

ML 7.5/ML 8 OPERATOR'S MANUAL

P.O. BOX 888 HOLDREGE, NE 68949

PHONE: 308/995-4495, 1-800/562-1373 ALLMAND FAX: 308/995-5887 ALLMAND PARTS FAX: 308/995-4883



Part No. 106775

For Parts and Updates visit Allmand on the Web at www.allmand.com

INSPECTION CHECK LIST

FOR PREPARING THE MAXI LITE FOR DELIVERY OR RENTAL

The **MAXI LITE V-SERIES** requires service as well as proper operation in order to provide the performance and safety it has been designed for. Never deliver or put a machine into service with known defects or missing instructions or decals. Always instruct the customer in the proper operation and safety procedures as described in the 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 tower latch and knob assembly which locks the tower in the vertical position for proper operation
- Check the hitch assembly and safety tow 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
- 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 oil, fuel, coolant levels, and hydraulic fluid levels.
- Check to make sure the operator's manual is with the equipment.
- Inspect the machine physically for damage and repair if necessary.
- Inspect the light bar and latch in transport position.

NOTE: See appropriate section of manual for scheduled maintenance intervals.

After completing the inspection check list, operate the tower through a complete operation cycle, following the operating instructions in the operator's manual.

WARNING
NEVER ALLOW ANYONE TO OPERATE THE EQUIPMENT WITHOUT
PROPER TRAINING!
ALWAYS READ THE INSTRUCTIONS FIRST!

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- This manual provides the information necessary for the safe operation of the Allmand Bros., Inc., MAXI-LITE V-SERIES light tower.
- The MAXI-LITE V-SERIES standard tower is operated with a 12 VDC hydraulic pump and hydraulic cylinder.
- 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.

Take time to read this book thoroughly. If you are uncertain about any of the information presented in the manual, contact the factory or your dealer for clarification before operation.

SAFETY SYMBOLS

The purpose of the **SAFETY INFORMATION SYMBOL** shown below is to attract your special attention to safety related information contained in the text.



DANGER



WARNING



FAILURE TO UNDERSTAND AND COMPLY WITH SAFETY RELATED INFORMATIONAL INSTRUCTIONS MAY RESULT IN INJURY TO OPERATOR OR OTHERS. IF YOU DO NOT UNDERSTAND ANY PART OF THIS INFORMATION CONTACT YOUR DEALER FOR CLARIFICATION PRIOR TO OPERATING EQUIPMENT.

NOTE

The word **NOTE** is used to bring your attention to supplementary information in relation to various aspects of proper operation and maintenance.

NOTE: Keep this manual accessible during operation to provide convenient reference.

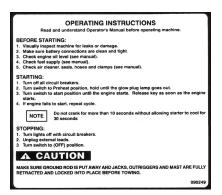
NOTE: Any reference in this manual to LEFT or RIGHT shall be determined by looking at the trailer from the rear.

A SAFETY WARNING

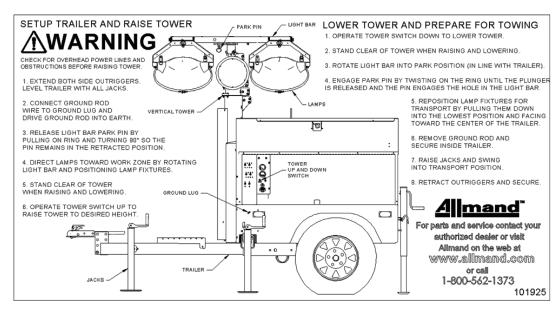
ALWAYS REPLACE ANY SAFETY AND INSTRUC-TION DECALS THAT BECOME DAMAGED, PAINT-ED, OR OTHERWISE ILLEGIBLE. Refer to these representations of the safety warning decals used on the MAXI-LITE to insure correct ordering if replacing becomes necessary.



PART NO. 090307 Location: Inside left hand door panel of Caterpillar engine units.



PART NO. 090249 Location: Inside left hand door panel of Kubota engine units.



PART NO. 101925

Location: Inside left hand door panel.

SAFETY AND WARNING DECALS



PART NO. 090158 Location: AC control panel



PART NO. 090166 Location: Inside left hand door panel



PART NO. 090163 Location: On left side wheel well

whee



PART NO. 090165 Location: Inside left hand

door panel

WARNING

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

090084

PART NO. 090084 Location: AC control panel



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

PART NO. 090162 Location: On left front enclosure panel

GROUNDING LUG 090133

PART NO. 090133

Location: On left side panel below

ground lug



PART NO. 090034

Location: On left inner fender adjacent to fuel tank filler neck



PART NO. 090226 Location: Left front

panel.



PART NO. 090159 Location: On right hand

wheel well

A DANGER HIGH VOLTAGE 090002

PART NO. 090002 Location: On light bar

assembly

A WARNING

EXCESSIVE TOWING SPEED

Can Cause Serious Personal Injury or Death.

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

090160

PART NO. 090160

Location: On trailer drawbar near

revsible hitch assembly.

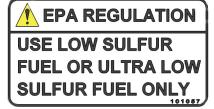
WARNING

You MUST lower the tower to the lowest position prior to moving the light tower trailer or DAMAGE MAY OCCUR! Hold the down switch for 3 additional seconds after tower appears to be down.

100247

PART NO. 100247

Location: Inside left door panel.



PART NO. 101057

Location: On fuel tank near filler neck.

WARNING

Check for overhead obstructions before raising or lowering mast

090005

PART NO. 090005

Location: Inside left door panel

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.

090179

PART NO. 090179

Location: On fuel tank near filler neck.



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

101404

PART NO. 101404

Location: On either side of mast assembly

immediately above roof panel.

WINCH

UP



DOWN 090306

PART NO. 090306 Location: On AC control panel

<u>Allmand</u>

For parts and service contact your authorized dealer or visit
Allmand on the web at www.allmand.com

or call 1-800-562-1373

090465

PART NO. 090465

Location: Inside left door panel.

HYDRAULIC LIFT VERTICAL MAST OPERATION

DESCRIPTION OF OPERATION

The Allmand MAXI-LITE V Series hydraulic lift tower assembly consists of a seven section telescoping mast which can be extended by operating a single hydraulic cylinder. The light bar assembly can be rotated into position by releasing the light bar park pin. To release the park pin, pull the ring and turn it 90 degrees so that the pin remains in the retracted position. The light bar is designed to rotate with enough resistance so that the bar will stay in the desired position once the operator has directed the lights on the work zone. 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.



- ALWAYS CHECK FOR OVERHEAD OB-STRUCTIONS BEFORE RAISING AND LOWERING MAST. ALLOW 35' CLEAR-ANCE. AVOID ALL OVERHEAD ELECTRI-CAL WIRES.
- TO PREVENT INSTABILITY AND HELP ENSURE SAFE OPERATION, ALWAYS PROVIDE PROPER GROUND SUPPORT BEFORE RAISING MAST.

BEFORE RAISING MAST, VISU-ALLY INSPECT EQUIPMENT FOR DAMAGE OR WEAR. FAMILIARIZE YOURSELF WITH THE LOCATION AND FUNCTION OF ALL OPERAT-ING PARTS BY STUDYING THIS MANUAL. OBSERVE ALL CAU-TION DECALS LOCATED ON EQUIPMENT

TO SET UP TOWER AND RAISE LIGHTS

 Extend both side outrigger jacks, rear jack and tongue jack to stabilize and level the trailer.

NOTE: Jacks should be placed only on firm footing.



THE SUPPLEMENTAL 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.

- 2. Attach the ground rod to the grounding lug, and drive the ground rod fully for adequate electrical ground, as required by local, state, or national code.
- Start engine.(NOTE: Tower may be raised and lowered as needed without engine running.)
- 4. While the tower is still in the down position, position the light bar and lamps so they are aimed at the work zone and tilted at the approximate angle to get maximum coverage once the tower is raised.
- 5. Stand clear of the tower when raising and lowering the lights.

HYDRAULIC LIFT VERTICAL MAST OPERATION

- Operate the hydraulic lift switch to the "up" position to raise tower to the desired height.
- 7. If lights need to be adjusted for better lighting of the work zone after raising the tower, lower the tower using the "down" switch position and make desired adjustments to the light bar and light fixtures. Raise the tower into position. Repeat this step if necessary.
- Reposition the lamp fixtures for transport by pulling them down into the lowest position and face the fixtures toward the center of the trailer.
- Remove ground rod from earth. Disconnect wire from ground lug and secure in trailer
- Raise jacks and rear stand, retract outriggers and secure for towing

NOTE: Ensure the detent pins are properly engaged in the outriggers before towing.



SAFETY WARNING!

VISUALLY INSPECT EQUIPMENT FOR DAMAGE BEFORE OPERATING. ALLOW ADEQUATE CLEARANCE AROUND TRAILER FOR TOWER AND INSURE THAT NO PERSONS ARE STANDING IN UNDER THE LIGHTS WHEN LOWERING.

TO LOWER TOWER AND LIGHTS

- 1. Turn off lights.
- Operate the hydraulic lift switch in the down position to lower the lights to the lowest vertical position. When tower reaches the bottom, run switch for three additional seconds to ensure that the tower is at it's lowest possible position.
- 3. Stop engine.
- 4. Rotate the light bar into the transport park position (in line with trailer) and engage the park pin by twisting on the park pin ring until the plunger is released and the pin engages the hole in the light bar.

GENERAL START UP INSTRUCTIONS

NOTE: The ports are marked on the casing UP and DN. When facing the power unit with the motor up, plug the right hand, or DN port Jog the motor until the 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.

HYDRAULIC PUMP

Hydraulic Oil Specifications

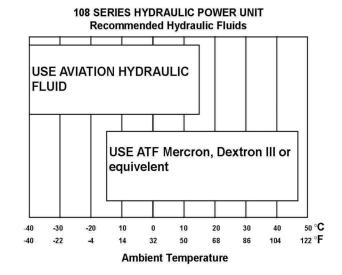


Figure 31

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

TOWING AND STARTING INSTRUCTIONS

TOWING INSTRUCTIONS

Before towing the MAXI-LITE the trailer should be inspected visually to insure that the following operations have been completed.

- 1. Hitch is securely attached to towing vehicle (safety chains secure).
- 2. All outriggers and jacks are retracted and secured.
- 3. Tower is lowered.
- 4. Light fixtures are positioned for transport.
- 5. Doors are closed and secure.
- 6. Check tires for adequate air pressure
- 7. Taillights are connected and operating (if equipped).
- 8. Ground rod is removed from ground and secured in the trailer

GROUND ROD INSTRUCTIONS

- 1. Remove ground rod stowed just inside the left door (attached to the lower rame)
- 2. Unroll the electrical wire lead from the ground rod.
- 3. Attach the ground rod lead to the grounding lug located near the ballast compartment.
- 4. Drive the ground rod a minimum of 2 1/2 FT into the earth for adequate electrical grounding. If this is not possible consult your local qualified electrician.
- **5. AFTER SHUTDOWN OF ENGINE**: Remove the ground rod from the earth, remove lead from the trailer ground lug and store ground rod inside left door.

BEFORE STARTING:

- 1. Fill the engine with the right grade of lubricating oil (refer to the proper page of this manual or the Kubota, CAT, or Lombardini diesel operators manual for oil specifications)
- 2. Ensure there is an adequate supply of diesel fuel.
- 3. 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.

STARTING ENGINE

NOTE: The **Kubota** diesel engine includes a glow plug cold start system controlled by the yellow **preheat** button on the control panel. Glow plugs are not needed on a warm engine or if the ambient temperature is above 50 degrees F. The **CAT C1.1** and **Lombardini LDW 1003** diesel engines include a glow plug cold start system controlled by the ignition switch on the control panel. Glow plugs are not needed on a warm engine or if the ambient temperature is above 50 degrees F.

COLD WEATHER STARTING: KUBOTA (for temperatures below 32° F/ 0° C)

- **1.** Turn the on-off switch to the **ON** position.
- 2. Press the yellow **PREHEAT** button for 5 seconds (10 seconds below 23° F maximum 20 seconds continuous).
- **3.** Press the green **START** button to crank engine until the engine starts.
- 4. If engine fails to start, it may be necessary to recycle the PREHEAT and Start steps #2 and #3 above

STARTING INSTRUCTIONS

COLD WEATHER STARTING: LOMBARDINI LDW 1003 (for temperatures below 32° F/ 0° C)

- **1.** Turn the key switch to the PREHEAT position, hold until the glow plug indicator lamp goes out, then release switch.
- 2. Turn the key switch to the START position and the engine should start. Release the key immediately when the engine starts. If engine fails to start it may be necessary to cycle the glow plugs again (see chart below)

COLD WEATHER STARTING CAT C1.1 (for temperatures below 32° F/ 0° C)

- 1. If the engine is cold, turn the key switch counterclockwise to the "preheat" position until the glow plug indicator turns red. CAUTION: Never heat glow plugs more than 30 seconds or damage to the glow plugs may occur.
- 2. Turn the key switch to the "start" position and start the engine immediately once the indicator turns red. Release the key immediately when the engine starts. (If engine fails to start, repeat steps 1 and 2.)

	PREHEATING TIME		
AMBIENT TEMPERATURE	Ordinary Heat Type	With Glow Plug Timer	
Above 50°F (10°C)	NO NEED	Automatic preheating is made for about 6	
50°F (10°C) to 23°F (-5°C)	Approx 5 coconde	seconds when starter	
Below 23°F (-5°C)		switch key is turned to	
Limit of continuous use	20 to 30 seconds	preheating position.	

