SkyAzúl
EQUIPMENT SOLUTIONS

MicroGuard 434

OPERATOR'S MANUAL

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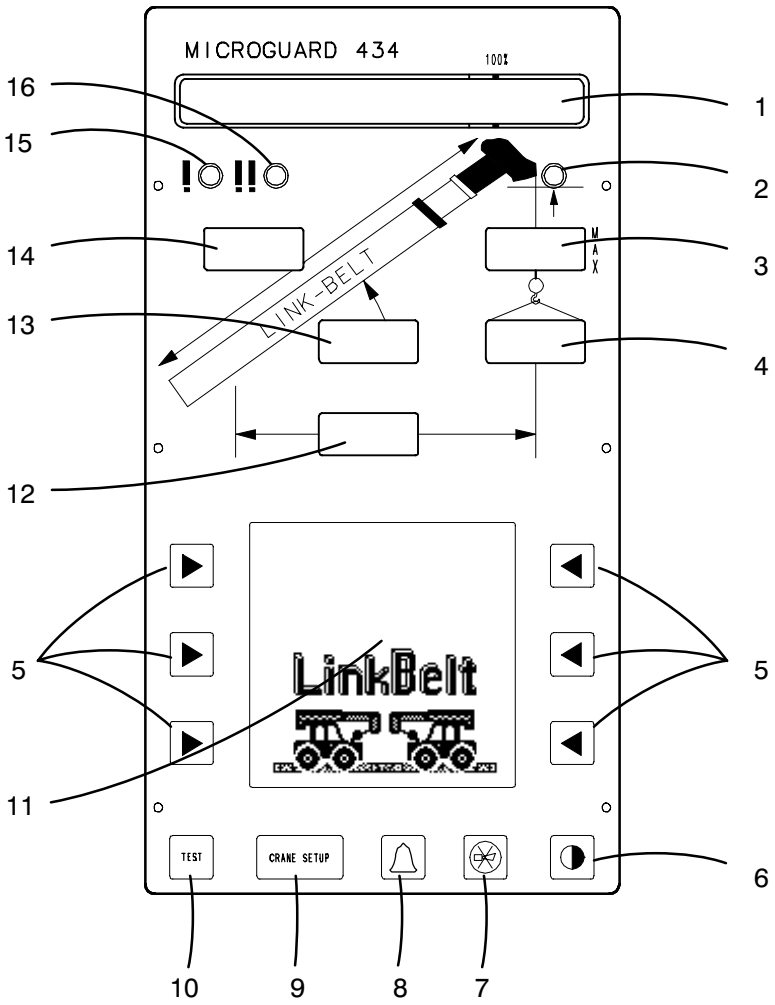


1. Bar Graph
2. Two Block Alarm Indicator
3. Maximum Rated Capacity Display
4. Actual Load Display
5. Configuration Selection Buttons
6. Contrast Button
7. Cancel Alarm Button
8. Operator Alarms Button
9. Crane Setup Button
10. Test Button
11. Crane Setup Screen
12. Load Radius Display
13. Boom Angle Display
14. Boom Length Display
15. Pre–Alarm Indicator
16. Overload Indicator

Figure 1–52
Rated Capacity Limiter

Rated Capacity Limiter

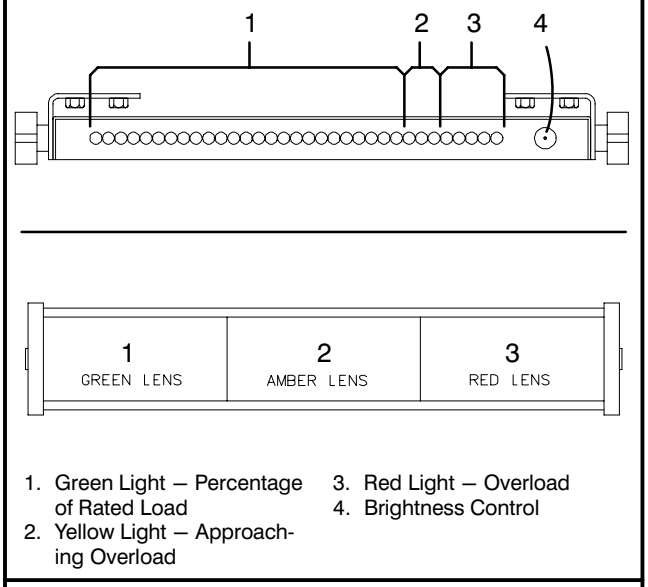
The following describes the function and operation of the Microguard 434 Rated Capacity Limiter. The system is intended to aid the operator in the efficient operation of the crane by continually monitoring the load and warning of an approach to an overload or unsafe condition. The display is located in the front right corner of the operator's cab.

⚠ WARNING

Although the system will alert the operator of an approaching overload or unsafe condition, it remains the responsibility of the operator to operate the crane safely at all times.

This system must never be substituted for the good judgment of the crane operator using safe operating procedures. The operator is solely responsible for safe operation of the crane.

!!THIS SYSTEM IS AN OPERATOR'S AID – NOT A SAFETY DEVICE!!



1. Green Light — Percentage of Rated Load
2. Yellow Light — Approaching Overload
3. Red Light — Overload
4. Brightness Control

Figure 1—53
Overhead Bar Graph And External Light Bar Options

System Description

The system monitors crane functions by means of high accuracy sensors and continuously compares the load with a copy of the crane capacity chart which is stored in the computer memory. If an overload is approached, the system warns by means of audible and visual alarms and is configured to cause function limitation.

The MicroGuard 434 Rated Capacity Limiter provides the operator with a continuous display of:

- Rated Capacity
- Actual Load
- Percentage of Rated Capacity
- Radius of the Load
- Angle of the Main Boom
- Crane Configuration
- Length of the Main Boom

Note: The head height may be displayed by accessing the angle/length/height operator settable alarm screen.

An additional feature of the system is the provision of operator settable alarms. These alarms, when properly set, provide a method of obstacle avoidance. This is achieved by means of minimum and maximum boom angle, maximum boom length, maximum height, left and right swing, and defined area alarms. These alarms can be programmed for each job site and set rapidly for the prevailing site conditions thereby aiding the operator in safe operation of the crane.

Display Unit

The following is a description of the control buttons, indicators, and windows on the display unit. Use them along with Figure 1—52.

