

Service Bulletin No. LT20060512 Subject: Muffler Tail Pipe, Engine. Sensor Harness Clamp and Tie-Down Negative Battery Cable Model: LT-12D, LT12D50SA, LT12D50GB Product Group: Light Tower/Generator

# SERVICE BULLETIN

Group: LT

Mandatory

Information

X Recommended Change

**Series/Parts Affected:** 

Machines Affected:

Model ......Serial number Range

LT-12D.....S/N 900854-903580 LT-12D50SA....S/N 902343-903284 LT-12D50GB....S/N 902409-902426

# SERVICE INFORMATION

**INFORMATION UPDATE:** The above referenced serial number light towers may experience the following:

## Problem 1:

• The inside diameter of the engine sensor wire harness clamp is slightly oversized allowing the engine sensor wire harness to slide down enough to rub through the wire insulation causing an electrical short to ground that can destroy the control panel

## Solution 1:

• Slide the wire harness up through the clamp and squeeze the clamp to hold the harness in its new position, preventing any contact between the wires exiting the harness and the clamp.

## Problem 2:

• Muffler fractures or breakage have occurred in and around the muffler inlet pipe. These fractures are due to the weight and length of the current tail pipe.

## Solution 2:

• Replace existing muffler tail pipe and muffler mounting bracket. New muffler tail pipe is lighter and shorter. Install muffler support kit P/N 29939.

# Problem 3:

 Negative battery cable is not secured. Possibility exists of negative battery cable making contact with <u>HOT!</u> muffler surface.

## Solution 3:

Using a tie-wrap, secure the negative (**BLACK**) battery cable to the cable clamp securing the positive (**RED**) battery cable.

PARTS INFORMATION					
Quantity	Part #	Description	Remarks		
1	29939	Kit, Muffler Support, LT12D			

#### INSTALLATION INSTRUCTIONS

#### WORK SAFELY!

Only a *<u>qualified service technician</u>* with proper training should perform this installation.

#### Required Tools/Materials

- 3/8" Ratchet with extension (6-inches)
- <sup>1</sup>/<sub>2</sub>" Socket Standard
- <sup>1</sup>/<sub>2</sub> Socket Deep
- 6 mm Allen Wrench
- 3/4" Combination Wrench
- Flat Head Screwdriver
- Pliers

Table 1. Muffler Support Kit Parts List				
Part Number	Description	Quantity		
0161 C	Washer, Lock 5/16" MED.	2		
1928	Screw, HHC M8 1.25 X 40 MM	2		
29937	Bracket, Lower Muffler	1		
29938	Spacer, Muffler Bracket 38 x .75 x 63L	2		
29645	Tail Pipe (exhaust), Deutz/Lomb.	1		
10855	Clamp, 1-1/2" Muffler Guillotine	1		

Please make sure all muffler retrofit kit parts are accounted for. See Table 1.

#### Safety Procedures

Perform the following before attempting installation of the Muffler Support Kit:

- 1. Place the machine on level secure ground that is free of dirt and debris.
- 2. Wear safety glasses; steel toed boots and any other safety protection that might be required for the modification.
- 3. Disconnect the negative battery cable from the battery.
- 4. Remove the ignition key from the ignition switch.
- 5. Allow the engine to cool before attempting to work on the muffler exhaust.

#### Air Cleaner Cover Removal

1. Remove the engine air filter cover and element Figures 1 and 2 to gain access to the wire harness and clamp location.



Figure 1. Air Cleaner Cover Removal



Figure 2. Air Filter Element (Removed)

#### **Engine Wiring Harness Clamp**

- 1. The crimping of the engine wiring harness clamp can be performed without having to remove the clamp.
- 2. Open the cabinet door opposite the fuel tank side and locate the engine sensor wiring harness located just below the air cleaner. Secure cabinet door by making sure latch is engaged.



Figure 3. Engine Sensor Wiring Harness

3. Slide the wiring harness upward through the clamp about 1.5 inches (30.48 mm)



Figure 4. Harness Properly Positioned

4. Once the clamp has been properly positioned (Figure 4), using a pair of pliers (Figure 5), squeeze the clamp to secure the harness in its new position.

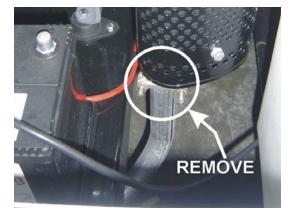
- 5. If the wiring inside the clamp is no longer moving up and down then it can be assumed that the engine wiring inside the clamp is secure (no movement of wires) and the crimping procedure is complete.
- 6. Reinstall air filter element and cover.