NOTE: 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.

NOTE: 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 flywheel is rotating, the starter pinion and flywheel ring gear may clash, resulting in damage to the starter or flywheel ring gear.

NOTE:If the starter does not turn the engine over, stop cranking immediately. Do not make further attempts to start the engine until the condition is corrected. See your local Kubota, CAT, or Lombardini Engine Service Dealer for trouble analysis.

FOR A WARM ENGINE (Kubota, CAT, and Lombardini engines)

• Follow the same procedure as described for cold weather starting, skipping step 1 (step 2 for Kubota). Use of the glow plugs is not recommended when engine is warm.

LOW OIL PRESSURE SHUT-OFF SYSTEM

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

HIGH COOLANT TEMPERATURE SHUT-OFF SYSTEM

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 shut-off position.

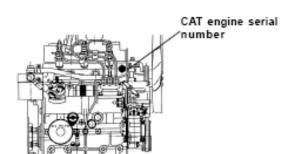
STOPPING THE ENGINE

To stop the engine turn the ignition switch to the off position, this breaks the circuit between the battery and the fuel solenoid, allowing the spring load to immediately move the control to the shut-off position

SERIAL NUMBER LOCATION

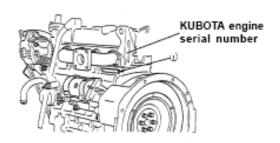
Trailer: All MAXI-LITE models have a serial number plate located on the lower left side of the rear panel.

SERIAL NUMBER LOCATION

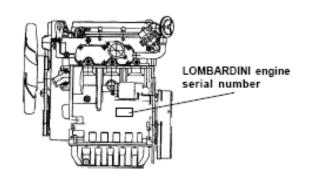


Generator: The generator has a plate attached to the side of the housing.

Engine: **CAT** engines have the serial number stamped on the right side of the engine block just ahead of the first cylinder. (see illustration)



KUBOTA engines have the serial number stamped on the engine block just below the exhaust manifold. (see illustration)



LOMBARDINI engines have the serial number tag located on the right side of the engine block. (see illustration)

SPECIFICATIONS

MAXI-LITE DIMENSIONS

DOMESTIC SHIPPING WEIGHT

Height lowered: 6'6" (1.98 m)

Height extended: 30' (9.14 m) Length: 14'9" (4.49 m)

Width: 6'4"(1.92 m)
Outrigger width: 11'6"(3.5 m)
Trailer: Structural steel frame

Leaf spring axle

Wheels & tires: 15"

Fixtures: 15 lbs. ea. = 60 lbs. Total weight: 2,580 lbs. (963 kg)

TRAILER

The engine-generator set is housed in a lockable enclosure with the frame fabricated from heavy gauge steel mounted on a two-wheel leaf spring axle. The design enables the trailer to contain the outriggers in a simple compact position. The design includes an adjustable-height reversible hitch that includes a 2" ball and a 3" pintle hook hitch.

MAST

When the mast is in the operating position it is located in the middle of a three point outrigger system for optimum balance and stability.

The mast consists of seven fabricated steel sections that telescope to 25 ft and UHMW plastic guide pads to provide smooth operation and reduced friction.

The mast sections are extended with either a manual or electric winch, or hydaulic pump. The electric winch design includes limit switches that turn the winch off when the mast reaches full extension or is fully retracted.

STABILIZERS

Four (4) point outrigger design with tower center mounted between two (2) retractable side outriggers, tongue jack and rear jack.

FLOOD LIGHT ASSEMBLY

The flood light assembly consists of four 1250 watt lamp fixtures sealed for all weather use.

SHO 1250 fixture - Metal Halide Lamp

Lumen rating: 150,000 initial lumens

Warm up time: 2-4 minutesRestart time: 10-15 minutes

ENGINE SPECIFICATIONS

MODEL	KUBOTA D1105	LOMBARDINI LDW 1003	CAT C1.1
TYPE	Water cooled 4-cycle diesel	Water cooled 4-cycle diesel	Water cooled 4-cycle diesel
BORE	2.99" (76 mm)	2.96" (75 mm)	3.03" (77 mm)
STROKE	2.90" (73.6 mm)	3.05" (77.6 mm)	3.19" (81 mm)
DISPLACEMENT	61.1 cu. In (1002 cc)	62.6 cu. In (1028 cc)	69 cu. In (110 cc)
POWER @ 1800RPM	13.6 HP (11.4kw)	13.4 HP (11.2kw)	14.3 HP (11.9kw) non derate
POWER OUTPUT DERATING	3% per 10 00 ft above 360 ft. 1% per 10° above 77° F	3% per 1000 ft above 360 ft. 1% per 10° above 77° F	3% per 1000 ft above 360 ft. 1% per 10° above 77° F
FUEL SYSTEM	Indirect injected diesel	Indirect injected diesel	Cassette type fuel injected diesel
STARTING SYSTEM	12 volt DC	12 volt DC	12 volt DC
COMPRESSION RATIO	22:1	22.8:1	22:1
WEIGHT	205 lbs (93 kg)	191 lbs (87 kg)	191 lbs (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	Forced lubrication by pump	Forced lubrication by pump
OIL FILTRATION	Cartridge type	Cartrid ge type	Cartridge type
COOLING SYSTEM	Pressurized radiator, forced circulation with water pump	Pressurized radiator, forced circulation with water pump	P ressurized radiator, forced circulation with water pump

Low oil pressure and high engine temperature shut-downs are standard equipment. Both The Kubota, CAT, and Lombardini diesel are equipped with glow plug cold start assist as standard equipment.

NOTE: See the appropriate section of this manual for cold weather starting instructions or consult the Operators Manual for your particular engine application.

Horsepower ratings are established in accordance with Society of Automotive Engineers Small Engine Test Code- J1349 GROSS.

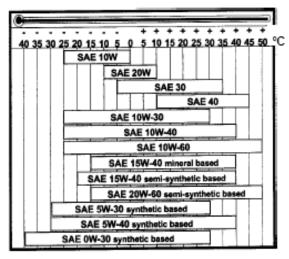
GENERATOR

- 7.5 kw and 8 kw models available
- 60 hz and 50 hz models available

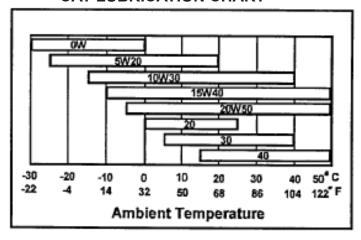
FUEL REQUIREMENTS

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 effects the engine. Refer to the Kubota, CAT, or Isuzu Operators Manual for more detailed fuel requirements.

LOMBARDINI LUBRICATION CHART



CAT LUBRICATION CHART



KUBOTA LUBRICATION CHART

above 77°F (25°C)	SAE30 or SAE10W-30 SAE10W-40
32°F (0°C) to 77°F (25°C)	SAE20 or SAE10W-30 SAE10W-40
below 32°F (0°C)	SAE10W or SAE10W-30 SAE10W-40



FIGURE 1

FIGURE 2

FIG. 1. AC CONTROL PANEL

- 1. Switch, Circuit Breaker (Lights 1 through 4)
- 2. Switch, Circuit Breaker (240V Receptacle)
- 3. Switch, Circuit Breaker (120V Receptacles)



SAFETY WARNING

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FIG. 2. DC CONTROL PANEL

- 4. Voltmeter (optional)
 Indicates charging circuit voltage
- 5. Hour Meter Shows total elapsed hours of engine operation.
- 6. Momentary Contact Switch. Lift up to raise and extend the tower.

Press down to lower the tower.

- 7. Ignition Switch
- 8. Glow plug indicator release Ignition switch when indicator begins glowing.
- 9. 2 AMP Circuit Breaker (Hydraulic Pump)

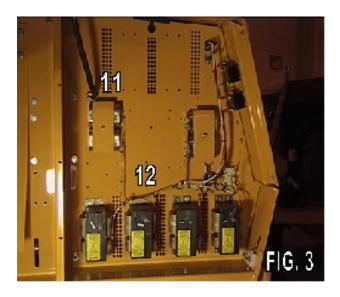


FIG. 3 BALLAST PANEL

- 11. Ballast, Capacitors 1 through 4
- 12. Ballast, Transformers 1 through 4

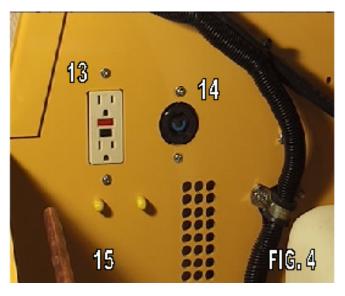


FIG. 4 CONVENIENCE PANEL

- 13. 120 Volt/ 15 Amp Outlet Receptacles (Ground fault)
- 14. 240 Volt/ 15 Amp D.C. Outlet Receptacle



SAFETY WARNING

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CONTROLS AND COMPONENTS

NOTE: COMPONENTS SHOWN ARE STANDARD. PICTURES MAY VARY WITH DIFFERENT OPTIONS.

FIG. 5 GROUND ROD

16. Ground Rod

Ground Rod should be attached to grounding lug with wire provided and ground rod and then driven fully into the eqrth for adequate electrical ground as required by local, state or national electrical codes.



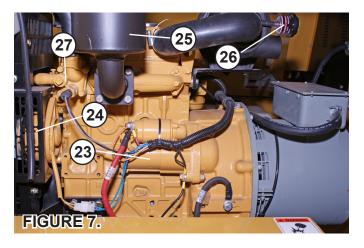
FIG. 6 ENGINE (Left Side)

- 17. Air Cleaner
- 18. Fuel Filter
- 19. Oil Filter
- 20. Radiator
- 21. Oil Dipstick
- 22. Oil Pressure Sensor



FIG. 7 ENGINE (Right Side)

- 23. Starter
- 24 Alternator
- 25. Muffler
- 26. Air Cleaner Service Indicator
- 27. Coolant Temperature Sensor



NOTE: Above photos illustrate component locations on the CAT C1.1 diesel engine. Component location on other engine models may vary from the locations indicated above.

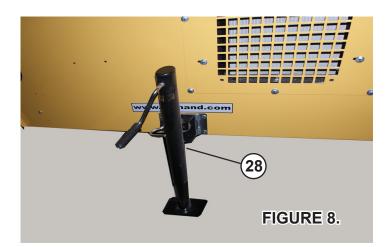


FIG. 8 REAR JACK 28. Rear Jack

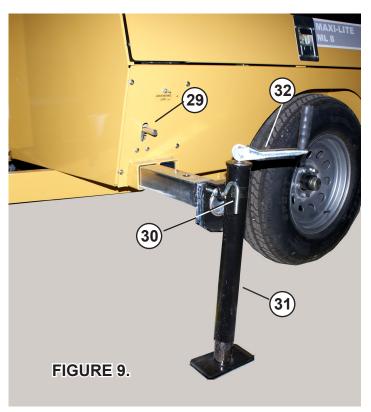


FIG. 9 OUTRIGGER JACK

- 29. Pin--Retains outrigger in retracted position for towing.
- 30. Jack Pin--Pull to allow jack to rotate
- 31. Outrigger Jack
- 32. Jack Handle--Crank handle to raise and lower foot of jack to level trailer.

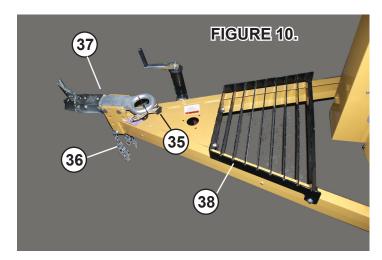


FIG. 10 TONGUE ASSEMBLY

- 35. Taillight Wiring Harness
- 36. Safety Tow Chains
- 37. Reversible Hitch (2" Ball and 3" Pintle Hitch)
- 38. Step Plate--Allows operator to position light fixtures prior to raising tower.

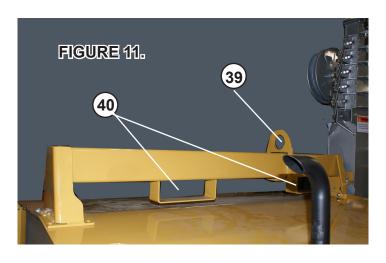


FIG. 11 FORKLIFT POCKETS

- 39. Lifting Eye
- 40. Forklift Pockets

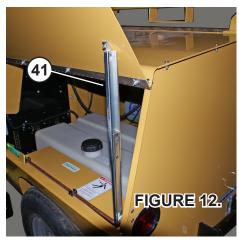


FIG. 12 DOOR PROP

41. Door Prop--Locks door panel in open position.

Fig. 13. Hydraulic Bypass Valve

41. Bypass Valve
Allows tower to be lowered
manually in the event of a failure.



43 FIGURE 14.

Fig 14. Hydraulic Power Unit Assembly

- 42. Hydraulic Pump
- 43. Bypass Valve
- 44. 12 VDC Enclosure

 Houses 125A fuse and 100A solenoid



FIG. 15 Cord Reel45. Cord reel —*Manages the mast power cable and prevents tangling.*



FIG. 16 Light Bar
46. Lamp Connector Lead—Allows quick connecting/disconnecting of the lamp fixtures

CONTROLS AND COMPONENTS

NOTE: PHOTOGRAPHS MAY SHOW NON-STANDARD EQUIPMENT AND OPTIONS

FIG. 17 Vertical Tower

- 1. Seven Section Vertical Tower
- **2. Light Mounting Locations** -- Mount lights here for use during operation
- **3. Light connector sockets**—attach light leads to light bar at these female receptacles when provided

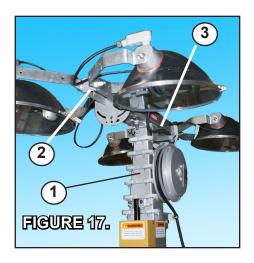
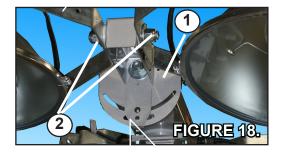


FIG. 18 Light Bar and Mounting Locations

- 1. Light Bar
- **2. Light mounting locations** Mount lights here for use during operation



KUBOTA D1105, CAT C1.1, and LOMBARDINI LDW 1003

INSPECTION AND LUBRICATION SCHEDULE

Check condition of the steel cable and make sure it is properly secured. Check hydraulic fluid level.