1. Bar Graph

The Bar Graph is an analog bar graph which gives a visual indication of how much of the crane's capacity is being used and the rate at which an overload is being approached. The 100% RATED CAPACITY indicator above the bar graph marks the point at which 100% of the rated capacity of the crane has been reached. The leading edge of the bar graph aligns with three colored bands around the bar graph window. Red indicates an overload. Between the red and yellow is a black notch which indicates 100% of rated capacity. Yellow indicates 90—99.9%, and green indicates below 90% rated capacity.

Note: System may be equipped with an optional overhead bar graph or an external light bar which operates similar to the bar graph on the display. Refer to Figure 1—53.

2. Two Block Alarm Indicator

The Two Block Alarm Indicator illuminates anytime a two block situation is imminent. An audible alarm and function limiters will also activate when a two block situation is imminent. Once the two block situation is corrected the system will return to normal working mode.

3. Maximum Rated Capacity Display

The Maximum Rated Capacity is a digital display of the maximum permitted capacity. It is derived from a copy of the crane's capacity chart which is stored in the computer memory and is the reference capacity for any lifting operation. It is dependent on the configuration currently selected, which is shown in the crane setup screen, and which determines the section of the capacity chart to be used as the rated capacity reference.

Note: All maximum rated load data shown is X 1,000 lb (*kg*), e.g. 12.6=12,600 lb (*kg*).

4. Actual Load Display

The Actual Load Display is a digital display which shows total load suspended below the boom or fly head. It includes the load, any slings, pins or tackle used to secure the load and the hook block.

Note: All actual load data shown is X 1,000 lb (*kg*), e.g. 12.6=12,600 lb (*kg*).

5. Configuration Selection Buttons

These buttons are used during the crane configuration selection routine. Refer to "Configuration Selection" found later in this section of the Operator's Manual.

6. Contrast Button

This button is used to adjust the display contrast.

7. Cancel Alarm Button

This button is used to silence the audible alarm when the alarm has occurred as a result of either an Overload, a Two Block or an Operator Settable alarm. It is also used to reset the function limit relay when it is necessary to by−pass function limit which has occurred as a result of either an Overload or a Two Block alarm.

8. Operator Alarms Button

This button is used to start the operator settable alarms routines. Refer to "Operator Settable Alarms" found later in this Operator's Manual.

9. Crane Setup Button

This button is used to start the configuration selection routine. Refer to "Configuration Selection" found later in this section of the Operator's Manual.

10. Test Button

This button is used to initiate a system self test and also used to display fault codes. Refer to "To Perform System Test" found later in this section of the Operator's Manual.

11. Crane Setup Screen

The Crane Setup Screen provides the operator with a graphical representation of the crane's current configuration during the normal working mode. It also provides graphical icons used during the crane configuration selection routine.

12 Load Radius Display

The Radius Display gives a continuous indication of the radius of the load in feet (*m*). It is the horizontal distance from the centerline of rotation to the centerline of the hook.

13. Boom Angle Display

The Boom Angle Display gives a continuous indication of the angle of the main boom relative to horizontal.

14. Boom Length Display

The Boom Length Display gives a continuous indication of the boom length in feet (*m*). It is the distance from the centerline of the boom foot pin to the center line of the boom head machinery.

15. The Pre−Alarm indicator

The Pre−Alarm (amber) Indicator illuminates at a pre−set value of 90% of Maximum Rated Capacity and provides a visual indication of an approach to an overload. The pre−alarm indicator will also illuminate when an operator settable alarm value is approached.

16. Overload Indicator

The Overload Indicator (red) illuminates at a pre−set value of 100% of Maximum Rated Capacity and provides a visual indication of Maximum Allowed Load. It will also illuminate whenever a wire rope limit is exceeded or an operator settable alarm has been reached or exceeded. Function limiters will occur simultaneously for an Overload, Wire Rope Limit or a Two Block condition, but function limiters will not occur when exceeding an operator settable alarm. An audible alarm will sound for all 4 conditions.

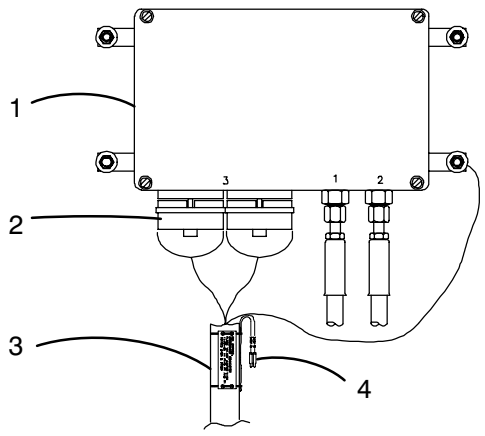
System Operation

The following is a list of procedures which are used to operate the multiple features of the Rated Capacity Limiter. Use these procedures in conjunction with the previous display unit control descriptions.

To Perform System Test

At start−up the system automatically performs a self test after which it goes directly to the normal working screen. The self−test can be initiated anytime during normal operation of the system by using the TEST button.

One press (press and release) will cause the system to execute a self test routine during which all lamps, audible alarms, and digital displays will be functionally tested and all memory areas checked for accuracy. If faults in the system are detected during a test, the crane setup screen will show the words FAULT DETECTED. If the words FAULT DETECTED occur, press and hold the TEST button. This will cause the display to change to the FAULT mode. In this mode, information about the fault condition will be displayed in the crane setup screen by means of an error code. Contact your local distributor for details of the fault codes.



1. Computer
2. Connectors
3. Upper Cab Wire Harness
4. Bypass Wire Harness

Figure 1–54
Rated Capacity Limiter Computer

System Bypass

In emergency situations, the Rated Capacity Limiter computer can be bypassed. The computer is located on the back of the operator's cab. There is a bypass instruction label and a bypass wire harness attached to the upper cab wire harness. Follow the instructions on the label to install the bypass wire harness when required. For emergency use while the system is bypassed, refer to "Emergency Use of Operation Aids" found in this Operator's Manual.

WARNING

The Microguard 434 is not operational when the computer is bypassed. Bypass the system in emergency situations only.

Emergency Use of Operation Aids

When operational aids are inoperative or malfunctioning, the following recommendations for continued use of the crane should be followed or the crane should be shutdown.

