

GENERATOR CONVERSION REAR ENGINE MOUNT KIT INSTRUCTIONS

The following instructions are intended to assist the user in the removal of the square style generator and the installation of a round generator and new rear engine mount kit. Please read all assembly instructions before performing modifications. Allow approximately 4 hours to complete the installation.

REQUIRED TOOLS:

Hammer
Pry Bar or Screw Driver
Drill
Ratchet, 3/8 Drive with Sockets
Electric Fluid Pump (Optional)
Engine Hoist w/Chain
Chock Blocks
Drill Bits, 3/8"

PARTS:

Verify all parts are accounted for. See Figure 1, Figure 2 and Table 1.

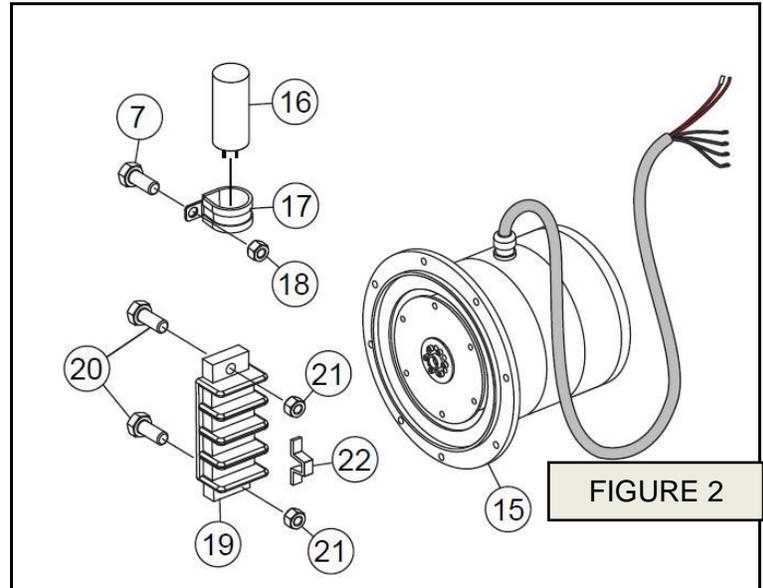


FIGURE 2

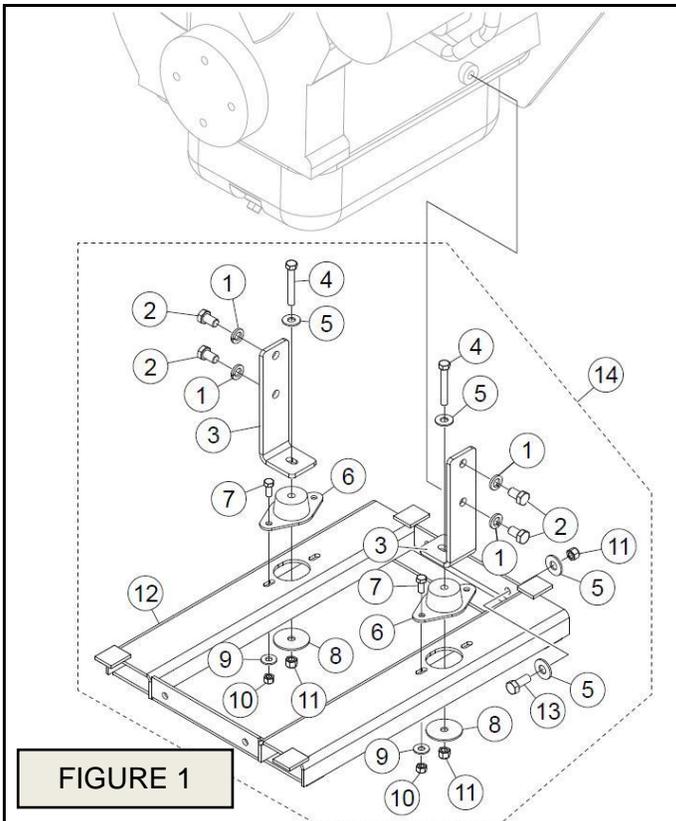


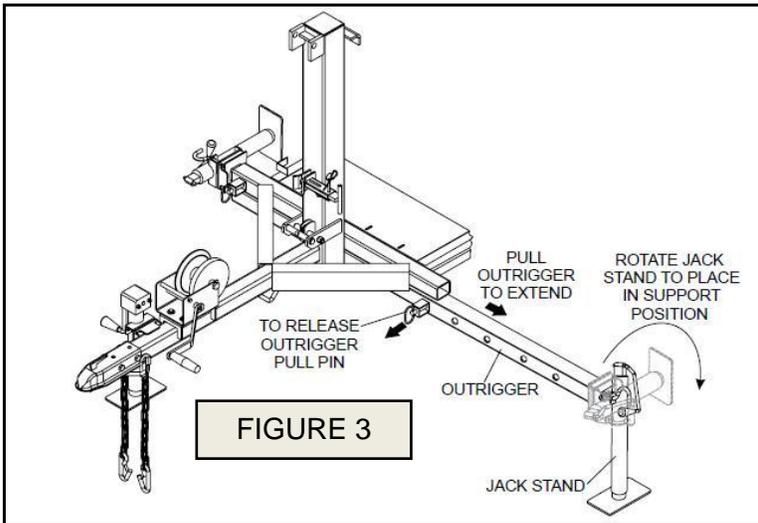
FIGURE 1

Table 1. Rear Engine Mount Kit/Generator Parts				
Item	Qty.	Part No.	Description	Remarks
1%	4	5054 A	WASHER, LOCK 1/2 MED	
2%	4	17099	SCREW, HHC M12-1.75 X 20 ZN	
3%	2	49003	MOUNT, REAR ENGINE	
4%	2	8156	SCREW, HHC 3/8-16 X 2-1/2	
5%	10	4001	WASHER, FLAT USS 3/8 PLD	
6%	2	29269	MOUNT, VIB ENG	
7%	5	0655	SCREW, HHC 5/16-18 X 3/4	
8%	2	29043-001	WHEEL, POINTER	
9%	4	19470	WASHER, FLAT USS 5/16	
10%	4	5283	NUT, NYLOC 5/16-18	
11%	6	10133	NUT, NYLOC 3/8-16	
12%	1	49068	REAR ENGINE MOUNT	
13%	4	1023	SCREW, HHC 3/8-16 X 1-1/4	
14	1	49064	KIT, REAR ENGINE MOUNT	INCLUDES ITEMS W/%
15	1	29895	GENERATOR, LT12 RD MECCALTE LT3-100 60 HZ	
16	1	GECAP25MF	EXCITATION CAPACITOR, 25µF @425V	
17	1	29796	CLAMP, CUSHIONED 1-3/4 DIA X 1 WID	
18	1	49071	NUT, FLANGED 5/16-18 SERATED PLTD	
19	1	19968	TERMINAL BLOCK, 4 GANG	
20	2	8133	SCREW, PHP 10-32 X 3/4	