Service intervals shown below have been established for operation under normal conditions. Where equipment is operated under severe conditions (very dusty, extreme heat or cold, etc.) affected items should be serviced more frequently.

KUBOTA

INTERVAL	ITEM	PROCEDURE
	Fuel level	Check and fill as necessary
Daily or 10 Hr.	Lubricating oil	Check level and condition
	All 10 Hr. items	as above
	Air cleaner	Service as required. Service
100 Hr.	All cleaner	requirements may be accelerated
100 Hr.	Battery	Check level of electrolyte
	Engine Generator assembly	Check for fuel and lubricating oil
	Engine Generator assembly	leaks
	All 100 Hr. Items	As above
		Drain lubricating oil, flush out
	England takes and assets as	system, renew filter element and
200 Hr.	Engine lubricating oil system	refill with correct grade and type
		oil.
	Coolant	Check level and condition
400 Hr.	Fuel filter	Replace with new
	All 200 Hr. items	as above
500 Hr.	Fan belt	Check tension and condition
	Radiator	Clean out fins with water or air
	All 500 Hr. items	as above
	Engine valves	Adjust clearance
	Cable pulley at the bottom of	Barrer dans and arrange
4000 11-	the front mast support	Remove, clean and grease
1000 Hr. or yearly	Cabla mullaus an mast	Inspect for wear. Clean and
	Cable pulleys on mast	Iubricate
	Axle Wheel bearings	Clean and repack
	Fuel system	Clean sediment from tank

CAT ONLY

Every Day or every 8 hours First Service - (20/50 hours) Every 100 hours or 3 months Every 200 hours or 6 months Every 400 hours or 12 months Every 600 hours or 18 months Check level of coolant (Top up with coolant only) . . Check concentration of coolant Renew Coolant (FILL SLOWLY, ENSURE CORRECT QUANTITY IS USED) • Check engine lubricating oil level • • • Renew engine oil (Fill SLOWLY, ENSURE CORRECT QUANTITY IS USED) • Renew engine oil filter • . Drain water from fuel filter and pre-filter Renew fuel filter canister (N.B. Air vent screws on filter and fuel pump) • Check tension of alternator drive belt Check alternator drive belt for wear Renew atternator drive belt Check and adjust idle speed Tighten cylinder head Check and adjust valve clearances Check electrical systems Check all nuts/bolts for tightness Check injectors for performance • ٠ Clean air filter (earlier check may be necessary) Renew air filter element • • • Check and correct any leaks or engine damage

LOMBARDINI ONLY

	MAINTENANCE INTERVAL						
MAINTENANCE OPERATION	10	50	125 hours	250 hours	500 hours	1000 hours	2500 hours
MAINTENANCE OFERATION	hours	hours	nours	nours	nours	nours	nours
	DAILY						
OIL LEVEL CHECK (D)							
COOLANT LEVEL CHECK (D)							
FAN/ ALTERNATOR BELT INSPECTION (*)							
AIR FILTER ELEMENT CHECK (DRY TYPE) (*)	see note						
AIR FILTER CHECK (OIL BATH TYPE) (**)							
RADIATOR CORE INSPECTION (@)							
FLUID LEAK INSPECTION- GENERAL (*)							
SAFETY GUARD INSPECTION (*)							
OIL REPLACEMENT- INITIAL ONLY-(see RECOMMENDED OIL TYPE)							
OIL FILTER REPLACEMENT - INITIAL ONLY							
OIL REPLACEMENT- (see RECOMMENDED OIL TYPE)							
OIL FILTER REPLACEMENT							
FUEL FILTER REPLACEMENT							
COOLANT HOSE INSPECTION							
FAN/ ALTERNATOR BELT TENSION ADJUSTMENT							
VALVE ADJUSTMENT					_ ·		
FAN/ ALTERNATOR BELT REPLACEMENT							
FUEL INJECTION SYSTEM ADJUSTMENT					•		
CLEAN FUEL TANK (◎)							
COOLANT REPLACEMENT (***)						•	
REPLACE TIMING BELT							<u> </u>



A SAFETY WARNING

DANGER!

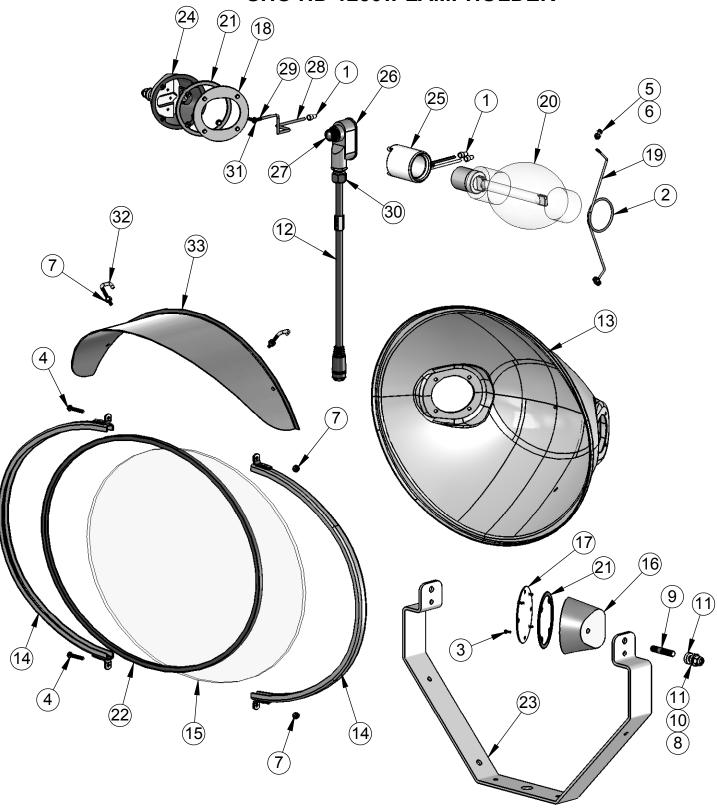
HIGH VOLTAGE! DO NOT ATTEMPT TO TEST AND REPAIR GENERATOR AND BAL-LAST ELECTRICAL SYSTEMS UNLESS YOU UNDERSTAND AND ARE QUALIFIED TO WORK ON SUCH SYSTEMS.

DO NOT WEAR JEWELRY WHILE WORKING WITH ELECTRICITY! If the following procedures do not solve your problem, have the circuit tested by a licensed electrician. DO NOT attempt to test generator voltage or ballast electrical systems unless you are a qualified electrician. Consult the factory for voltage specifications and test procedures

	DOCCIDI E CALLOE
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 minutes 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.
ONE OR MORE LIGHTS DO NOT LIGHT UP.	6. The temperature of the ballast is below –20 degrees F. the efficiency of the capacitors in the ballast is not enough to ignite the lamps. For operations where the temperatures of the ballasts falls below –20 degrees F. some means of warming the ballast must be used.
	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 have failed.
	15. Corrosion has occurred on the lamp bases.

For engine and generator troubleshooting, see engine and generator manuals or contact your dealer.

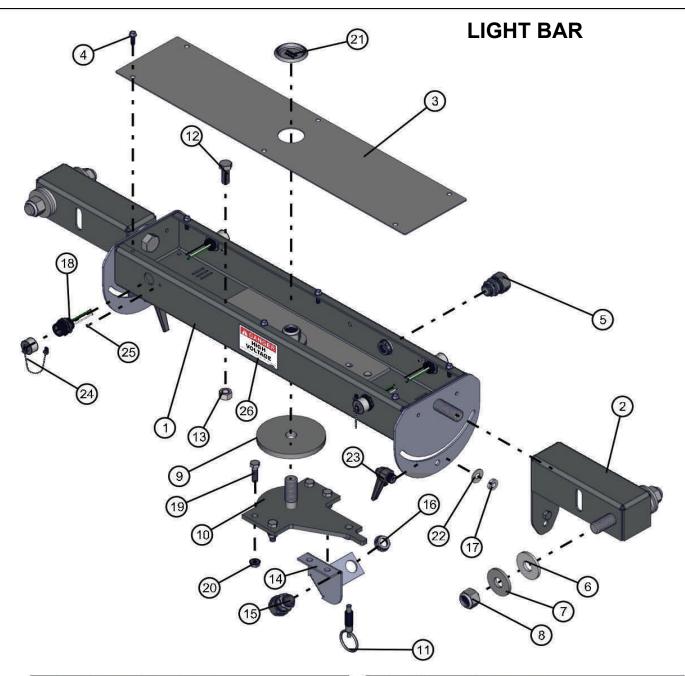
SHO HD 1250w LAMPHOLDER



MAXI LITE V SERIES HYDRAULIC SHO HD 1250w LAMPHOLDER

NO.	QTY.	PART NO.	DESCRIPTION	
1	3	022060	WIRE CAP SMALL	
2	1	610210	FIBERGLASS TUBE X 12 LAMP SUPPORT TIP	
3	8	041028	10-24 X 1/2 HEX MACH SCREW	
4	2	041036	10-24 X 1 1/4 SS RHMSPH	
5	2	041200	8-32 X 1/2 HEX MACH SCREW	
6	2	044013	#8-32 NYLOCK NUT	
7	4	044019	10-24 NYLOC NUT	
8	2	044037	3/8-24 NYLOC NUT	
9	2	045142	STUD 3/8-24 X 3/8-16 X 2"	
10	2	047016	3/8 SAE FLAT WASHER	
11	4	047019	3/4 OD X .385 ID NYLON BUSHING	
12	1	310434	MALE CONNECTOR CABLE	
13	1	610201	REFLECTOR	
14	1	610202	LENS CHANNEL SET	
15	1	610203	GLASS LENS	
16	1	610206	END CAP	
17	1	610207	INTERIOR COVER PLATE	
18	1	610208	INTERIOR COVER PLATE	
19	1	610209	LAMP SUPPORT TIP	
20	1	610221	1250w LAMP BT37	
21	2	610213	GASKET	
22	1	610217	SILICONE GASKET	
23	1	660130P	YOKE MOUNT	
24	1	610205	END CAP SOCKET	
25	1	610212	CERAMIC SOCKET	
26	1	610214	ELBOW	
27	1	610215	NIPPLE	
28	1	020113	14 AWG GREEN 6"	
29	1	022155	#10 ELEC. RING	
30	1	510007	1/2 DIA CORD GRIP	
31	1	041257	10-32 GROUND SCREW	
32	2	045070	#10-24 HOOK SQ BD BOLT	
33	1	610017	SAF-T VISOR	

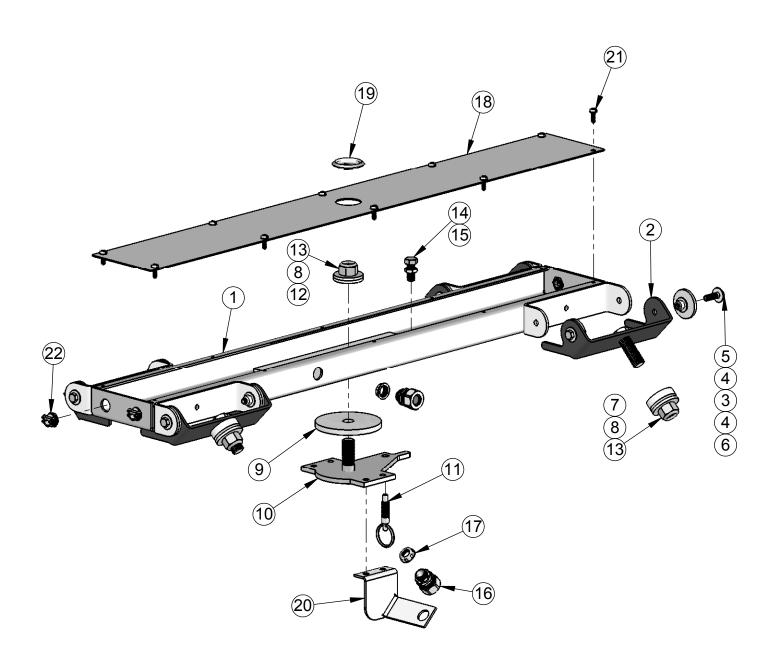
LEGEND:
NS=NOT SHOWN
WHEN ORDERING,SPECIFY THE
COLOR WANTED ON PARTS
CONTAINING THE LETTER "P"



NO	QTY	PARTNO	DESCRIPTION
1	d	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	1	310033	1/2 CORD GRIP
6	7	650550	.785 X 2" HDPE WASHER
7	7	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	d	100148	SPRING LOCK 1/2-13 X1.4
12	1	046180	1/2-13 X 1 1/4 HHCS GR 5
13	1	044048	1/2-13 HNUT
14	1	100154P	BRACKET