1. Steps shall be taken to schedule recalibration or repairs immediately. The operational aids shall be put back into service as soon as replacement parts, if required, are available and the repairs and recalibration can be carried out. Every reasonable effort must be made to expedite the repairs and recalibration.
2. When the rated capacity limiter is inoperative or malfunctioning, the designated person responsible for supervising the lifting operations shall establish procedures for determining load weights and shall ascertain that the weight of the load does not exceed the crane ratings at the radius at which the load is to be handled.
3. When a boom angle or radius indicator is inoperative or malfunctioning, radii or boom angle shall be determined by measurement.
4. When the anti–two block warning system is inoperative or malfunctioning, the designated person responsible for supervising the lifting operations shall establish procedures, such as assigning an additional signal person, to furnish equivalent protection. This does not apply when lifting personnel in load line supported baskets. Personnel shall not be lifted in load line supported baskets when the anti–two block system is not functioning properly.
5. When a boom length indicator is inoperative or malfunctioning, the designated person responsible for supervising the lifting operations shall establish the boom length at which the lift will be made by actual measurement or marking on the boom.
6. When a level indicator is inoperative or malfunctioning, other means shall be used to level the crane.

Configuration Selection

In the normal operational mode the system is programmed to remember the last configuration selected. Each time the system is powered up it will automatically choose that configuration. Only when the crane is rigged differently must a new configuration be selected. Use the following procedure along with Figure 1—55 to select the crane configuration (the following step numbers correspond with the numbered screens in Figure 1—55).

Note: When selecting configurations allowed on outriggers all beams must be equally extended; all fully retracted, intermediate extended or fully extended.

Depending on how the crane is equipped or which selections have been made, some screens shown in Figure 1—55 may not appear or may not appear as illustrated. The system cannot be programmed for configurations not allowed by the capacity charts listed in the Crane Rating Manual.

1. From the normal working screen press the CRANE SETUP button. The crane setup screen will change and graphically display the carrier options. Press the corresponding configuration selection button to select the desired carrier configuration.

WARNING

The Microguard 434 is not operational when in the RIGGING/TRAVEL Mode. Return the Microguard 434 system to normal operation before operating the crane.

2. The crane setup screen will change and graphically display the counterweight options. Press the corresponding configuration selection button to select the desired counterweight.
3. The crane setup screen will change and graphically display the boom mode options. Press the corresponding configuration selection button to select the desired boom mode.

   Note: The boom must be fully retracted to change boom modes.

4. The crane setup screen will change and graphically display the auxiliary lifting sheave fitted or not fitted. Press the corresponding configuration selection button to select the desired auxiliary lifting sheave.
5. If the crane is equipped with a fly, the crane setup screen will change and graphically display an erected attachment. Press the corresponding configuration selection button to select the desired erected attachment if required.
6. If an offset fly was previously selected, the crane setup screen will change and graphically display the available offset angles. Press the corresponding configuration selection button to select the desired offset angle if required.
7. The crane setup screen will change and graphically display the rear winch lifting point. Press the corresponding configuration selection button to select the desired rear winch lifting point as indicated by the flashing arrows. Or press the corresponding configuration selection button to select the rear winch not in use.
8. If the crane is equipped with a front winch, the crane setup screen will change and graphically display the front winch lifting point. Press the corresponding configuration selection button to select the desired front winch lifting point as indicated by the flashing arrows. Or press the corresponding configuration selection button to select the front winch not in use.
9. If the crane is equipped with a fly and was not selected as an erected attachment, the crane setup screen will change and graphically display the stowed deduct. Press the corresponding configuration selection button to select the desired stowed deduct if required.
10. The crane setup screen will change to the normal working screen and graphically display the crane configuration as previously selected. Press the corresponding configuration selection button to select the desired parts—of—line for the rear winch.
11. If the crane is equipped with a front winch and it was selected, press the corresponding configuration selection button to select the front winch. Press the corresponding configuration selection button to select the desired parts—of—line for the front winch.

    Note: From the normal working screen, after crane setup has been established, only two selection buttons are active; the winch select button and the parts of line button.

    To change winches, push the winch select button to toggle between winches. The winch lifting points cannot be changed without going through the crane setup routine.

    The parts of line can be changed for the selected winch by pressing the parts of line button to scroll through the available options for that winch.

    Refer to Figure 1—56 and Figure 1—57 for examples of some normal working screens.

