

Grove   Maniowoc   National Crane   Potain



# Lift Solutions





Allen Kadow—Manager



Lift Solution Engineers, Purchasing and Operations  
Co-Located



Manitowoc Cranes Lift Solutions Team is a group of sales, engineering, purchasing and operations professionals dedicated to helping customers with unique applications for lattice crawler product. Whether your requirement is for a new or 40-year-old product, the Lift Solutions Team is your answer.

### **What is a Lift Solution?**

#### **IS**

- New application
- Customization of existing product
- Approval
- Customer supplied attachment
  - Special Lift
  - Travel
  - Wind
- Liftplan/erection procedure
- Custom load chart
- Accident investigation support
- Structural modification

#### **IS NOT**

- Structural repair (contact CraneCARE)
- Obsolete part for current or past production model (contact CraneCARE)
- New serial numbered attachment

Manitowoc knows that not every job is the same and neither is every crane. The Lift Solutions Team will configure your crane to exact requirements, making your Manitowoc crane the perfect tool for your job.

The following pages detail previous Lift Solutions. If you would like to discuss an application you see here, a modification to what is shown, or a new customization, contact your local dealer or the Lift Solutions Team directly at:

**(920) 683-6462**

**Or**

**[allen.kadow@manitowoc.com](mailto:allen.kadow@manitowoc.com)**

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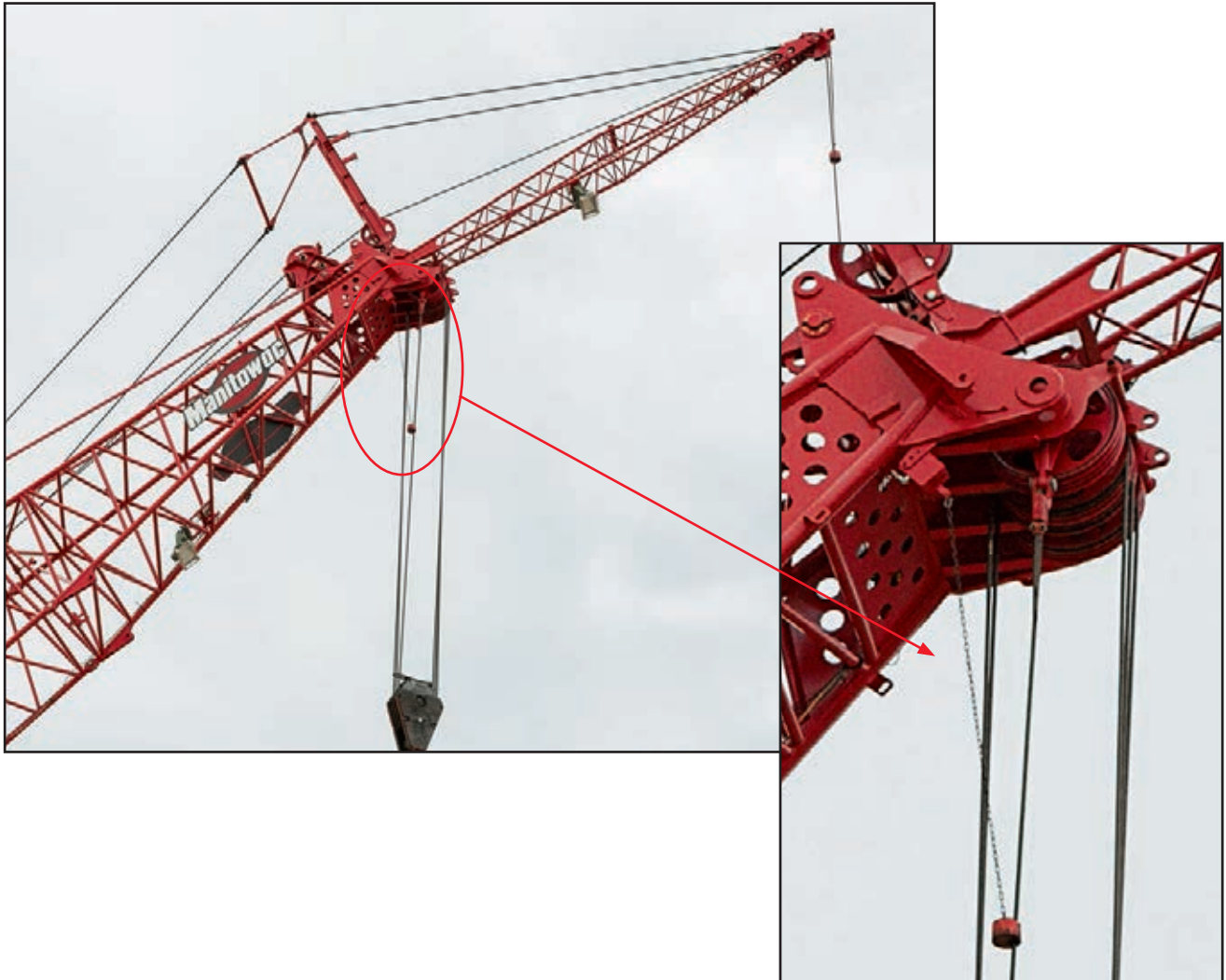
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# Anti Two Block (ATB)

## Description

Anti Two Block prevents operator from running load block/weight ball into boom point. Machine comes standard with one ATB per point. Consists of electrical and mechanical components including junction boxes, switch, chain, weight and cable reel when required.



