture here to adjust.

Lights - Trailering Storage

The light bar and light fixtures must be stowed properly for trailering or transporting. See *Tower Lights - Stowage for Trailering on page 21*.

Raising and Lowering the Light Tower

Light Tower

Note: The Hydraulic actuated light tower uses 12VDC battery power to operate. The light tower may be raised and lowered as needed without the engine running.

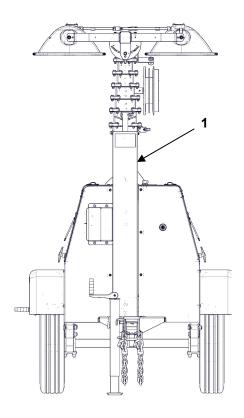


Figure 18

1. Seven Section Light Tower

Raising

NOTICE: Before raising light tower, visually inspect equipment for damage or wear and repair or replace components as required. Never operate the light tower with damaged or malfunctioning components.

- Before raising the light tower, adjust the tower lights to the desired work position; see Light Bar and Light Fixture Adjustment on page 42.
- 2. If required, start engine. Refer to your *Engine Operator's Manual* for starting procedure.
- 3. Turn the lights off; see *Light Control Panel* on page 44.
- 4. Press the light tower hydraulic lift switch up to raise the light tower to the desired height.

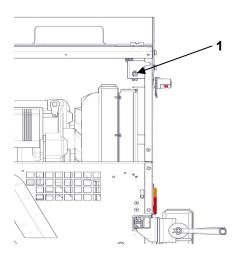


Figure 19

1. Light Tower Hydraulic Lift Switch.

Lowering

- 1. If required, start engine. Refer to your *Engine Operator's Manual* for starting procedure.
- 2. Turn the lights off; see *Light Control Panel* on page 44.
- 3. Press the tower light hydraulic lift Switch down to lower the light tower to the desired height or to the full DOWN position.
- 4. When tower reaches the bottom, run switch for 3 additional seconds to ensure that the tower is at its lowest possible position.
- 5. Stop engine.

Light Control Panel

The tower light control panel consists of the breaker switches.

The four light fixtures are controlled by two breaker switches. The lights are paired (1-2) and (3-4), each pair is controlled and protected by a breaker switch located on the control panel.

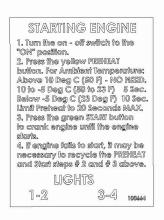




Figure 20

- 1 –Lights 1 and 2 Breaker ON/OFF Switch
- 2 -Lights 3 and 4 Breaker ON/OFF Switch

Lights On

Before turing the lights on, the engine must be running and should be allowed to reach normal operating temperature.

Turn one or both light breaker switches to the ON position.

Lights Off

Turn both light breaker switches to the OFF position.

SHUTDOWN PROCEDURE

Shutdown - Short Period

When shutting down the light tower for a short period, perform the following procedures.

- With the lights off, lower the light tower to the full DOWN position; see Raising and Lowering the light tower on page 43.
- 2. Turn the engine off. Refer to your Engine Operator's Manual for stopping procedure.

Shutdown - Long - Term or Prepare for Trailering

When shutting down the light tower for long periods of time or when preparing to trailer, see *Long - Term Storage* section on page 51 or *Shutdown - Prepare for Trailering* section on page 20.

AUXILLARY AC OUTLET OPERATION

Depending on model options, the convenience panel is equipped with two 220VAC outlets for powering accessories from the generator. Power is supplied to the outlets when the engine/generator is running.

The 220VAC outlet is protected by a 10 - amp circuit breaker.

If the outlet circuit breakers trip, switch off the lights, remove the load to the outlets and wait 10 minutes for the bulbs to cool before turning them back on.

- Disconnect the load from the outlet.
- 2. Turn off the tower lights (if used).

3. Correct the excessive load problem and wait 10 minutes, to allow the generator to cool down before reconnecting the load.

Convenience Panel



Figure 21

- 1 –Grounding Lug Connection to attach the ground rod lead
- 2 -15-amp Pop-up Circuit Breaker
- 3 –120-volt Outlet Receptacle with Cover

Before performing any maintenance procedures, read Safety on page 3.

Scheduled maintenance prevents unexpected downtime, reduces the number of accidents due to poor equipment performance and helps extend the life of the light tower. Proper maintenance and care of your light tower and trailer is a must for safe and reliable operation. Use the following maintenance and care guidelines in addition to those scheduled by your shop equipment maintenance schedule.

Where equipment is operated under severe conditions (very dusty, extreme heat or cold, etc.), affected items should be serviced more frequently.

ENGINE

Refer to the *Engine Operator's Manual* for all engine scheduled maintenance procedures.

Changing and Adding Engine Oil

Use a high-quality engine oil of API (American Petroleum Institute) service class CC/CD/CE. Refer to the *Engine Operator's Manual* for detailed engine oil specifications and service procedures.

All models are equipped with remote oil drains (Figure 29, 1). Remove the cap to drain engine oil.

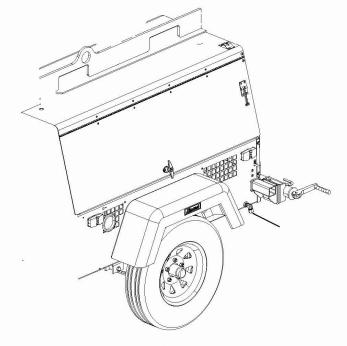


Figure 29

1 -Remote Oil Drain

Engine Filters

Refer to the *Engine Operator's Manual* for air, oil and fuel filter service procedures.

ELECTRICAL SYSTEM

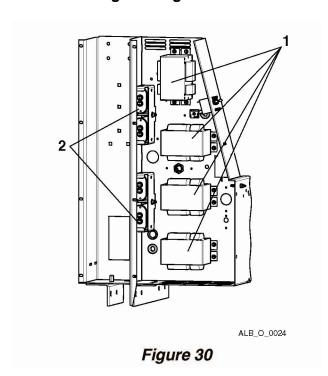
Refer to the *Generator Operator's Manual* for all generator scheduled maintenance procedures.

Ballast Panel

The ballast panel is located on the left, front side of the light tower trailer. The panel can be accessed by removing the panel cover. The ballast contains the four tower light lamp ballast and capacitors. For additional wiring information, see *MECC ALTE GENERATOR* wiring schematics on pages 59-61.

The Safety messages that follow have WARNING level Electrocution Hazards.

- Only qualified electricians should service or perform replacement procedures. Ballast and capacitors are capable of discharging high voltage. Always use appropriate personal safety clothing and gear when servicing electrical components.
- High voltage is present when engine is running. Never attempt to service electrical components while engine is running.
- Do not operate the light tower if the insulation on the electrical wiring is cut or worn, or if bare wires are exposed.
 Repair or replace damaged wiring before starting the engine.



- 1. Lamp Ballast
- 2. Capacitors

HYDRAULIC PUMP

Hydraulic Oil Specifications

108 SERIES HYDRAULIC POWER UNIT Recommended Hydraulic Fluids

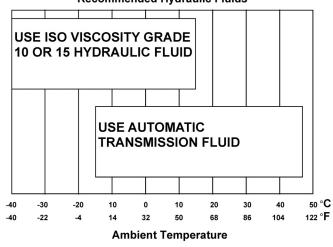


Figure 31

Adding Hydraulic Oil

Fill the reservoir with automatic transmission fluid or any clean hydraulic fluid having a viscosity index that is suitable for the climate conditions in which the unit will be operated. Standard units are supplied with automatic transmission fluid (ATF), and arctic units are supplied with aviation hydraulic fluid (see Figure 31).



Figure 32

Priming the Hydraulic Pump

The ports are marked on the casting: 'UP' and 'DN.' When facing the power unit with the motor up, plug the right-hand, or 'DN' port. Jog the motor until oil flows from the left-hand, or 'UP' port. If oil does not flow from the 'UP' port, reverse the wire leads on the motor, and repeat. The pump is now primed. Connect the hose (or tubing) to the 'UP' port and tighten. Connect the other hose end to the blind end of a fully retracted hydraulic cylinder. With the hose fitting loose, operate the power unit until oil (and no air) bleeds from the fitting. Tighten the fitting. Refill the reservoir.

LIGHT TOWER AND LAMPS

Changing Lamps

WARNING! Burn Hazard. The light bulbs and the fixtures become extremely hot during use. Allow the bulbs and fixtures to sufficiently cool down before changing bulbs or severe burns may result.

- 1. Turn off the lights and shut off the engine. Allow the bulbs and fixtures to cool.
- 2. Lower the light tower to full DOWN.
- 3. Loosen the lens channel screws (Figure 33, 5) to allow the removal of the lens channel (Figure 33, 6).

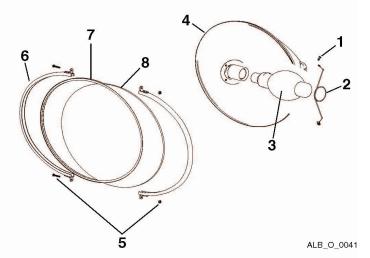
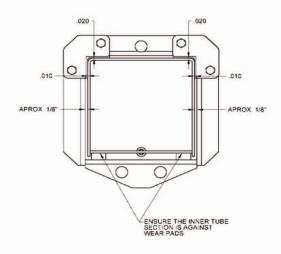


Figure 33

- 1 -Support Clip Screws (2)
- 2 -Support Clip
- 3 -Lamp
- 4 -Reflector
- 5 -Lens Channel Screws and Nuts (2 each)
- 6 -Lens Channel
- 7 -Silicone Gasket
- 8 -Lens
- 4. Remove the silicone gasket (Figure 33, 7) and lens (Figure 33, 8).
- 5. Remove the support clip screws (Figure 33, 1) and support clip (Figure 33, 2).
- Carefully remove the old lamp (Figure 33, 3) and install the correct replacement lamp.
- 7. Clean the reflector (Figure 33, 4) and lens.
- 8. Install the support clip and screws.
- Install the silicone gasket and lens; replace if damaged or needed.
- 10. Install the lens channel and screws.
- 11. Test the new lamp to ensure proper operation.

Tower Corner Guide Block Adjustment

- Make sure the corner guide block cover plate is on top of the UHMW (plastic) corner friction block and a 3/8 internal star washer is between the block and the mounting flange of the tower. This washer is necessary to ensure a grip between the friction block and the metal flange of the tower.
- Use 1/8 in. spacers to center the inside tower in the middle of the outside tower (Figure 34).
- 3. Using a .010 in. shim and .020 in. shim for spacers, place a .010 in. shim between the friction block and the inner tower section sides (Figure 34).
- 4. Make sure the inner tower is against the 3/8 in. thick UHMW blocks mounted inside the outer tower and use the .020 in. shim to set the friction block distance from the inner tower section (Figure 34).
- 5. Tighten the 1/4-20 nuts. Continue to set all corner friction blocks on all sections using this procedure.



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Figure 34

TRAILER

Proper maintenance and care of your trailer is a must for safe and reliable operation. Follow these maintenance and care guidelines in addition to those scheduled by your shop equipment maintenance schedule.

Frame

- 1. Check the coupler operation and for corrosion or damage; replace as needed.
- Inspect the lifting bar for corrosion or damage; replace as needed.
- Inspect the trailer frame and body panels for rust, nicks and chips. Use the proper touch-up paint to touch up nicks or scratches. Contact your dealer for additional information.
- Inspect the axle, springs and undercarriage for wear and damage; replace as needed.
- Inspect the outrigger bars, front and rear stabilizer jacks and locking mechanisms for proper operation, wear and damage; replace as needed.
- Inspect the safety chains for wear and corrosion damage; replace as needed.

Grease Points

Use N.G.L.I. consistency #2 high-temperature anti-friction bearing lubricating grease for all trailer mechanical pivot points.

Trailer Wheels and Tires

WARNING! Towing Hazard. Never tow the trailer with damaged tires, rims or lug nuts.

 Check the tires for any cracks, cuts or damage. Repair or replace the damaged tires before towing.

- Check the air pressure of the trailer tires when cold. The correct air pressure for the tire is specified on the tire. Never over- or under-inflate tires.
- Check the wheel rims for any cracks or damage.
- 4. Make sure all the lug nuts are in place. Never tow the trailer with missing or improperly tightened lug nuts.
- 5. Check that the lug nuts are tightened properly. The correct torque for the lug nuts is 90 lb-ft (122 N·m).
- 6. When torquing lug nuts, always use a criss-cross pattern (Figure 35).

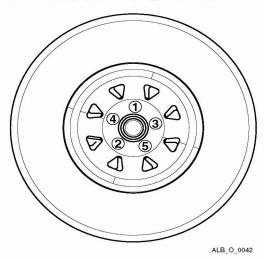


Figure 35

Wheel Bearings

Typical Wheel Hub Bearing Assembly

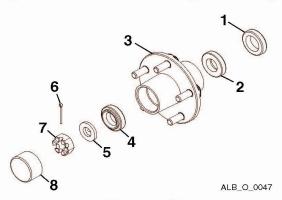


Figure 36

- 1 -Hub Grease Seal
- 2 -Inner Hub Wheel Bearing
- 3 -Wheel Hub
- 4 -Outer Hub Wheel Bearing
- 5 -Washer
- 6 -Cotter Pin
- 7 Castle Nut
- 8 Dust Cover

Wheel bearings require periodic maintenance and scheduled replacement; more frequent service may be required under extremely dusty or damp operating conditions. The best protection against failure is to keep the wheel bearings clean and fully lubricated.

When replacing or repacking wheel bearings, always:

- Use a high-quality wheel bearing grease.
- · Avoid mixing grease types.
- Clean all components thoroughly of all grease and inspect for damage and wear; replace as needed.
- Always use a new grease seal and cotter pin.
- Keep all components clean during assembly.

- Replace any component that is operationally questionable.
- Always replace bearings and races as a set. Never mix bearings and races. Bearing part numbers are sometimes found on the bearing races; always use the correct bearing set.
- Pack grease into the bearing before installing it.
- Do not over- or under-tighten the bearing nut. Wheel bearings should only be tightened by hand (spin the wheel while tightening). Back off the nut to insert the cotter pin. The wheel should spin freely but without play.
- Pack some grease in the inner hub area and dust cap and ensure the dust cap fits tightly.

Trailer Lighting

WARNING! Towing Hazard. Never tow the trailer with inoperable trailer lights.

Lights are a vital safety feature of your trailer and are also required by state law. Keep the lights in proper working order.

- Check the trailer lights and harness for damage or wear; repair or replace as needed.
- Ensure the harness is secured to the trailer and does not hang down onto the ground.
- Check the taillight housing assemblies for damage or leaks. Use silicone or rubber sealant to seal the lens or harness, as required, or replace the housing assembly. Electrical grease will help protect the sockets and prevent their corrosion.
- When replacing bulbs, ensure the proper bulb is used and use a small amount of electrical grease in the sockets to prevent corrosion.

For trailer light wiring schematic information, see *Taillamp Wiring on page 53*.

LONG-TERM STORAGE

Proper maintenance is required when the light tower and trailer will be stored or removed from operation for long periods of time.

Refer to the *Engine Operator's Manual* and the *Generator Operator's Manual* for all engine and generator long-term storage procedures.