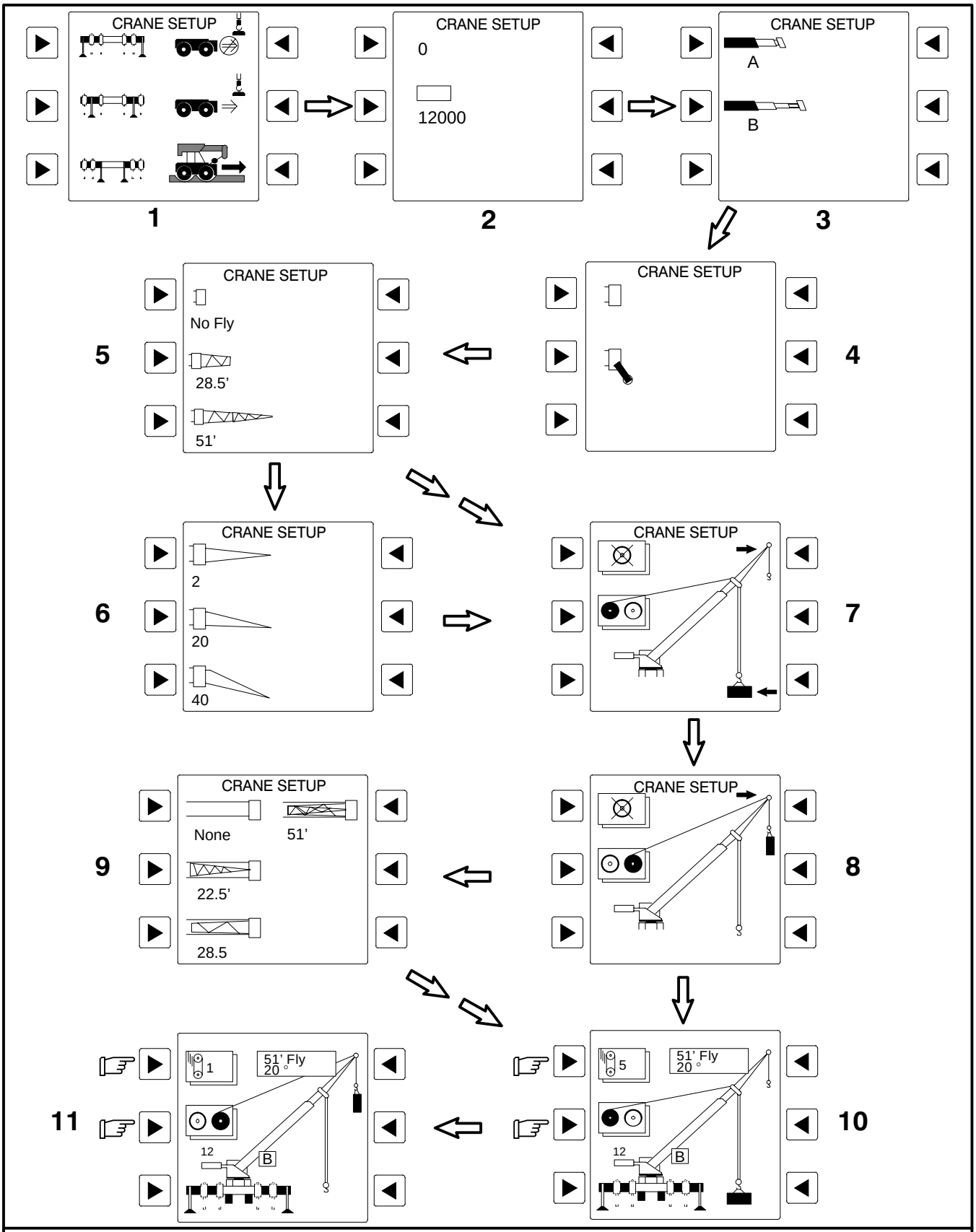
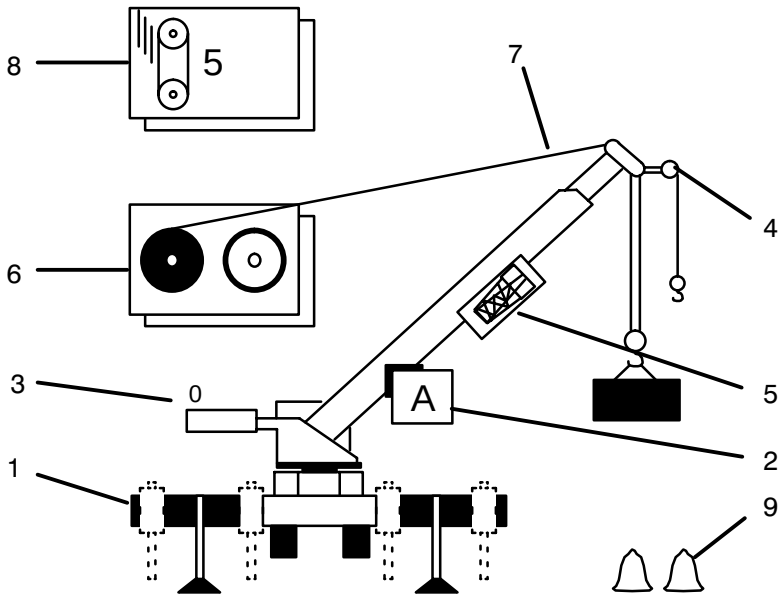
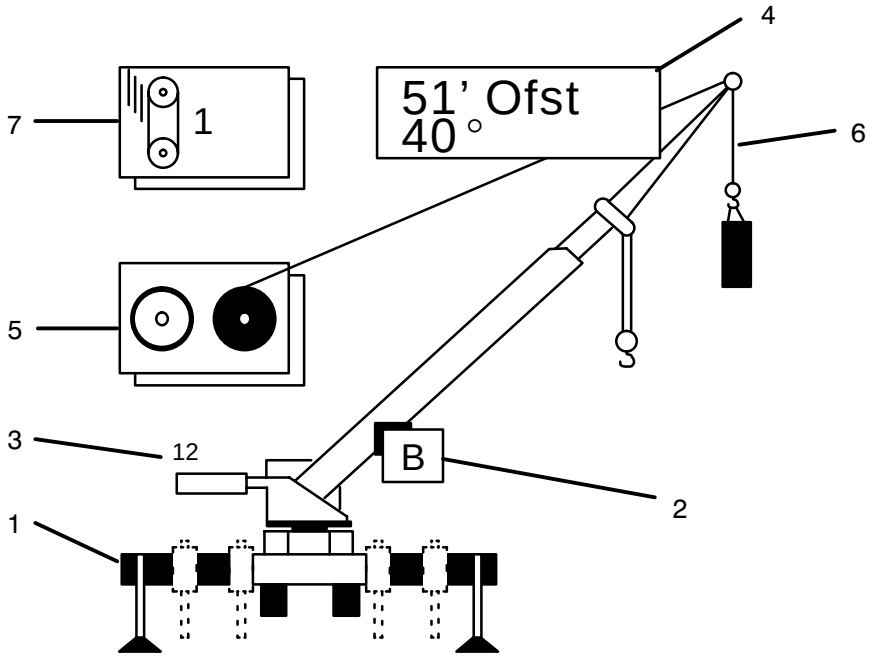


Figure 1–55
Configuration Selection Flow Chart

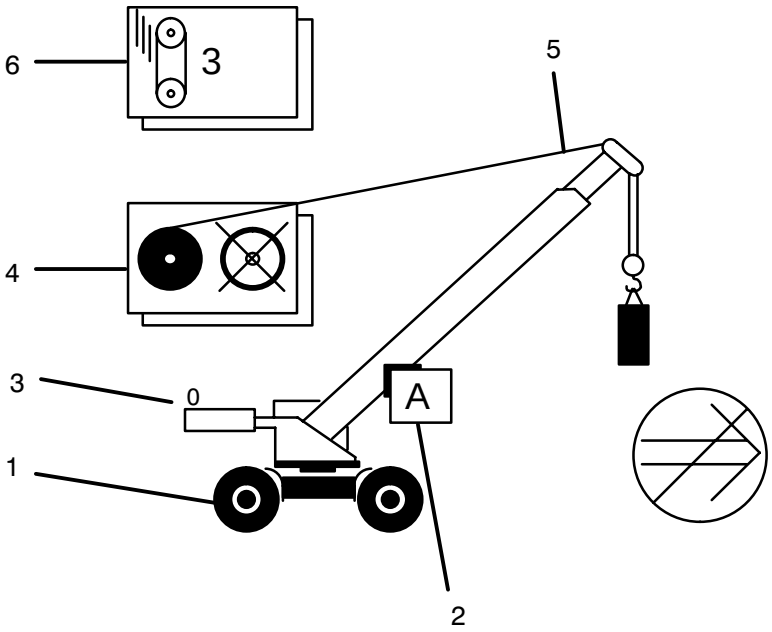


In this example the crane is setup on intermediate extended outriggers (1), boom mode A (2), no counterweight (3), auxiliary head fitted (4), fly base & tip stowed (5), the front winch available with the aux head and the rear winch selected (6) with the winch rope reeved over the main boom (7), with five parts of line (8), two operator alarms have been set (9).