## Existing models

4100W, 999, 15000, 2250, 18000

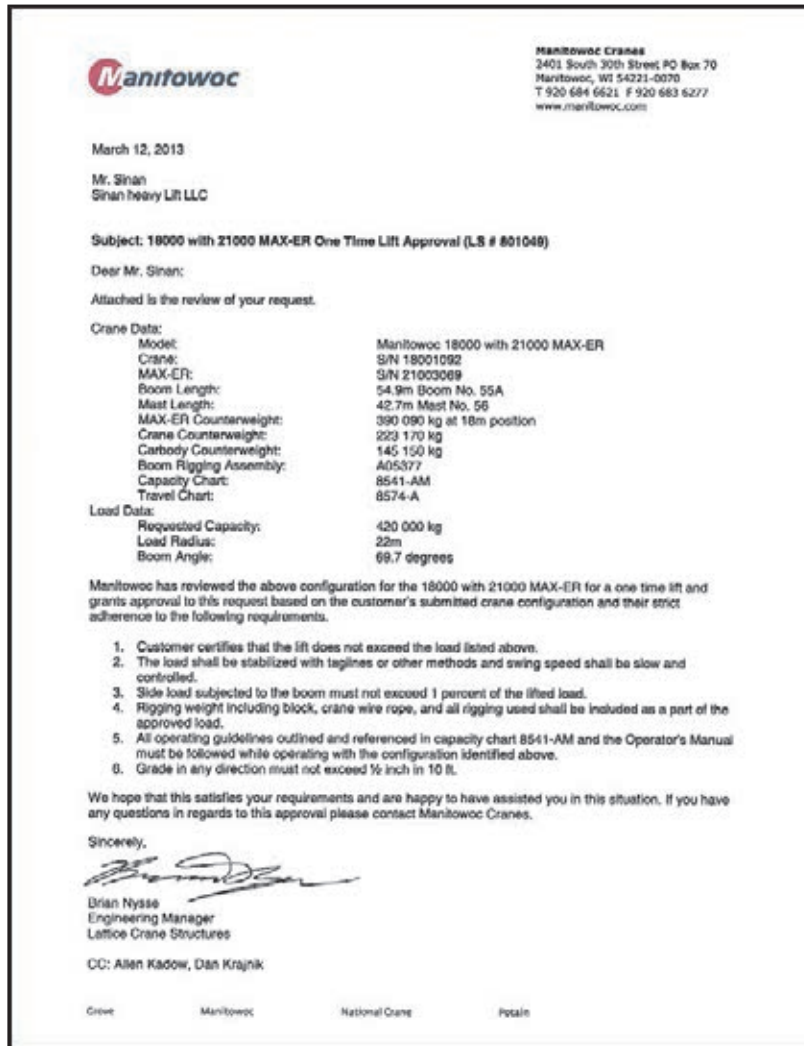
## Notes

For pricing and lead time, please contact our local dealer or the Lift Solutions Team with specific product requirements.

# Approval letters

## Description

Letters approving special lifts, wind conditions, rigging, travel or customer supplied equipment.



## Existing models

All

## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Auto lube

## Description

Automatic lubrication for turntable bearing and/or crawlers is available through a computer controlled system. Consists of a reservoir, pump, divider valves, fittings and tubing.



## Existing models

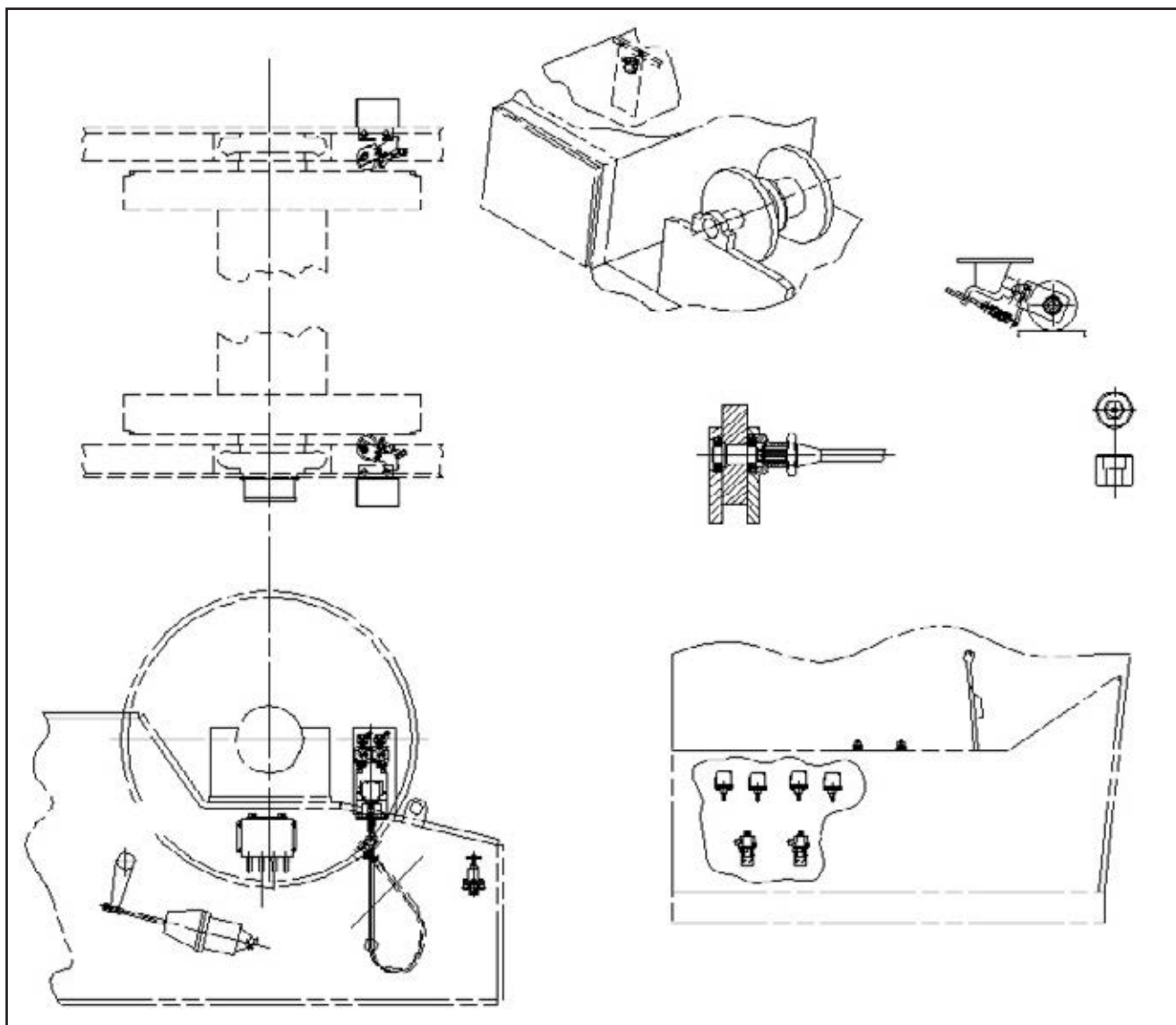
777, 888, 999, 2250, 16000, 18000

## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

## Description

Autotrol allows VICON machines to operate drums as full powered instead of free-fall. Consists of controls, components and fittings.