21	2	10019	NUT, NYLOC 10-32	
22	1	29071	CONNECTOR, QUICK, SCREW	

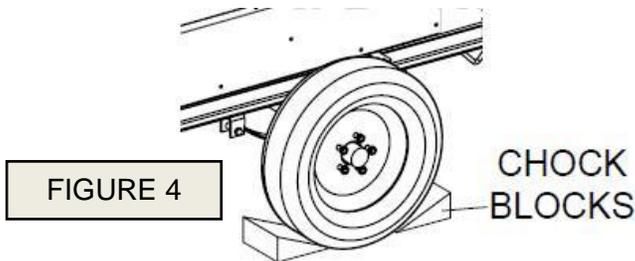
Only a qualified service technician with proper training should perform this installation. Follow all shop safety rules when performing this installation.

STEP 1: SECURE LIGHT TOWER

1. Make sure both outriggers are extended. To extend the outriggers, pull the locking pin on the outrigger and hold while sliding out the outrigger assembly. See Figure 3.



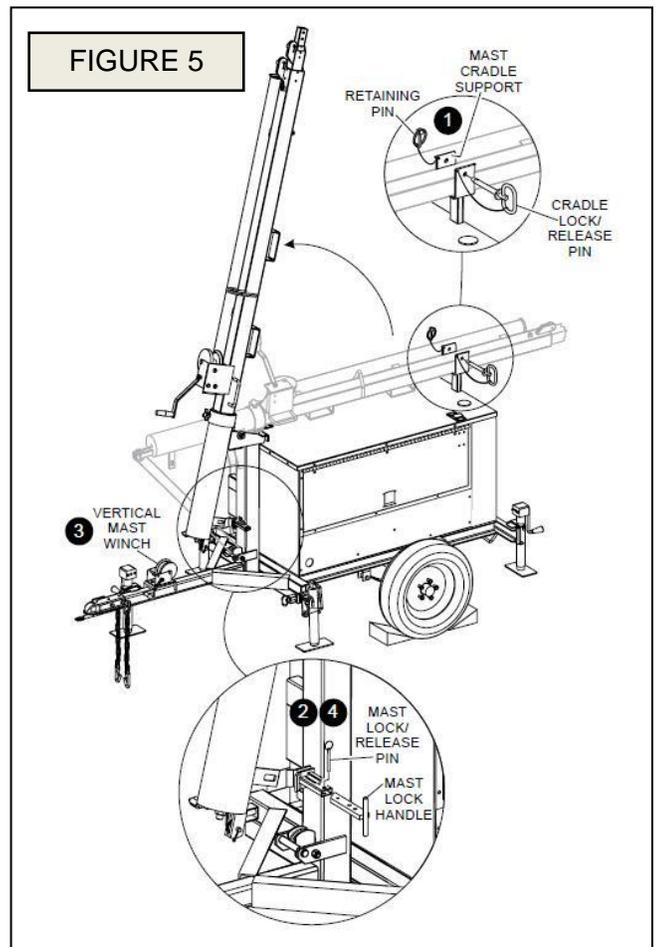
2. As soon as the pin clears the travel position hole, release it and continue sliding out the outrigger. The pin must snap into the outrigger locking hole in the extended position.
3. After extending all outriggers, rotate all trailer jack stands into the foot down position, then turn the crank handle on the jack stands clockwise to lower it and level the light tower.
4. Place chock blocks under each trailer wheel to prevent rolling. See Figure 4.



STEP 2: DEPLOY MAST TO VERTICAL POSITION

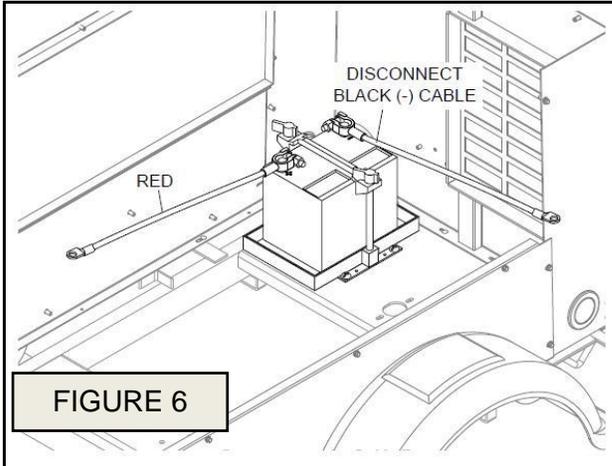
Refer to FIGURE 5.

1. To release the mast from the mast cradle support, pull the retaining pin out of the cradle lock/release pin. Pull the cradle lock/release pin. This will unlock the mast from the horizontal position.
2. Remove the mast lock/release pin before raising tower to the vertical position.
3. To place the mast in the vertical position, turn the vertical mast winch hand lever clockwise until the mast is pointing upwards at 90 degrees.
4. Once the mast is in the vertical position, insert the mast lock/release pin to prevent the mast from falling.