NO	QTY	PARTNO	DESCRIPTION
15	1	310033	1/2 CORD GRIP
16	2	022415	1/2" WIRE PROTECTOR
17	2	047019	3/4 OD X .385 ID NYLON BUSHING
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	047010	5/16 FW
23	2	102361	ADJUSTABLE LEVER,
24	4	310413	CAP ILS OPTION
25	4	045116	1/8 POP RIVET
26	2	090002	HIGH VOLTAGE DECAL

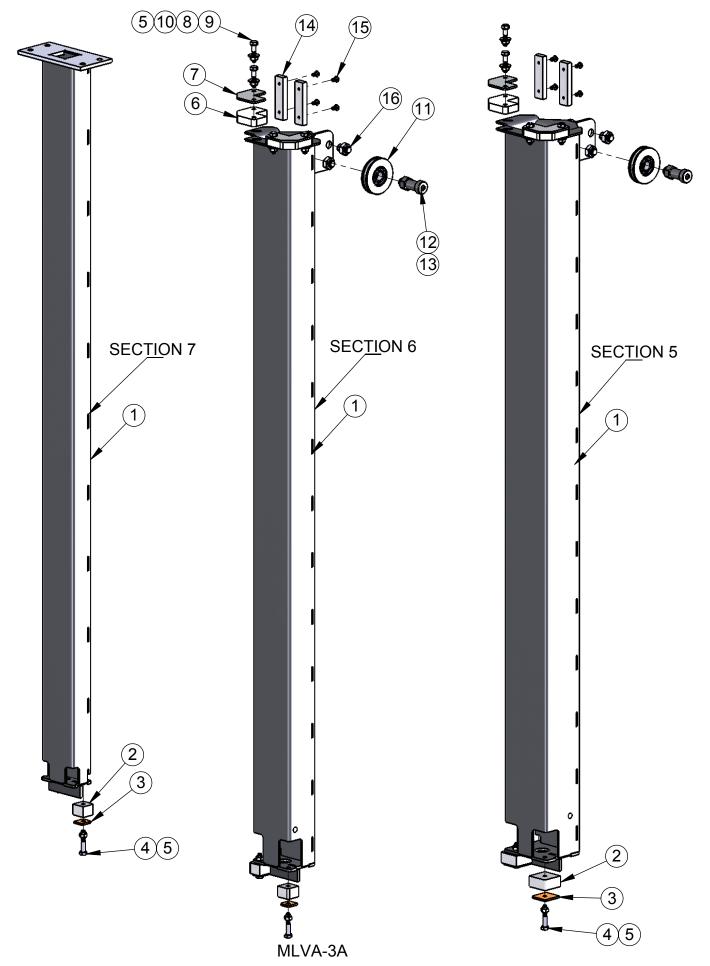
MAXI LITE V SERIES HYDRAULIC LIGHT BAR



MAXI LITE V SERIES HYDRAULIC LIGHT BAR

NO.	QTY.	PART NO.	DESCRIPTION
1	1	100113P	LIGHT BAR
2	4	100157P	LIMITER BRACKET
3	8	100673	.385 X 2 X 3/16 PC WASHER
4	16	047015	3/8 FLAT WASHER
5	8	046115	3/8-16 X 1 1/4 HHCS
6	8	044038	3/8-16 NYLON INSERT NUT
7	4	101813	.781"ID x 2"OD x 1/2" HDPE WASHER
8	5	047035	3/4 FLAT WASHER PLTD
9	1	100147	UHMW BEARING
10	1	100143P	ROTATIONAL MOUNT
11	1	100148	SPRING LOCK 1/2-13 X1.4
12	1	650550	.785 X 2 HDPE WASHER
13	5	044121	3/4-10 NYLOCK SS HEX NUT
14	1	046180	1/2-13 X 1 1/4 HHCS GR 5
15	1	100643	1/2-13 NYLOCK JMNT
16	2	330031	1/2 CORD GRIP
17	2	022415	BUSHING THREADED
18	1	100106P	LIGHT BAR COVER
19	1	680878	CAPLUG 1 3/4"
20	1	100154P	TOWER TO CORD ANGLE BRACKET
21	10	041070	1/4-20 x 3/4 SMSHH TP F
22	4	022020	3/8 2 SCREW CLAMP
NS	4	310414	QD FEMALE CONNECTOR

HYDRAULIC TOWER SECTIONS 7-6-5



SECTION 7

NO.	QTY.	PART NO.	DESCRIPTION
1	1	100085P	SEC 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

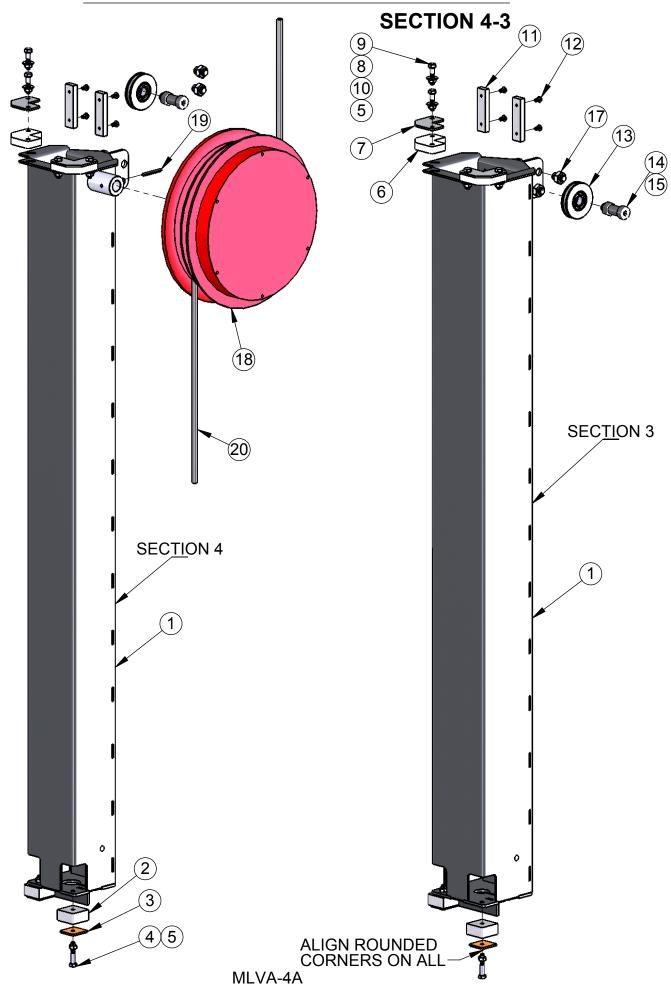
SECTION 6

NO.	QTY.	PART NO.	DESCRIPTION
1	1	100080P	SEC 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	2	100088	BLOCK, CORNER FRICTION
7	2	100089P	COVER, CORNER BLOCK
8	4	043060	3/8 INT STAR WASHER
9	4	046020	1/4-20 X 1 1/4 GR5 HEX BOLT
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	SPACER, 3/8" UHMW
15	4	041023	#10 X 3/8 PLS
16	2	100071	3/16 CABLE BOLT
17	2	044096	1/2-20 HEX NUT PL

SECTION 5

NO.	QTY.	PART NO.	DESCRIPTION
1	1	100075P	SEC 5
2	2	100094	UHMW 1 1/2" WEAR BLK
3	2	100095P	1 1/2 WEAR BLOCK COVER
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	046020	1/4-20 X 1 1/4 GR5 HEX BOLT
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
17	2	044096	1/2-20 HEX NUT PL

LEGEND:
NS=NOT SHOWN
WHEN ORDERING,SPECIFY THE
COLOR WANTED ON PARTS
CONTAINING THE LETTER "P"



SECTION 4

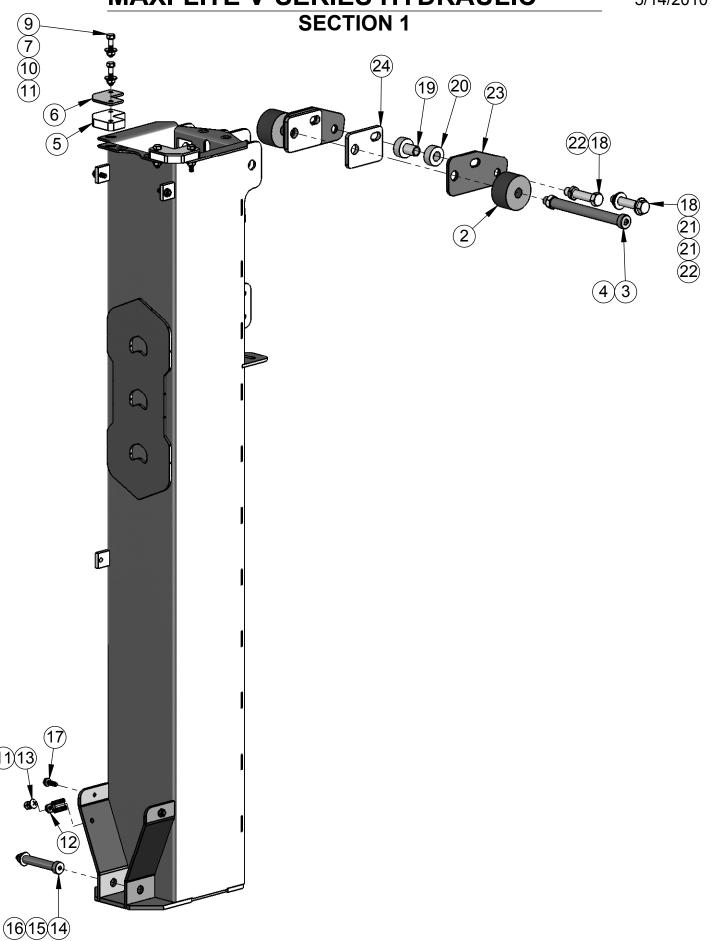
NO.	QTY.	PART NO.	DESCRIPTION
1	1	100070P	SECTION 4
2	2	100094	UHMW 1 1/2" WEAR BLK
3	2	100095P	1 1/2 WEAR BLOCK COVER
4	2	046025	1/4-20 X 1 1/2" HEX BOLT
5	6	044023	1/4-20 NYLOCK NUT
6	2	100088	CORNER FRICTION BLOCK
7	2	100089P	CORNER BLOCK COVER
8	4	043060	3/8 INT STAR WASHER
9	4	046020	1/4-20 X 1 1/4 GR5 HEX BOLT
10	4	047005	1/4 FLAT WASHER
11	2	100062	3/8 UHMW SPACER
12	4	041023	#10 X 3/8 PLS
13	1	100160	2 1/2 PULLEY
14	1	100642	5/8 X 1 SHOULDER BOLT
15	1	044048	NUT NYLOCK 1/2-13 HEX PL
16	2	100071	3/16 CABLE BOLT
17	2	044096	1/2-20 HEX NUT PL
18	1	320410	CORD REEL
19	1	320453	3/16 X 1 3/4" ROLL PIN
20	1	100687	VERTICAL TOWER CORD 16/8 X 310"

SECTION 3

NO.	QTY.	PART NO.	DESCRIPTION
1	1	100060P	WELD, SEC 3
2	2	100094	UHMW 1 1/2" WEAR BLK
3	2	100095P	1 1/2 WEAR BLOCK COVER
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	046020	1/4-20 X 1 1/4 GR5 HEX BOLT
10	4	047005	1/4 FLAT WASHER
11	2	100062	3/8 UHMW SPACER
12	4	041023	#10 X 3/8 PLS
13	1	100160	2 1/2 PULLEY
14	1	100642	5/8 X 1 SHOULDER BOLT
15	1	044048	NUT NYLOCK 1/2-13 HEX PL
16	2	100071	3/16 CABLE BOLT
17	2	044096	1/2-20 HEX NUT PL

MAXI-LITE V-SERIES HYDRAULIC SECTION 2

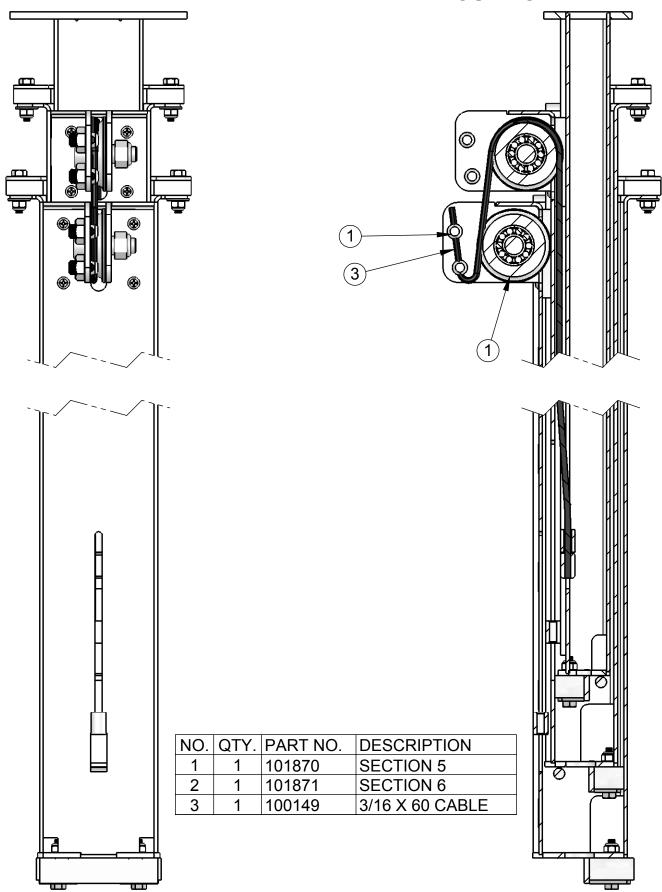
NO.	QTY.	PART NO.	DESCRIPTION
1	1	101035P	SECTION 2
2	2	101626	FRICTION PLUG
3	1	100204P	SEC 2 ROLLER PLATE
4	2	041047	1/4-20 X 3/4 PH CSK
5	6	044023	1/4-20 NYLOCK NUT
6	2	100062	3/8 UHMW SPACER
7	4	041023	#10 X 3/8 PLS
8	2	101374P	BEARING CAGE
9	2	101380	COMPOSITE ROLLER
10	2	101377	CLEVIS PIN 7/16 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	101378	1/2 X 2 SH BOLT
15	1	044038	3/8-16 NYLOCK NUT PL
16	1	047010	5/16 FLAT WASHER
17	2	100088	CORNER FRICTION BLOCK
18	2	100089P	CORNER BLOCK COVER
19	4	043060	3/8 INT STAR WASHER
20	4	046020	1/4-20 X 1 1/4 GR5 HEX BOLT
21	4	047005	1/4 FLAT WASHER
22	1	045040	1/4 CABLE THIMBLE
23	2	102270P	CABLE BRACKET
24	2	047025	1/2" FLAT WASHER
25	1	102273	LONG SPACER
26	2	102271	PLASTIC SPACER
27	1	102365	5/8 X 1 SHOULDER BOLT
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