## Existing models

7000

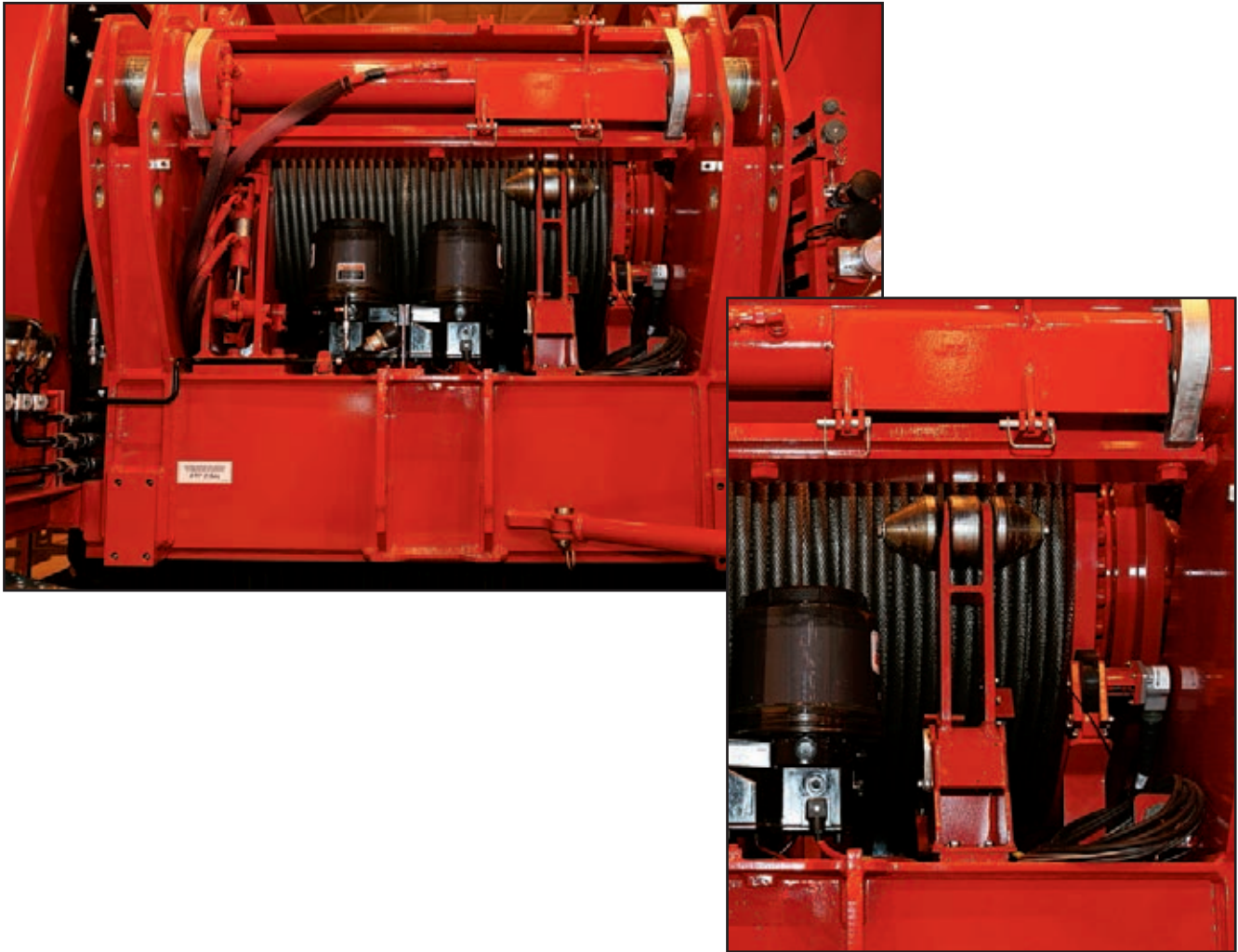
## Notes

Must be used with full range VICON power load lowering. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Bail limits, min./max.

## Description

Bail limit switch stops drum operation upon minimum or maximum rope on the drum. Consists of lever, switch and mounting components.



## Existing models

111, 555, MLC165, 777, 888, 999, M250, 2250, 16000, 18000, 31000, 3900, 4100W, 4600S3 and S4, 36" Platform Ring, 60' Platform Ring

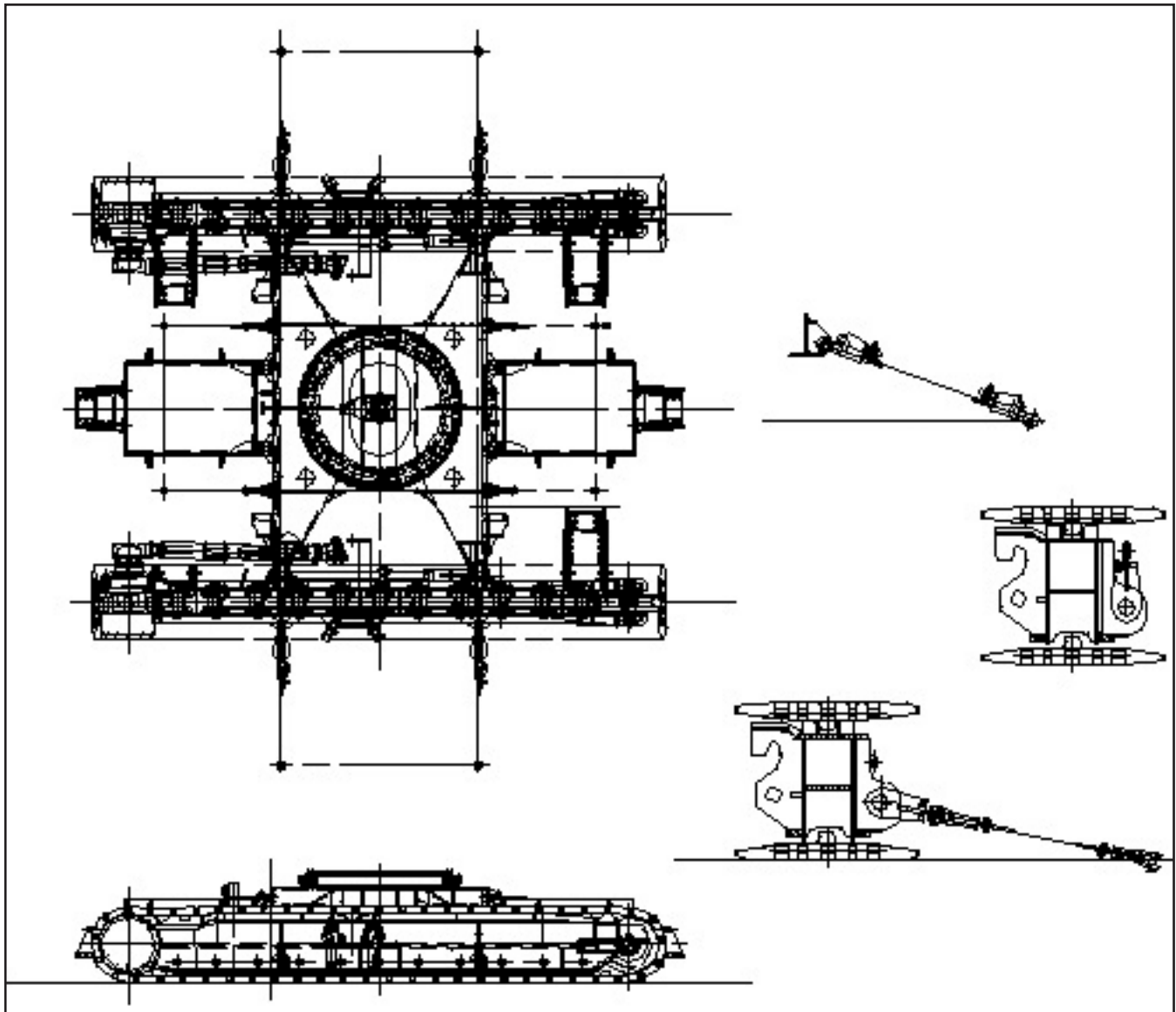
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Barge tie-downs

## Description

Barge tie-downs consist of locations, components and suggested methods of securing the crane to the barge.