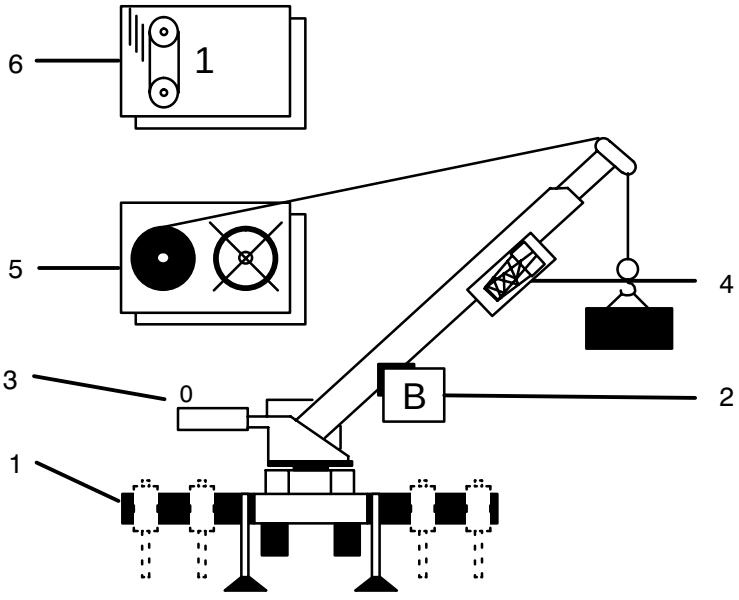


In this example the crane is setup on fully extended outriggers (1), boom mode B (2), 12,000 lb counterweight (3) 51' offset fly erected with 40° offset (4), the rear winch available with the main boom and the front winch selected (5), with the winch rope reeved over the 51' offset fly (6), with one part of line (7).

Figure 1–56
Normal Working Screen Examples



In this example the crane is setup for stationary on tires (1), boom mode A (2), no counterweight (3) front winch not in use and the rear winch selected (4), winch rope reeved over the main boom (5), with three parts of line (6).



In this example the crane is setup on fully retracted outriggers (1), boom mode B (2), no counterweight (3) fly base & tip stowed (4), front winch not in use and the rear winch selected (5), with one part of line (6).

Figure 1–57
Normal Working Screen Examples

To Select Rigging/Travel Mode

The CRANE SETUP push−button is also used to select RIGGING/TRAVEL MODE. This mode is used to facilitate rigging and travel of the crane by inhibiting function limiters and the audible alarm while selected. To resume crane operation, select proper outrigger or tire configuration per the proper procedure.

WARNING

The Microguard 434 is not operational when in the RIGGING/TRAVEL Mode. Return the Microguard 434 system to normal operation before operating the crane.

1. From the normal working screen press the CRANE SETUP button. The crane setup screen will change and graphically display the carrier options.
2. Press the corresponding configuration selection button to select RIGGING/TRAVEL MODE. Refer to Figure 1−58.
3. The crane setup screen will change and graphically display the RIGGING/TRAVEL MODE icon.

To Cancel Audible Alarm And Reset Function Limiters

The CANCEL ALARM button is used to cancel the audible alarm when the alarm has occurred as a result of either an overload, a two block alarm, or an operator settable alarm. The audible alarm may be canceled by pressing and releasing the CANCEL ALARM button. The audible alarm remains canceled until the condition which caused the alarm has been removed. For example, if the audible alarm was canceled because of an overload condition, it will remain canceled until the overload condition is removed. However, if a different alarm, e.g. two block condition, was to occur when the audible alarm was still canceled for an earlier overload condition, the new alarm condition would cause the audible alarm to be re-started.

WARNING

Once the function limiters have been by−passed, the crane is no longer protected against the condition that initially caused the function limiters to occur.

Note: The CANCEL ALARM feature is a temporary function. The audible alarm or function limit is automatically reset when the condition which caused the alarm is no longer present.

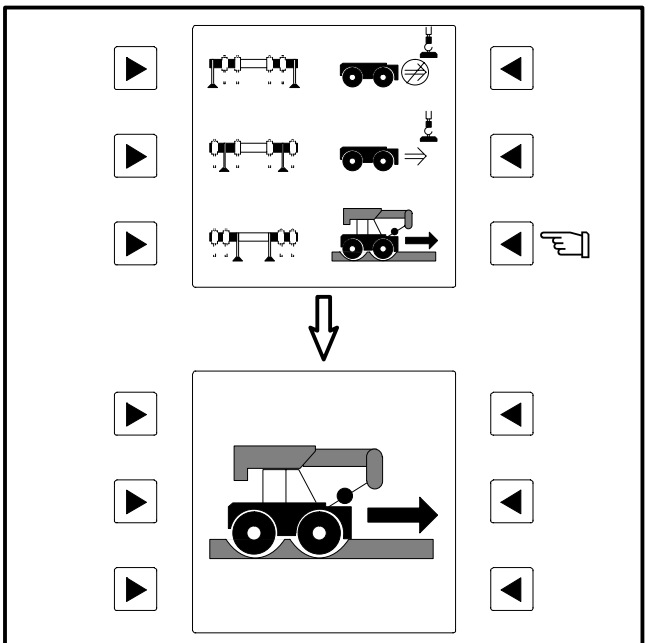


Figure 1−58
Rigging/Travel Mode Screen

The CANCEL ALARM is also used to reset the function limiters when it is necessary to by−pass the function limiters which has occurred as a result of either an overload, a two block alarm, or a rope limit. Function limiters are reset by first canceling the audible alarm (as described above) and then pressing and holding the CANCEL ALARM button for about 3 seconds, after which the function limiters will be reset to allow normal operation. However, should another different alarm condition occur when the function limiters had previously been over−ridden, then the newly occurring alarm condition would cause the function limiters to occur again.