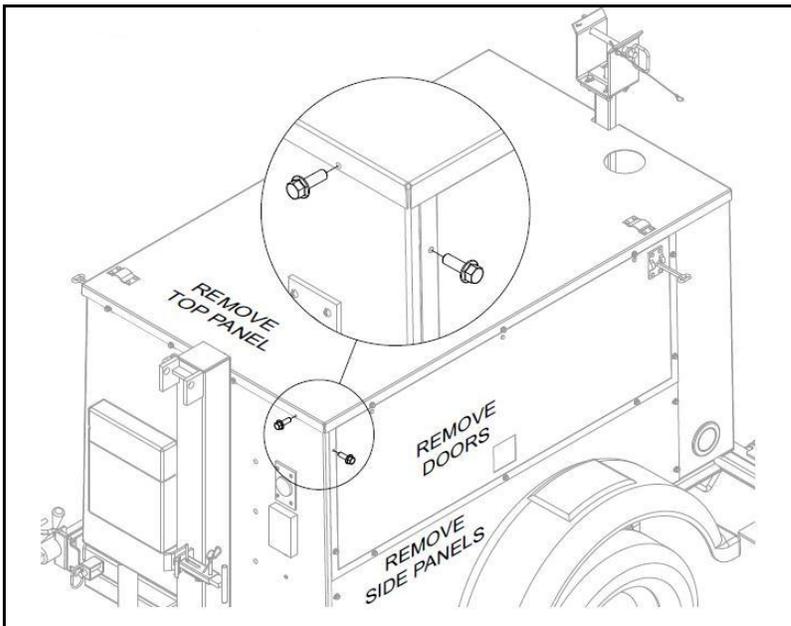
STEP 3: DISCONNECT BATTERY CABLE

1. Disconnect negative battery cable.
See Figure 6



STEP 4: REMOVE CABINET

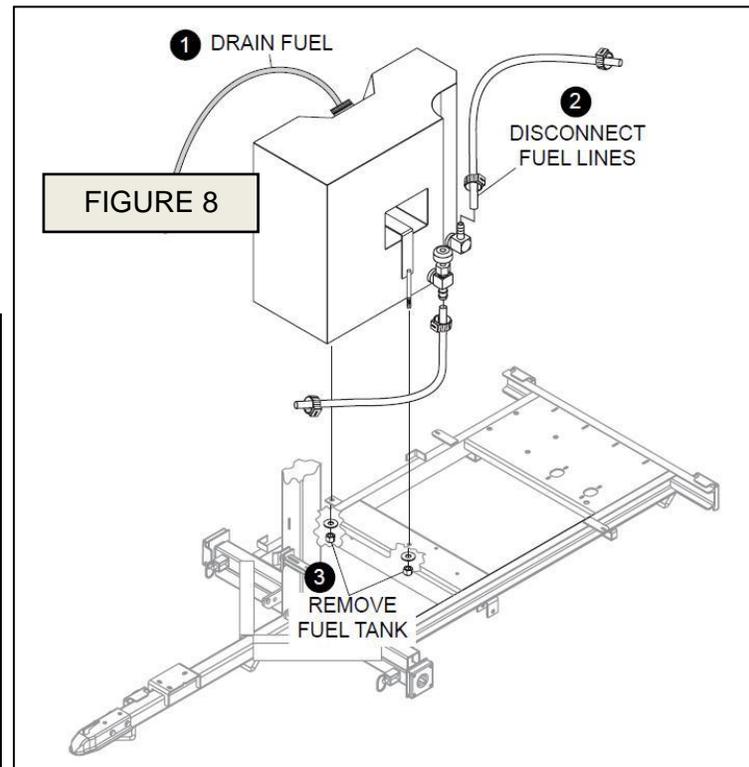
1. For easier access to the generator, remove doors, side and top panels from trailer. Retain mounting hardware. See Figure 7.



STEP 5: DRAIN/REMOVE FUEL TANK

Refer to FIGURE 8.

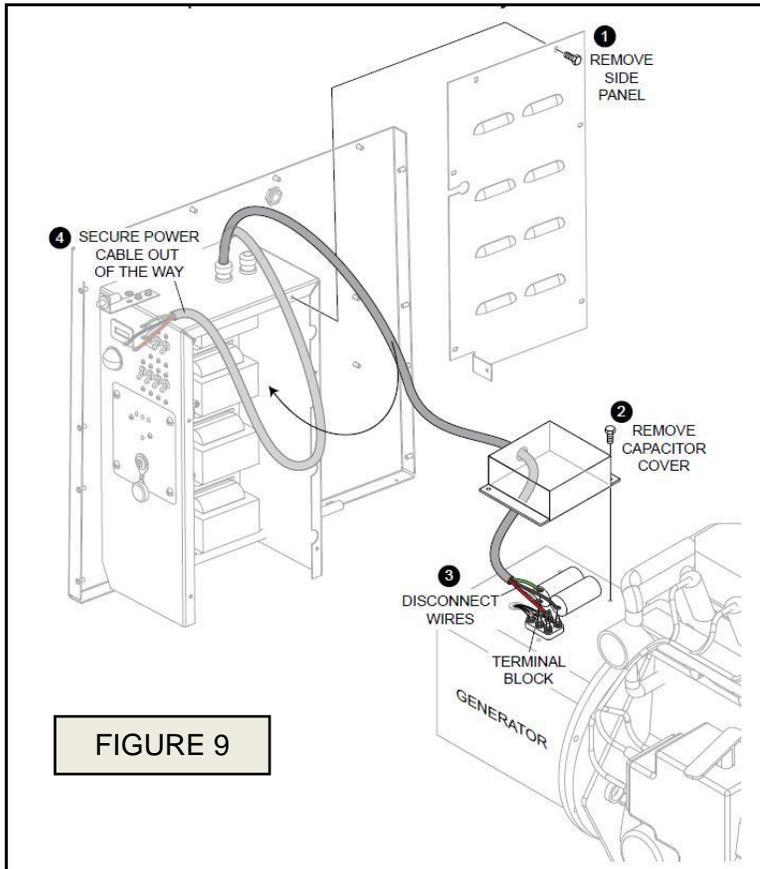
1. Drain the fuel tank by utilizing an electric fuel pump.
2. Disconnect fuel lines. Mark fuel lines for easy reference when reconnecting later.
3. Remove nuts and washers securing mounting bracket to frame. Remove fuel tank.