- Lower the light tower to the full DOWN position.
- Make any repairs necessary to ensure the equipment is fully functional upon recommissioning.
- 3. Clean and wash the frame and body panels. Apply an anticorrosion coating to all surfaces where applicable.
- 4. Clean any oil or liquid spills inside the engine compartment.
- 5. Clean all electrical wiring and components by hand using a non-corrosive cleaner.
- Clean the light tower and light fixture assemblies.
- Disconnect and remove the battery.
- 8. Use a suitable cover to protect the light tower and trailer.
- Properly support the trailer axle on jack stands or other suitable supports to allow the tires to remain off the ground during storage.

CLEANING

Keeping the light tower clean is important to ensure proper operation. Dirt and dust buildup acts as an insulator and may cause the engine, generator and light assemblies to operate at excessively high temperatures.

Use the following as cleaning guidelines:

- Use caution when using compressed air or water/steam pressure washers. Do not pressure-clean electrical components, as this may damage electrical components.
- Clean the light tower and remove all dust, dirt or other foreign material.
- Inspect and clean the cooling air intake and exhaust louvers of the enclosure. Make sure they are clean. Remove dirt or any buildup that may restrict the cooling air flow.
- Clean the light tower and its components with a damp cloth or sponge.
- Inspect and clean all engine linkages so they operate properly.

Cleaning and Draining the Trailer Bilge

All Allmand **NIGHT-LITE PRO V-Series** light towers contain a sealed bilge designed to catch fuel, oil or coolant spills. Should a spill occur, position a suitable container beneath the unit and remove the bilge drain plug. After the fluid has been drained, reinstall the drain plug and dispose of the fluid properly in accordance with EPA or other governmental guidelines.

Before performing any troubleshooting procedures, read the following safety messages and read *Safety on page 8*.

For engine and generator troubleshooting, see the *Engine Operator's Manual* and *Generator Operator's Manual* or contact your dealer.

The safety messages that follow have WARNING level Electrocution Hazards.

 Only qualified, licensed electricians should service or perform replacement procedures. Ballast and capacitors are capable of discharging high voltage. Always use appropriate personal safety clothing and gear when servicing electrical components.

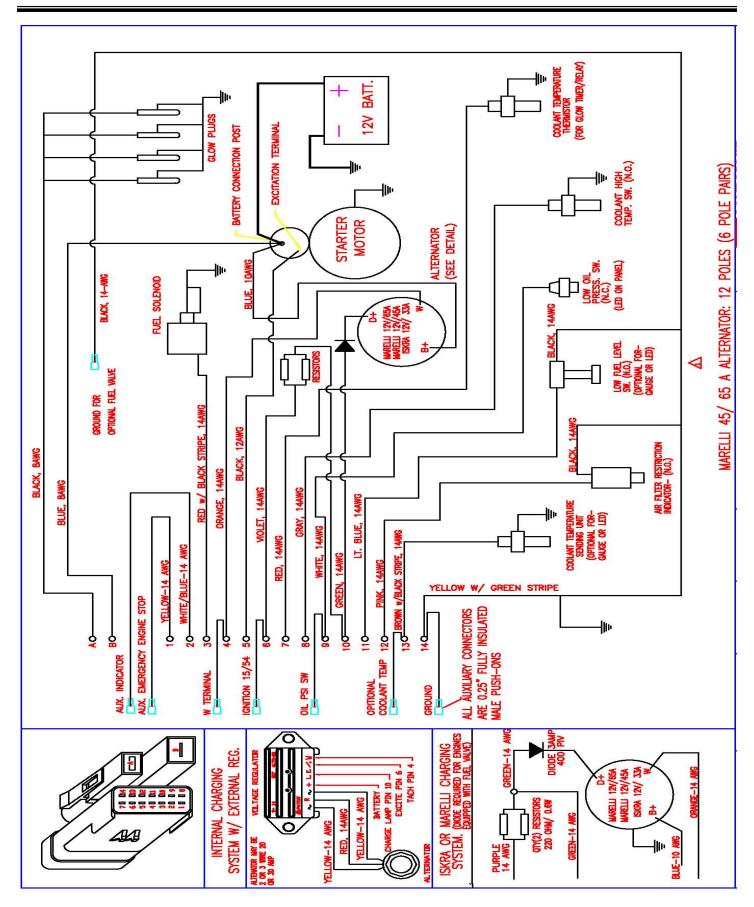
- High voltage is present when engine is running. Never attempt to service electrical components while engine is running.
- Do not operate the light tower if the insulation on the electrical wiring is cut or worn, or if bare wires are exposed. Repair or replace damaged wiring before starting the engine.

Always follow the electrical component manufacturer specifications for voltage and test procedures.

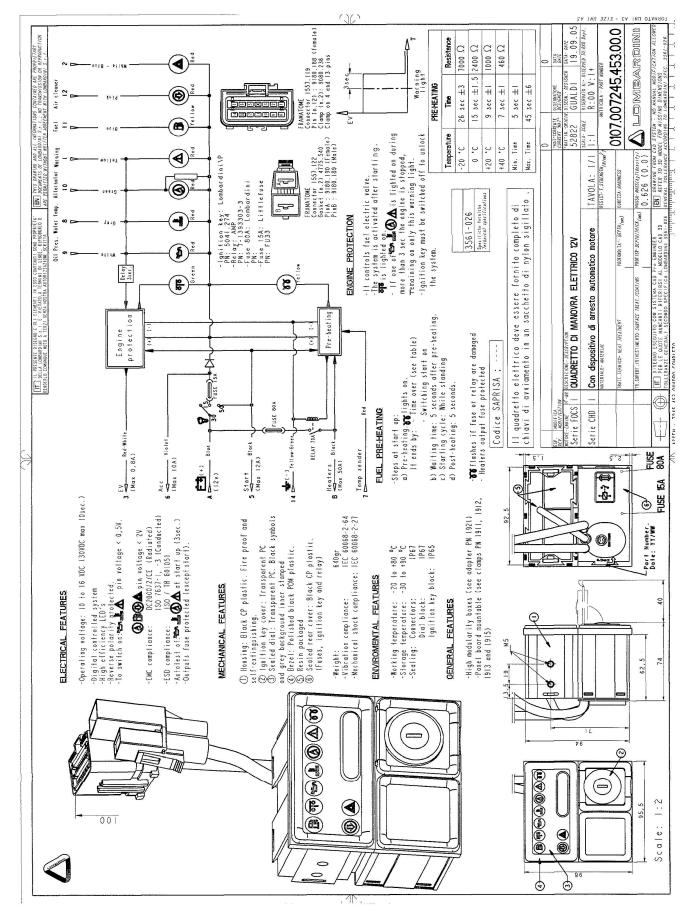
TROUBLESHOOTING CHART

PROBLEM	POSSIBLE CAUSE		
	1. Circuit breakers in the outlet box are not turned on or have tripped.		
	2. Lamps are not allowed time to cool after last being lit. You must allow 15 minut between the time the lights are shut off and the time they are restarted.		
	3. The lamp or lamps are burned out or broken.		
	4. One or more of the lamps are not screwed in securely.		
	5. Plug and socket at light bar not securely pushed together and locked.		
NO LIGHT (ONE OR MORE	6. The temperature of the ballast is below -20°F (-29°C). The efficiency of the capacitors in the ballast is not enough to ignite the lamps. For operations where t temperature of the ballast falls below -20°F (-29°C), some means of warming the ballast must be used.		
LIGHTS)	7. Low electrical system voltage.		
,	8. A loose connection in the back of the lamp socket in the lamp holder.		
	9. A circuit breaker or breakers are defective.		
	10. A loose connection on the terminal board.		
	11. The engine and generator are not running up to speed (1800 RPM)		
	12. A wrong style replacement lamp (requiring a different ballast) has been installed		
	13. Too much power is being drawn from the auxiliary outlets.		
	14. Capacitor or transformer has failed.		
	15. Corrosion has occurred on the lamp bases.		

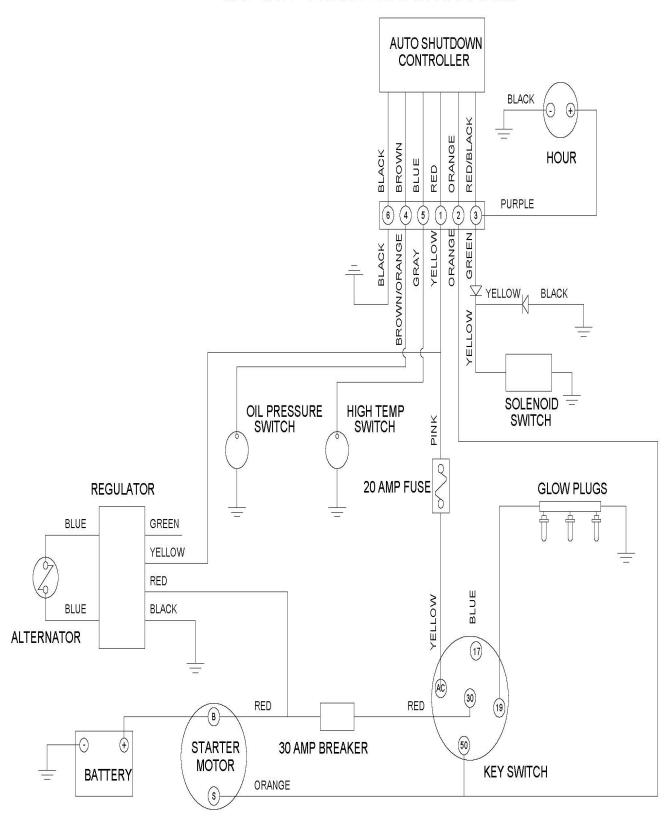
DATE	SERVICE DESCRIPTION	SERVICED BY



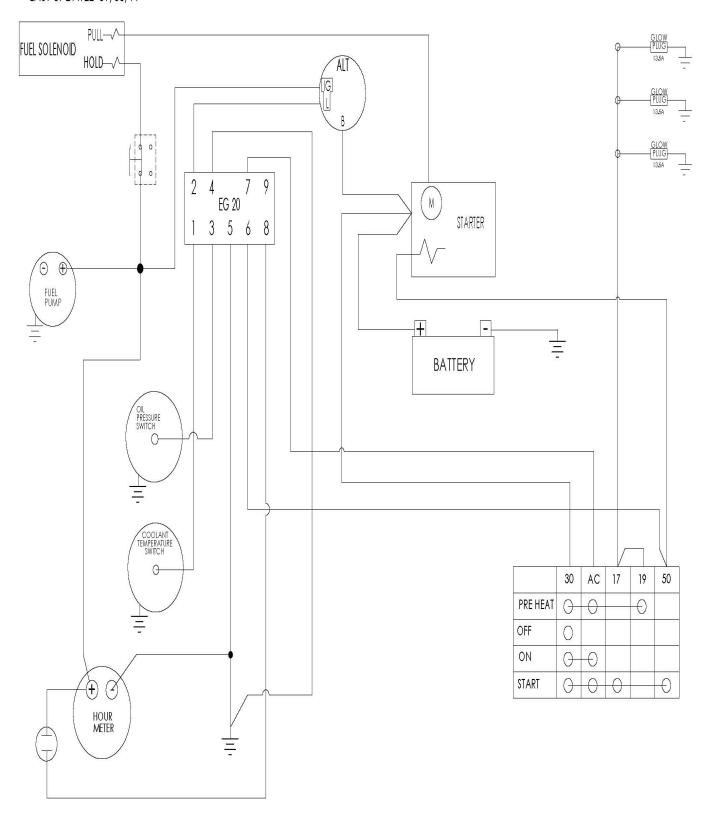
KOHLER CONTROL PANEL WIRING SCHEMATIC 6/9/2011