**NOTE:** Before removing the existing muffler tail pipe, visually inspect area in around muffler the muffler inlet pipe to determine if fractures or breakage is visible. If fractures or breakage is visible replace existing muffler tail pipe section. If no fractures are visible (no breakage) proceed to the "Negative Battery Cable Tie-Down Installation Procedure".

#### Tail Pipe Removal

This procedure will involve the removal of the existing muffler tail pipe.

- 1. Open the cabinet door on the fuel tank side. Secure cabinet door by making sure latch is engaged.
- Using a 3/8" ratchet with a ½" deep socket remove the 2 flange nuts that secure the muffler clamp (Figure 2) to the tail pipe.
- 3. After clamp has been removed, discard clamp and associated hardware. Clamp and mounting hardware will not be used again.



#### Figure 6. Muffler Clamp Removal

- 4. Move the muffler tailpipe from side to side while pulling down on the tail pipe. Repeat this procedure a few times to dislodge the tail pipe from the muffler.
- 5. If the tailpipe is having difficulty being removed from the muffler, strike the tail pipe a few times with a rubber mallet to help dislodge the tail pipe from the muffler.
- 6. Discard tailpipe and clamp. Tailpipe and clamp will not be used again.
- 7. Close cabinet door.



Figure 5. Squeezing the Clamp

#### Muffler Bracket Removal

This procedure will involve the removal of the existing muffler bracket.

- Using a 3/8" ratchet with a ½" socket remove the bolt (Figure 3) that secures the muffler bracket to the engine.
- 2. Remove muffler-mounting bracket and discard, it will not be used again. Retain all mounting hardware (bolts, flat washers and lock washers). Some of this hardware will be used later.



Figure 7. Muffler Bracket Removal

## **Tail Pipe Installation**

This procedure will involve the installation of the new muffler tailpipe and clamp.

- 1. Remove the new tail pipe (P/N 29645) and clamp (P/N 10855) from the muffler support kit.
- 2. Insert the tailpipe section into the muffler. Place the muffler clamp between the tailpipe and the muffler.
- Using a 3/8" ratchet with a ½" deep socket, install the U-bolt, clamp and retaining flange nuts (2) that secure the muffler clamp (Figure 2) to the tail pipe.
- 4. Position the tail pipe (Figure 4) so that the exhaust is facing the rear bumper of the light tower/generator. Tighten clamp securely.

## **New Muffler Bracket Installation**

This procedure will involve the installation of the new muffler bracket.

- Remove the new muffler mounting bracket (P/N 29937), two lock washers (P/N 0161 C), two spacers (P/N 29938) and two hex head cap screws (P/N 29938) from the muffler support kit.
- Using the hex head cap screw (2) install the new muffler bracket between the engine and the muffler (Figure 5). Remember to place spacer (2) between engine and bracket. Only hand-tighten the screws at this time. Tighten all mounting hardware securely.

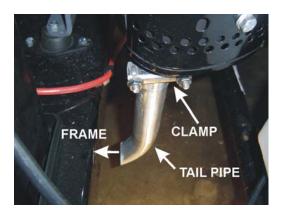


Figure 8. Tail Pipe Installation

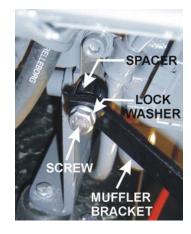


Figure 9. New Mounting Bracket

3. Using the bolt, flat washer and lock washer that secured the old muffler, insert this hardware into the <u>center hole</u> on the bracket to secure the muffler to the bracket.

 If alignment of the muffler bracket is difficult, <u>it may be</u> <u>necessary</u> to loosen the two muffler flange bolts (Figure 6) that secure the muffler to the engine.

 In addition <u>it may be necessary</u> to loosen the engine-wiring clamp (Figure 7) located just above the mounting hole for the bracket. Use a 6 mm allen wrench to loosen the clamp screw.

6. If the mounting hardware securing the muffler flange and clamp to the engine was loosened (steps 4 and 5), please re-tighten.

# Negative Battery Cable Tie-Down Installation

This procedure will involve the tie-down of the negative battery cable.

 Using a tie-wrap, secure the negative (BLACK) battery cable (Figure 8) to the cable clamp securing the positive (RED) battery cable.



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2. Close all cabinet doors, and reconnect the negative battery cable to the battery.



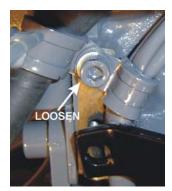


Figure 11. Engine Clamp

TIE WRAP

BLACK CABLE

# WARRANTY INFORMATION

## Campaign Reference No. 20060512

Please contact Chris Fairchild @ 1-800-421-1244 for warranty claim number and warranty form.

Labor Allowance: Flat Rate to install – 30 minutes.