STEP 6: DISCONNECT 4-WIRE POWER CABLE

Refer to FIGURE 9.

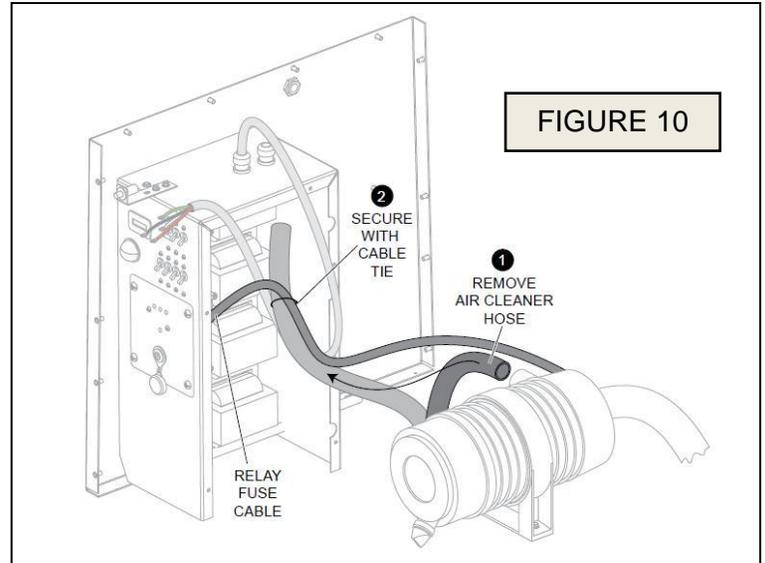
1. Remove side panel from ballast box.
2. Remove capacitor from the top of the generator.
3. Disconnect red, black, white and green wires from the terminal block.
4. Secure power cable out of the way with a cable tie.



STEP 7: REMOVE AIR CLEANER HOSE

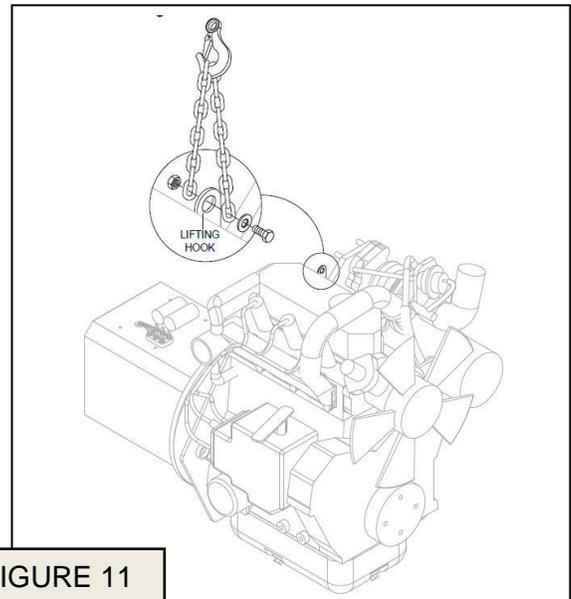
Perkins Engine Only Refer to FIGURE 10

1. Remove air cleaner hose from air cleaner.
2. Secure air cleaner hose to relay fuse cable with a cable tie to keep them out of the way.



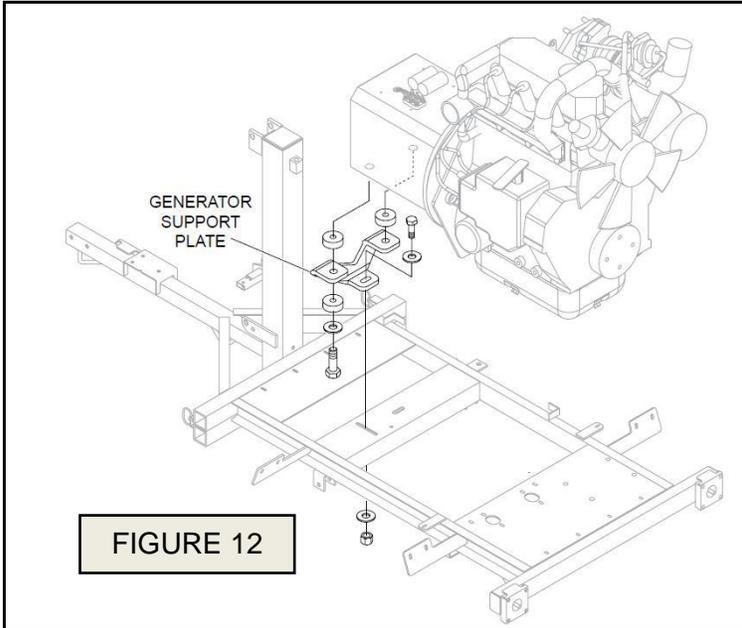
STEP 8: HOIST ENGINE

1. Hoist engine slightly with chain utilizing lift hook. See Figure 11. Use chain and lifting device of adequate lifting capacity. This will prevent the engine from tipping when generator is removed.