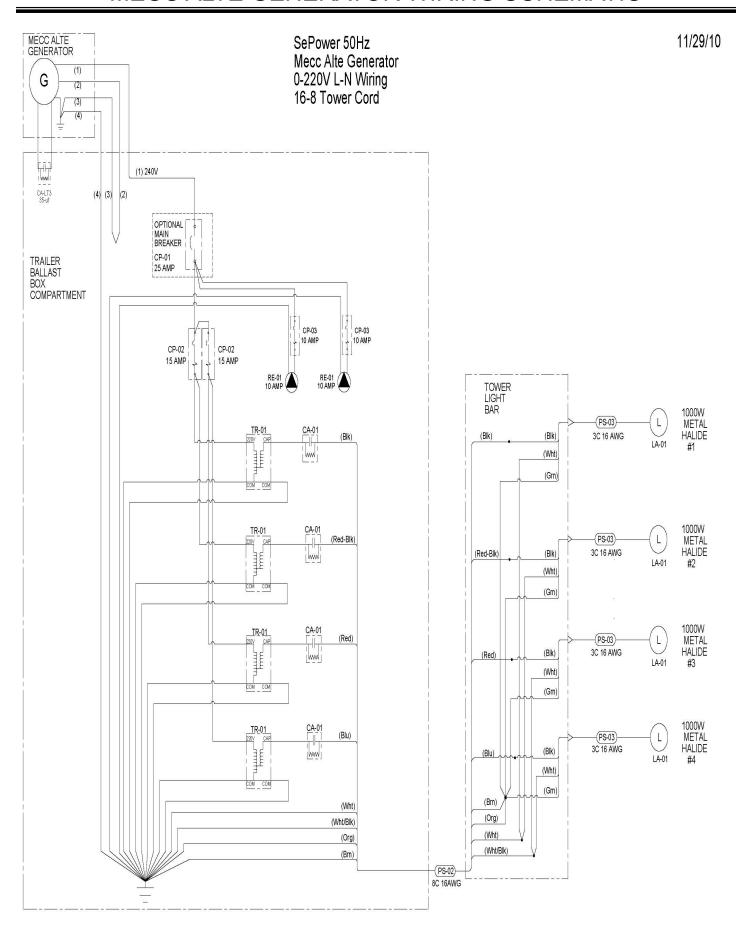


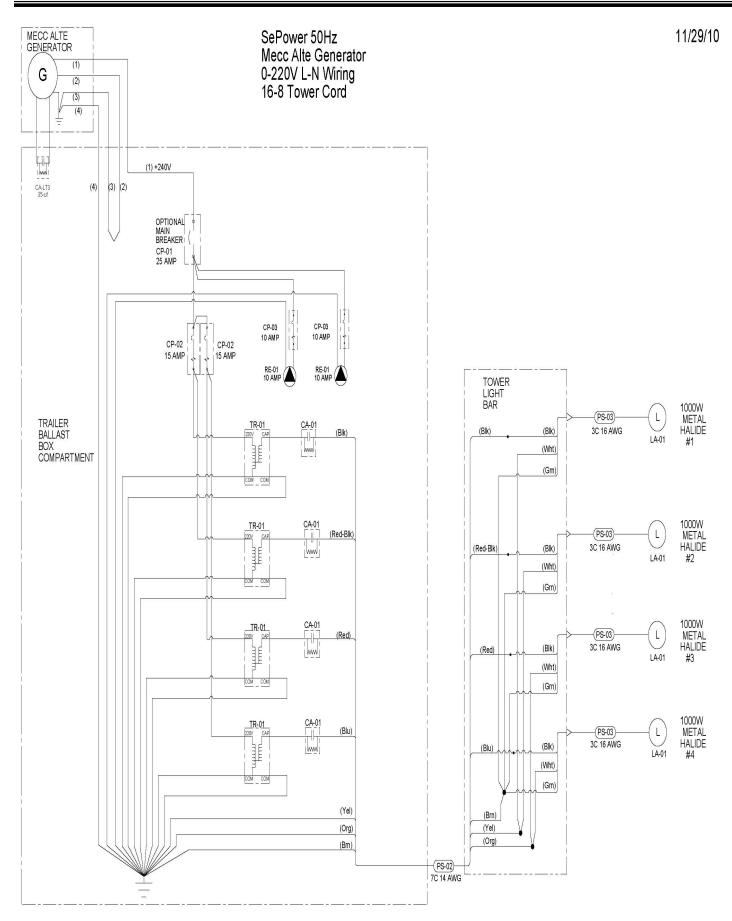
CAT C1.1 ENGINE WIRING HARNESS



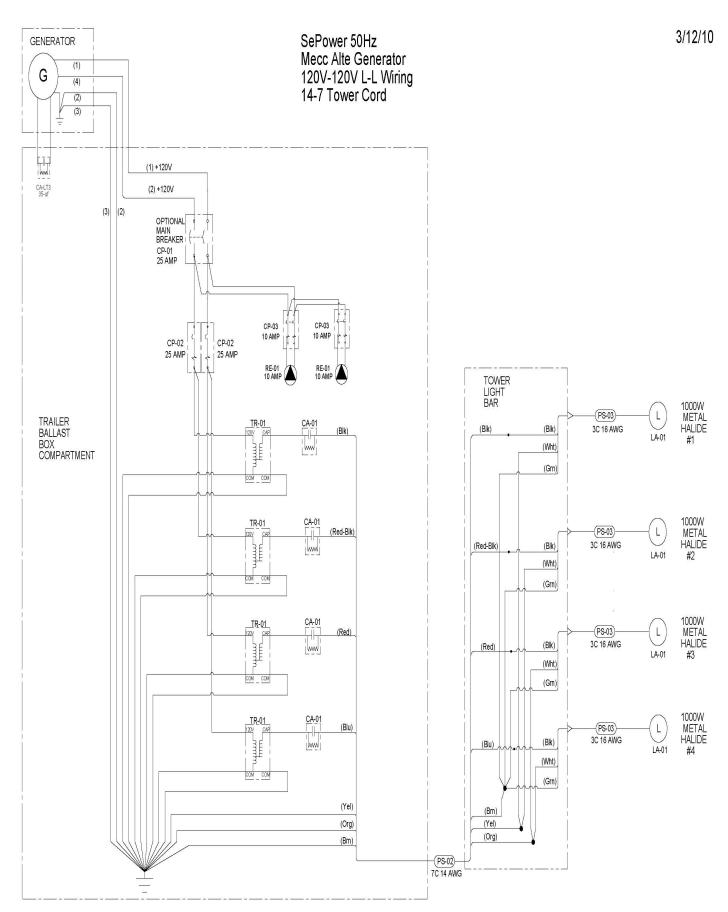
ALLMAND 1105 WIRING SCHEMATIC WITH KUBOTA TIMER MODULE LAST UPDATED 01/06/11

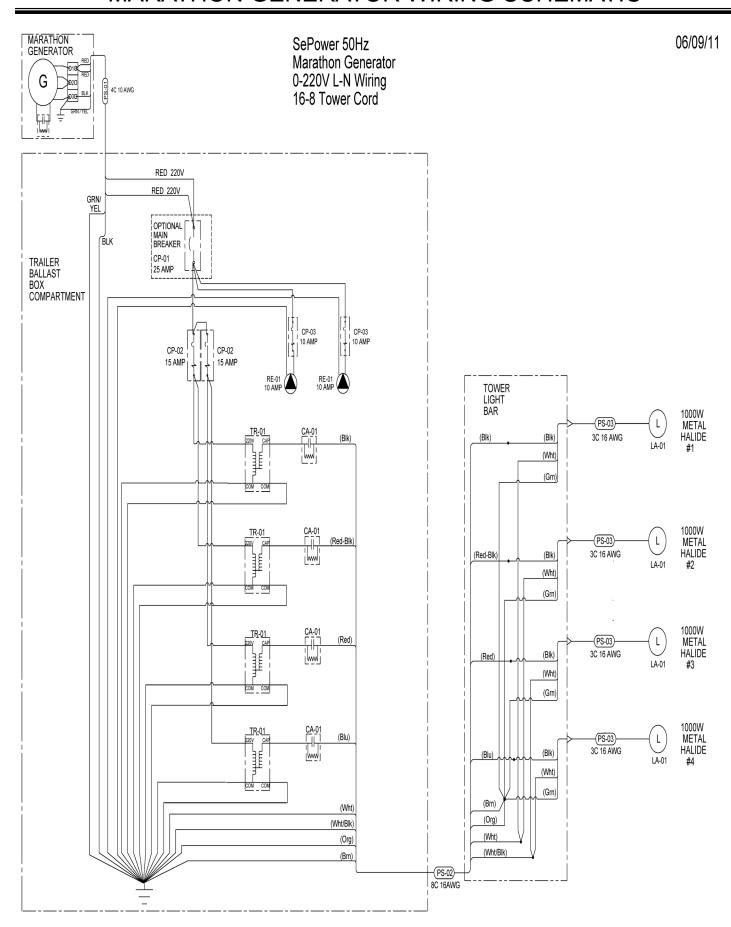


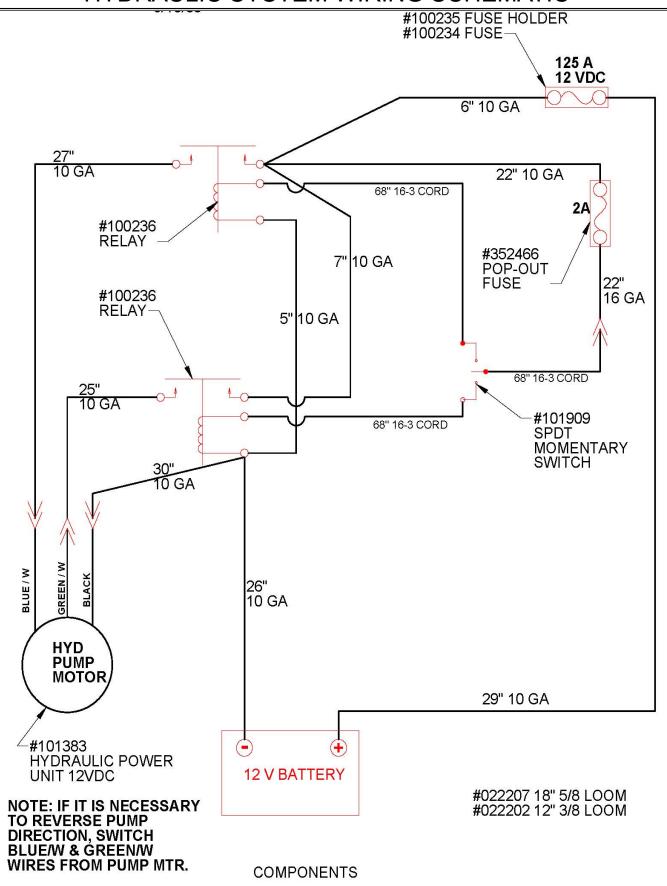




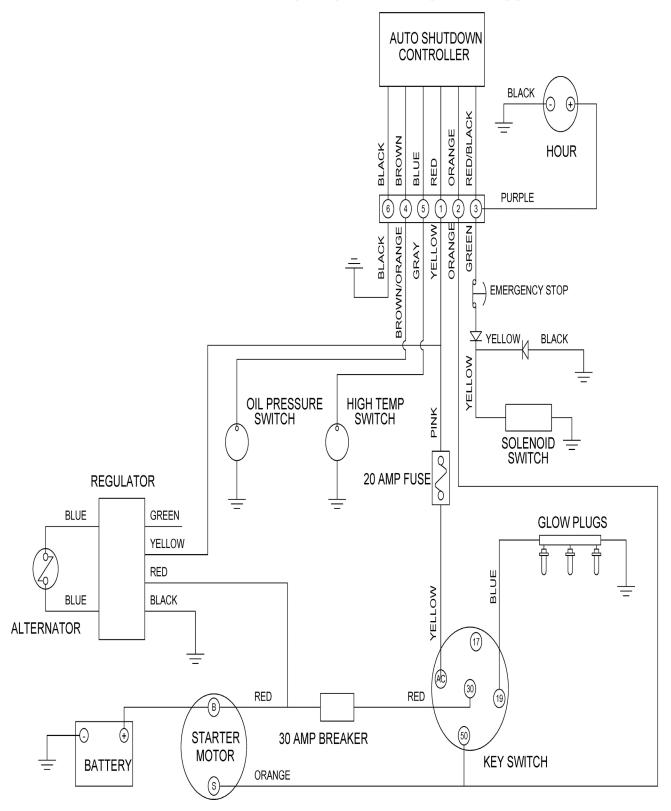
PRE 2011 MECC ALTE GENERATOR WIRING SCHEMATIC 6/9/2011



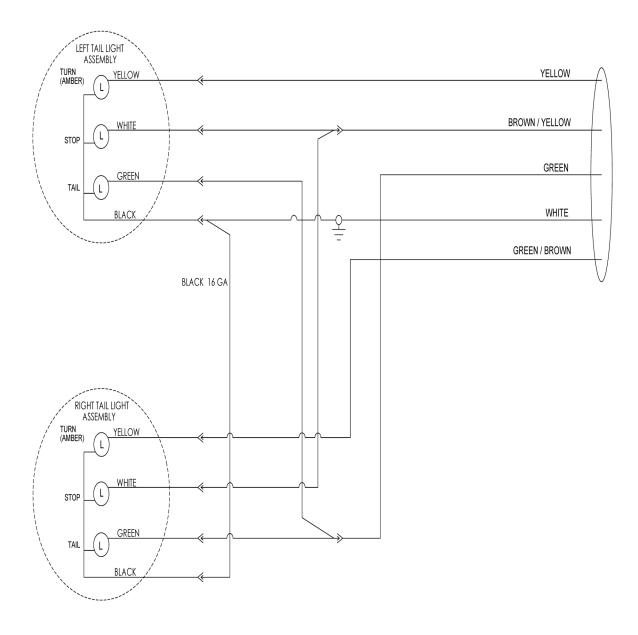




PERKINS ENGINE WIRING HARNESS



TAIL LIGHT WIRING



ALLMAND LIGHTING SYSTEMS LIMITED WARRANTY UNITED STATES and U.S. TERRITORIES

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR PURPOSE AND ANY EXCEPTIONS ARE DESCRIBED IN THE PUBLISHED LIMITED WARRANTY ADDENDUM, AVAILABLE UPON REQUEST.

COMPONENTS, SUB-ASSEMBLIES, AND DEVICES MANUFACTURED BY OTHER MANUFACTURERS ARE NOT COVERED BY THIS WARRANTY. ALL WARRANTY INFORMATION FROM SUCH OTHER MANUFACTURERS IS PROVIDED WITHIN OR ACCOMPANIES THESE GOODS.

Subject to the foregoing, the manufacturer, Allmand Bros. Inc., hereby warrants all light towers manufactured by Allmand Bros. Inc. after April 1, 2008 to be free from defects in material and workmanship for a period of (2) years after delivery to the original purchaser. The first year warranty would include parts and labor. The second year warranty would be limited to parts manufactured by Allmand Bros. Inc. and components warranted by the original equipment manufacturer for more than 12 months. Additionally, Allmand Bros. Inc. hereby warrants all replacement parts supplied by Allmand Bros. Inc. to be free from defects in material and workmanship for a period of 90 days after date of invoice. Delivery shall be deemed for the purposes of this warranty to have occurred no later than five days following the date of sale agreement or invoice unless the purchase agreement or invoice specifically states a later delivery date in which case such delivery date shall control. The original purchaser shall be deemed to be a person who places the goods or products in actual use, and any person holding such goods solely for wholesale or retail sale purposes shall not constitute an original purchaser. PROVIDED, any leasing of these goods or other use beyond normal demonstration of same shall be deemed to be in use by an original purchaser and all warranty periods shall commence at the time of such use. During the warranty period any defective goods or parts hereof shall be repaired or replaced at manufacturer's discretion. In the event it is necessary to return such goods or parts to the factory, all transportation charges shall be prepaid. The manufacturer shall in no event pay mileage expenses, but will warrant outbound ground freight. The manufacturer shall in no event be responsible for down time and or lost revenue.

The obligations of the manufacturer is solely to repair or replace defective goods or parts or to refund the cost of the same if it is determined by the manufacturer that repair or replacement will not return the goods to proper working order or utility. THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE AND MANUFACTURER SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES. THE OBLIGATIONS OF THE MANUFACTURER HEREUNDER SHALL IN NO WAY EXCEED THE PRICE OF THE EQUIPMENT OR PART UPON WHICH SUCH LIABILITY IS BASED.

The warranty shall not extend to tires, lamps, batteries, or parts that have been altered, changed, damaged, or improperly installed, repaired, operated or maintained. Provided, this exclusion shall not apply to installations, repairs or other work done at the manufacturer's plant or under direct manufacturer's supervision. The Operator's Manual, to the extent covered therein, is deemed to set forth the proper procedures for operation, repair, installation, and maintenance of these goods.

No representative, dealer or distributor of the company is authorized to make any changes or exceptions to this warranty unless expressly authorized in writing from the manufacturer. All warranty claims must be filed within thirty (30) days of the failure.

ALLMAND LIMITED WARRANTY 1YR LIGHTING SYSTEMS 5/08

LIGHTING SYSTEMS LIMITED WARRANTY ADDENDUM

THIS IS AN ADDENDUM TO THE BASIC ALLMAND LIMITED WARRANTY OF TWO (2) YEARS AFTER DELIVERY TO THE ORIGINAL PURCHASER.

The following manufacturers limited warranty policy warrants their components to be free from defects in material and workmanship from date of manufacture as follows (see specific manufacturer's warranty for details):

CATERPILLAR	TWO (2) YEAR LIMITED	2000 HOURS
KUBOTA	THREE (3) YEAR LIMITED	3000 HOURS
LOMBARDINI	THREE (3) YEAR LIMITED	3000 HOURS
ISUZU 3CD	TWO (2) YEAR LIMITED	2000 HOURS
ISUZU 4LE	FIVE (5) YEAR LIMITED	5000 HOURS

ADVANCE BALLAST	TWO (2) YEAR LIMITED	
MARATHON	TWO (2) YEAR LIMITED	1000 HOURS
MECC ALTE	ONE (1) YEAR LIMITED	
STAMFORD	ONE (1) YEAR LIMITED	==
LIGHT TOWER ASSEMBLY	TEN (10) YEARS	FAILURE TO OPERATE DUE TO CORROSION

No representative, dealer, or distributor of the company is authorized to make any changes or exceptions to this warranty unless expressly authorized in writing from the manufacturer. All warranty claims must be filed within thirty (30) days of failure.

Please call the Allmand Service and Warranty Department for specific manufacturer's warranty terms and schedules. All warranties are subject to change without notice.

Limited Warranty LIGHTING SYSTEMS Addendum 4/08



REVISED JANUARY 2011

NIGHT LITE PRO V-SERIES SE POWER PARTS BOOK

ALLMAND BROTHERS INC. P.O. BOX 888 HOLDREGE, NE 68949

PHONE: (308) 995-4495, 1-800-562-1373

ALLMAND FAX: (308) 995-5887

ALLMAND PARTS DEPT. FAX: (308) 995-4883

www.allmand.com



California Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

California Proposition 65 Warning

Battery posts, terminials, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm.

