

**Service Call:**

Proper Operation of the Current Load Alert System

**Model(s):**

Aerial Units with Load Alert System

## Tech Tip Safety Rules



### Danger

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury. Many of the hazards identified in the operator's manual are also safety hazards when maintenance and repair procedures are performed.

### Do Not Perform Maintenance Unless:

- You are trained and qualified to perform maintenance on this machine.
- You read, understand and obey:
  - manufacturer's instructions and safety rules
  - employer's safety rules and worksite regulations
  - applicable governmental regulations
- You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this tech tip is a supplement to the service manual. Consult the appropriate service manual of your machine for safety rules and hazards.



Failure to wear proper PPE, follow these instructions, or use within the rated capacity of the aerial device can result in death or serious injury.

Refer to the Operators and Maintenance manuals for all other information.

### DESCRIPTION

The items monitored include:

- Platform Load

If equipped with material handling feature also monitor:

- Upper boom angle
- Lower boom angle (some models)
- Jib angle
- Jib extension
- Winch line load

Each sensor sends a signal to the monitor that is mounted on the chassis. The monitor then analyzes the information to determine if the load exceeds capacity.



Refer to the unit Operators Manual for all other information for operation, inspection and maintenance.

If an overload occurs an alarm will sound and a red light will illuminate at the platform. On the monitor a red light will illuminate, "Overload" will appear on the monitor.

The overload will be recorded for future download or an optional connection the truck communication system can be provided to alert Fleet of the incident.



Overload can result in structural damage, structural failure, or overturning. Serious injury or even death can occur to the operator or others in the area.

## **Intended Use:**

The Terex Load Alert System (LAS) monitors and analyzes the jib and platform loads and compares those values to the load chart based on boom and jib position. The LAS must be used in conjunction with the aerial device material handling load chart.


The Terex Load Alert System is an operator aid only and not to be used in place of the load chart and proper operating practice. It must be used in addition to the users safe work practices as established by the Owner/User's management as well as all applicable Standards and Regulations.


Operators/Users shall be trained and qualified to operate and perform the work using the aerial device and included equipment. Failure to follow proper work instructions, use within the capacity of the aerial load chart, or wear PPE suitable for the line voltage being worked, can result in death or serious injury.

## Step 1

The interface for the LAS system contains both buttons and a touch screen. In some cases buttons *F1* through *F10* may be used, but the touch screen works better for most applications.

The *Home* button  will always take the interface back to the first screen.

The *Back* button  will always advance back to the previous screen.

*Esc* will cancel any changes that are being made and the *up/down* or +/-  buttons function as described.



## Step 2

With the ignition key ON and the PTO engaged, verify the system is operational.

In the example below, both the platform (basket) and the jib are showing a load. The platform load could be the liner or tools. The tolerance is  $\pm 50$  lbs.



## Step 3

From this screen shown in Step 2, select *Load Chart*. The weight marked green shows what the capacity is in each boom configuration.

LOAD CHART: OPTIMA HRX60						
MAXIMUM JIB LOAD (LBS)		2000	1 500	750	500	500
		JIB CAPACITY AT LOAD RADIUS SHOWN (LBS)				
UPPER BOOM ANGLE	BASKET CAPACITY (LBS)	ZONE A				ZONE B
		LOWER BOOM TO 110 DEG.				
		0 FT	0-2 FT	2-4 FT	4-6 FT	>110
		0-6 FT				
-60	700	1 380	1 340	750	500	500
-30	700	530	510	490	470	0
0	700	500	480	460	450	0
30	700	660	640	610	500	0
60	700	1 850	1 500	750	500	500
90	700	1 130	1 130	750	500	500
120	700	60	60	60	60	60
150	360	0	0	0	0	0
180	260	0	0	0	0	0



## Step 4

In the screen shown below, a known load has been placed on the Jib. In this case the load is 77% of capacity.



## Step 5

This load chart shows the capacity in this boom configuration.

LOAD CHART: OPTIMA HRX60						
MAXIMUM JIB LOAD (LBS)		2000	1 500	750	500	500
		JIB CAPACITY AT LOAD RADIUS SHOWN (LBS)				
UPPER BOOM ANGLE	BASKET CAPACITY (LBS)	ZONE A				ZONE B
		LOWER BOOM TO 110 DEG.				
		0 FT	0-2 FT	2-4 FT	4-6 FT	>10
-60	700	1 380	1 340	750	500	500
-30	700	530	510	480	470	0
0	700	500	480	460	450	0
30	700	660	640	610	500	0
60	700	1 850	1 500	750	500	500
90	700	1 130	1 130	750	500	500
120	700	60	60	60	60	60
150	360	0	0	0	0	0
180	260	0	0	0	0	0