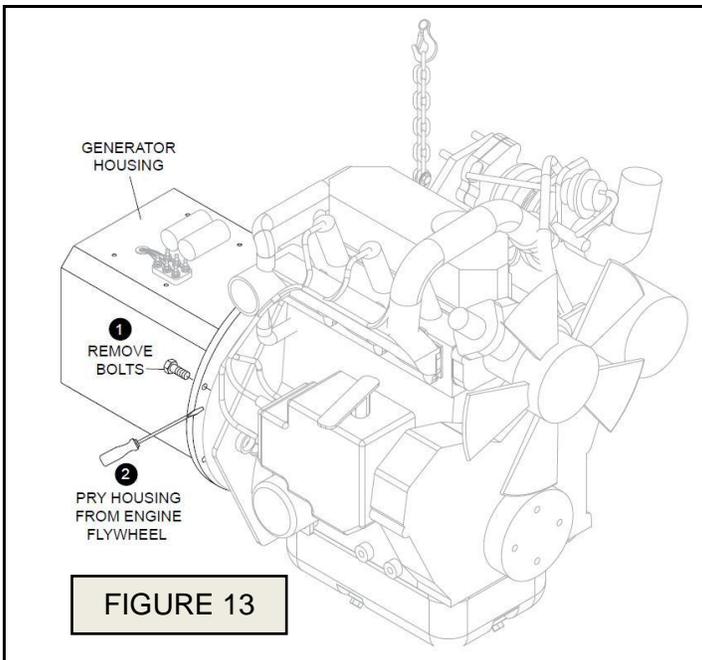


STEP 9: REMOVE SQUARE STYLE GENERATOR

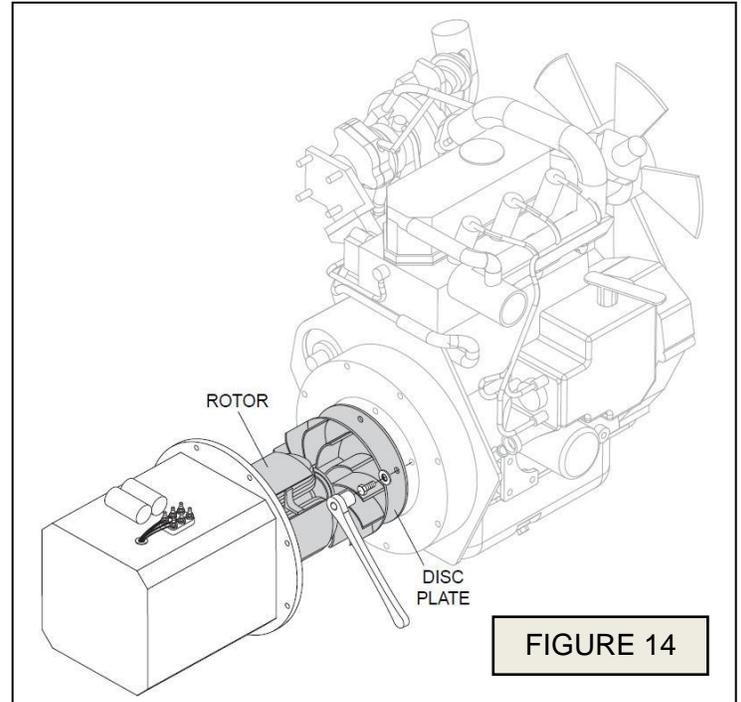
1. Remove and discard generator support plate and hardware securing it. See FIGURE 12.



2. Remove bolts securing generator to engine. See FIGURE 13.
3. Use screw driver or pry bar to pry generator housing from engine flywheel. Use force. See FIGURE 13.