Operator Settable Alarms

Some alarms occur automatically as a result of limitations imposed by the capacity chart. The operator has control over additional alarms which can be set to operate within the normal chart limitations and which are, in addition to, those already set by the chart.

Operator settable alarms will be stored in the computer memory, even if the crane is shutdown, until they are cleared. Refer to Figure 1−59.

Six alarms are available for operator use.

Minimum Angle	Maximum Length
Maximum Angle	Left and Right Swing
Maximum Height	Operator Defined Area

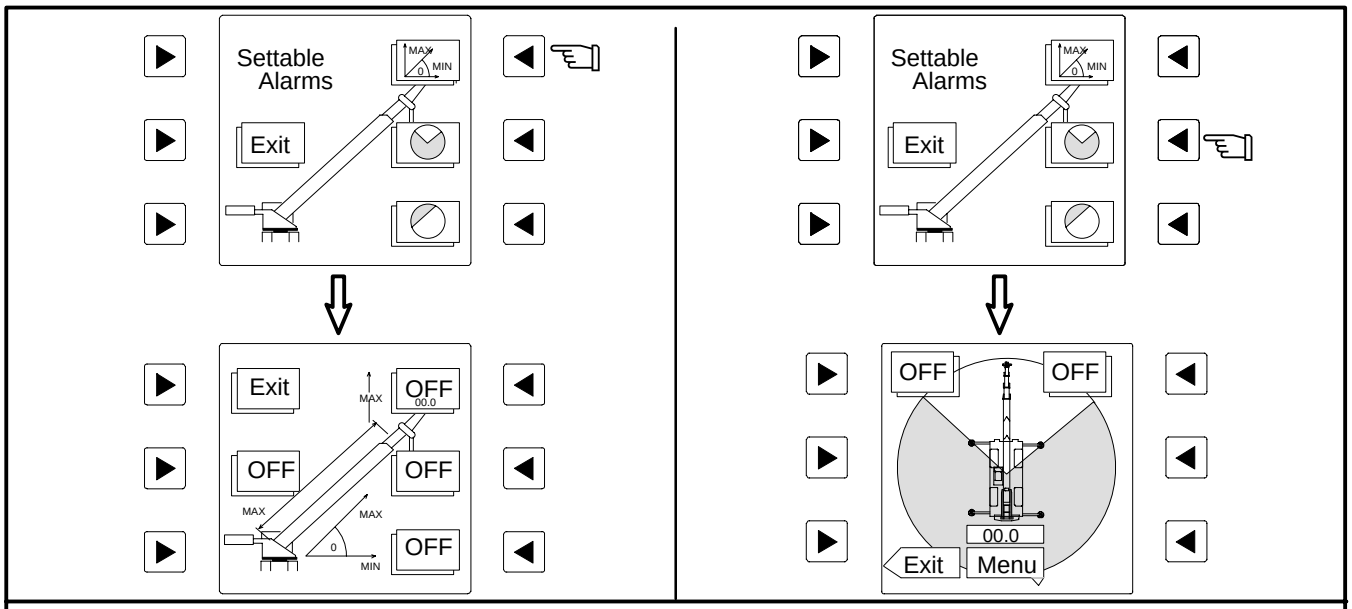


Figure 1–59
Operator Settable Alarms

WARNING

The operator settable alarms are a warning device. All functions remain operational when entering the operator defined bad area. For safe operation, adequate distance must be maintained to allow for operator reaction time to avoid entering the bad area. It is the responsibility of the operator to set points which ensure that the crane's boom, attachment, load, rigging, etc. maintains a safe working distance and complies with local safety regulations.

Setting Length/Angle/Height/Swing Operator Alarms

1. From the normal working screen press OPERATOR ALARM button to access the Operator Settable Alarm screen.
2. Press the corresponding selection button to select the desired alarm to be set.

   Note: The bottom value displayed in the max height alarm box is the current head height.

WARNING

Avoid positioning the boom, attachment, load, rigging, etc. into the bad area when setting the alarm values.

When selecting the alarm values, ensure that the load will maintain a safe distance from the obstacle.

3. Place the crane in the desired position depending upon the alarm to be set. The numerical value displayed will be the current position of the crane.

   Note: If an alarm had been previously set, the numerical value displayed will be the previously set alarm value. The previous alarm must first be cleared, then set the new alarm. Alarms which are not set are indicated by the word OFF.

4. Press the corresponding selection button to set the alarm value.
5. When all alarms are set press the EXIT button to return to the normal working screen or press the MENU (Operator Alarm) button to return to the previous menu screen.
6. Test the alarm, with no load, to ensure the alarm points have been properly set. When approaching the alarm set point the pre–alarm (amber) indicator lamp will illuminate, the audio will sound intermittently, and a warning message will appear in the Crane Setup Screen. When exceeding the alarm set point the red lamp will illuminate, the audible alarm will sound continuously, and a warning message will appear in Crane Setup Screen.

   Note: An alarm icon will appear on the normal working screen to alert the operator that an operator alarm has been set. The number of icons shown indicate how many operator alarms have been set.

7. Use the following examples to understand the use of the procedure.

WARNING

If crane or obstacle is moved or if a different size load is lifted, the alarm(s) must be reset.

WARNING

Check the crane's current configuration, capacity chart, and working area chart in the Crane Rating Manual to ensure safe, stable operation under conditions described in the following examples.

To Set Minimum Angle Alarm

Example: To have an alarm whenever the boom is below a 30 degree angle, use the following procedure:

1. From the normal working screen Press the OPERATOR ALARM button to access the alarm screen.
2. Press the corresponding button for minimum angle (top right).
3. Move the boom to a 30 degree angle.
4. Press the corresponding button (bottom right) to enter the alarm. The displayed value will be the alarm setting.
5. Press the EXIT button to return to the normal working screen or the MENU (Operator Alarm) button to return to the previous menu screen.
6. Test the alarm, with no load, to ensure the alarm points have been properly set. When approaching 30 degree boom angle the pre−alarm (amber) indicator lamp will illuminate, the audio will sound intermittently, and "!Minimum Angle" will appear in the Crane Setup Screen. The red lamp will illuminate, the audible alarm will sound continuously, and "!Minimum Angle" will appear in Crane Setup Screen whenever the boom is lowered below 30 degrees.