## Existing models

777, 999, 16000, 4100W

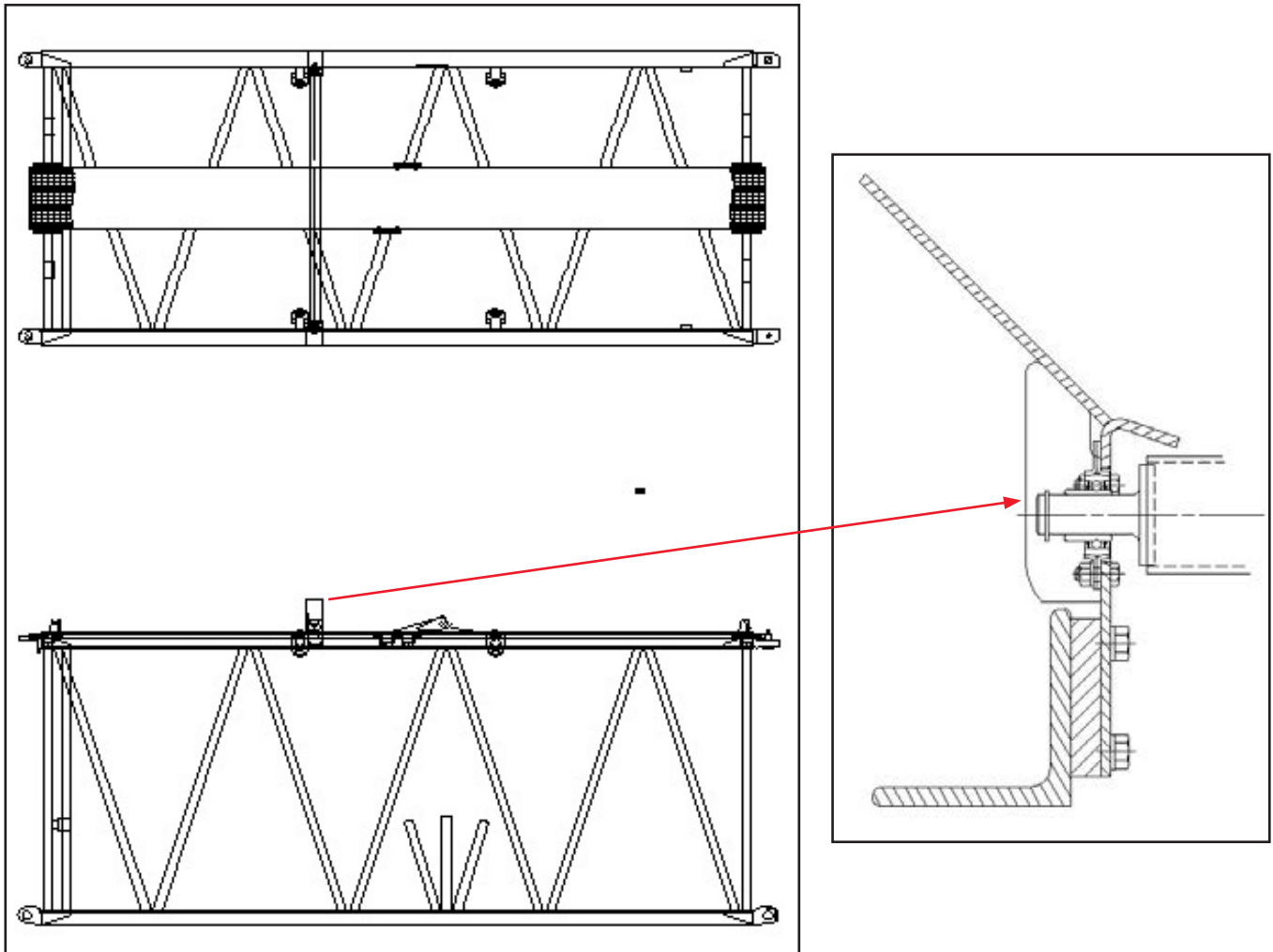
## Notes

A barge mounted crane is positively secured to prevent shifting and is subjected to tipping. When not working, crane carbody is anchored with tie-downs to the barge. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Boom rollers

## Description

Boom rollers are designed to keep hoist rope from rubbing lacings on boom. Consist of brackets, bearings, roller and hardware.



## Existing models

888, 999

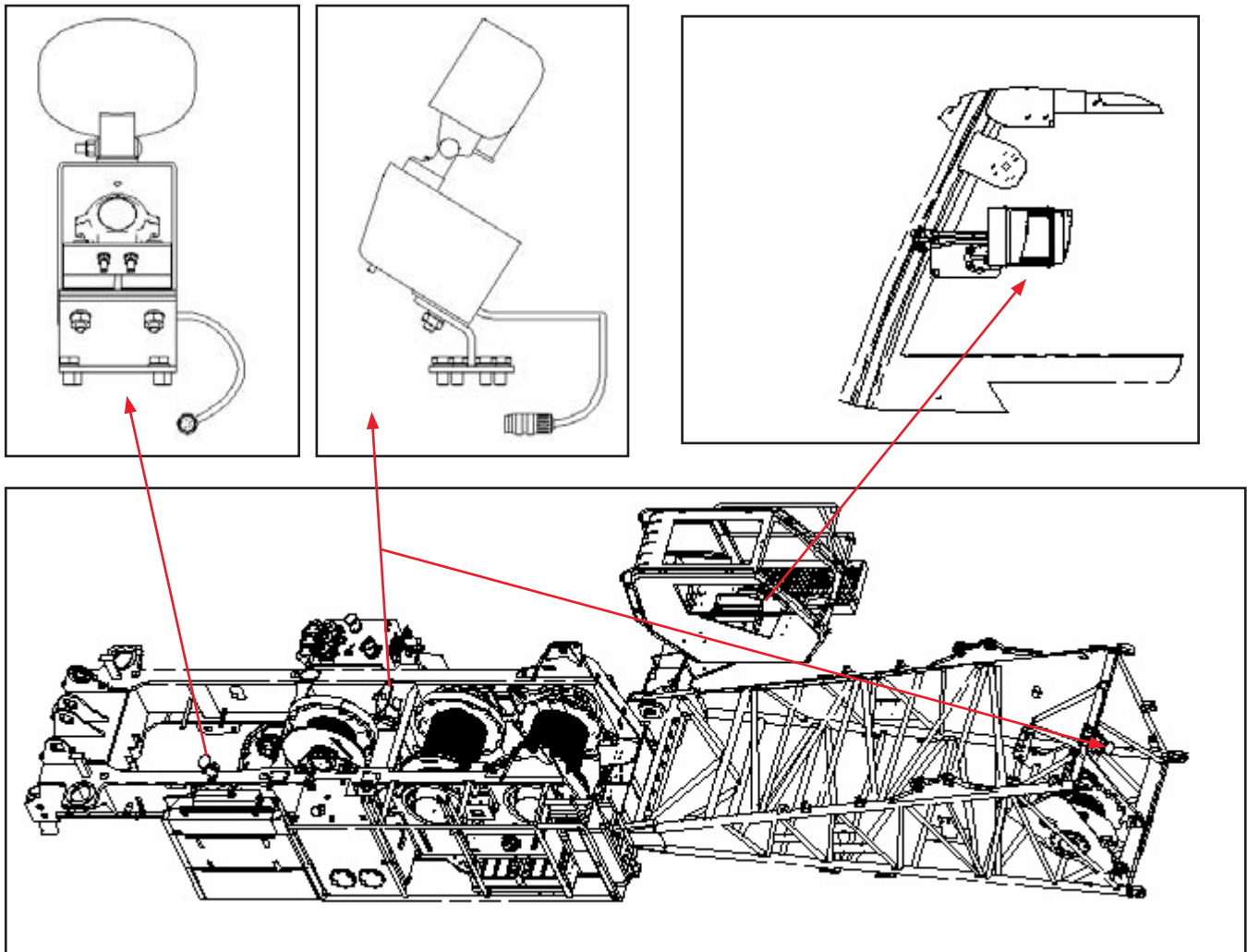
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Cameras