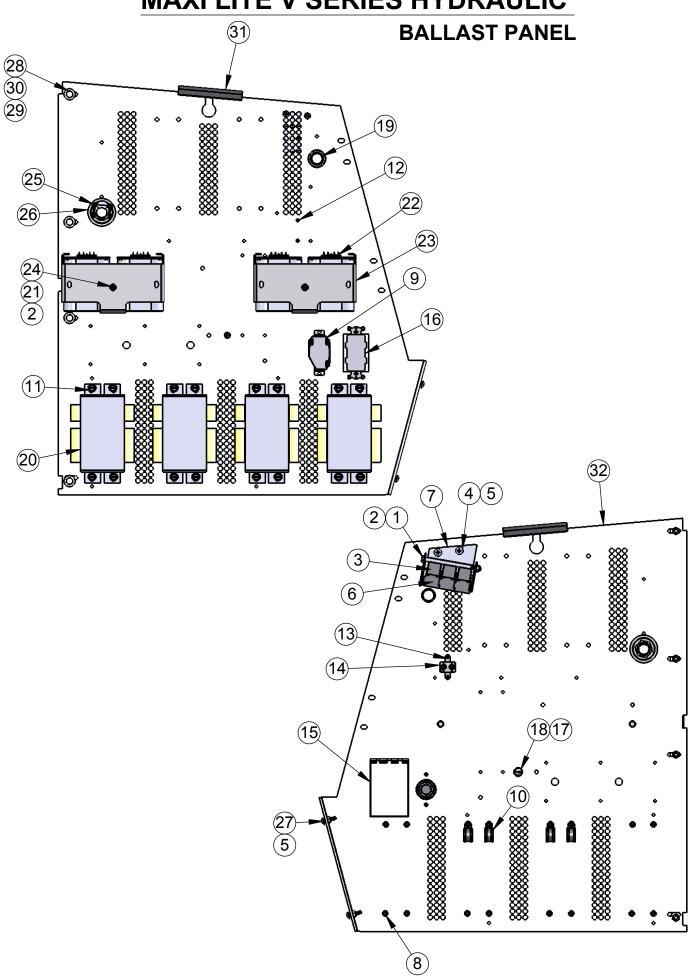


MAXI-LITE V-SERIES HYDRAULIC SECTION 1

NO.	QTY.	PART NO.	DESCRIPTION
1	1	101034P	SECTION 1
2	2	100203	ROLLER
3	1	100202	5/8 X 6 SS SH BOLT
4	1	044096	1/2-20 HEX NUT PL
5	2	100088	CORNER FRICTION BLOCK
6	2	100089P	CORNER BLOCK COVER
7	4	043060	3/8 INT STAR WASHER
8	1	046025	1/4-20 X 1 1/2 HEX BOLT
9	3	046020	1/4-20 X 1 1/4 GR5 HEX BOLT
10	4	047005	1/4 FLAT WASHER
11	5	044023	1/4-20 NYLOCK NUT
12	1	310212	#10 CUSHION CLAMP
13	1	041050	1/4-20 X 3/4 TRUSS BOLT
14	1	101379	1/2 X 2.75 SH BOLT
15	1	047010	5/16 FLAT WASHER
16	1	044038	3/8-16 NYLOCK NUT PL
17	4	041070	1/4-20 X 3/4 SMSHH TP F
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" FLAT WASHER
22	2	100643	1/2-13 NYLOCK
23	2	102270P	CABLE BRACKET
24	2	102269P	SPACER BRACKET

CABLE ROUTING

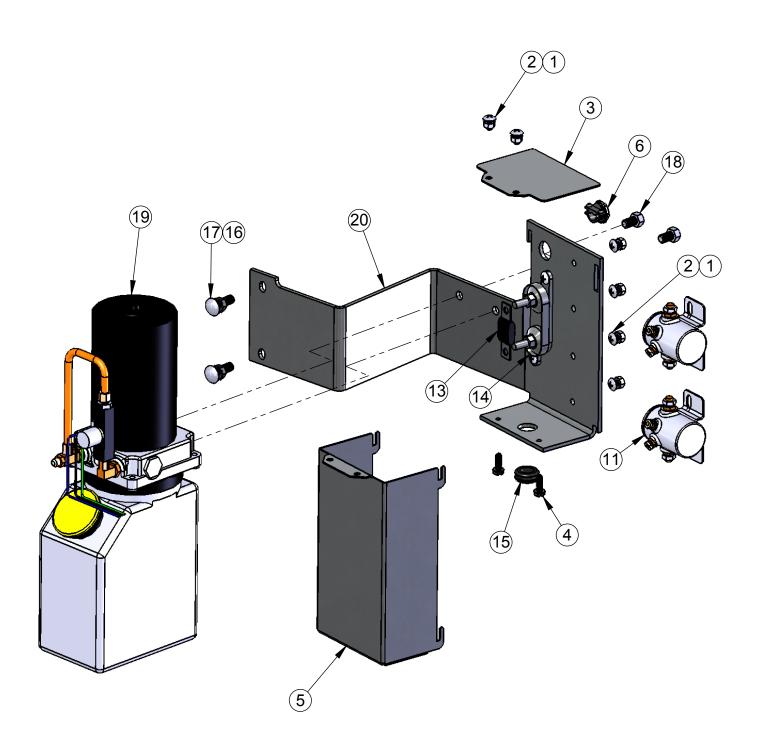




MAXI LITE V SERIES HYDRAULIC BALLAST PANEL

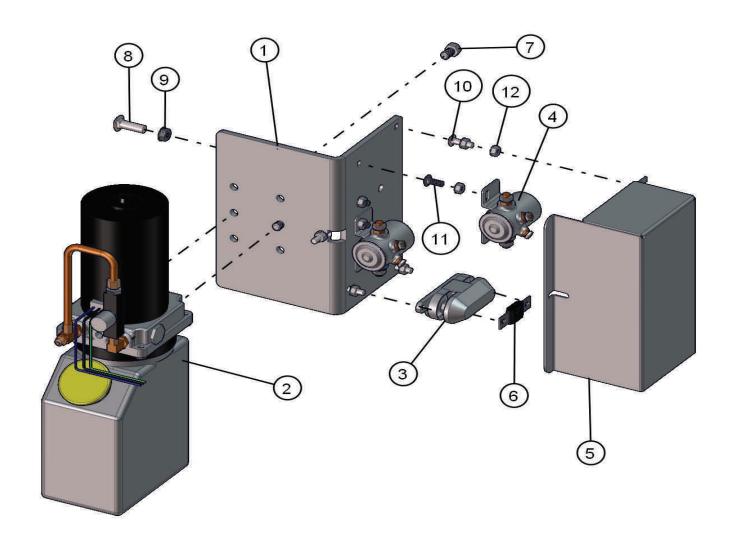
NO.	QTY.	PART NO.	DESCRIPTION	
1	1	046042	1/4-20 X 4 1/2 HEX BOLT	
2	3	044023	1/4-20 NYLOCK NUT	
3	3	101068	DEEP SEA CONTROL RELAY	
4	5	041078	1/4-20 X 1/2 PH TRUSS SCREW	
5	9	044021	1/4-20 KEPS NUT	
6	3	101731	RELAY SOCKET	
7	1	101594	BRACKET,PANEL,BALLAST,	
8	16	064060	THREAD PROTECTOR CAP	
9	1	330491	30A 250V TWISTLOCK RECEPTACLE	
10	4	022024	#12 CUSH CLAMP 1/4 HOLE	
11	16	041075	SCREW MS 5/16-18 X 3/4	
12	2	044004	6-32 KEPS NUT	
13	2	041011	6-32 X 1/4 PHHMS	
14	1	650139	30A BREAKER	
15	1	330432	RECEPTACLE COVER	
16	1	330499	20 A GFCI RECEPTICAL	
17	1	043065	3/8 SPLIT LOCK WASHER	
18	1	041053	1/4-20 x 1 3/4" PHILLIPS HEAD TRUSS SCREW	
19	1	064025	1 1/16" PLASTIC PLUG	
20	4	100328	BALLAST 1250W 60 Hz W/28uF CAPACITOR(HD)	
21	4	047009	1/4 SAE SS FW	
22	4	100329	CAPACITOR 28 uF (HD 1250W)	
23	2	100392P	CLAMP CAPACITOR (HPS)	
24	2	046037	1/4-20 x 2 3/4" HEX BOLT	
25	1	022025	2-SCREW ROMEX CLAMP, 3/4"	
26	2	022349	1 1/4 X 3/4	
27	2	041080	1/4-20 X 1" TRUSS SCREW	
28	4	046055	5/16-18 X 1 1/4 HHCS	
29	4	044031	5/16 -18 KEPTS NUT	
30	4	047010	5/16 FLAT WASHER	
31	1	030057	TRIM LOCK 5"	
32	1	680119	BALLAST PANEL	

HYDRAULIC PUMP (OLD STYLE)



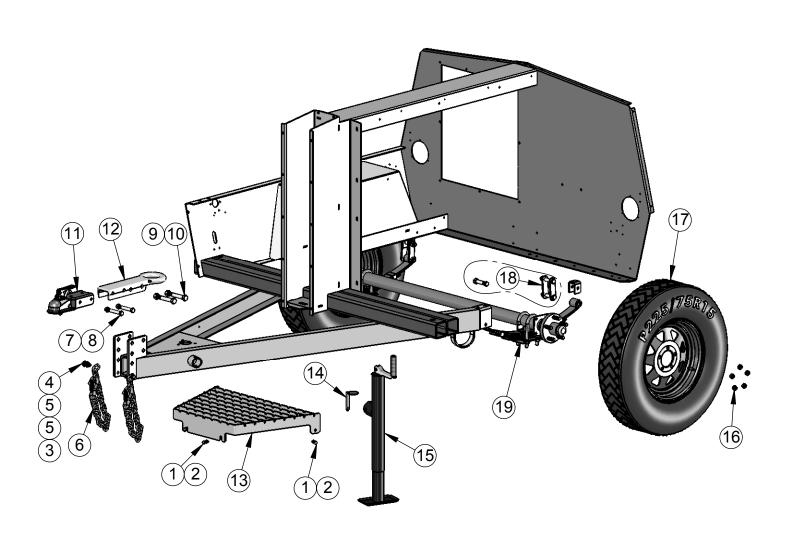
HYDRAULIC PUMP (OLD STYLE)

NO	OT\/	DADTNO	DECODIDITION
NO.	QTY.	PART NO.	DESCRIPTION
1	8	044021	1/4-20 KEPS NUT
2	6	041078	1/4-20 X 1/2 PH TRUSS SCREW
3	1	101914	LID
4	2	041070	1/4-20 x 3/4 SMSHH TP F
5	1	100250	RELAY / FUSE COVER
6	1	022020	2 SCREW CLAMP, 3/8"
7	2	100236	12 VDC RELAY
8	2	041050	1/4-20 X 3/4 TRUSS BOLT
9	1	100234	125A FUSE LINK
10	1	100235	FUSE HOLDER
11	1	711028	7/8 RUBBER GROMMET
12	2	044036	3/8-16 KEPS NUT
13	2	100670	3/8-16 X 1 1/4 CARR BOLT
14	2	101384	3/8 - 16 x 5/8" GRADE 5 HEX BOLT
15	1	101383	HYD POWER UNIT
16	1	100248P	PUMP MOUNT BKT



NO	QTY	PARTNO	DESCRIPTION
1	1	101839P	BRACKET
2	1	101383	HYDRAULIC POWER UNIT
3	1	100235	FUSE HOLDER
4	2	100236	12 VDC RELAY
5	1	102191P	COVER
6	1	100234	125A FUSE LINK
7	2	101384	3/8-16 X 5/8 HHCS PL
8	2	100670	3/8-16 X 1 1/4 CARRIAGE BOLT
9	2	044036	3/8-16 KEPS HEX NUT
10	4	100342	1/4-20 X 1" CARRIAGE BOLT
11	4	053006	1/4-20 X 3/4 RHSSN BOLT
12	9	044021	1/4-20 KEPS NUT