Wash hands after handling.

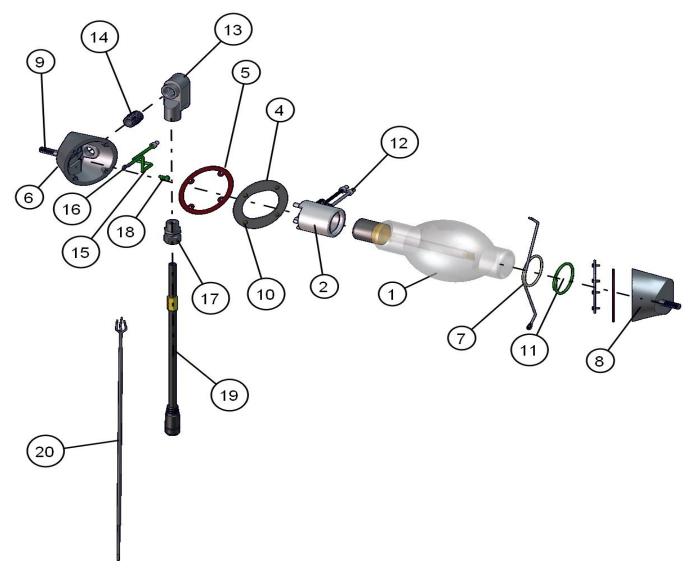
RECORD IMPORTANT INFORMATION

Company Equipment No.:	
Unit Model No.:	
Unit VIN:	
Engine Model No.:	
Generator Model No.:	Serial No.:
Accessories:	

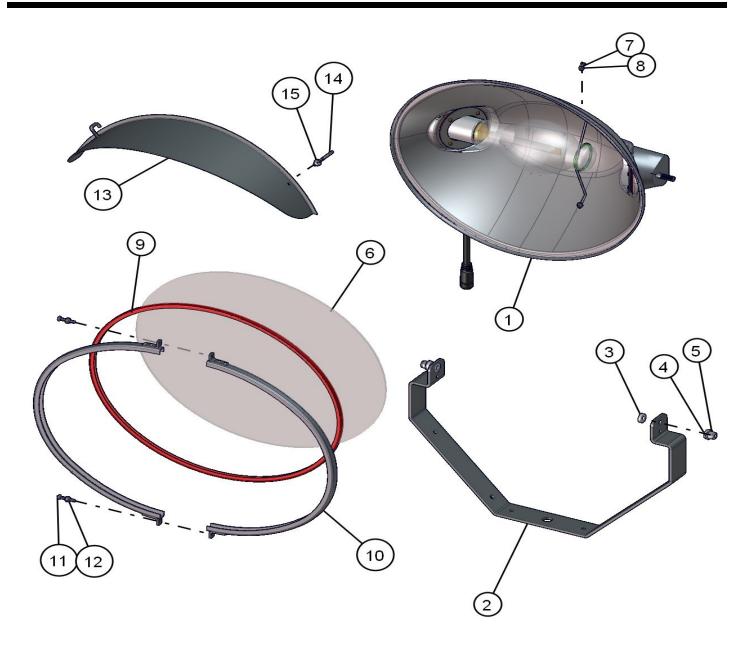
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NIGHT LITE PRO V-SERIES SE POWER



NO	QTY	PARTNO	DESCRIPTION
1	1	610211	LAMP 1000W BT37(MH)
2	1	610212	CERAMIC SOCKET
4	1	610208	INTERIOR COVER PLATE
5	2	610213	GASKET
6	1	610205	SOCKET END CAP, w. STOP BOSS
7	1	610209	LAMP SUPPORT TIP
8	1	610205	SOCKET END CAP, w. STOP BOSS
9	2	045142	STUD 3/8-24 X 3/8-16 X 2"
10	8	041028	10-24 X 1/2 HEX MACH SCREW
11	1	610210	FIBERGLASS MESS TUBE 12"
12	3	022060	WIRE CAP SMALL
13	1	610214	ELBOW
14	1	610215	NIPPLE
15	1	020133	14 AWG GREEN 6"
16	1	022155	#10 ELEC. RING
17	1	510007	1/2 DIA CORD GRIP
18	1	041257	10-32 GROUND SCREW
19	1	310434	MALE CONNECTOR CABLE (OPTION)
20	1	650159	16/3 X 68 HARD WIRED LEAD (OPTION)



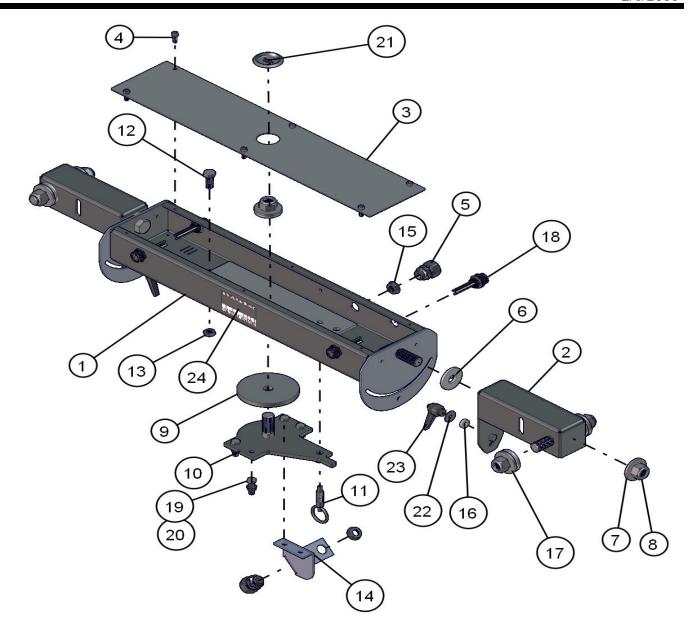
NO	QTY	PARTNO	DESCRIPTION
1	1	610201	REFLECTOR
2	1	680493P	YOKE MOUNT
3	4	047019	3/4 OD X .385 ID NYLON BUSHING
4	2	047016	3/8 SAE FLAT WASHER
5	2	044037	3/8-24 NYLOC NUT
6	1	610203	LENS FROSTED
7	2	041200	8-32 X 1/2 HEX MACH SCREW
8	2	044013	#8-32 NYLOCK NUT
9	1	610217	SILICONE GASKET
10	2	610202	LENS CHANNEL
11	2	041036	10-24 X 1 1/4 SS RHMSPH
12	2	044019	10-24 NYLOC NUT
13	1	610017A	SAF-T VISOR (OPTION)
14	2	045070	#10-24 HOOK SQ BD BOLT (OPTION)
15	2	044023	1/4-20 NYLOCK NUT (OPTION)

SHO LAMP ASSEMBLIES

NIGHT LITE PRO V-SERIES SE POWER

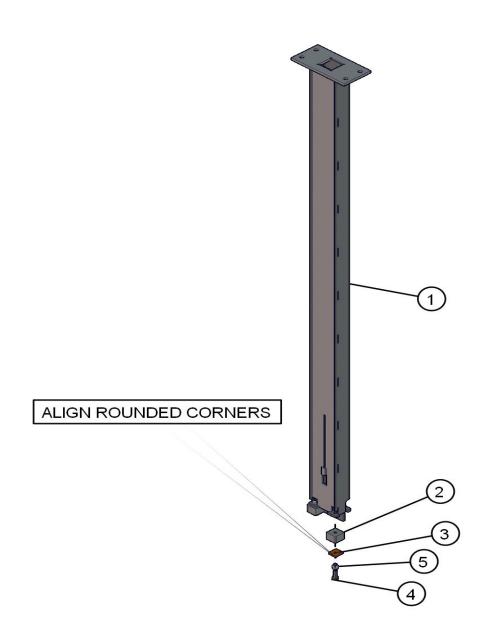
2/1/2011

610250 - LAMPHOLDER ASSY W/ YOKE W/ LAMP (610211) QD LEAD 650144 - LAMPHOLDER ASSY W/ YOKE W/ LAMP (610211) NO LEAD 610265 - LAMPHOLDER ASSY W/ YOKE W/ LAMP (610218) QD LEAD 610263 - LAMPHOLDER ASSY W/ YOKE W/ LAMP (610218) NO LEAD 100632 - LAMPHOLDER ASSY W/ YOKE W/ LAMP (610221) QD LEAD 100633 - LAMPHOLDER ASSY W/ YOKE W/ LAMP (610221) NO LEAD

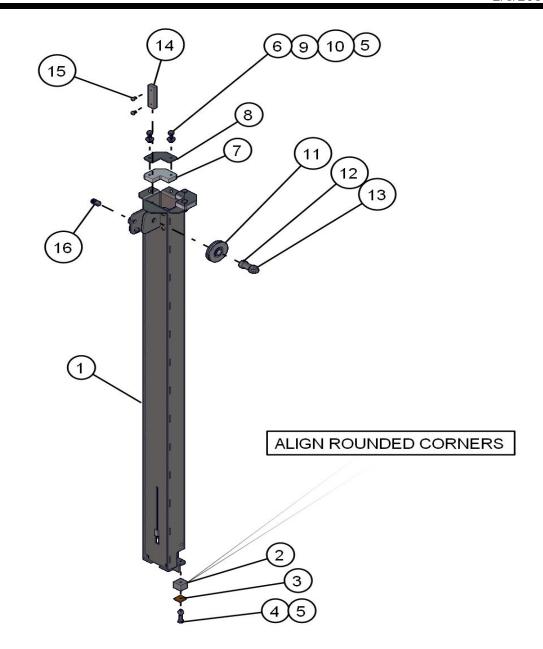


NO	QTY	PARTNO	DESCRIPTION
1	1	101930P	LIGHT BAR
2	2	101931P	LAMP MOUNT
3	1	101929P	COVER
4	6	041070	1/4-20 X 3/4 SL- SELF TAPPING SCREW
5	2	310033	1/2 CORD GRIP
6	7	650550	.785 X 2" HDPE WASHER
7	3	047035	3/4 FLAT WASHER PLTD
8	7	044058	3/4-10 NYLOCK PLATED HEX NUT
9	1	100147	UHMW BEARING
10	1	100143P	WELD, ROTATION MOUNT
11	1	100148	SPRING LOCK 1/2-13 X1.4
12	1	046180	1/2-13 X 1 1/4 HHCS GR 5
13	1	100643	1/2-13 NYLOCK

NO	QTY	PARTNO	DESCRIPTION
14	1	100154P	BRACKET
15	2	022415	BUSHING THREADED
16	2	047019	3/4 OD X .385 ID NYLON BUSHING
17	4	047035	3/4 FLAT WASHER PLTD
18	4	310414	QD CONNECTOR FEMALE
19	4	046115	3/8-16 X 1 1/4 HHCS
20	4	044036	3/8-16 KEPS HEX NUT
21	1	680878	CAPLUG 1 3/4"
22	2	047015	3/8 FLAT WASHER
23	2	102361	ADJUSTABLE LEVER,
24	2	090002	HIGH VOLTAGE DECAL

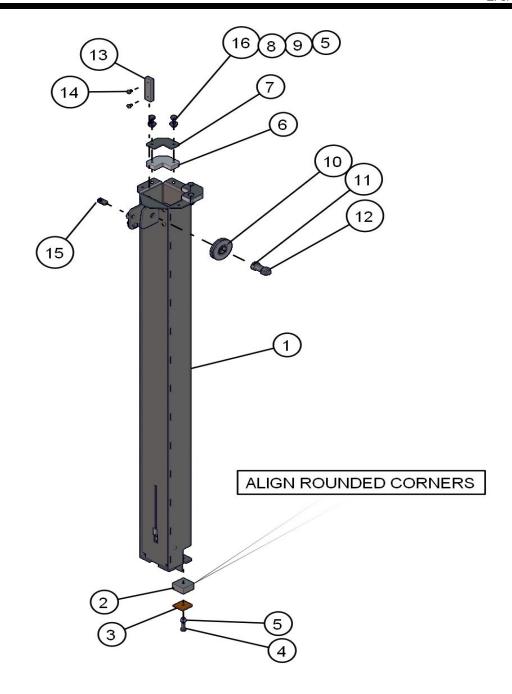


NO	QTY	PARTNO	DESCRIPTION
1	1	100085P	SECTION 7
2	2	100178	UHMW 3/4 X 1" SQ WEAR BLK
3	2	100179P	1" WEAR BLK CVR
4	2	046025	1/4-20 X 1 1/2 HEX BOLT
5	2	044023	1/4-20 NYLOCK NUT



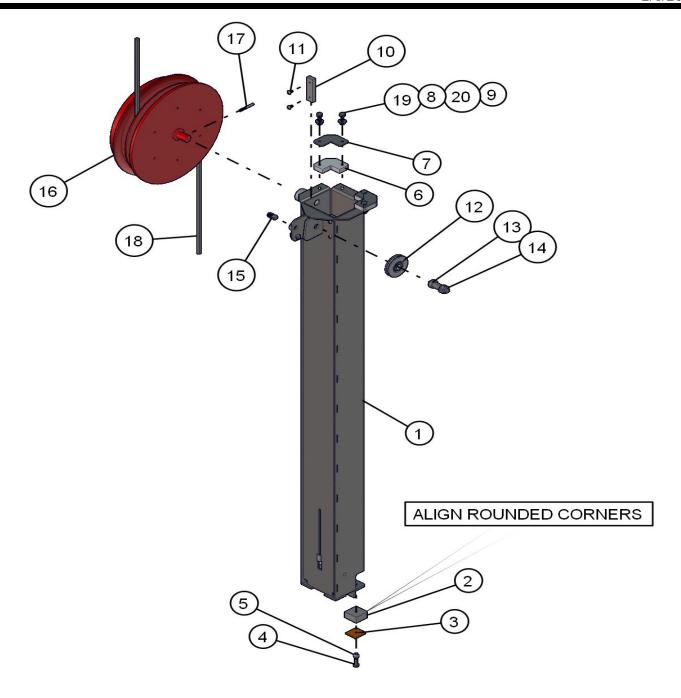
NO	QTY	PARTNO	DESCRIPTION
1	1	100080P	SECTION 6
2	2	100178	UHMW 3/4 X 1" SQ WEAR BLK
3	2	100179P	1" WEAR BLK CVR
4	2	046025	1/4-20 X 1 1/2 HEX BOLT
5	6	044023	1/4-20 NYLOCK NUT
6	4	046020	1/4-20 X 1 1/4 HHCS
7	2	100088	CORNER FRICTION BLOCK
8	2	100089P	CORNER BLOCK COVER
9	4	043060	3/8 INT STAR WASHER

NO	QTY	PARTNO	DESCRIPTION
10	4	047005	1/4 FLAT WASHER
11	1	100160	2 1/2 PULLEY
12	1	100642	5/8 X 1 SHOULDER BOLT
13	1	044048	NUT NYLOCK 1/2-13 HEX PL
14	2	100062	3/8 UHMW SPACER
15	4	041023	#10 X 3/8 PLS
16	2	100071	3/16 CABLE BOLT