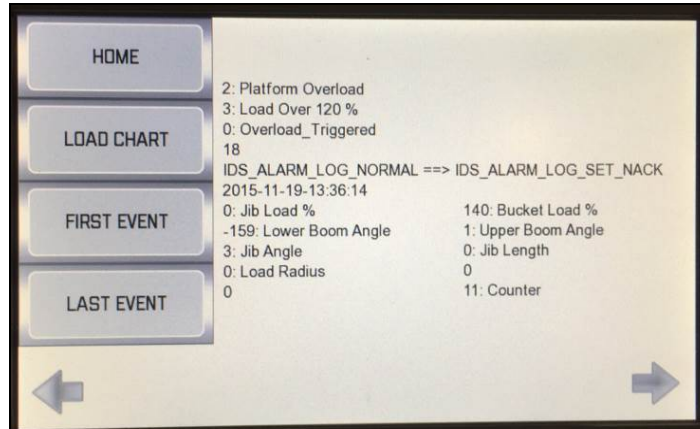
## Step 6

To review any overloads the system has experience, select the *Overload History* button.





Select the different options to find the desired information.

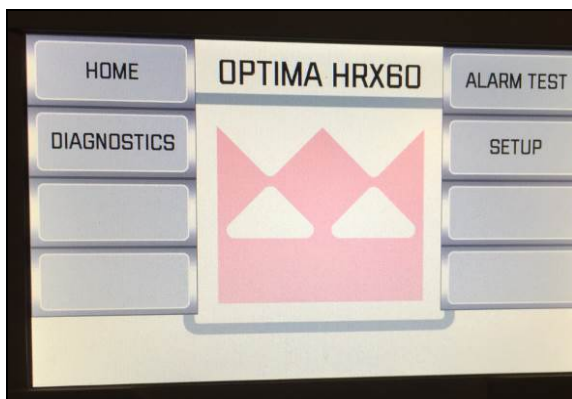


Overload levels are given as percentage ranges of capacity.

- Level 1 = 100%-109.9%
- Level 2 = 110%-119.9%
- Level 3 = 120%-149.9%
- Level 4 = over 150%

## Step 7

Main Menu will take the interface back to the screen shown below. From this screen the alarm in the platform can be tested by pushing *Alarm Test*. The light and alarm will go off in the platform.



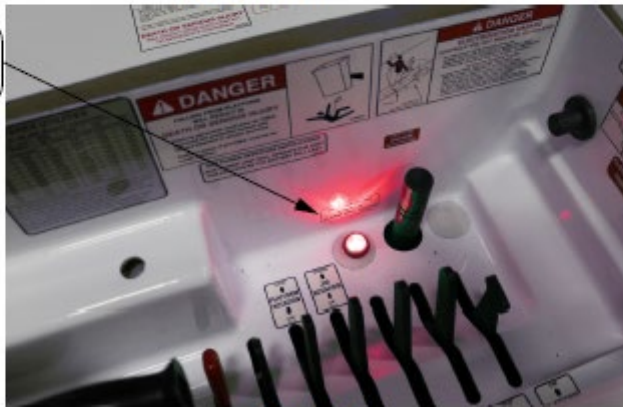
## Step 8

Below is an example of the interface in an overloaded state.



OVERLOAD

UNIT OVERLOAD  
WHEN LIT.  
ALARM WILL SOUND



OVERLOAD



If an overload is indicated a Post Event Inspection and/or Test must be performed. The unit must be inspected by a qualified person to determine if it is safe to use. A documented inspection report must be retained of the inspection. All damaged items shall be replaced or repaired before the unit is returned to service.

## **Step 9**

If the platform load or jib load is between 90-100% of the capacity shown on the load chart, the system will provide the following warnings.

- The audible overload alarm at the boom tip will sound 3 times.
- The overload light at the boom tip will flash 3 times.

## Review the Safety Guidelines



### GENERAL SAFETY GUIDELINES

1. Never exceed the rated load of the platform. Know the total weight; including the operator, passengers, platform liner, tools, and equipment, and/or other items placed in or on the platform before operation.
2. If not equipped with material handling feature, such as a jib and winch, lifting material with the boom or platform is not allowed.
3. If equipped with material handling, never exceed the rated load for the material handling feature shown on the load chart for boom angles and load distances.
4. Do not depend on the Terex Load Alert System for capacity. It is an operator aid only.
5. Know the weight of all loads being lifted.
6. Know the path from picking the load to setting the load. A trial run, without load, may be required to determine the position of least capacity.
7. Do not attempt to lift loads embedded in the ground, frozen to the ground, or still attached to other objects.
8. All loads must be freely suspended vertical loads.
9. No side loads, pulling, pushing, or rotational loads.
10. If an overload is indicated a Post Event Inspection and/or Test must be performed. The unit must be inspected by a qualified person to determine if it is safe to use. A documented inspection report must be retained of the inspection. All damaged items shall be replaced or repaired before the unit is returned to service.
11. If an overload condition occurs, immediately remove the overload.
12. Capacities stated are absolutes, not recommendations. Exceeding stated capacities can result in structural damage or overturning.