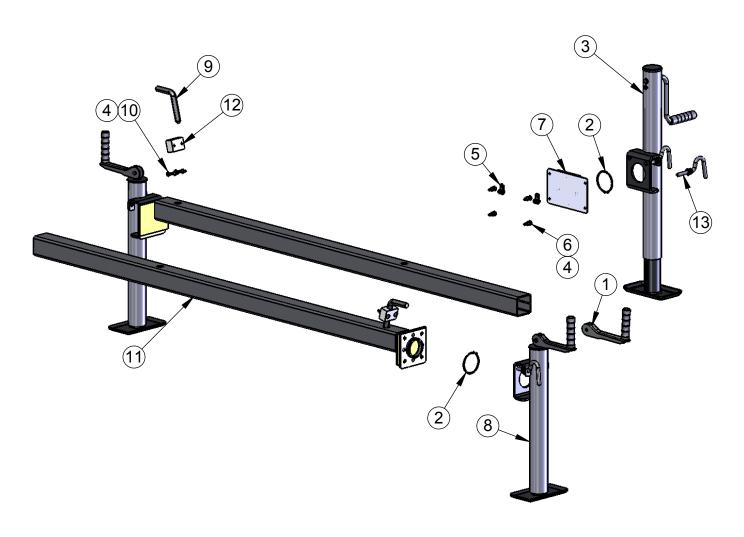
MAXI LITE V SERIES HYDRAULIC AXLE AND HITCH



MAXI LITE V SERIES HYDRAULIC AXLE AND HITCH

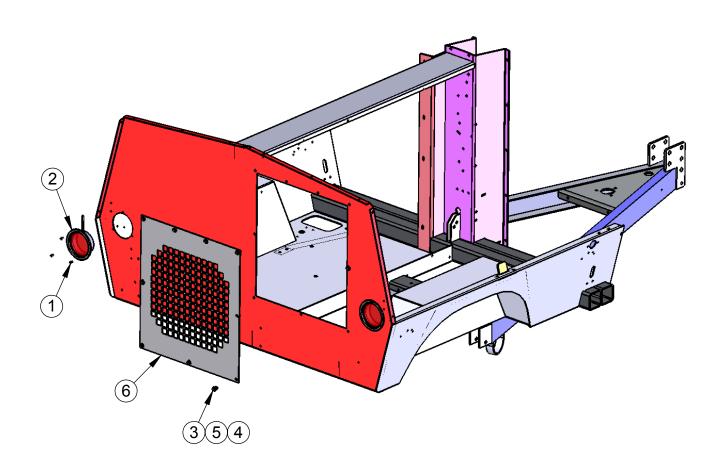
110	OT) (DADTAG	DECODIDATION
	-	PART NO.	DESCRIPTION
1	4	046050	BOLT CS 5/16-18 X 1 HEX GR5 PL
2	4	044030	5/16-18 HEX NUT
3	2	044043	7/16-14 NYLOCK NUT
4	2	046160	7/16-14 X 1 1/2 HEX BOLT
5	4	047015	3/8 FLAT WASHER
6	2	049040	SAFETY CHAIN
7	2	044062	1/2-13 LOCK NUT
8	2	046220	1/2-13 X 4" HEX BOLT
9	2	044061	5/8-11 LOCK NUT
10	2	046250	5/8-11 X 4 1/2 HEX BOLT
11	1	712021	2" BALL SAE CLASS 2
12	1	712540-15	PINTLE HITCH
19	1	352021	AXLE
13	1	101847P	PLATFORM STEP
14	1	330013	JACK LOCK PIN
15	1	680879	TOP CRANK JACK, TUBE MOUNT
16	10	032048	1/2-13 LUG NUT
17	2	680124	ASSY, WHEEL & TIRE, 15"
18	2	032025	AXLE MOUNTNIG HARDWARE KIT
19	1	352021	AXLE
NS	1	330007	HUB W/ RACES
NS	1	330005	BEARING SET
NS	1	330005D	GREASE CAP
NS	1	650169	COUPLER LATCH KIT

MAXI LITE V SERIES HYDRAULIC OUTRIGGERS AND JACKS

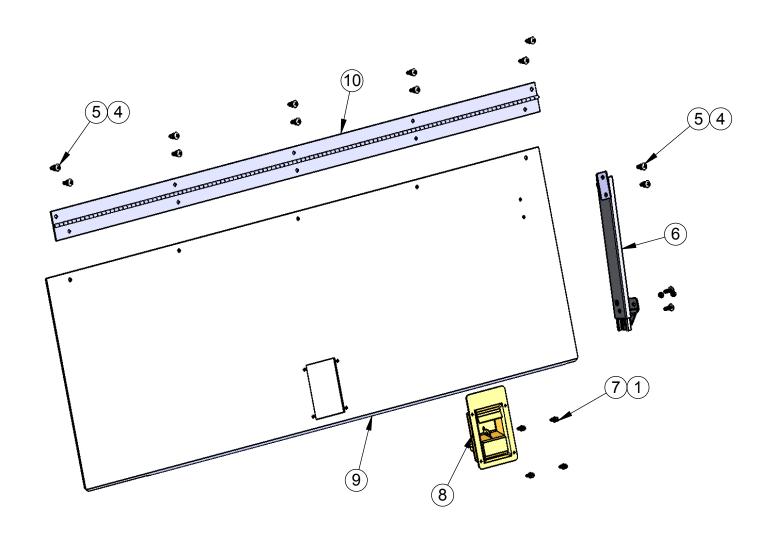


NO.	QTY.	PART NO.	DESCRIPTION
1	1	330012A	JACK HANDLE REPLACEMENT
2	3	330014	RING, JACK RETAINING SNAP
3	1	352072	JACK SIDE CRANK SNAP RING
4	8	044023	1/4-20 NYLOCK NUT
5	2	022015	#4 CUSHION CLAMP
6	4	041080	1/4-20 X 1" TRUSS SCREW
7	1	680112P	JACK MOUNT
8	2	330010	LONG JACK
9	2	330455	OUTRIGGER PIN
10	4	041053	1/4-20 x 1 3/4" PHILLIPS HEAD TRUSS SCREW
11	2	680113P	OUTRIGGER
12	2	330430	GUIDE BLOCK
13	1	330012A	LOCK HANDLE REPLACEMENT KIT

MAXI LITE V SERIES HYDRAULIC TAIL LIGHTS AND RADIATOR PLATES

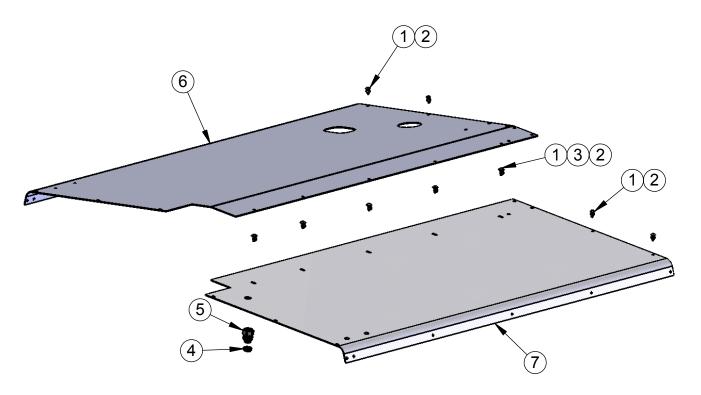


NO.	QTY.	PART NO.	DESCRIPTION
1	6	045110	3/16 RIVET
2	2	680129	LAMP TAIL
3	9	046045	5/16-18 X 3/4 HHCS GR5 PLATED
4	9	044031	5/16 -18 KEPTS NUT
5	9	047005	1/4 FLAT WASHER
6	1	680564P	KUBOTA RADIATOR PLATE
NS	1	680486P	LOMBARDINI RADIATOR PLATE
NS	1	680552P	CAT RADIATOR PLATE

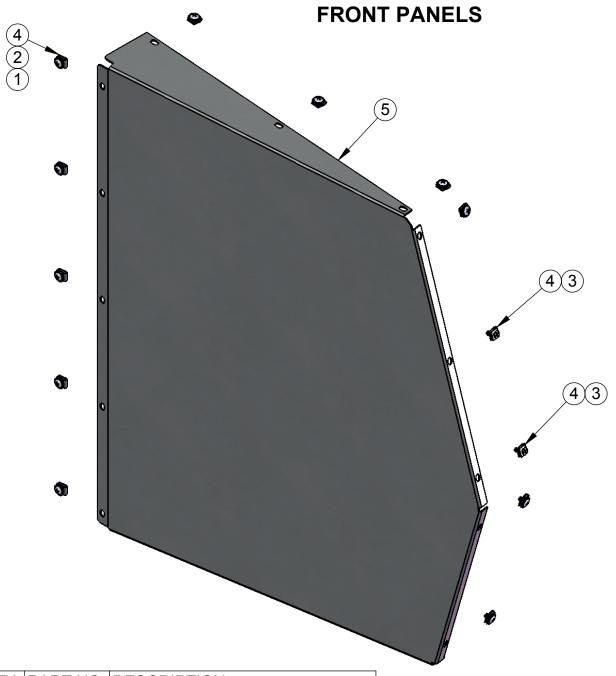


NO.	QTY.	PART NO.	DESCRIPTION
1	4	044016	10-24 KEPS NUT
2	3	044021	1/4-20 KEPS NUT
3	3	041250	1/4-20 X 1/2 SBHMSN
4	14	044019	10-24 NYLOC NUT
5	14	041050	1/4-20 X 3/4 TRUSS BOLT
6	1	352057	TELESCOPIC DOOR PROP
7	4	041026	10-24 X 3/4 SL-FHMS
8	1	680459	SLAM LATCH
9	1	680444P	MAXI LEFT DOOR
10	1	352023	MAXI DOOR HINGE
NS	1	680453P	MAXI RIGHT DOOR

ROOF PANELS

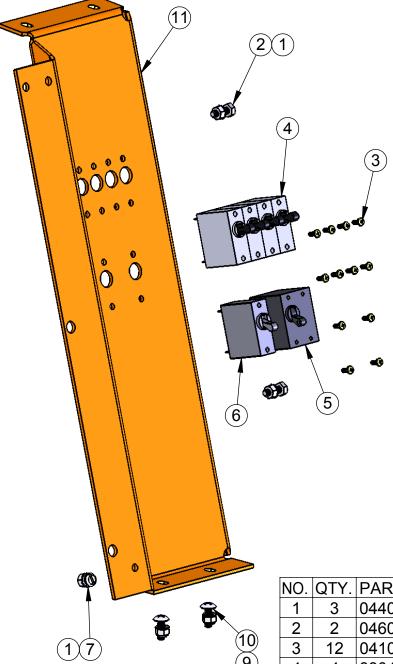


NO.	QTY.	PART NO.	DESCRIPTION
1	11	041050	1/4-20 X 3/4 TRUSS BOLT
2	11	044023	1/4-20 NYLOCK NUT
3	7	047008	1/4" FLAT WASHER SS
4	1	022415	BUSHING THREADED
5	1	330031	1/2 CORD GRIP
6	1	101006P	KUBOTA RT ROOF PANEL
7	1	680106P	LEFT ROOF PANEL
NS	1	680480P	LOMBARDINI RT ROOF PANEL
NS	1	680551P	CAT RT ROOF PANEL



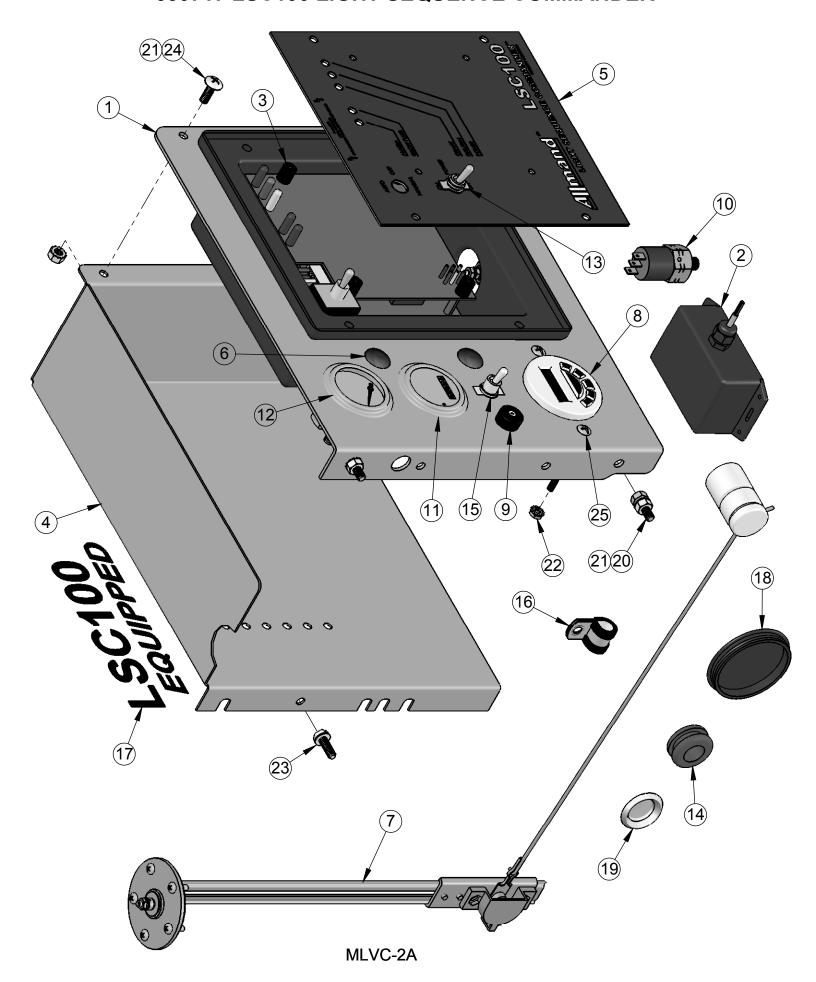
NO.	QTY.	PART NO.	DESCRIPTION
1	11	041078	1/4-20 X 1/2 PH TRUSS SCREW
2	11	047005	1/4 FLAT WASHER
3	2	041047	1/4-20 X 3/4 PH CSK
4	13	045216	1/4-20 TINNERMAN NUT
5	1	680441P	LEFT FRONT PANEL
NS	1	680440P	RIGHT FRONT PANEL