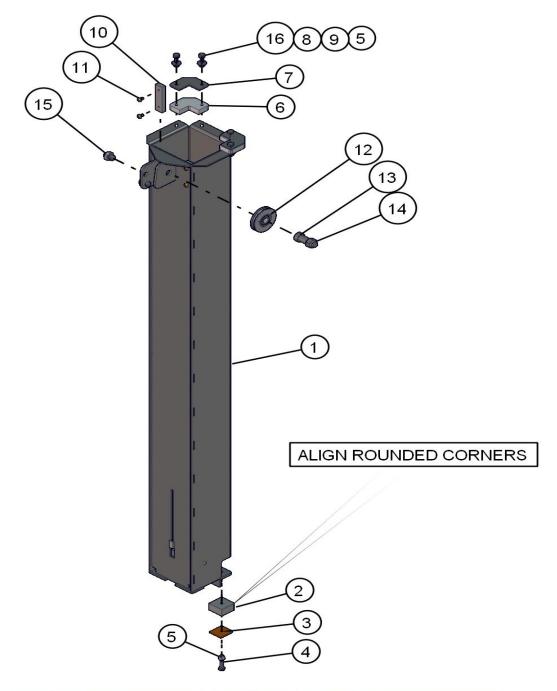
NO	QTY	PARTNO	DESCRIPTION
1	1	100075P	SECTION 5
2	2	100094	UHMW 1 1/2 WEAR BLK
3	2	100095P	1 1/2" WEAR BLK CVR
4	2	046025	1/4-20 X 1 1/2 HEX BOLT
5	6	044023	1/4-20 NYLOCK NUT
6	2	100088	CORNER FRICTION BLOCK
7	2	100089P	CORNER BLOCK COVER
8	4	043060	3/8 INT STAR WASHER
9	4	047005	1/4 FLAT WASHER

NO	QTY	PARTNO	DESCRIPTION
10	1	100160	2 1/2 PULLEY
11	1	100642	5/8 X 1 SHOULDER BOLT
12	1	044048	NUT NYLOCK 1/2-13 HEX PL
13	2	100062	3/8 UHMW SPACER
14	4	041023	#10 X 3/8 PLS
15	2	100071	3/16 CABLE BOLT
16	4	046020	1/4-20 X 1 1/4 HHCS



NO	QTY	PARTNO	DESCRIPTION
1	1	100070P	SECTION 4
2	2	100094	UHMW 1 1/2 WEAR BLK
3	2	100095P	1 1/2" WEAR BLK CVR
4	2	046025	1/4-20 X 1 1/2 HEX BOLT
5	2	044023	1/4-20 NYLOCK NUT
6	2	100088	CORNER FRICTION BLOCK
7	2	100089P	CORNER BLOCK COVER
8	4	043060	3/8 INT STAR WASHER
9	4	044023	1/4-20 NYLOCK NUT
10	2	100062	3/8 UHMW SPACER
11	4	041023	#10 X 3/8 PLS

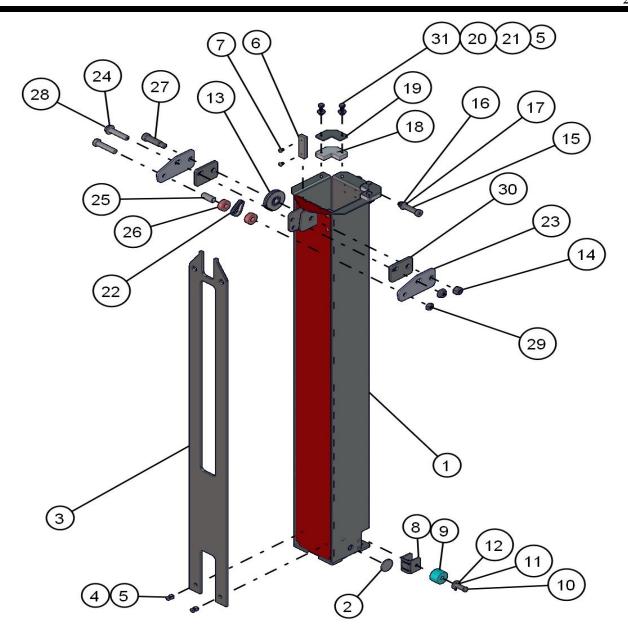
NO	QTY	PARTNO	DESCRIPTION
12	1	100160	2 1/2 PULLEY
13	1	100642	5/8 X 1 SHOULDER BOLT
14	1	044048	NUT NYLOCK 1/2-13 HEX PL
15	2	100071	3/16 CABLE BOLT
16	1	320410P	CORD REEL
17	1	320453	3/16 X 1 3/4 ROLL PIN
18	1	100687	VERTICAL TOWER CORD 16/8 X 310"
19	4	046020	1/4-20 X 1 1/4 HHCS
20	1	047005	1/4 FLAT WASHER



NO	QTY	PARTNO	DESCRIPTION
1	1	100060P	SECTION 3
2	2	100094	UHMW 1 1/2 WEAR BLK
3	2	100095P	1 1/2" WEAR BLK CVR
4	2	046025	1/4-20 X 1 1/2 HEX BOLT
5	6	044023	1/4-20 NYLOCK NUT
6	2	100088	CORNER FRICTION BLOCK
7	2	100089P	CORNER BLOCK COVER
8	4	043060	3/8 INT STAR WASHER
9	4	047005	1/4 FLAT WASHER

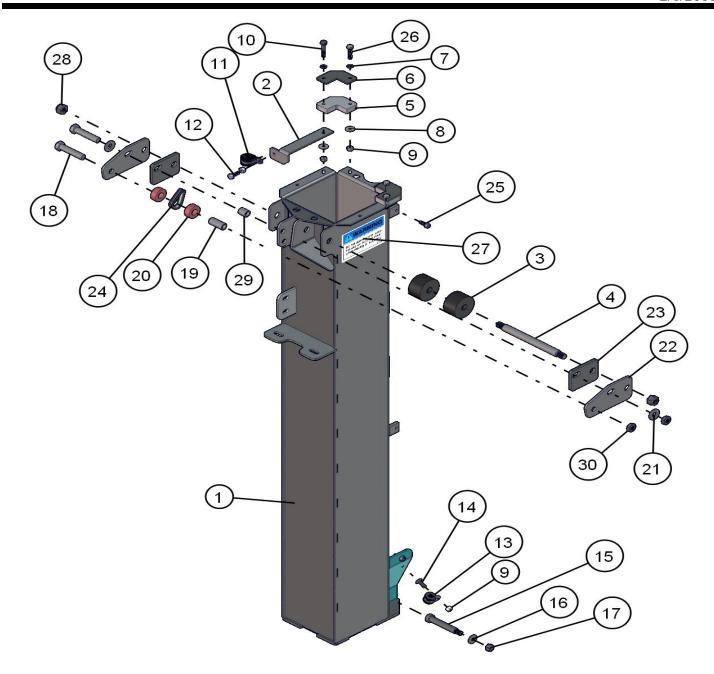
NO	QTY	PARTNO	DESCRIPTION
10	2	100062	3/8 UHMW SPACER
11	4	041023	#10 X 3/8 PLS
12	1	100160	2 1/2 PULLEY
13	1	100642	5/8 X 1 SHOULDER BOLT
14	1	044048	NUT NYLOCK 1/2-13 HEX PL
15	2	100071	3/16 CABLE BOLT
16	4	046020	1/4-20 X 1 1/4 HHCS

2/1/2011



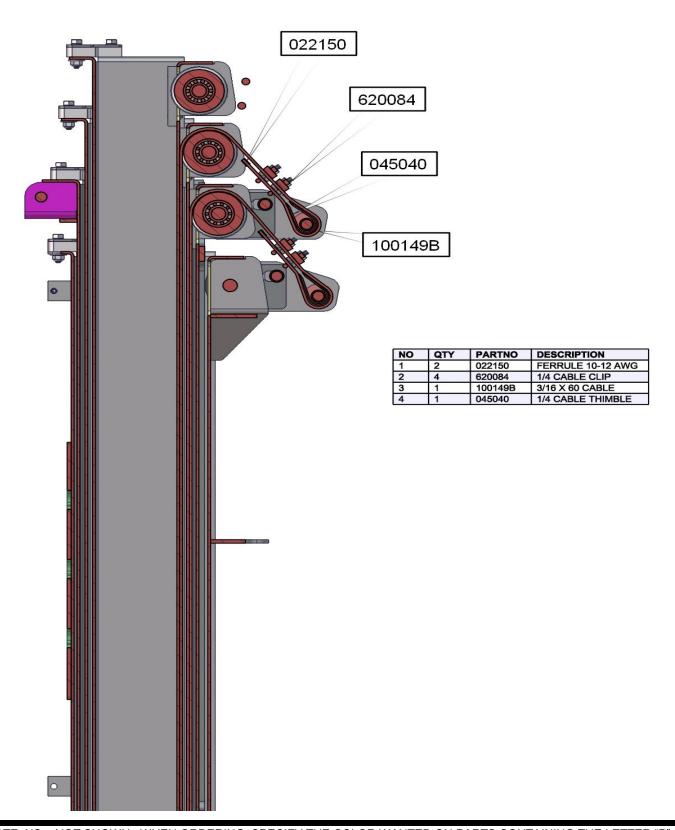
NO	QTY	PARTNO	DESCRIPTION
1	1	101035P	SECTION 2 HYDRAULIC TOWER
2	2	101626	FRICTION PLUG
3	1	100204P	SEC 2 ROLLER PLATE
4	2	041047	1/4-20 X 3/4 PH CSKMS
5	6	044023	1/4-20 NYLOCK NUT
6	2	100062	3/8 UHMW SPACER
7	4	041023	#10 X 3/8 PLS
8	2	101374P	BEARING CAGE
9	2	101380	COMPOSITE ROLLER
10	2	101377	CLEVIS PIN 7/16 X 1 1/2
11	2	047015	3/8 FLAT WASHER
12	2	045044	COTTER PIN
13	1	100160	2 1/2 PULLEY
14	1	044048	NUT NYLOCK 1/2-13 HEX PL
15	1	101378	1/2 X 2 SH BOLT
16	1	044038	3/8-16 NYLOCK HNUT

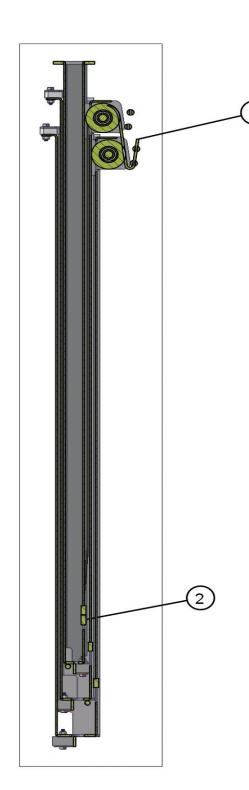
NO	QTY	PARTNO	DESCRIPTION
17	1	047010	5/16 FLAT WASHER
18	2	100088	CORNER FRICTION BLOCK
19	2	100089P	CORNER BLOCK COVER
20	4	043060	3/8 INT STAR WASHER
21	4	047005	1/4 FLAT WASHER
22	1	045040	1/4 CABLE THIMBLE
23	2	102270P	BRACKET
24	2	047025	1/2 FW PL
25	1	102273	LONG SPACER
26	2	102271	PLASTIC SPACER
27	1	102365	5/8 X 1 3/4 SHSSCREW
28	2	046205	1/2-13 X 2 1/2 HEX BOLT GR5 PL
29	3	100643	1/2-13 NYLOCK
30	2	102269P	SPACER BRACKET
31	4	046020	1/4-20 X 1 1/4 HHCS



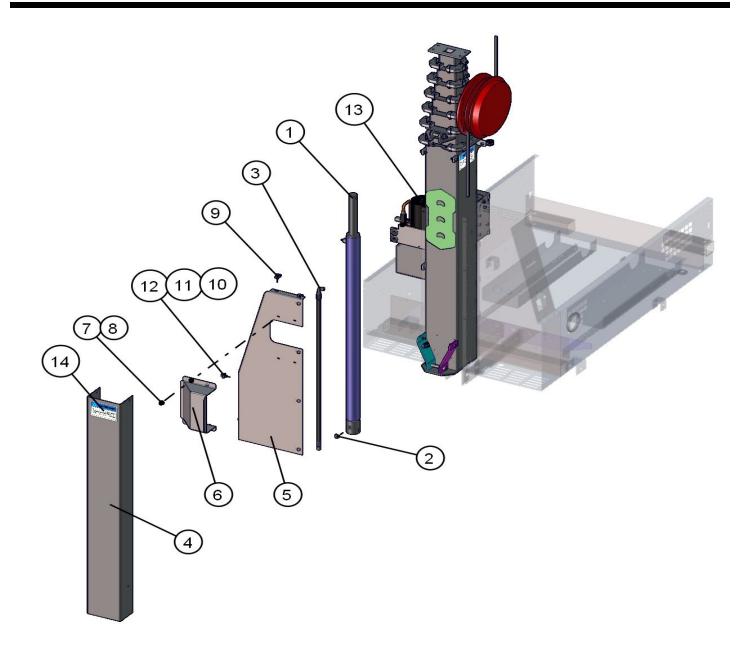
NO	QTY	PARTNO	DESCRIPTION
1	1	101034P	SECTION 1 HYDRAULIC TOWER
2	1	101403P	CORD GUIDE BRACKET
3	2	100203	ROLLER
4	1	102696	IDLER SHAFT
5	2	100088	CORNER FRICTION BLOCK
6	2	100089P	CORNER BLOCK COVER
7	4	043060	3/8 INT STAR WASHER
8	4	047009	1/4 FLAT WASHER
9	6	044023	1/4-20 NYLOCK NUT
10	1	046025	1/4-20 X 1 1/2 HEX BOLT
11	1	022024	#12 CUSH CLAMP 1/4 HOLE
12	1	046010	1/4-20 X 3/4" HEX BOLT
13	1	310212	#10 CUSH CLAMP 1/4 HOLE
14	1	041050	1/4-20 X 3/4 TRUSS BOLT
15	1	101379	1/2 X 2.75 SH BOLT
16	1	047010	5/16 FLAT WASHER

NO	QTY	PARTNO	DESCRIPTION
17	1	044038	3/8-16 NYLOCK HNUT
18	2	046205	1/2-13 X 2 1/2 HEX BOLT GR5 PL
19	1	102273	LONG SPACER
20	2	102271	PLASTIC SPACER
21	2	047025	1/2 FW PL
22	2	102270P	CABLE BRACKET
23	2	102269P	SPACER BRACKET
24	1	045040	1/4 CABLE THIMBLE
25	4	041070	1/4-20 X 3/4 SL- SELF TAPPING SCREW
26	3	046020	1/4-20 X 1 1/4 HHCS
27	2	101404	TOWER WARNING DECAL
28	2	044048	NUT NYLOCK 1/2-13 HEX PL
29	1	102272P	SHORT SPACER
30	2	100643	1/2-13 NYLOCK JAM NUT