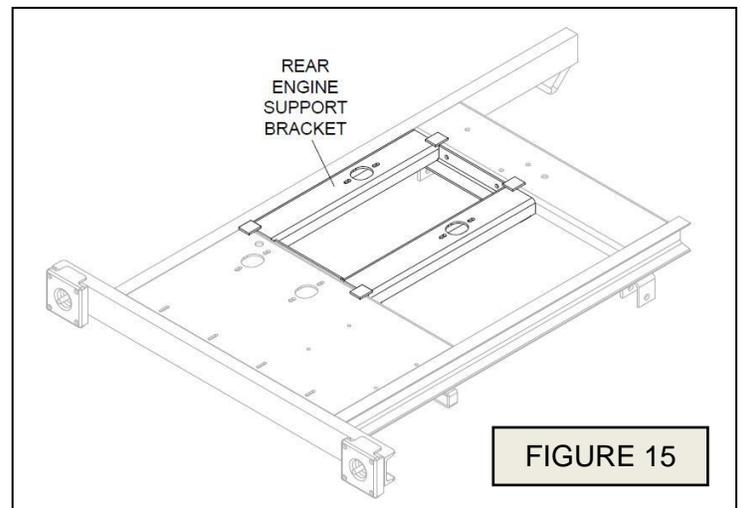


4. Use ratchet to remove bolts securing generator disc plate to flywheel. Remove generator. See FIGURE 14.

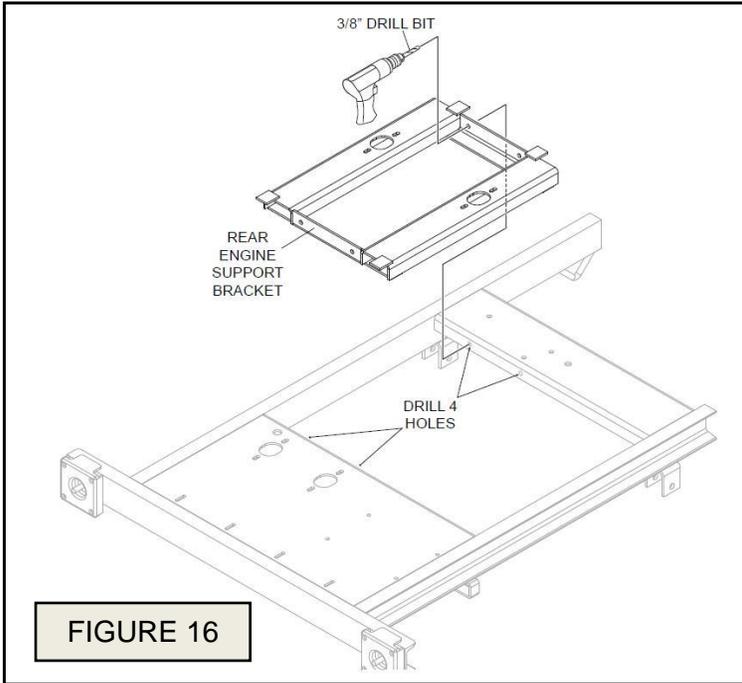


STEP 10: INSTALL ENGINE MOUNTING HARDWARE

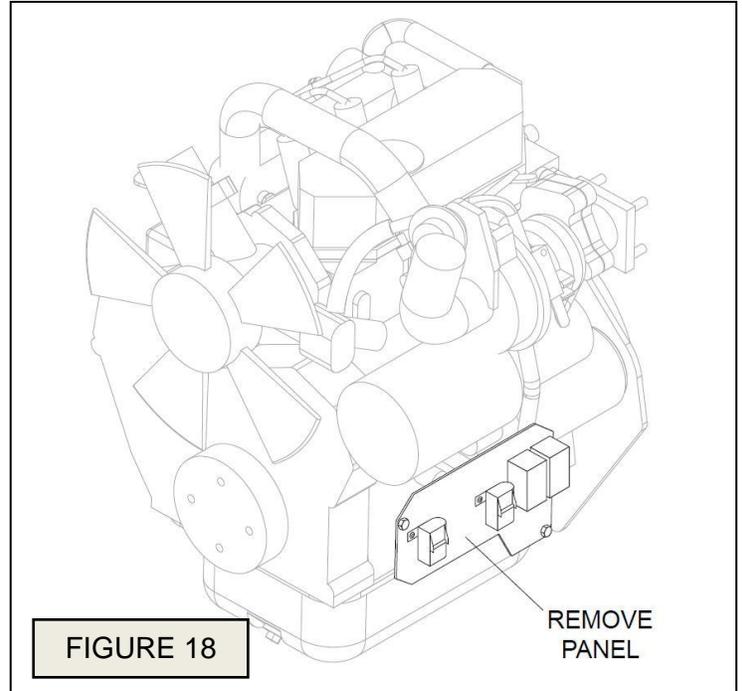
1. Install new rear engine support bracket, P/N 49068. See FIGURE 15. Shimming may be required to ensure that it is flush with the trailer frame. *Continued on page 6.*



- Using the holes in the rear engine support bracket as a template, drill 4 holes into the trailer frame, use 3/8" drill bit. See FIGURE 16.

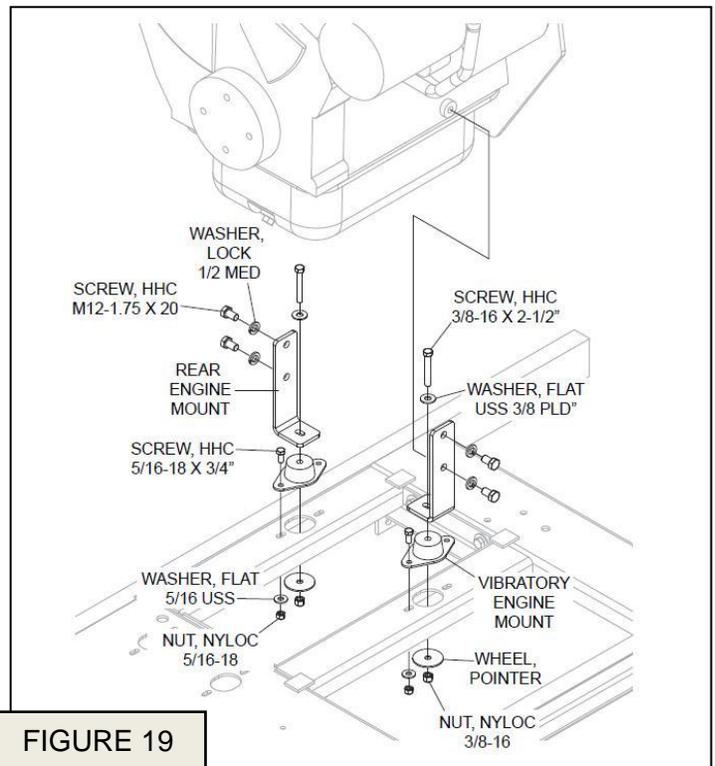
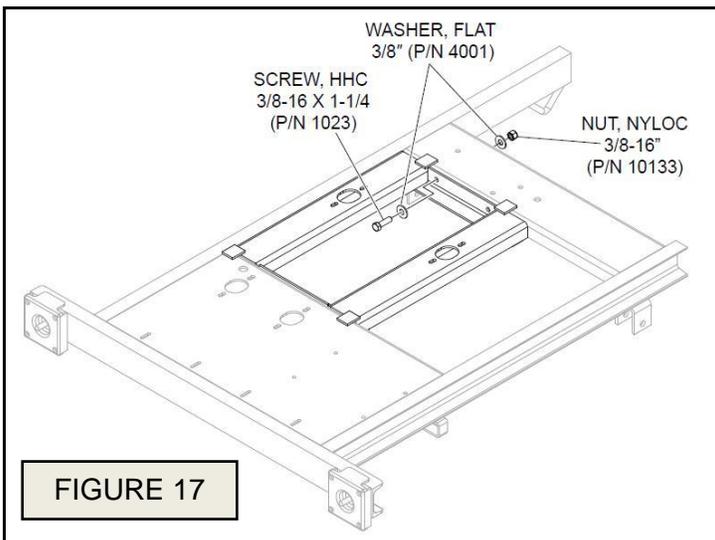


- Perkins engine only. Remove and retain relay/fuse panel. See FIGURE 18.



- Install rear engine mounting hardware from kit. See FIGURE 19.

- Use the nuts, bolts and washers from the kit to secure the rear engine support bracket to the trailer frame. Tighten securely. See FIGURE 17.



- Perkins Engine Only: Reinstall relay/fuse panel over rear engine mount. Insert washers as required (See FIGURE 20) to allow more space between panel and engine.