## Description

Cameras allow the operator to view drums, load block from boom point, sides and rear of crane. Camera system consists of multiple camera/light combination units displayed on single or multiple CCTV screens in the operator's cab.



## Existing models

2250, 16000, 18000, 21000

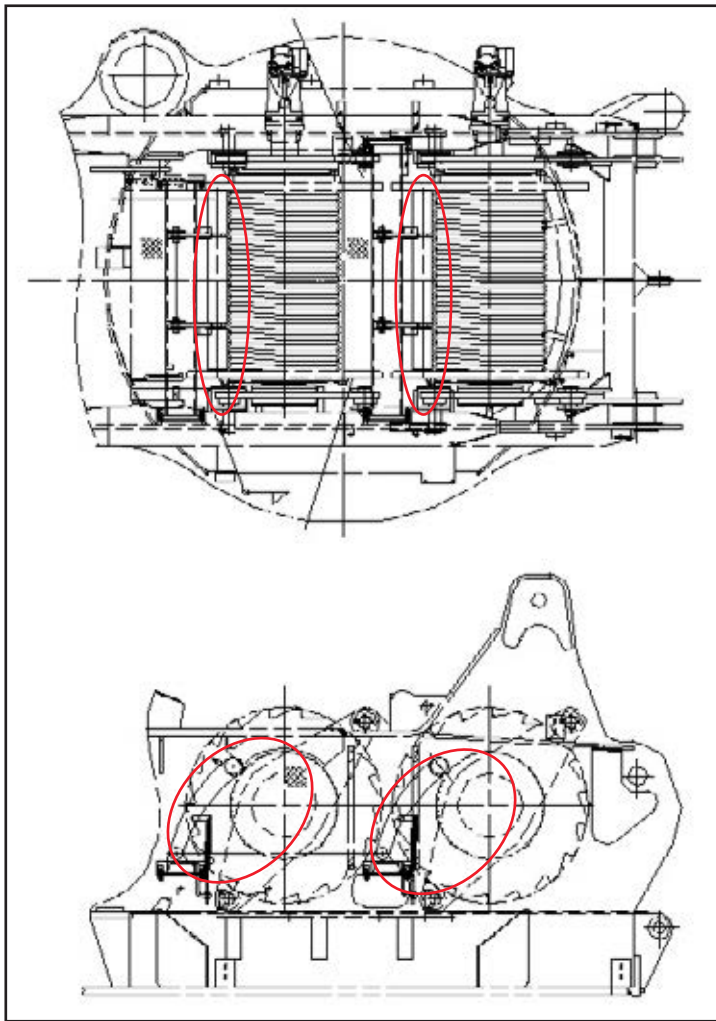
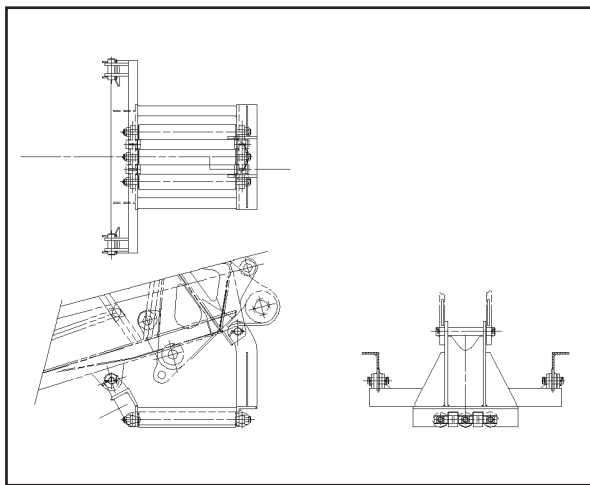
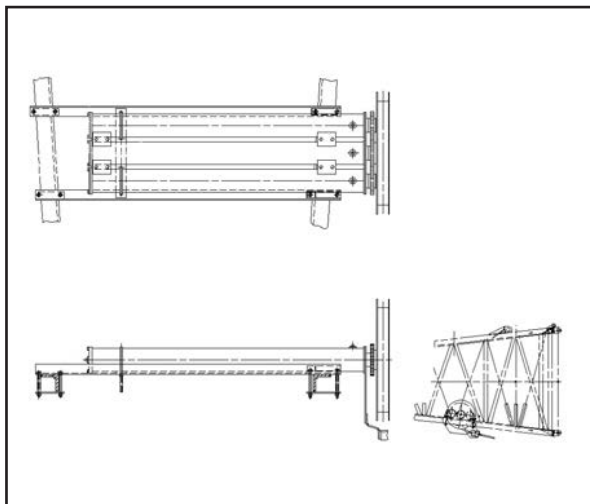
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Clamshell package

## Description

Clamshell package allows the operator to use a bucket or grab to re-handle product. Consists of pressure rollers for front and rear drum, tagline, wire rope guards, capacity chart and programming.