LEFT QUARTER PANEL



	1		
NO.	QTY.	PART NO.	DESCRIPTION
1	3	044021	1/4-20 KEPS NUT
2	2	046010	1/4-20 X 3/4 HEX BOLT SS
3	12	041017	6-32 X 3/8 MACH SCREW PLT
4	4	330458	15 AMP SPST CIRCUIT BREAKER
5	1	330456	30A DPST CIRCUIT BREAKER
6	1	330453	20 AMP SP SWITCH
7	1	041250	1/4-20 X 1/2 SBHMSN
8	2	044023	1/4-20 NYLOCK NUT
9	2	047009	1/4 SAE SS FW
10	2	041050	1/4-20 X 3/4 TRUSS BOLT
11	1	680118P	LEFT SIDE

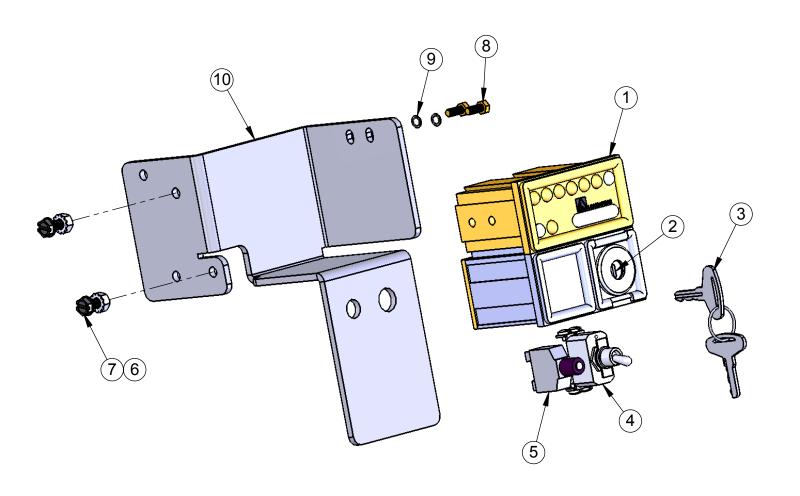
MAXI LITE V SERIES HYDRAULIC 650717 LSC100 LIGHT SEQUENCE COMMANDER



NIGHT-LITE PRO V-SERIES DOMESTIC 650717 LSC100 LIGHT SEQUENCE COMMANDER

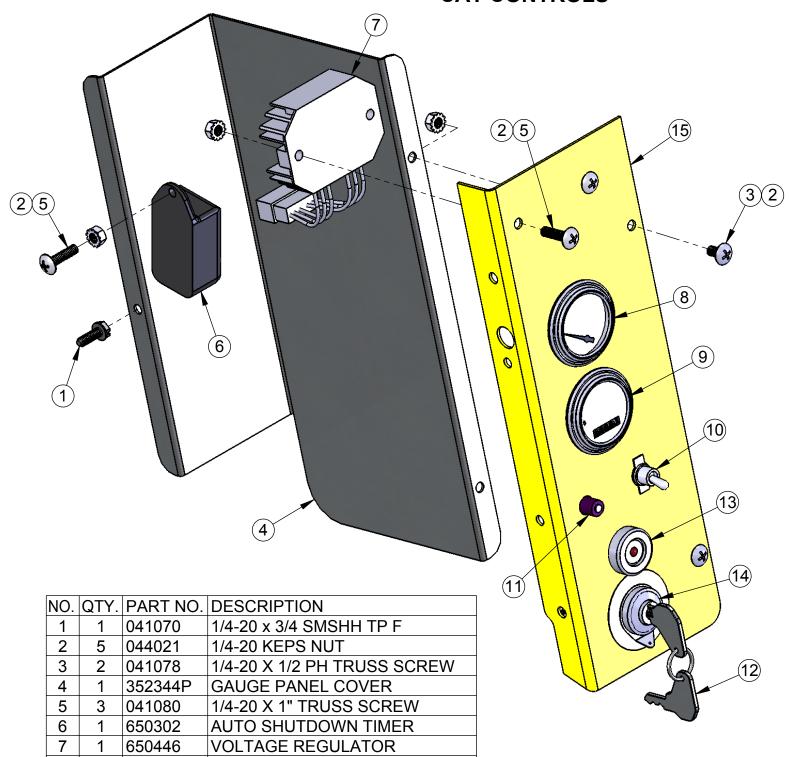
NO.	OTY	PART NO	DESCRIPTION
1	1	680392P	GUAGE PANEL LSC
2	1	650755	PHOTOCELL LSC
3	1	650716	LSC CONTROLER W/ 650745 TEMP SENDER
4	1	650715P	GAUGE PANEL COVER
5	1	650713	FACE PLATE
6	2	433329	5/8" PLASTIC PLUG
7	1	352479	ISSPRO FUEL LEVEL SENDER
8	1	352471	TIMER 24 HR DIGITAL
9	1	352466	CIRCUIT BREAKER 2 AMP
10	1	340303	LOW OIL PRESSURE SWITCH
11	1	340014	HOUR METER CAT
12	1	340413	VOLTMETER
13	1	340009	SWITCH 15 AMP SPST
14	1	330463	RUBBER GROMMET
15	1	310544	TOGGLE SWITCH
16	1	310212	CLAMP CUSH #10 1/4 HOLE
17	1	090477	DECAL, LSC100
18	1	064050	CAP PLUG 2 1/2"
19	1	064025	1 1/16" PLASTIC PLUG
20	2	046010	1/4-20 X 3/4 HEX BOLT SS
21	4	044021	1/4-20 KEPS NUT
22	2	044016	10-24 KEPS NUT
23	1	041070	1/4-20 x 3/4 SMSHH TP F
24	2	041050	1/4-20 X 3/4 TRUSS BOLT
25	2	041045	#10-24 X 2 1/2 RDHD MS

LOMBARDINI CONTROLS



NO.	QTY.	PART NO.	DESCRIPTION
1	1	650831	LOMBARDINI CONTROL W/ HOUR METER
2	1	650832	LOMBARDINI IGNITION SWITCH W/ KEYS
3	1	650833	KEY SINGLE SIDE IGNITION
4	1	310544	TOGGLE SWITCH
5	1	650105	15A CIRCUIT BREAKER
6	2	044021	1/4-20 KEPS NUT
7	2	041070	1/4-20 x 3/4 SMSHH TP F
8	2	046426	5mm X .8 X 12mm HEX BOLT
9	2	043015	#10 INT TOOTH LOCK WASHER
10	1	650761P	LOMBARDINI CONTROL BRACKET

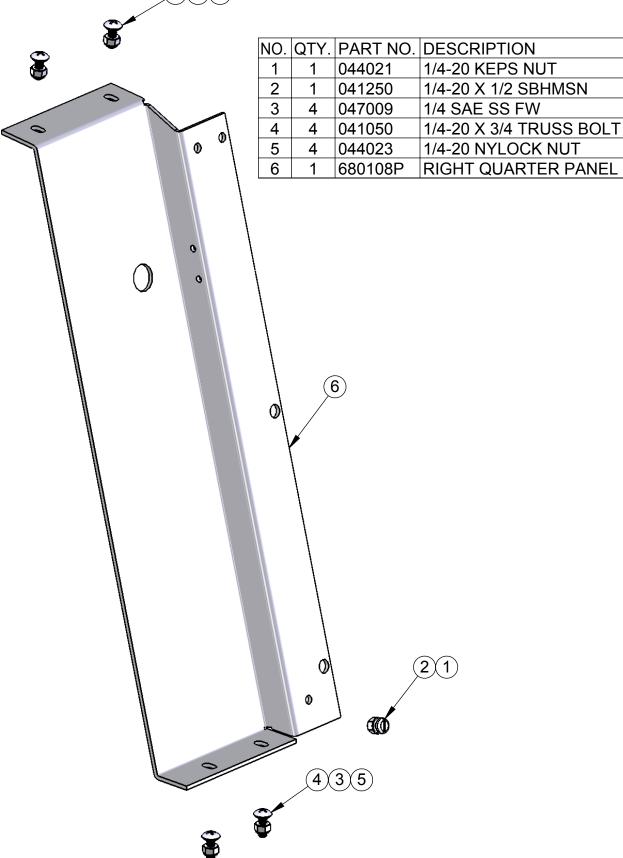
MAXI LITE V SERIES HYDRAULIC CAT CONTROLS



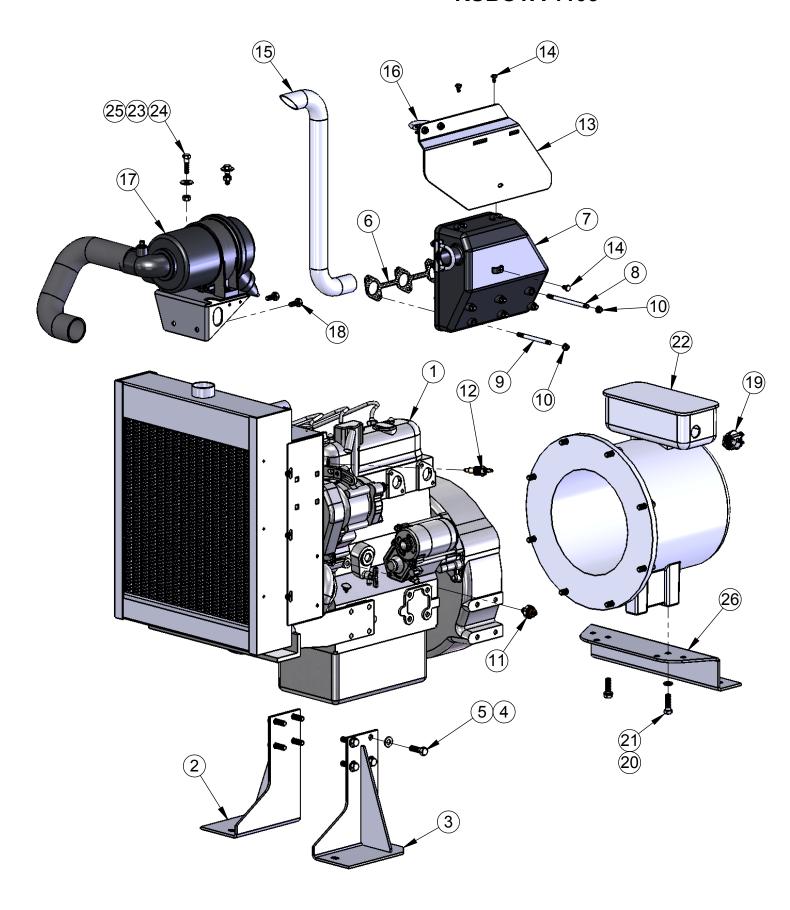
VOLTMETER HOUR METER CAT TOGGLE SWITCH 15A CIRCUIT BREAKER CAT IGNITION KEY **GLOW PLUG LAMP** CAT IGNITION SWITCH W/ 2 KEYS 680129P **GAUGE PANEL**

RIGHT QUARTER PANEL





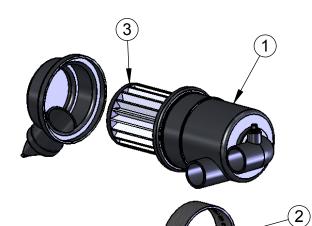
MAXI LITE V SERIES HYDRAULIC KUBOTA 1105



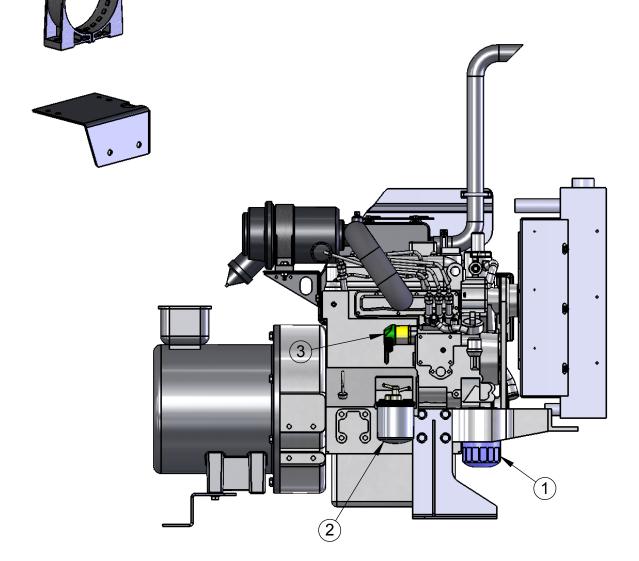
MAXI LITE V SERIES HYDRAULIC KUBOTA 1105

NO.	QTY.	PART NO.	DESCRIPTION
1	1	100991	KUBOTA D1105 50Hz W/DEEPSEA PANEL,
2	1	680546	MAXI KUB 905 POWER UNIT
3	1	680544P	LH ENGINE FOOT
4	9	047016	3/8 SAE FLAT WASHER
5	8	042038	10mm X 1.25 x20mm GR 8.8 HEX BOLT
6	1	352135	EXHAUST GASKET KUBOTA
7	1	352139	KUBOTA BOX MUFFLER
8	3	352114	4 3/8 STUD
9	3	352113	3 1/2 STUD
10	6	650030	BOX MUFFLER MANIFOLD NUT
11	1	101070	OIL PRESSURE SWITCH (DEEP SEA)
12	1	101069	TEMPATURE SWITCH (DEEP SEA)
13	1	352126	HEAT SHIELD
14	3	042018	6mm X 10mm HEX BOLT GR 8.8
15	1	352140	EXHUAST PIPE
16	2	713086	CLAMP 1 3/8" MUFFLER
17	1	650262	AIR CLEANER RADIAL SEAL 4.25
18	2	042027	8mm X 1.25 X 16mm GR 10.9 HEX BOLT
19	1	022025	2-SCREW ROMEX CLAMP, 3/4"
20	10	043065	3/8 SPLIT LOCK WASHER
21	10	046115	3/8-16 X 1 1/4 HHCS
22	1	101075	8Kw 60Hz MARATHON GENERATOR
23	2	047015	3/8 FLAT WASHER
24	2	046055	5/16-18 X 1 1/4 HHCS
25	2	044031	5/16 -18 KEPTS NUT
26	1	680128P	GENERATOR MOUNT
NS	1	640158	25uf CAPACITOR MARATHON GEN.