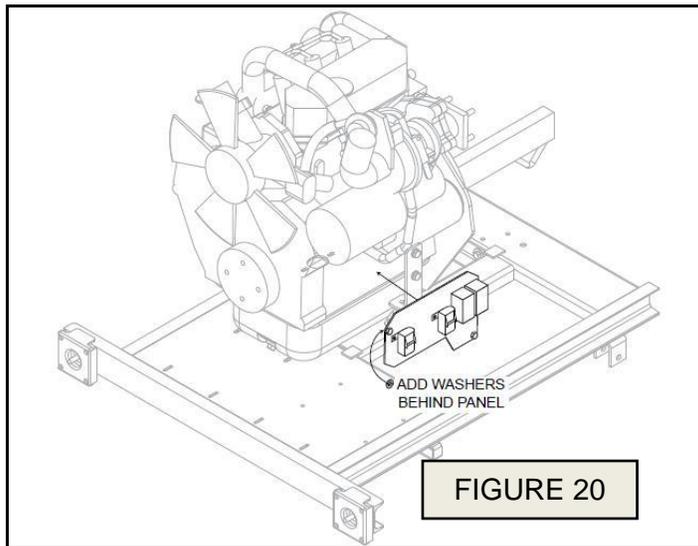


FIGURE 20

STEP 11: INSTALL ROUND STYLE GENERATOR

- Free the rotor from the housing by placing the generator disc plate down on top of two wood blocks. Place a shop cloth below to keep the rotor clean. Place a bolt or punch in the center of the rotor bearing and hit with a hammer to dislodge the rotor. See FIGURE 21.

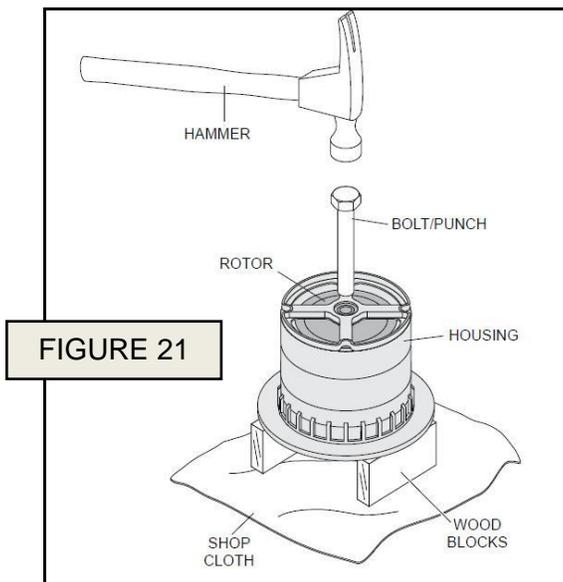


FIGURE 21

- Attach generator disc plate and housing to engine flywheel. See FIGURE 22.

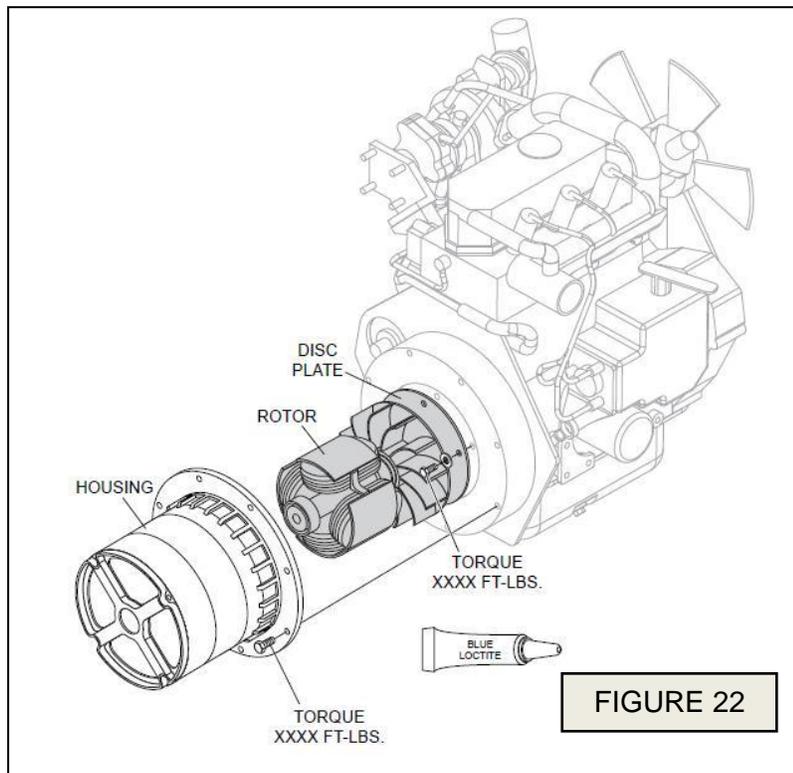


FIGURE 22

STEP 12: INSTALL NEW ELECTRICAL HARWARE

- Drill 3 holes (use 5/16" and xxxx drill bits) in the ballast box for mounting of new excitation capacitor (25μF @425V) and terminal block. See FIGURE 23.

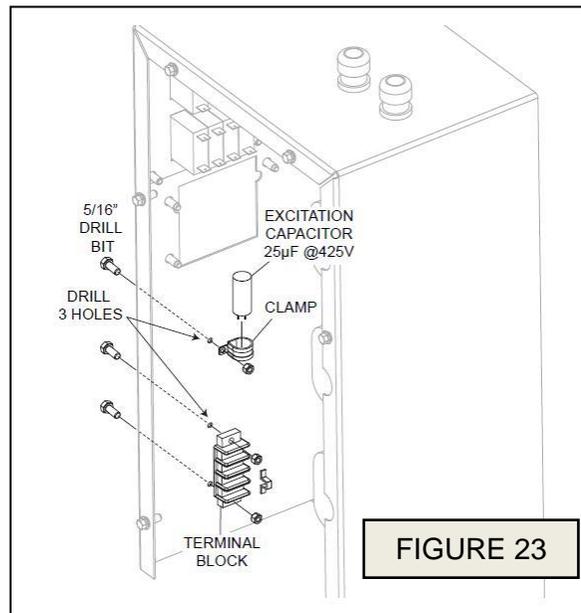


FIGURE 23

2. Connect the 4-wire power cable to the terminal block. Connect the 2 red wires from the generator cable to the capacitor and the 4 black wires to the other side of the terminal block. See Figure 24, FIGURE 25 and Table 2.