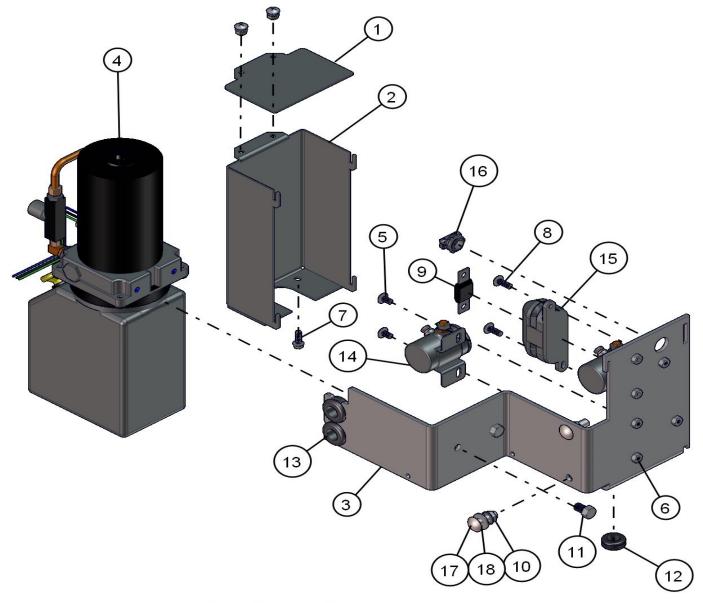




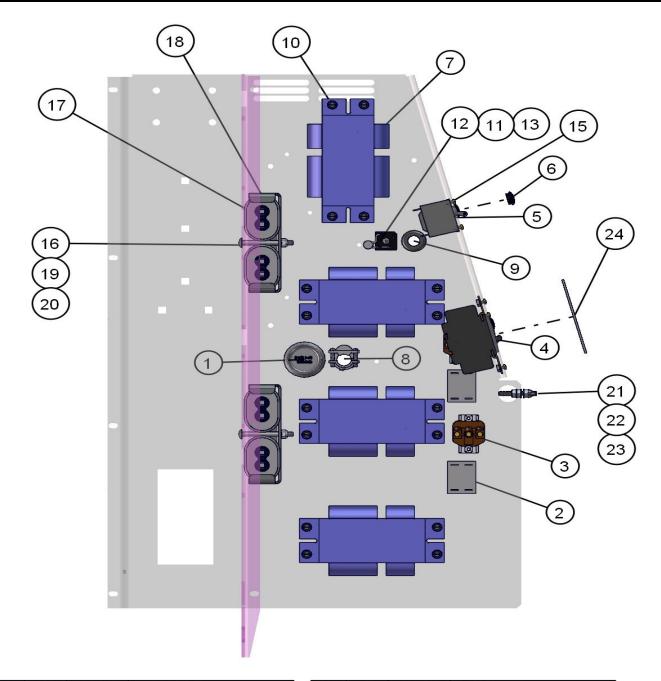
NO	QTY	PARTNO	DESCRIPTION
1	1	100149A	3/16 x 60 CABLE
2	1	650133B	STEEL SLEEVE



NO	QTY	PARTNO	DESCRIPTION
1	1	101375P	HYDRAULIC CYLINDER
2	1	620676	90 DEG ELBOW
3	1	101356	HYDRAULIC HOSE
4	1	101041P	CYLINDER COVER
5	1	100132P	R FRONT COVER PANEL
6	1	101328P	HOSE SHIELD
7	4	041050	1/4-20 X 3/4 TRUSS BOLT
8	4	044023	1/4-20 NYLOCK NUT
9	6	044106	1/4-20 TINNERMAN NUT
10	2	045216	1/4-20 TINNERMAN NUT
11	8	047009	1/4 SAE SS FW
12	8	046010	1/4-20 X 3/4 HEX BOLT SS
13	1	100242	HYDRAULIC PUMP / ELECTRICAL ASSEMBLY
14	1	101404	TOWER WARNING DECAL

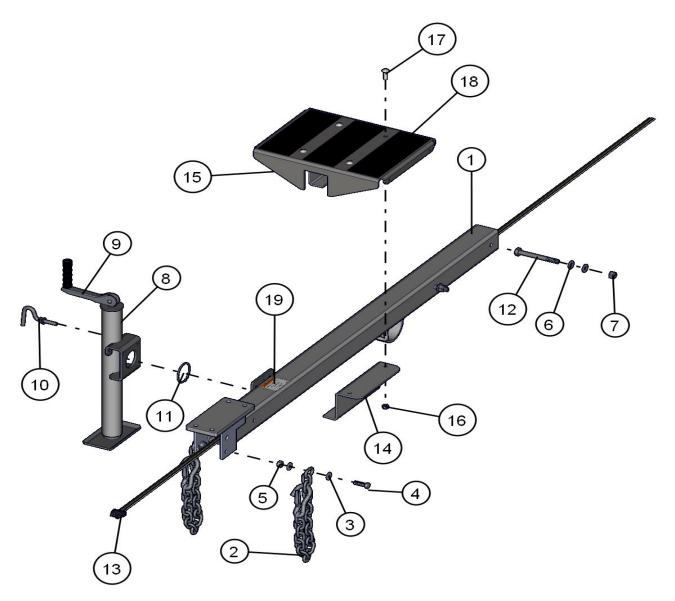


NO	QTY	PARTNO	DESCRIPTION
1	1	101914P	LID
2	1	100250P	RELAY / FUSE COVER
3	1	100241P	PUMP MOUNT BRKT
4	1	101383	HYDRAULIC POWER UNIT
5	6	041078	1/4-20 X 1/2 CR-THMS PL
6	8	044021	1/4-20 KEPS NUT
7	2	041070	1/4-20 X 3/4 SL- SELF TAPPING SCREW
8	2	041050	1/4-20 X 3/4 TRUSS BOLT
9	1	100234	125A FUSE LINK
10	2	044036	3/8-16 KEPS HEX NUT
11	2	101384	3/8-16 X 5/8 HHCS PL
12	1	711028	7/8 RUBBER GROMMET
13	2	330463	11/16 RUBBER GROMMET
14	2	100236	12 VDC RELAY
15	1	100235	FUSE HOLDER
16	1	022020	2 SCREW CLAMP 3/8"
17	2	100670	3/8-16 X 1 1/4 CARRIAGE BOLT
18	2	047010	5/16 FLAT WASHER

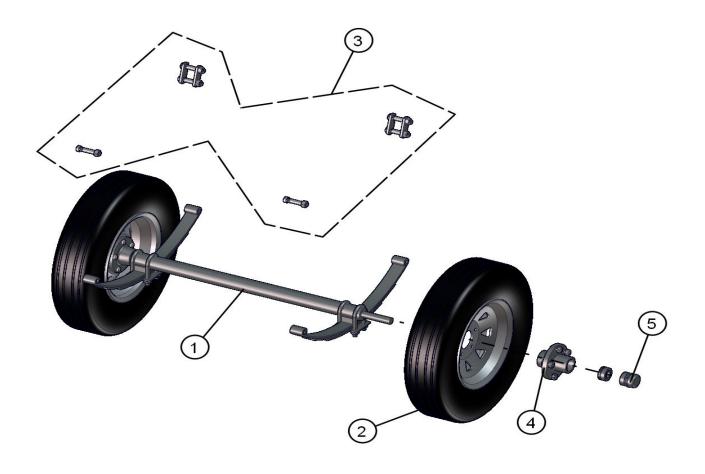


NO	QTY	PARTNO	DESCRIPTION
1	1	680878	CAPLUG 1 3/4"
2	2	650529	10 AMP DPST CIRCUIT BREAKER
3	2	102124	240V RECEPTICAL
4	1	102898	25A BREAKER SPST
5	2	102894	10A SPST CIRCUIT BREAKER
6	3	433329	5/8" PLASTIC PLUG
7	4	310116A	TRANSFORMER
8	1	022025	3/4 2-SCREW ROMEX CLAMP
9	1	330463	11/16 RUBBER GROMMET
10	16	041070	1/4-20 X 3/4 SMSHH TP F
11	1	041027	10-24 x 3/4 CR-RHMS
12	1	630157A	DIODE BRIDGE

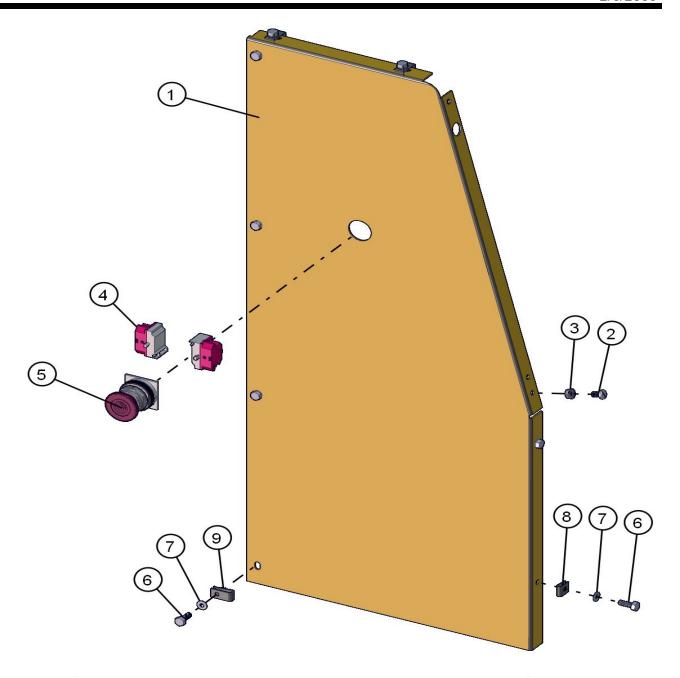
NO	QTY	PARTNO	DESCRIPTION
13	11	044016	10-24 KEPS NUT
15	1	041017	6-32 X 3/8 MACH SCREW PLT
16	2	100718	1/4-20 x 2 1/4 CARR BOLT
17	4	310115A	CAPACITOR 26uF
18	2	680608P	CAPACITOR CLAMP
19	2	047009	1/4 SAE SS FW
20	2	044023	1/4-20 NYLOCK NUT
21	1	045004	1/4-20 X 2" STUD
22	3	044021	1/4-20 KEPS NUT
23	1	330494	1/4-20 WING NUT
24	1	102895P	HALF COVER



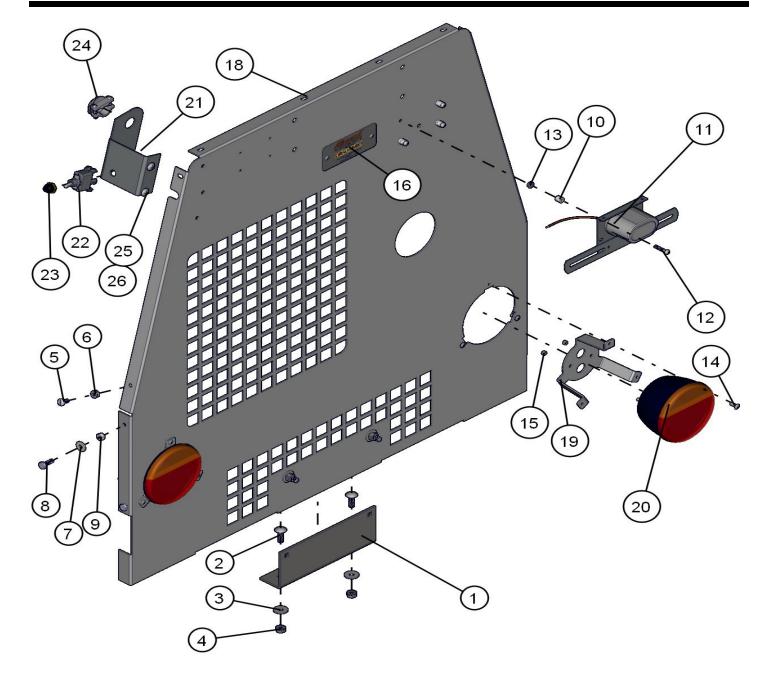
NO	QTY	PARTNO	DESCRIPTION
1	1	102864P	TONGUE
2	2	049040	SAFETY CHAIN
3	4	047015	1/4 FLAT WASHER
4	2	046160	7/16-14 X 1 1/2 HHCS GR5
5	2	044043	7/16-14 NYLOCK NUT
6	4	047025	1/2 FW PL
7	2	044048	NUT NYLOCK 1/2-13 HEX PL
8	1	102089	TONGUE JACK 15"
9	1	330012	REPLACEMENT JACK HANDLE KIT
10	1	330012A	LOCK HANDLE REPLACEMENT KIT
11	1	330014	2 5/6 XT JACK SNAP RING
12	2	046230	1/2-13 X 5 HHCS GR5 PL
13	1	101116	TAILLIGHT HARNESS
14	2	101050P	ATTACHMENT BRACKET
15	1	101051P	PLATFORM
16	4	044038	3/8-16 NYLOCK HNUT
17	4	100670	3/8-16 X 1 1/4 CARRIAGE BOLT
18	3	062005	TAPE, ANTI SKID
19	1	090160	EXCESS TOWING



NO	QTY	PARTNO	DESCRIPTION
1	1	650100	AXLE
2	2	650387	13" WHEEL TIRE ASSEMBLY
3	1	102105	AXLE HARDWARE KIT
4	2	712111	13" WHEEL HUB ASSEMBLY
5	2	712111B	BEARING & SEAL SET



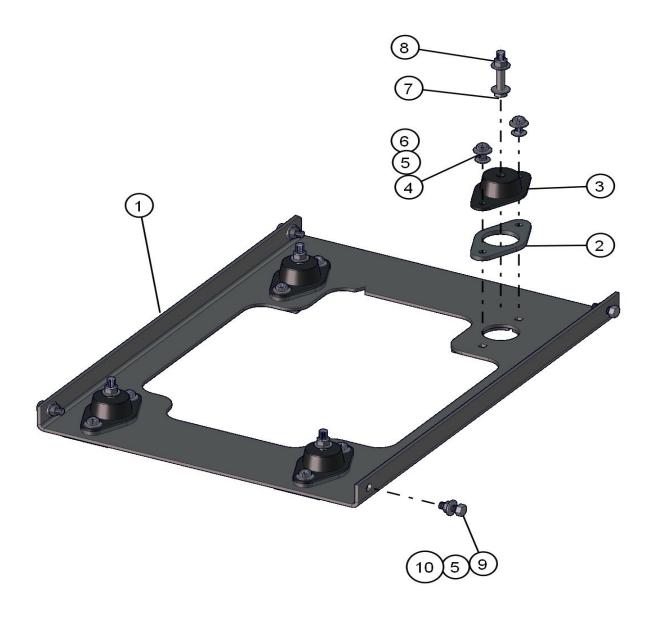
NO	QTY	PARTNO	DESCRIPTION
1	1	650615P	1" RAD LEFT FRONT PANEL
2	1	041250	1/4-20 X 1/2 NYLON MS SCREW
3	1	044021	1/4-20 KEPS NUT
4	2	650461	CONTACT BLOCK
5	1	650460	EMERGENCY STOP
6	8	046010	1/4-20 X 3/4" HEX BOLT
7	8	047009	1/4 SAE SS FW
8	2	045216	1/4-20 TINNERMAN NUT
9	6	044106	1/4-20 TINNERMAN NUT