## Existing models

555, 777, 14000, 15000

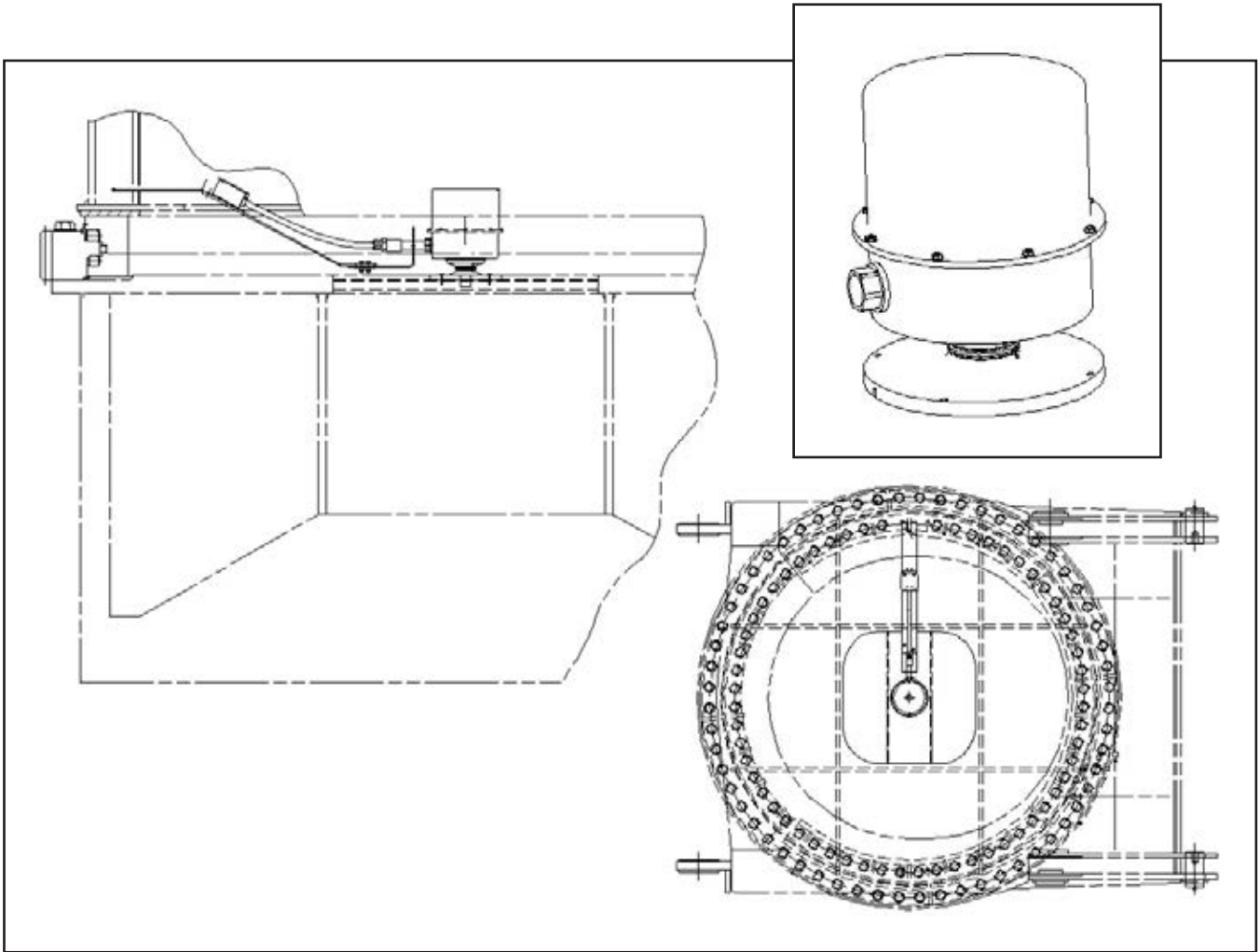
## Notes

Manitowoc recommends machine be equipped with free-fall drums for clamshell operation. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Collector ring

## Description

Collector ring provides electrical power to components located above the crane turntable bearing. Consists of the collector ring, mounting hardware and junction box.



## Existing models

2250

## Notes

Collector ring specifications determined by requirements of all electrical components. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Counterweight

## Description

Custom sized counterweight to allow for customer supplied attachments.



## Existing models

18000




## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Custom capacity chart

## Description

Custom capacity charts to complement existing capacity charts or when a capacity chart does not exist.

																																																															
<b>Clamshell/Grapple Capacities</b> <b>Boom No. 17 with Open Throat Top</b> <b>75,900 lb Counterweight</b> <b>Crawler Machine on a Barge</b> <b>0 Degree thru 3 Degree Static Machine List</b>		<b>4000</b>																																																													
 <b>CAPACITIES:</b> Capacities are for a crawler machine when operating on a barge. Machine must be positively secured to prevent shifting. Capacities for various boom lengths and operating radii are for freely suspended loads and do not exceed 67.5% of a static tipping load. Capacities are based on tipping, structural competence (*), operating speeds, and other factors.		<table> <tr> <th>Oper. Rad. Feet</th><th>Boom Angle Deg.</th><th>Capacity 0 Degree to 1 Degree List Pounds</th><th>Capacity 1 Degree to 3 Degree List Pounds</th></tr> <tr> <td colspan="4">60 Ft. Boom</td></tr> <tr><td>28</td><td>67.3</td><td>28,000 *</td><td>27,600 *</td></tr> <tr><td>30</td><td>65.3</td><td>28,000 *</td><td>27,600 *</td></tr> <tr><td>32</td><td>63.3</td><td>28,000 *</td><td>27,600 *</td></tr> <tr><td>34</td><td>61.3</td><td>28,000 *</td><td>27,600 *</td></tr> <tr><td>36</td><td>59.2</td><td>28,000 *</td><td>27,600 *</td></tr> <tr><td>38</td><td>57.0</td><td>28,000 *</td><td>27,600 *</td></tr> <tr><td>40</td><td>54.8</td><td>28,000 *</td><td>27,600 *</td></tr> <tr><td>45</td><td>49.1</td><td>28,000 *</td><td>27,600 *</td></tr> <tr><td>50</td><td>42.7</td><td>28,000 *</td><td>27,600 *</td></tr> <tr><td>55</td><td>35.5</td><td>28,000 *</td><td>27,600 *</td></tr> <tr><td>60</td><td>26.7</td><td>28,000 *</td><td>27,600 *</td></tr> <tr> <th>Oper. Rad. Feet</th><th>Boom Angle Deg.</th><th>Capacity 0 Degree to 1 Degree List Pounds</th><th>Capacity 1 Degree to 3 Degree List Pounds</th></tr> <tr> <td colspan="4">70 Ft. Boom</td></tr> </table>		Oper. Rad. Feet	Boom Angle Deg.	Capacity 0 Degree to 1 Degree List Pounds	Capacity 1 Degree to 3 Degree List Pounds	60 Ft. Boom				28	67.3	28,000 *	27,600 *	30	65.3	28,000 *	27,600 *	32	63.3	28,000 *	27,600 *	34	61.3	28,000 *	27,600 *	36	59.2	28,000 *	27,600 *	38	57.0	28,000 *	27,600 *	40	54.8	28,000 *	27,600 *	45	49.1	28,000 *	27,600 *	50	42.7	28,000 *	27,600 *	55	35.5	28,000 *	27,600 *	60	26.7	28,000 *	27,600 *	Oper. Rad. Feet	Boom Angle Deg.	Capacity 0 Degree to 1 Degree List Pounds	Capacity 1 Degree to 3 Degree List Pounds	70 Ft. Boom			
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Weight of bucket is considered part of load. Where no capacity is shown, operation is not intended or approved.																																																															
<b>OPERATING CONDITIONS:</b> Machine to operate on a firm uniformly supporting surface with gantry up, and machine list not to exceed degrees noted. Refer to boom rigging <b>No. 42935</b> and Wire Rope Specification chart <b>No. 5309</b> . Crane operator judgment must be used to allow for adverse operating conditions and physical machine depreciation.																																																															
 <b>OPERATING RADIUS:</b> Operating radius is horizontal distance from axis of rotation at barge deck, to center of gravity of freely suspended load. Boom angle is angle above true horizontal of a line drawn through boom hinge pin and upper boom point shaft centerline.																																																															

## Existing models

All

## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Detachable upper boom point

## Description

Special detachable upper points for “wind” work, personnel handling, or special lift requirements. Points consist of weldment, sheave(s), RCL and ATB.