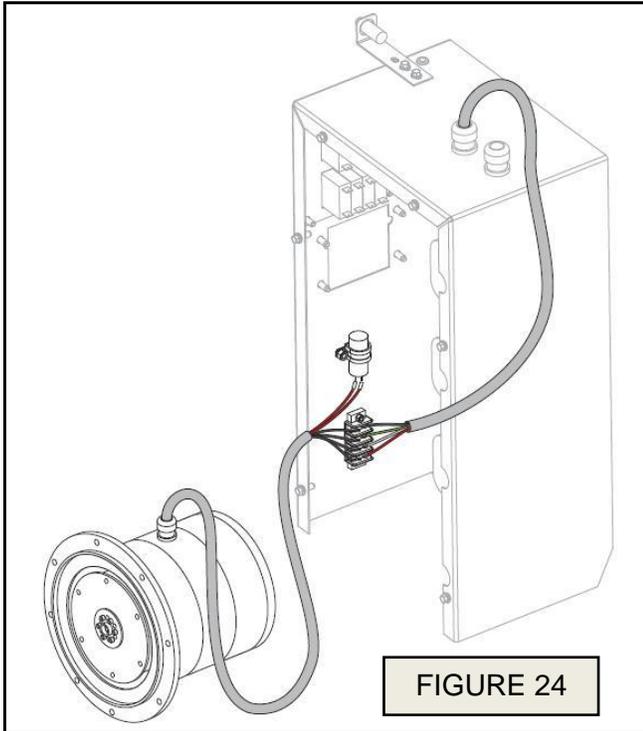
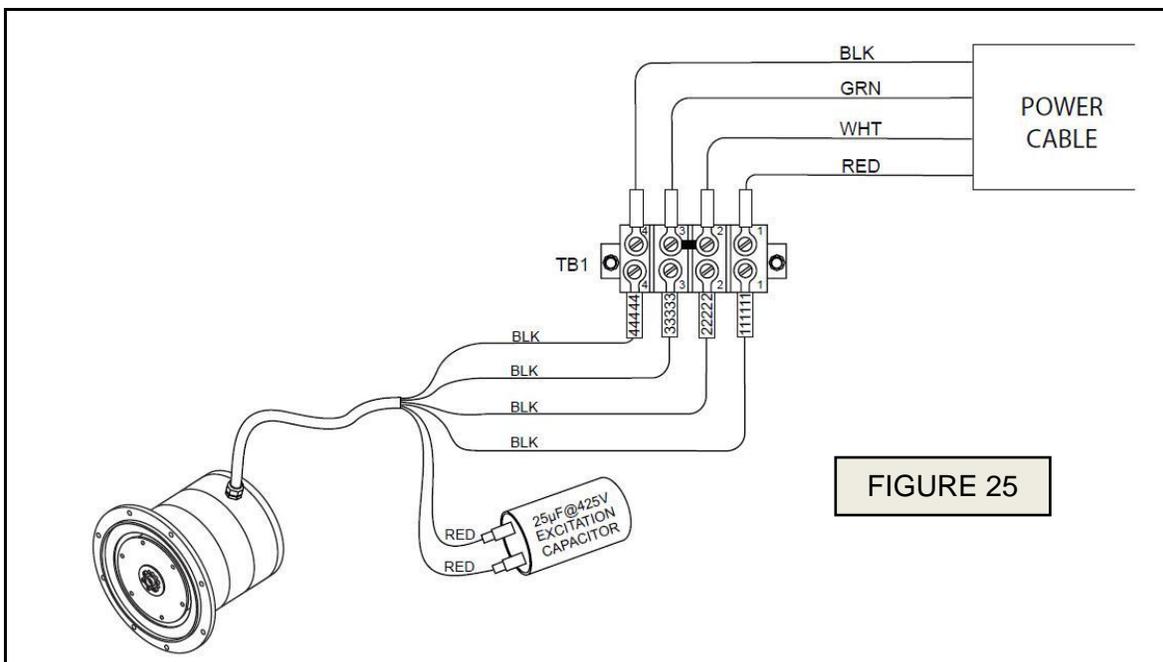
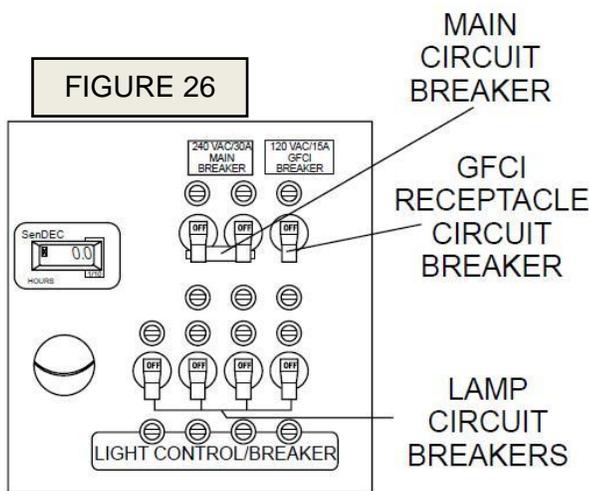


Table 2. Wire Connections		
Generator Power Cable	Terminal Block	Ballast Power Cable
11111 (BLACK)	TB1-1	RED
22222 (BLACK)	TB1-2	WHITE
33333 (BLACK)	TB1-3	GREEN
44444 (BLACK)	TB1-4	BLACK



STEP 13: TESTING AND REASSEMBLY

1. Reassemble the light tower in reverse order. **DO NOT** put the cabinet back on until testing is complete.
2. The main circuit breaker (25 amps) and 4 lamp circuit breakers (10 amps each) are located on the upper control panel (See FIGURE 26). Each lamp has a 10 amp circuit breaker.
3. Place the main circuit breaker (FIGURE 26) on the control panel to the ON position.



NOTICE: Your control panel may be slightly different than the one shown in FIGURE 26.

4. Set lamp circuit breaker to #1 on the control panel to the ON position.
5. Wait a few minutes for the ballast to activate. Observe that #1 lamp is ON.
6. Repeat steps 2 and 3 for lamps 2 through 4.
7. If all the lamp circuit breakers are in the ON position (up), then all of the lights should be on.
8. If any of the lamps are not on, refer to the troubleshooting section in your operation manual.
9. Run the light tower for 10 minutes to ensure that the generator is working properly.