To Set Maximum Angle Alarm

Example: To have an alarm whenever the boom is above a 60 degree angle use the following procedure:

1. From the normal working screen press the OPERATOR ALARM button to access the alarm screen.
2. Press the corresponding button for maximum angle (top right).
3. Move the boom to a 60 degree angle.
4. Press the corresponding button (middle right) to enter the alarm. The displayed value will be the alarm setting.
5. Press the EXIT button to return to the normal working screen or press the MENU (Operator Alarm) button to return to the previous menu screen.
6. Test the alarm, with no load, to ensure the alarm points have been properly set. When approaching 60 degree boom angle the pre−alarm (amber) indicator lamp will illuminate, the audio will sound intermittently, and "!Maximum Angle" will appear in the Crane Setup Screen. The red lamp will illuminate and the audible alarm will sound continuously whenever the boom is raised above 60 degrees and "!Maximum Angle" will appear in Crane Setup Screen.

To Set Maximum Length Alarm

Example: To have an alarm whenever the boom length exceeds 50 feet, use the following procedure:

1. From the normal working screen press the OPERATOR ALARM button to access the alarm screen.
2. Press the corresponding button for maximum length (top right).
3. Extend the boom to 50 feet.
4. Press the corresponding button (middle left) to enter the alarm. The displayed value will be the alarm setting.
5. Press the EXIT button to return to the normal working screen or press the MENU (Operator Alarm) button to return to the previous menu screen.
6. Test the alarm, with no load, to ensure the alarm points have been properly set. When approaching 50 foot boom length the pre−alarm (amber) indicator lamp will illuminate, the audio will sound intermittently, and "!Maximum Length" will appear in the Crane Setup Screen. The red lamp will illuminate and the audible alarm will sound continuously whenever the boom is extended beyond 50 feet and "!Maximum Length" will appear in Crane Setup Screen.

To Set Maximum Height Alarm

Example: To have an alarm whenever the boom tip height exceeds 75 feet, use the following procedure:

1. Press the OPERATOR ALARM button to access the alarm screen.
2. Press the corresponding button for maximum height (top right).

   Note: The bottom value displayed in the max height alarm box is the current head height.

3. Extend the boom and/or adjust the boom angle so that the tip height is 75 feet.

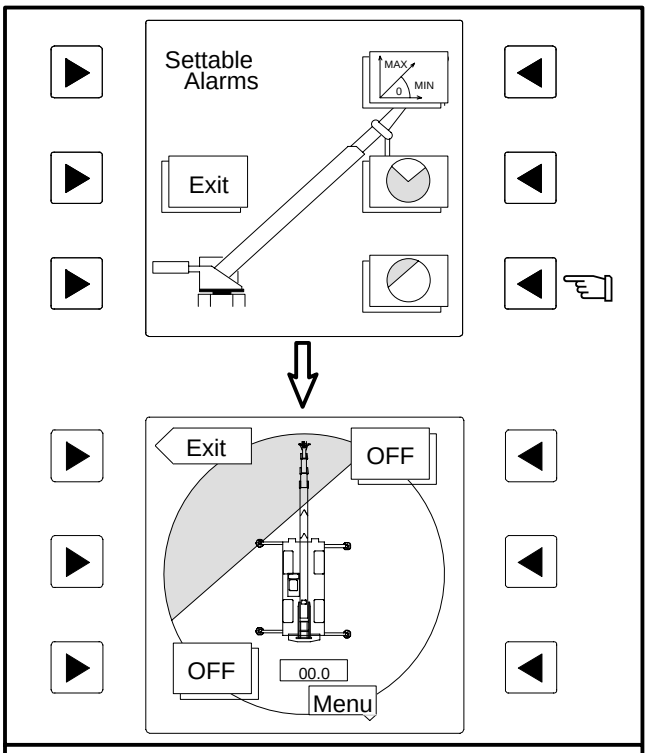


Figure 1–60
Operator Defined Area Alarm Screens

4. Press the corresponding button (top right) to enter the alarm. The displayed value will be the alarm setting.
5. Press the EXIT button to return to the normal working screen or press the MENU (Operator Alarm) button to return to the previous menu screen.
6. Test the alarm, with no load, to ensure the alarm points have been properly set. When approaching 75 foot boom tip height the pre–alarm (amber) indicator lamp will illuminate, the audio will sound intermittently, and "!Maximum Length" will appear in the Crane Setup Screen. The red lamp will illuminate and the audible alarm will sound continuously whenever the boom tip height exceeds 75 feet and "!Maximum Height" will appear in Crane Setup Screen.

To Set Left & Right Swing Alarms

Example: To have an alarm whenever the LEFT SWING AND RIGHT SWING exceed pre–determined alarm points, use the following procedure:

1. Press the OPERATOR ALARM button to access the alarm screen.
2. Press the corresponding button for the swing alarm (middle right).
3. Swing the boom to the left alarm point.
4. Press the corresponding button (top left) to enter the left alarm point. The displayed value will be the left alarm setting.
5. Swing the boom to the right alarm point.
6. Press the corresponding button (top right) to enter the right alarm point. The displayed value will be the right alarm setting.
7. Press the EXIT button to return to the normal working screen or the MENU (Operator Alarm) button to return to the previous menu screen.
8. Test the alarm, with no load, to ensure the alarm points have been properly set. When approaching the set alarm point the pre–alarm (amber) indicator lamp will illuminate, the audio will sound intermittently, and "!Swing Alarm" will appear in the Crane Setup Screen. The red lamp and the audible alarm will be activated whenever the swing exceeds the alarm points and "!Swing Alarm" will appear in Crane Setup Screen.

   Note: Both the left and right swing alarms must be set for the system to determine the operator set working area.

To Set Operator Defined Area Alarm

The operator defined area alarm, when set, will define an imaginary vertical plane between two set points to optimize the working area. When approaching the plane the pre–alarm (amber) indicator lamp will illuminate, the audio will sound intermittently, and the message "Bad Area" will appear on the Crane Setup Screen. When passing the plane the overload (red) warning lamp will illuminate, the audio alarm will sound continuously, and the message "Bad Area" will appear on the Crane Setup Screen. Use the following procedure, Figure 1–60, and Figure 1–61 to set the operator defined area alarm:

⚠ WARNING

The operator defined area alarm is a warning device. All functions remain operational when entering the operator defined bad area. For safe operation, adequate distance must be maintained to allow for operator reaction time to avoid entering the bad area. It is the responsibility of the operator to set points which ensure that the crane's boom, attachment, load, rigging, etc. maintains a safe working distance and complies with local safety regulations.