## Existing models

777, 14000, 999, 2250, 16000, 18000

## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Emergency backup power

## Description

Emergency backup power allows for operation in the event of main engine failure. Consists of an electric motor, hydraulic pump(s), valves, tubing and controls for independent operation of one of the following: boom hoist, swing and load hoists.



## Existing models

777, 14000, 999, 2250

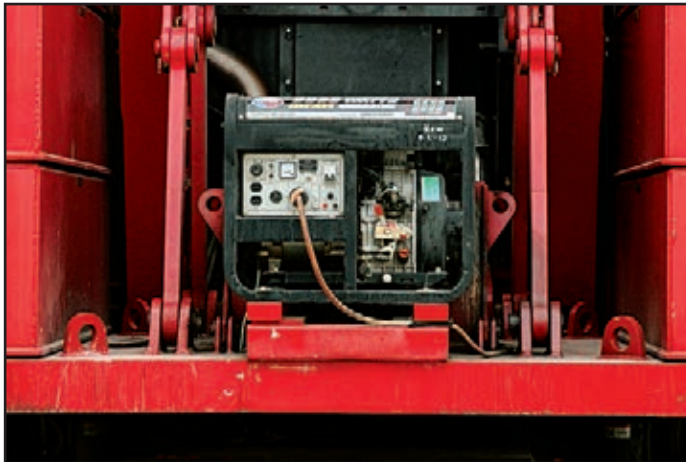
## Notes

Contact Lift Solutions regarding emergency operation. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Generator assembly

## Description

Diesel generator set mounted to machine to power any or all of the following: cold weather package, boom lights, rotating bed lights, boom position lights. Consists of a diesel generator, controls, mounting frame and load center.



## Existing models

222WC, 777, 14000, 999, 2250, 16000, 18000

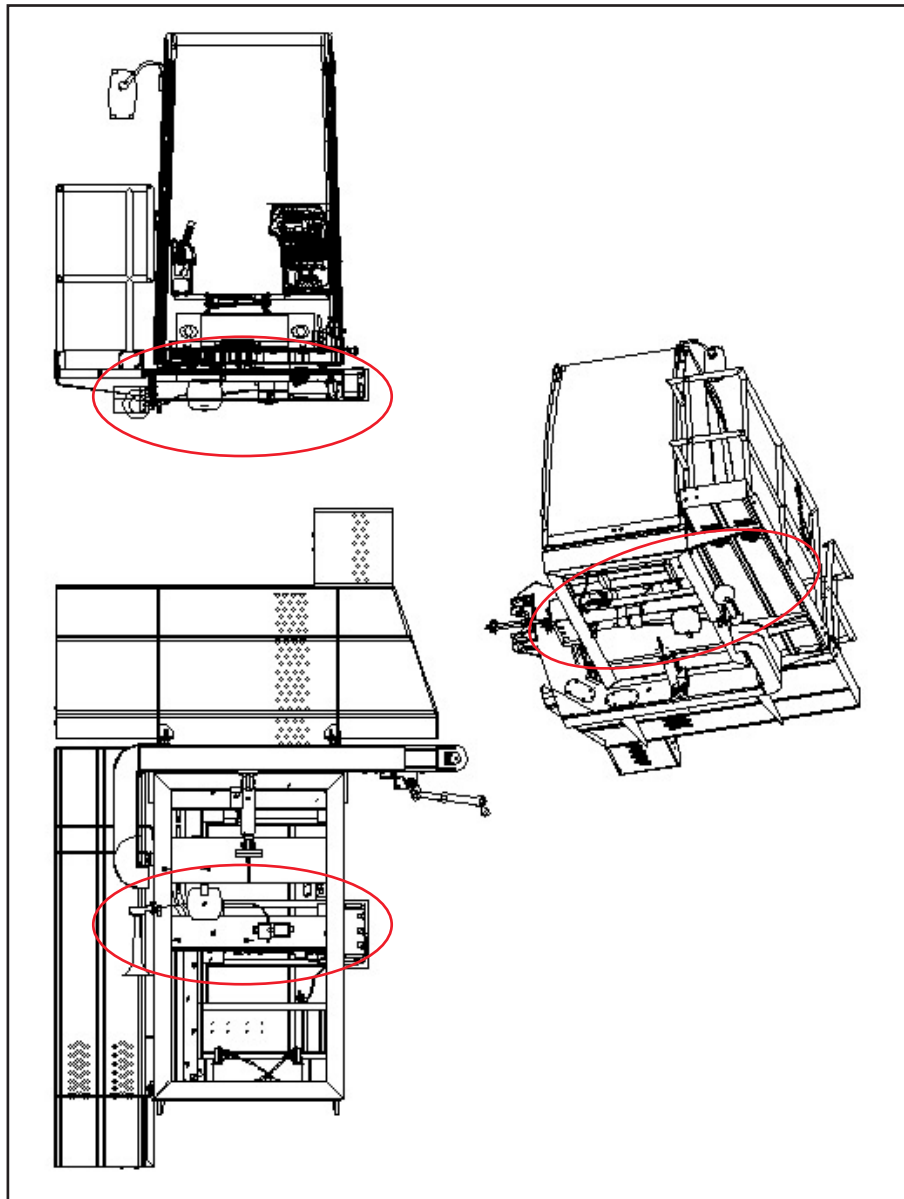
## Notes

Size and voltage depends on customer electrical requirements. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Horn, compressed air

## Description

Air horn kit consists of compressor, air tank, solenoid valve, horn, tubing and fittings.