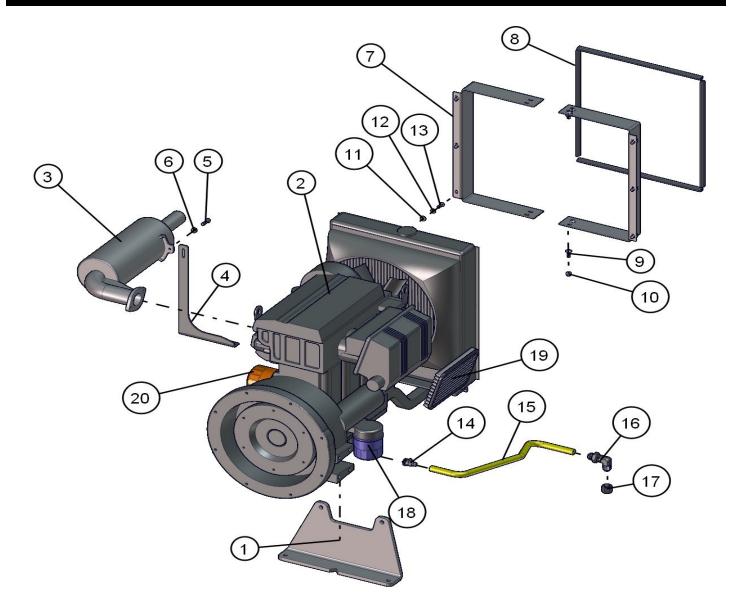
NO	QTY	PARTNO	DESCRIPTION
1	1	100153P	REAR ANGLE BRACKET
2	4	053020	5/16-18 X 1" CARR BOLT
3	4	047010	5/16 FLAT WASHER
4	4	044031	5/16 -18 KEPS NUT
5	2	041250	1/4-20 X 1/2 NYLON MS SCREW
6	2	044021	1/4-20 KEPS NUT
7	4	047009	1/4 FLAT WASHER
8	4	046010	1/4-20 X 3/4" HEX BOLT
9	4	044023	1/4-20 NYLOCK NUT
10	4	022180	SPACER
11	1	032035	LICENSE PLATE LIGHT BRACKET
12	4	041030	MS #10-24 x 1 RD HD PL
13	4	044016	10-24 KEPS NUT

NO	QTY	PARTNO	DESCRIPTION
14	6	045110	3/16 RIVET
15	4	044131	NUT #10-32 NYLOC HEX SS
16	1	101785	ALLMAND SERIAL PLATE
18	1	102080P	PANEL, REAR, LOMBARDINI
19	2	102153P	BRACKET, COBO TAILLIGHT
20	2	102107	COBO TAILLIGHT
21	1	100240P	SWITCH BRACKET
22	1	310544	TOGGLE SWITCH
23	1	101382	SWITCH BOOT
24	1	022025	3/4 2-SCREW ROMEX CLAMP
25	2	041050	1/4-20 X 3/4 TRUSS BOLT
26	2	044021	1/4-20 KEPS NUT

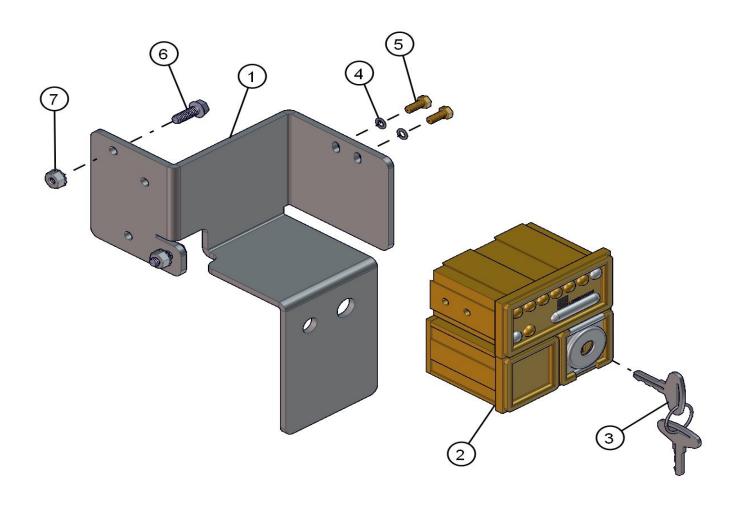
NS: 102078P KUBOTA REAR PANEL 102080P CAT REAR PANEL



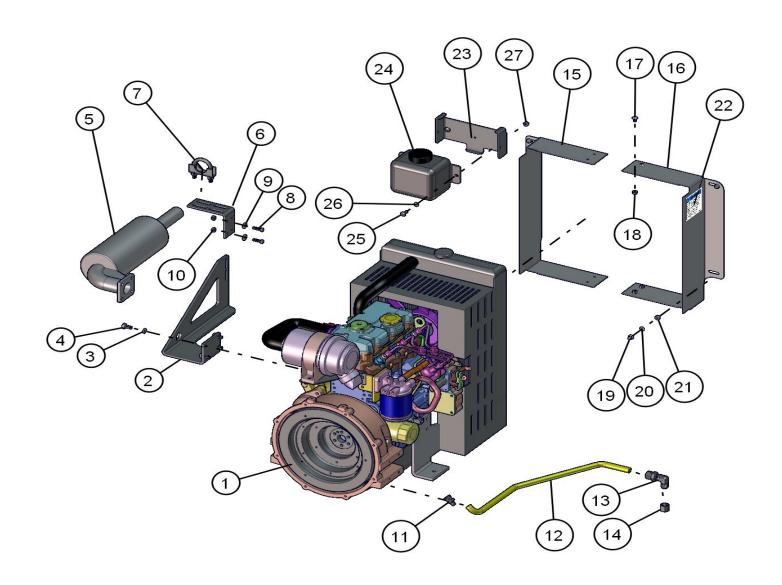
NO	QTY	PARTNO	DESCRIPTION
1	1	100129P	ENGINE MOUNTING PLATE
2	4	100152P	SPACER
3	4	650259	ENGINE MOUNT
4	8	053020	5/16-18 X 1" CARR BOLT
5	20	047010	5/16 FLAT WASHER
6	8	044033	5/16-18 NYLOCK NUT
7	4	046134	3/8-16 X 2 1/2 GR 8 HEX BOLT
8	4	044038	3/8-16 NYLOCK HNUT
9	4	046110	3/8-16 X 1 HHCS GR5 PL
10	4	044036	3/8-16 KEPS HEX NUT



NO	QTY	PARTNO	DESCRIPTION
1	1	101001P	ENGINE MOUNT
2	1	650830	ENGINE LOMBARDINI
3	1	100984	LOMBARDINI MUFFLER
4	1	100707P	MUFFLER BRACKET
5	1	046015	1/4-20 X 1 HEX BOLT
6	1	044021	1/4-20 KEPS NUT
7	2	101003P	SHROUD, RADIATOR
8	4	030052	TRIMLOCK
9	4	041050	1/4-20 X 3/4 TRUSS BOLT
10	4	044023	1/4-20 NYLOCK NUT
11	6	047070	#10 USS PLTD
12	6	043020	1/4" SPLIT LOCK WASHER
13	6	042019	6mm X 1.0 X 16mm GR 8.8 HEX BOLT
14	1	100901	LOMBARDINI FUMOTO VALVE
15	1	081017	3/8 YELLOW FUEL HOSE
16	1	100601	JIC 90 DEG FITTING
17	1	100602	JIC CAP
18	1	650010	LOMBARDINI FUEL FILTER
19	1	650012	AIR FILTER, LOMBANRDINI
20	1	650111	LOMBARDINI OIL FILTER



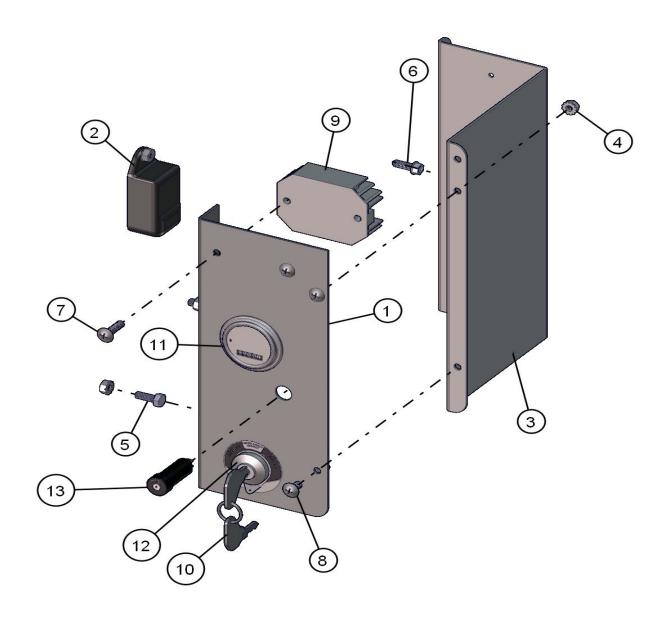
NO	QTY	PARTNO	DESCRIPTION
1	1	650761P	CONTROL BRACKET
2	1	650831	LOMBARDINI CONTROL PANEL W/HOUR METER
3	1	650833	KEY SINGLE SIDE IGNITION
4	2	043015	#10 INT TOOTH LOCK WASHER
5	2	046426	5mm X .8 X 12mm HEX BOLT
6	2	041070	1/4-20 X 3/4 SL- SELF TAPPING SCREW
7	2	044021	1/4-20 KEPS NUT



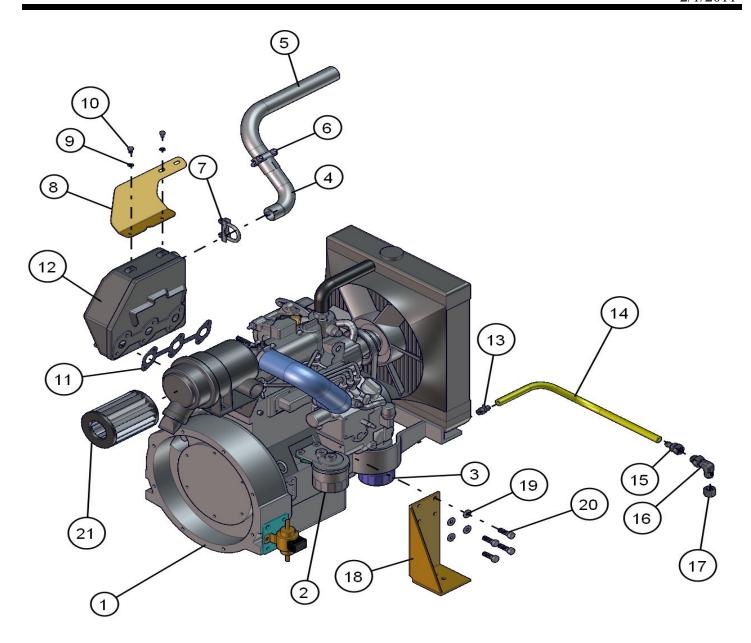
NO	QTY	PARTNO	DESCRIPTION
1	1	352236	CAT C1.1 ENGINE
2	1	100705P	CAT MUFFLER BKT
3	4	043055	5/16 LOCK WASHER PL
4	4	042027	8mm X 1.25 X 16mm GR 10.9 HEX BOLT
5	1	101082	NETT MUFFLER
6	1	100706P	MUFFLER BRACKET
7	1	340111	1-1/2" MUFFLER CLAMP
8	2	046015	1/4-20 X 1 HEX BOLT
9	2	047009	1/4 FLAT WASHER
10	2	044021	1/4-20 KEPS NUT
11	1	651193	CAT FUMOTO VALVE
12	1	081017	3/8 YELLOW FUEL HOSE X 24"
13	1	100601	JIC 90 DEG FITTING
14	1	100602	JIC CAP

NO	QTY	PARTNO	DESCRIPTION
15	1	100700P	RADIATOR SHROUD RT
16	1	100702P	RADIATOR SHROUD LT
17	4	041078	1/4-20 X 1/2 CR-THMS PL
18	4	044021	1/4-20 KEPS NUT
19	4	041078	1/4-20 X 1/2 CR-THMS PL
20	4	047009	1/4 SAE SS FW
21	4	044021	1/4-20 KEPS NUT
22	1	100247	LOWERING TOWER DECAL
23	1	100392P	TABBED CAPACITOR CLAMP
24	1	102016	RAD OVERFLOW TANK
25	2	041050	1/4-20 X 3/4 TRUSS BOLT
26	2	047009	1/4 SAE SS FW
27	2	044021	1/4-20 KEPS NUT

NOTE: OIL, AIR AND FUEL FILTERS
ARE PURCHASED THROUGH
YOUR LOCAL CAT DEALER.



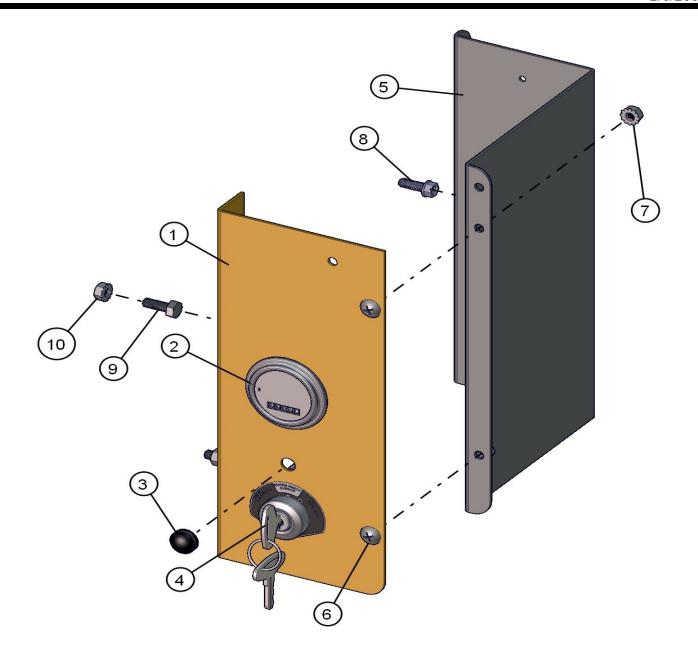
NO	QTY	PARTNO	DESCRIPTION
1	1	101913P	GUAGE PANEL
2	1	650302	AUTO SHUTDOWN TIMER
3	1	650363P	GAUGE PANEL COVER
4	7	044021	1/4-20 KEPS NUT
5	2	046010	1/4-20 X 3/4" HEX BOLT
6	1	041070	1/4-20 X 3/4 SL- SELF TAPPING SCREW
7	2	041080	1/4 - 20 X 1 THCS
8	2	041078	1/4-20 X 1/2 CR-THMS PL
9	1	650446	VOLTAGE REGULATOR CAT
10	1	650307	CAT IGNITION KEY
11	1	340014	HOUR METER CAT
12	1	650306	CAT IGNITION SWITCH W/ 2 KEYS
13	1	100610	CIRCUIT BREAKER 5 AMP



NO	QTY	PARTNO	DESCRIPTION
1	1	102094	KUBOTA D1105
2	1	920745	KUBOTA FUEL FILTER
3	1	920743	KUBOTA OIL FILTER
4	1	653113	EXHAUST TUBE 1 3/8"
5	1	653114	EXHAUST TUBE 1 1/2"
6	1	713086	MUFFLER CLAMP 1 3/8"
7	1	713086	MUFFLER CLAMP 1 3/8"
8	1	651233P	EXHAUST MOUNTING BRACKET
9	2	043050	1/4 INT TOOTH WASHER
10	2	042018	6mm X 10mm HEX BOLT GR 8.8
11	1	352135	EXHAUST GASKET KUBOTA

NO	QTY	PARTNO	DESCRIPTION
12	1	352139	KUBOTA BOX MUFFLER
13	1	848299	KUBOTA FUMOTO VALVE
14	1	081017	3/8 YELLOW FUEL HOSE X 18"
15	1	100603	JIC TO BARBED FITTING
16	1	100601	JIC 90 DEG FITTING
17	1	100602	JIC CAP
18	2	651201P	905-1105 KUBOTA ENGINE MOUNT L & R
19	8	047016	3/8 SAE FLAT WASHER
20	8	042038	10mm X 1.25 x20mm GR 8.8 HEX BOLT
21	1	650290	AIR FILTER ELEMENT KUBOTA