Setting Operator Defined Area Alarm

1. From the normal working screen press the OPERATOR ALARM button to access the Operator Alarm screen.
2. Clear any previously set left and right swing alarms if required. Refer to "To Clear Operator Settable Alarms" found later in this section of the Operator's Manual.

   Note: The left and right swing alarms must be cleared prior to setting the defined area alarm.

3. Press the corresponding button for Area Alarm (bottom right). Refer to Figure 1–60.

WARNING

Avoid positioning the boom, attachment, load, rigging, etc. into the bad area when setting the left or right alarm points.

When selecting the left and right alarm points, ensure that the load will maintain a safe distance from the obstacle. Also ensure that the two points are set so that the tailswing of the crane will not enter the bad area.

4. Position the boom, attachment, load, rigging, etc. to the left alarm point and press the corresponding button (bottom left) to enter the left alarm point. The displayed value will be the left alarm setting.
5. Position the boom, attachment, load, rigging, etc. to the right alarm point and press the corresponding button (top right) to enter the right alarm point. The displayed value will be the right alarm setting.

   Note: For best results, the two points should be separated by a minimum of 10 ft (*3m*) or 30 degrees.

6. When both alarm points are set, press the EXIT button to return to the normal working screen or the MENU button to return to the previous menu screen.
7. Test the alarm, with no load, to ensure the alarm points have been properly set. When approaching the plane the pre–alarm (amber) indicator lamp will illuminate, the audio will sound intermittently, and the message "Bad Area" will appear on the Crane Setup Screen. When passing the plane the overload (red) warning lamp will illuminate, the audio alarm will sound continuously, and the message "Bad Area" will appear on the Crane Setup Screen.

WARNING

If crane or obstacle is moved or if a different size load is lifted, the area alarm must be reset.

To Clear Operator Settable Alarms

1. From the normal working screen press the OPERATOR ALARM button to access the Operator Alarm screen.
2. Press the corresponding selection button to select the desired alarm to be cleared.
3. Press the corresponding button for each alarm until the value is replaced with the word OFF.
4. When all alarms are cleared press the EXIT button to return to the alarm screen or press the MENU button to return to the previous menu screen.

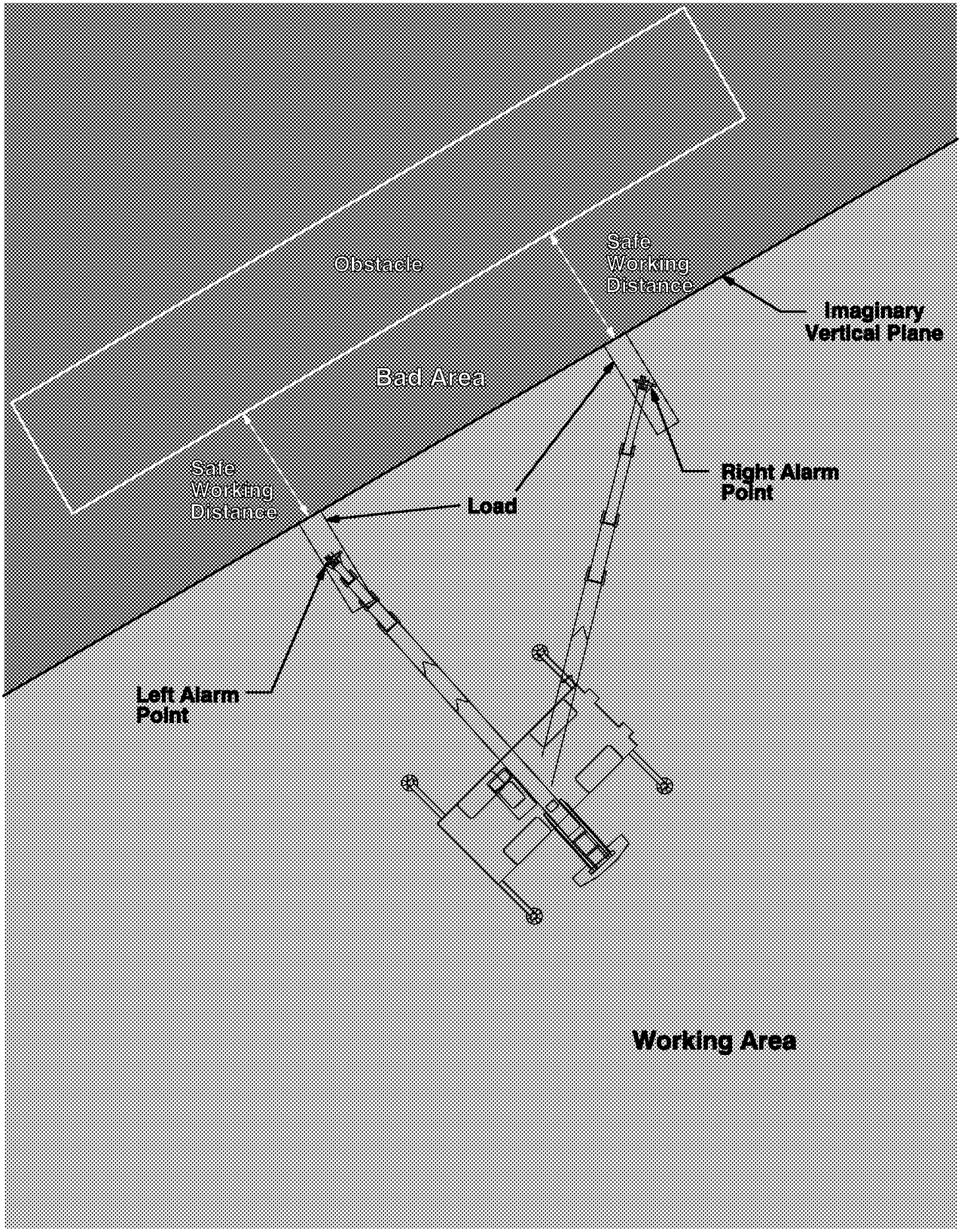


Figure 1–61
Operator Defined Area Alarm

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