KUBOTA 1105 PARTS

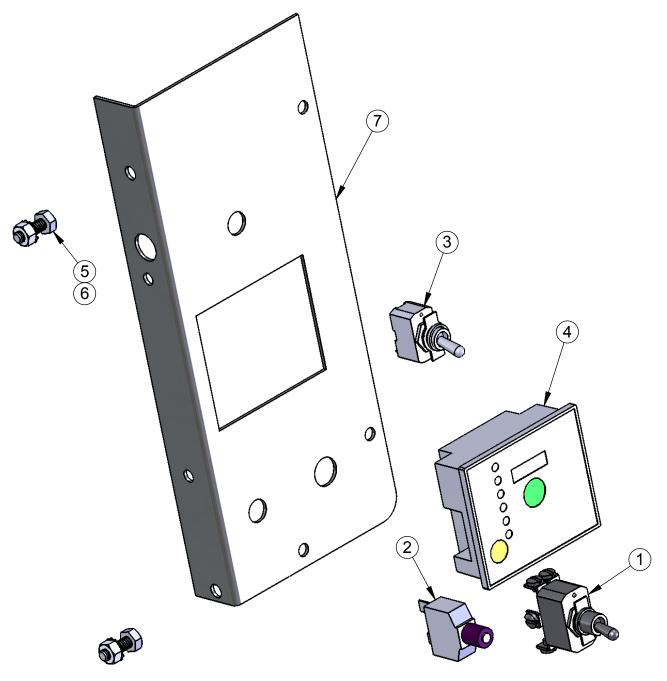


NO.	QTY.	PART NO.	DESCRIPTION
1	1	650262	AIR CLEANER
2	1	650263	AIR CLEANER BAND
3	1	650290	AIR FILTER ELEMENT KUBOTA



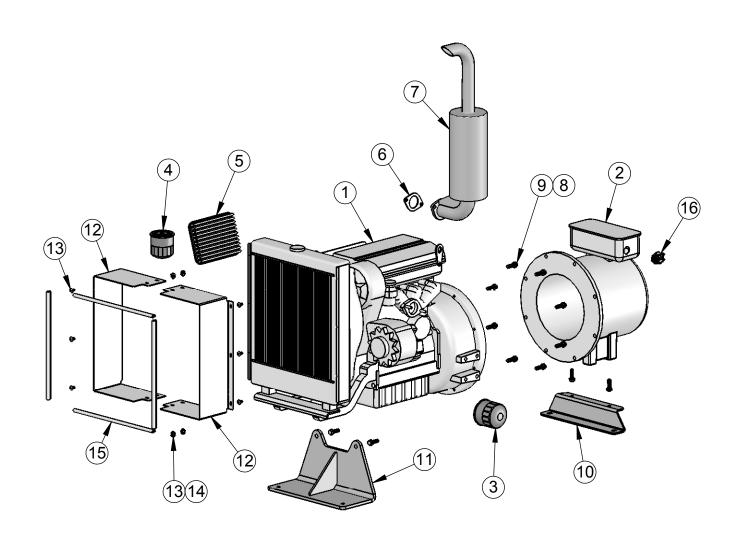
NO.	QTY.	PART NO.	DESCRIPTION
1	1	920743	KUBOTA OIL FILTER
2	1	920745	KUBOTA FUEL FILTER
3	1	920751	FUEL SHUT OFF SOLENOID

KUBOTA 1105 CONTROLS



NO.	QTY.	PART NO.	DESCRIPTION
1	1	310544	TOGGLE SWITCH
2	1	650105	15A CIRCUIT BREAKER
3	1	101067	TOGGLE SWITCH DEEP SEA
4	1	101065	DEEP SEA CONTROLLER
5	2	046010	1/4-20 X 3/4 HEX BOLT SS
6	2	044021	1/4-20 KEPS NUT
7	1	100957P	DEEP SEA CONTROL PANEL

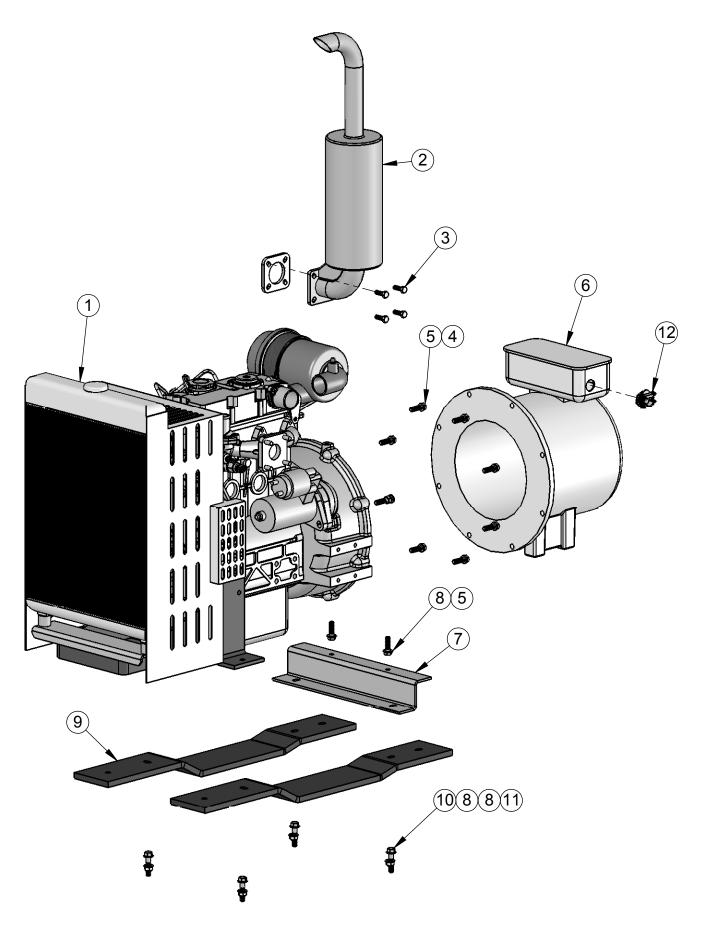
MAXI LITE V SERIES HYDRAULIC GENSET LOMBARDINI MARATHON 7.5 KW



MAXI LITE V SERIES HYDRAULIC GENSET LOMBARDINI MARATHON 7.5 KW

NO.	QTY.	PART NO.	DESCRIPTION
1	1	650830	LOMBARDINI LDW 1003 W/HOUR METER
2	1	101075	8Kw 60Hz MARATHON GENERATOR
3	1	650011	LOMBARDINI OIL FILTER
4	1	650010	LOMBARDINI FUEL FILTER
5	1	650012	AIR FILTER, LOMBANRDINI
6	1	650430	MUFFLER GASKET
7	1	651236	LDW1003 MUFFLER
8	12	043065	3/8 SPLIT LOCK WASHER
9	12	046115	3/8-16 X 1 1/4 HHCS
10	1	680479P	GENERATOR PLATE
11	1	680478P	ENGINE MOUNT
12	2	650567P	RT/ LT RADIATOR SHROUD
13	10	041078	1/4-20 X 1/2 PH TRUSS SCREW
14	4	044021	1/4-20 KEPS NUT
15	4	030052	TRIMLOCK
16	1	022025	2-SCREW ROMEX CLAMP, 3/4"
NS	1	640158	25 uf CAPACITOR MARATHON GENERATOR

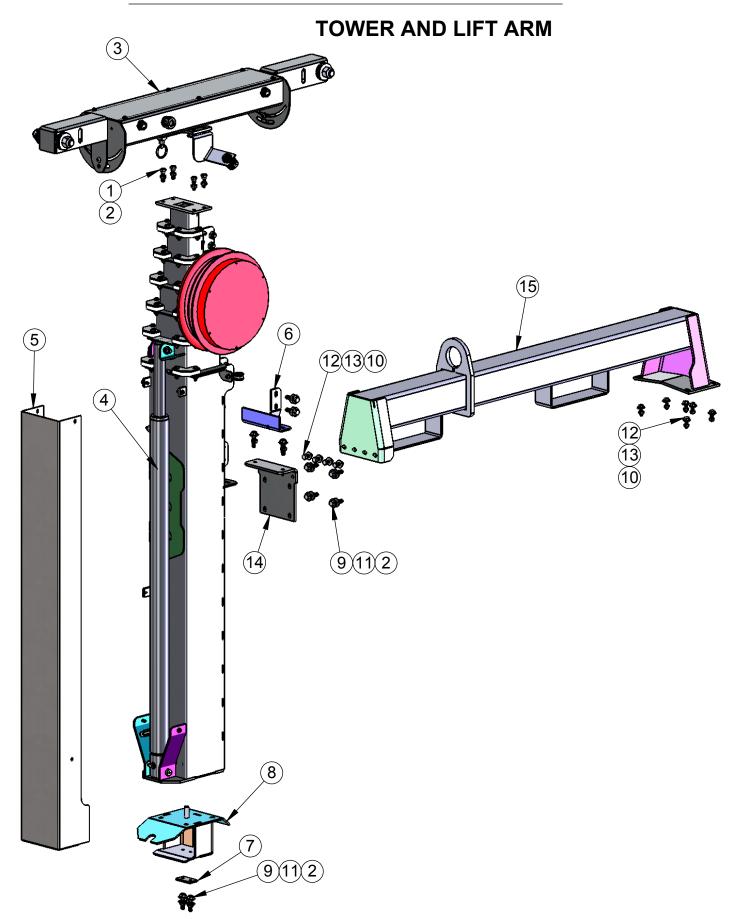
MAXI LITE V SERIES HYDRAULIC GENSET CAT 1.1 MARATHON 8 KW



MAXI LITE V SERIES HYDRAULIC GENSET CAT 1.1 MARATHON 8 KW

NO.	QTY.	PART NO.	DESCRIPTION
1	1	100988	CAT ENGINE C1.1
2	1	651232	CAT MUFFLER
3	4	042031	8mm -1.25 x 25mm HEX BOLT
4	8	043065	3/8 SPLIT LOCK WASHER
5	11	046115	3/8-16 X 1 1/4 HHCS
6	1	101075	8Kw 60Hz MARATHON GENERATOR
7	1	680549P	MOUNT, GENERATOR, CAT
8	10	047016	3/8 SAE FLAT WASHER
9	2	680550P	MAXI BRIDGE PLATE
10	4	046126	3/8-16 x 1 3/4 GR8 HEX BOLT
11	4	044038	3/8-16 NYLON INSERT NUT
12	1	022025	2-SCREW ROMEX CLAMP, 3/4"
13	1	650262	AIR CLEANER RADIAL SEAL 4.25
NS	1	*****	CAT OIL FILTER
NS	1	*****	CAT FUEL FILTER
NS	1	*****	CAT AIR CLEANER FILTER ELEMENT
NS	1	640158	25 uf CAPACITOR MARATHON GENERATOR

****** PARTS MUST BE ORDERED THROUGH A CAT DEALER



MAXI LITE V SERIES HYDRAULIC TOWER AND LIFT ARM

NO.	QTY.	PART NO.	DESCRIPTION
1	4	046115	3/8-16 X 1 1/4 HHCS
2	10	044036	3/8-16 KEPS NUT
3	1	101922	LIGHT BAR
4	1	102086	HYDRAULIC TOWER
5	1	100245P	HYDRAULIC CYLINDER COVER
6	1	101410P	TOWER MOUNT
7	1	101629P	COVER PLATE
8	1	101406P	TOWER PLATFORM
9	10	046120	3/8-16 X 1 1/2 HEX BOLT
10	14	044030	5/16-18 HEX NUT
11	18	047015	3/8 FLAT WASHER
12	10	046050	BOLT CS 5/16-18 X 1 HEX GR5 PL
13	10	047010	5/16 FLAT WASHER
14	1	100244P	ANGLE MOUNTING BRKT
15	1	101917P	LIFT BAR