NS: 340302 HIGH TEMP SWITCH 340301 OIL PRESSURE SWITCH

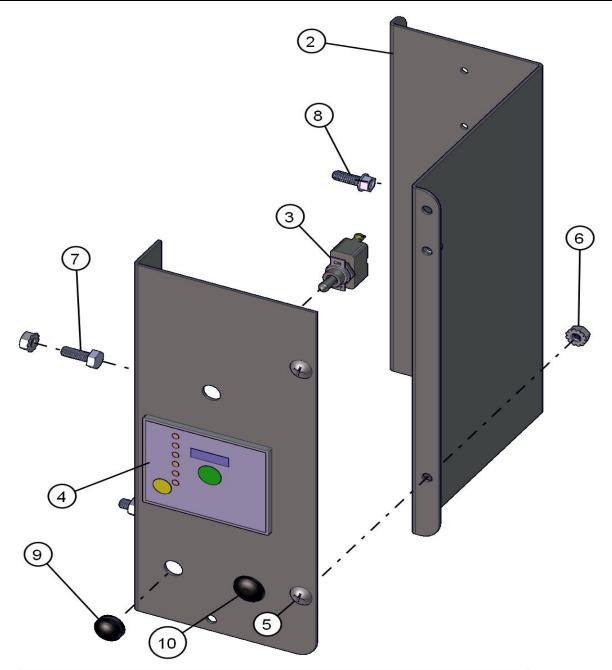


NO	QTY	PARTNO	DESCRIPTION
1	1	650125P	GAUGE PANEL
2	1	340014	HOUR METER CAT
3	1	433328	1/2" PLASTIC PLUG
4	1	920475	IGNITION SWITCH KUBOTA W/ KEYS
5	1	650363P	GAUGE PANEL COVER
6	2	041078	1/4-20 X 1/2 CR-THMS PL
7	2	044021	1/4-20 KEPS NUT
8	1	041070	1/4-20 X 3/4 SL- SELF TAPPING SCREW
9	2	046010	1/4-20 X 3/4 HEX BOLT SS
10	2	044021	1/4-20 KEPS NUT

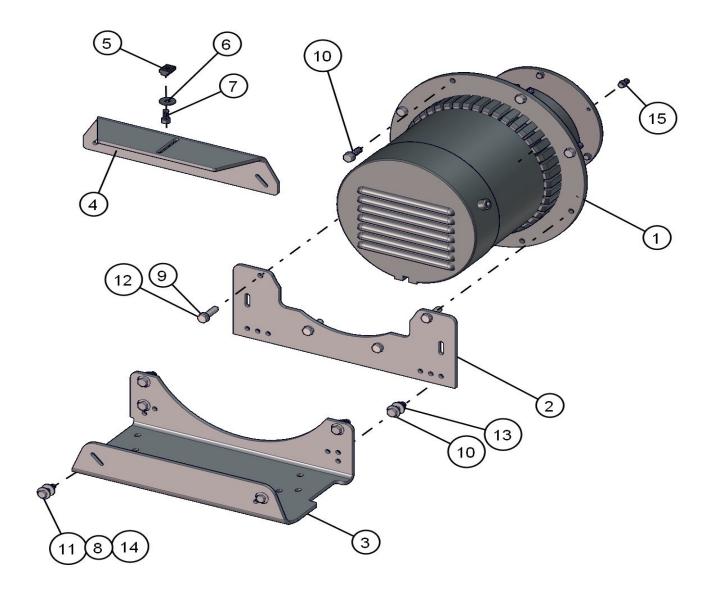
KUBOTA DEEP SEA CONTROL PANEL (OPTION)

NIGHT LITE PRO V-SERIES SE POWER

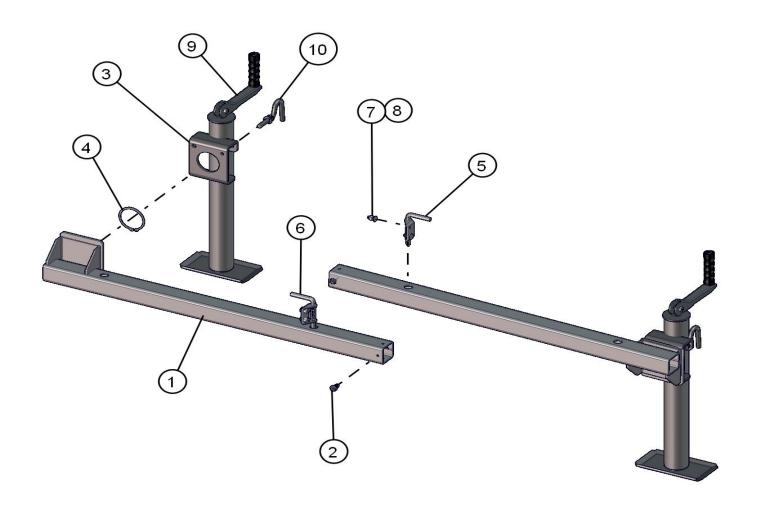
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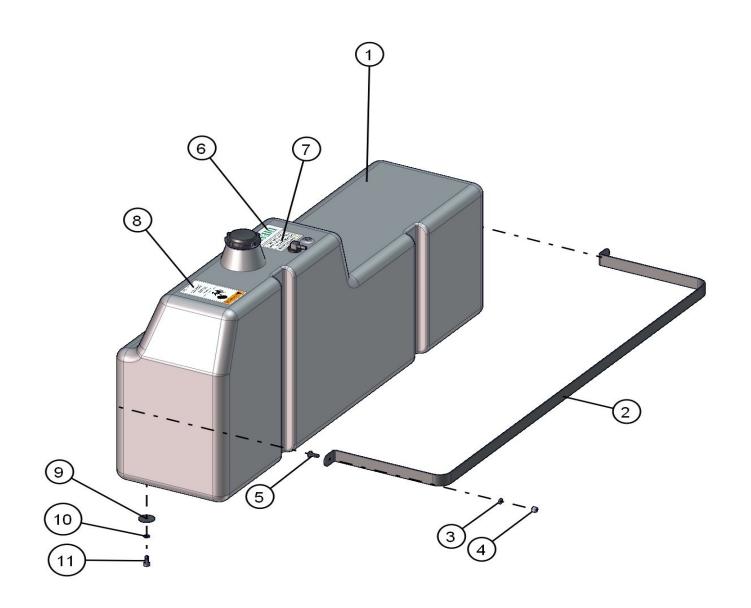
NO	QTY	PARTNO	DESCRIPTION
2	1	650363P	GAUGE PANEL COVER
3	1	340009	SWITCH 15A SPST
4	1	101065	DEEP SEA CONTROLLER
5	2	041078	1/4-20 X 1/2 CR-THMS PL
6	4	044021	1/4-20 KEPS NUT
7	2	046010	1/4-20 X 3/4" HEX BOLT
8	1	041070	1/4-20 X 3/4 SL- SELF TAPPING SCREW
9	1	433328	1/2" PLASTIC PLUG
10	1	433329	5/8" PLASTIC PLUG



NO	QTY	PARTNO	DESCRIPTION
1	1	100349	MECC ALTE GENERATOR 6Kw 50 Hz
2	1	100353P	TOP PLATE
3	1	100352P	BOTTOM PLATE
4	1	100354P	BACK PLATE
5	1	100614P	5/16-18 T-SLOT NUT
6	1	047015	3/8 FLAT WASHER
7	1	046045	5/16-18 X 3/4 HHCS GR5 PLATED
8	12	047010	5/16 FLAT WASHER
9	8	043065	3/8 SPLIT LOCK WASHER
10	8	046115	3/8-16 X 1 1/4 HHCS
11	2	046055	5/16-18 X 1 1/4 HHCS
12	4	046120	3/8-16 X 1 1/2 HHCS GR5 PL
13	4	044038	3/8-16 NYLOCK HNUT
14	2	044033	5/16-18 NYLOCK NUT
15	6	046041	5/16-18 x 1/2" 12 PT FLANGE HEAD BOLT



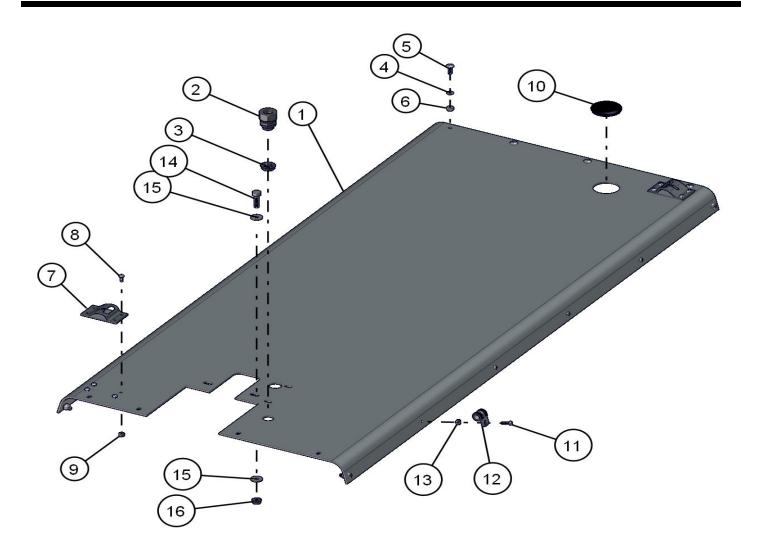
NO	QTY	PARTNO	DESCRIPTION
1	2	650115P	OUTRIGGER
2	2	041075	5/16-18 X 3/4 SELF TAP SL-HHMS
3	2	330010	LONG JACK
4	2	330014	2 5/6 XT JACK SNAP RING
5	1	650722	SPRING PIN L/R
6	1	650723	RIGHT RETENTION PIN
7	4	041050	1/4-20 X 3/4 TRUSS BOLT
8	4	044023	1/4-20 NYLOCK NUT
9	1	330012	REPLACEMENT JACK HANDLE KIT
10	1	330012A	LOCK HANDLE REPLACEMENT KIT



NO	QTY	PARTNO	DESCRIPTION
1	1	650108	FUEL TANK
2	1	100136P	STRAP
3	2	047009	1/4 SAE SS FW
4	2	044023	1/4-20 NYLOCK NUT
5	2	041050	1/4-20 X 3/4 TRUSS BOLT
6	1	090034	DIESEL DECAL
7	1	101057	EPA REGULATION DECAL
8	1	090159	COMBUSTIBLE GAS DECAL
9	6	047007	WASHER .056 X 9/32 ID X 1 1/4 OD
10	6	043050	WASHER LOCK
11	6	046006	1/4-20 X 3/4 HEX BOLT GR5

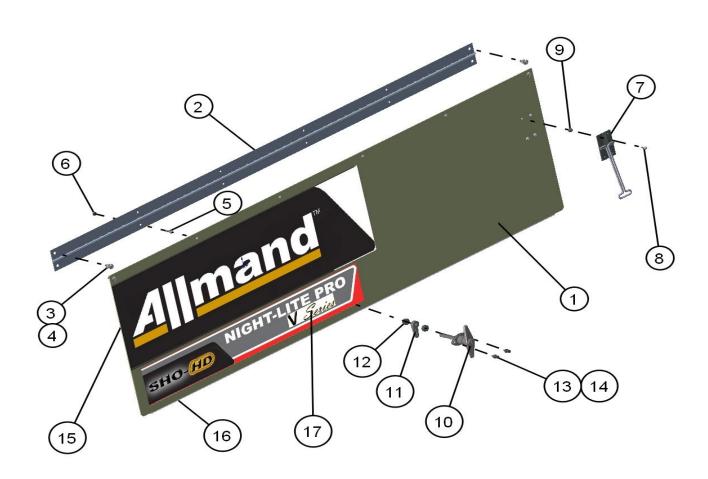


NO	QTY	PARTNO	DESCRIPTION
1	2	650297	FENDER
2	10	100644	RUBBER WASHER
3	10	053022	5/16-18 X 1 1/4 CARRIAGE BOLT
4	10	047010	5/16 FLAT WASHER
5	10	044031	5/16 -18 KEPS NUT



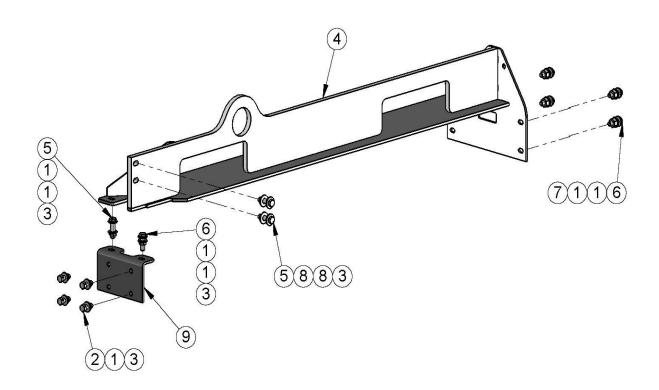
NO	QTY	PARTNO	DESCRIPTION
1	1	100696P	LOMBARDINI ROOF PANEL
2	1	310033	1/2 CORD GRIP
3	1	022415	1/2" WIRE PROTECTOR
4	4	047009	1/4 SAE SS FW
5	8	041050	1/4-20 X 3/4 TRUSS BOLT
6	8	044023	1/4-20 NYLOCK NUT
7	2	660170	DOOR
8	8	041024	10-24 X 1/2 SL-RDHDMS SS
9	8	044019	10-24 NYLOC NUT
10	1	640555	PLUG 2"
11	8	041027	10-24 x 3/4 CR-RHMS
12	4	310212	CLAMP CUSH #10 1/4 HOLE
13	8	044016	10-24 KEPS NUT
14	1	046115	3/8-16 X 1 1/4 HHCS
15	2	047010	5/16 FLAT WASHER
16	1	044036	3/8-16 KEPS HEX NUT

NS: 100238P KUBOTA ROOF PANEL 100237P CAT ROOF PANEL



NO	QTY	PARTNO	DESCRIPTION
1	1	100126P	L/R DOOR PANEL
2	1	650211	HINGE
3	4	041050	1/4-20 X 3/4 TRUSS BOLT
4	4	044023	1/4-20 NYLOCK NUT
5	4	041027	10-24 x 3/4 CR-RHMS
6	4	044016	10-24 KEPS NUT
7	1	660170	DOOR HOLDER
8	4	041024	10-24 X 1/2 SL-RDHDMS SS
9	4	044019	10-24 NYLOC NUT
10	1	650131	DOOR LOCK ASSEMBLY
11	1	650132	DOOR LATCH CAM
12	2	044042	3/8-24 PLATED NUT
13	2	041026	10-24 X 3/4 SL-FHMS
14	2	044019	10-24 NYLOC NUT
15	1	100923	32" BANNER LEFT
16	1	102542	LEFT SIDE BANNER
17	1	102554	V SERIES DECAL





NO.	QTY.	PART NO.	DESCRIPTION
1	16	047010	5/16 FW
2	4	046110	3/8-16 X 1 HHCS GR5 PL
3	8	044036	3/8-16 KEPS NUT
4	1	100118P	LIFT BAR
5	3	046120	3/8-16 X 1 1/2 HHCS GR5 PL
6	5	046115	3/8-16 X 1 1/4 HHCS GR5 PL
7	4	044038	3/8-16 NYLOCK HNUT
8	4	047015	3/8 FLAT WASHER
9	1	100123P	BRACKET, TOWER ANGLE

2/1/2011