## Existing models

18000

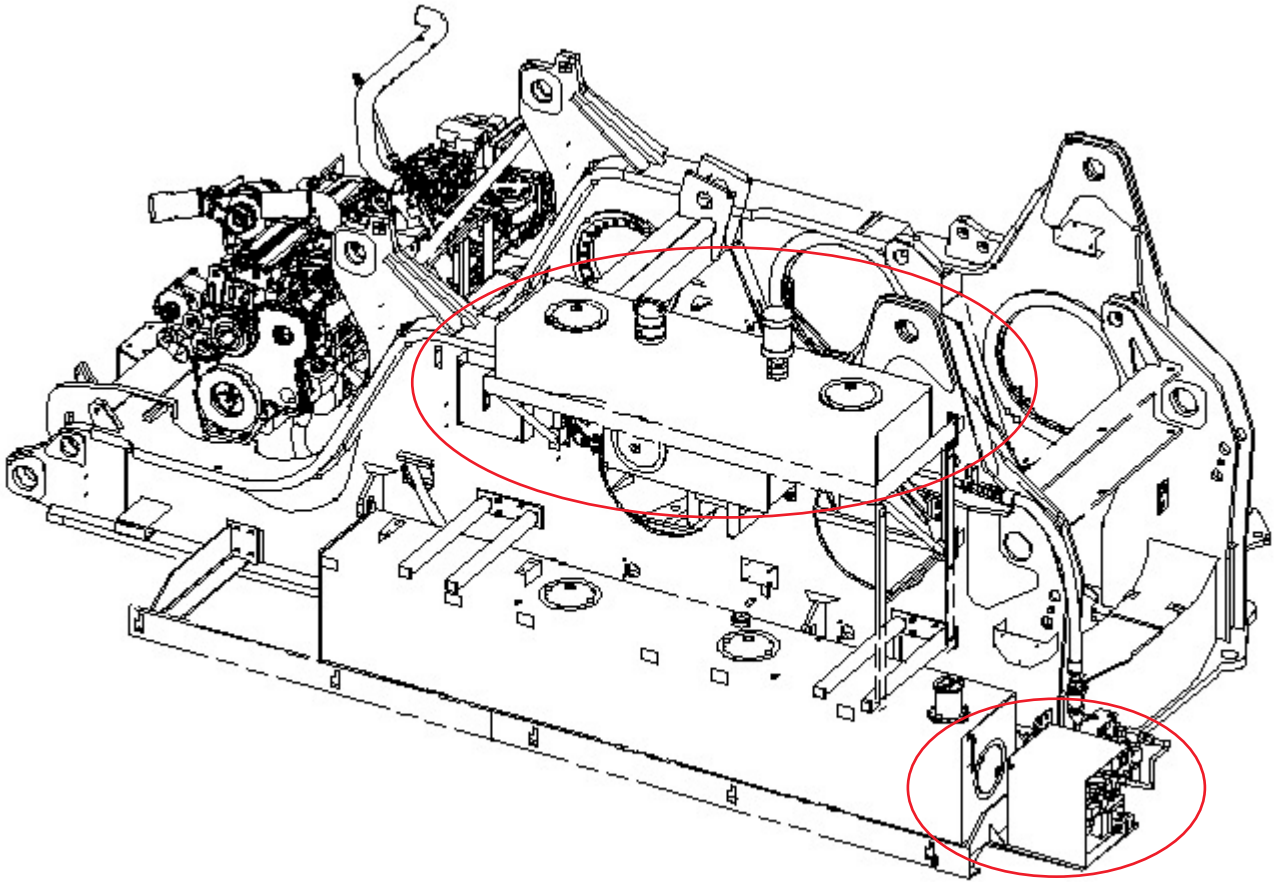
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Hydraulic equipment/attachments

## Description

Machine supplied hydraulic power to run customer supplied equipment. Consists of engineered attachment points, stability calculations, special reeving, hydraulic reservoir, piping, valves and connection points.



## Existing models

3900, 4100W, 4600, 1015, 777, 14000, 2250

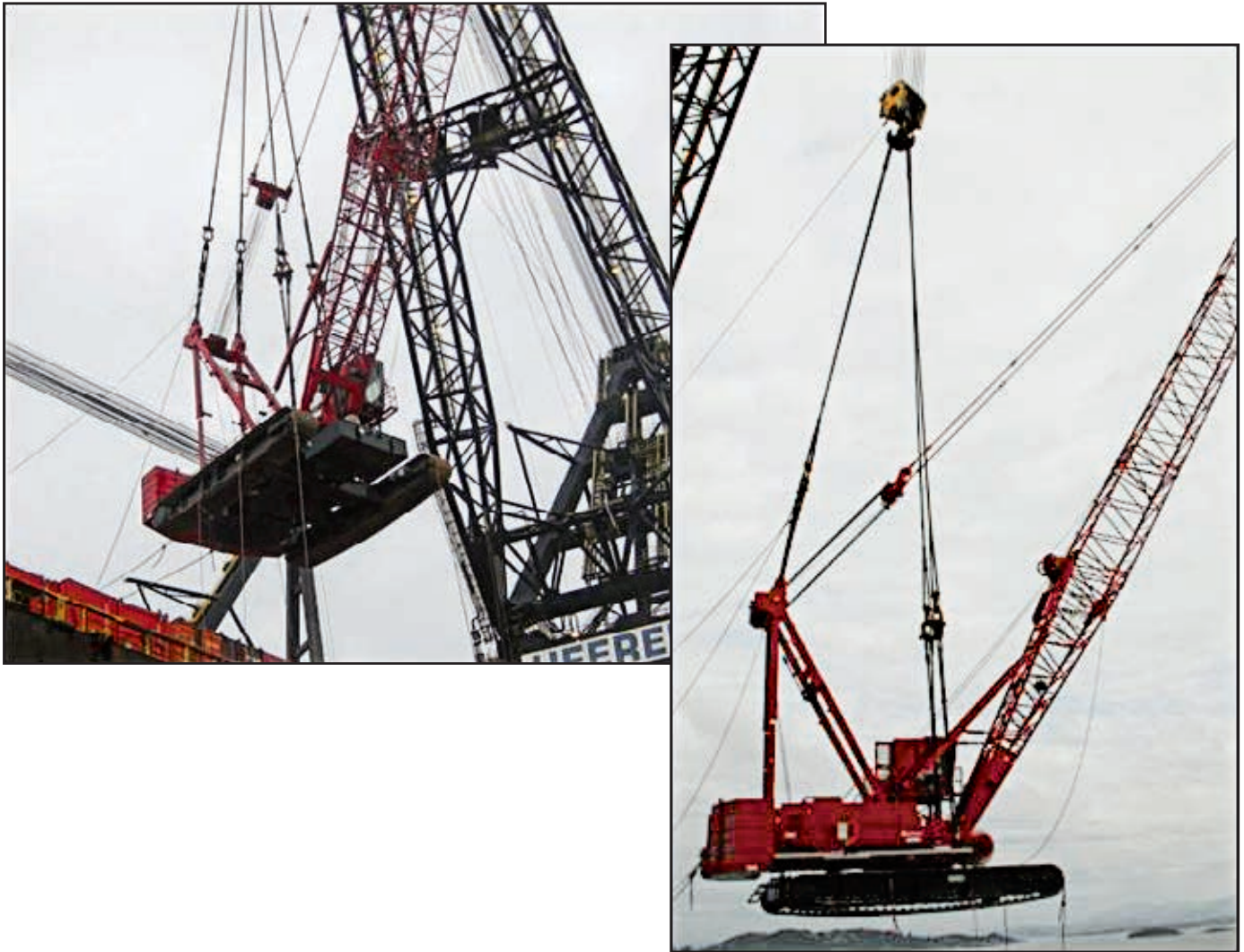
## Notes

Customer to supply Lift Solutions with manufacturer specifications for flow, pressure and/or weights. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Lifting arrangement

## Description

Lift arrangements allow customer to handle complete machine or components. Consists of engineered lift points, rigging components and sling design.



## Existing models

222WC, 555, 777, 14000, 888, 999, 2250

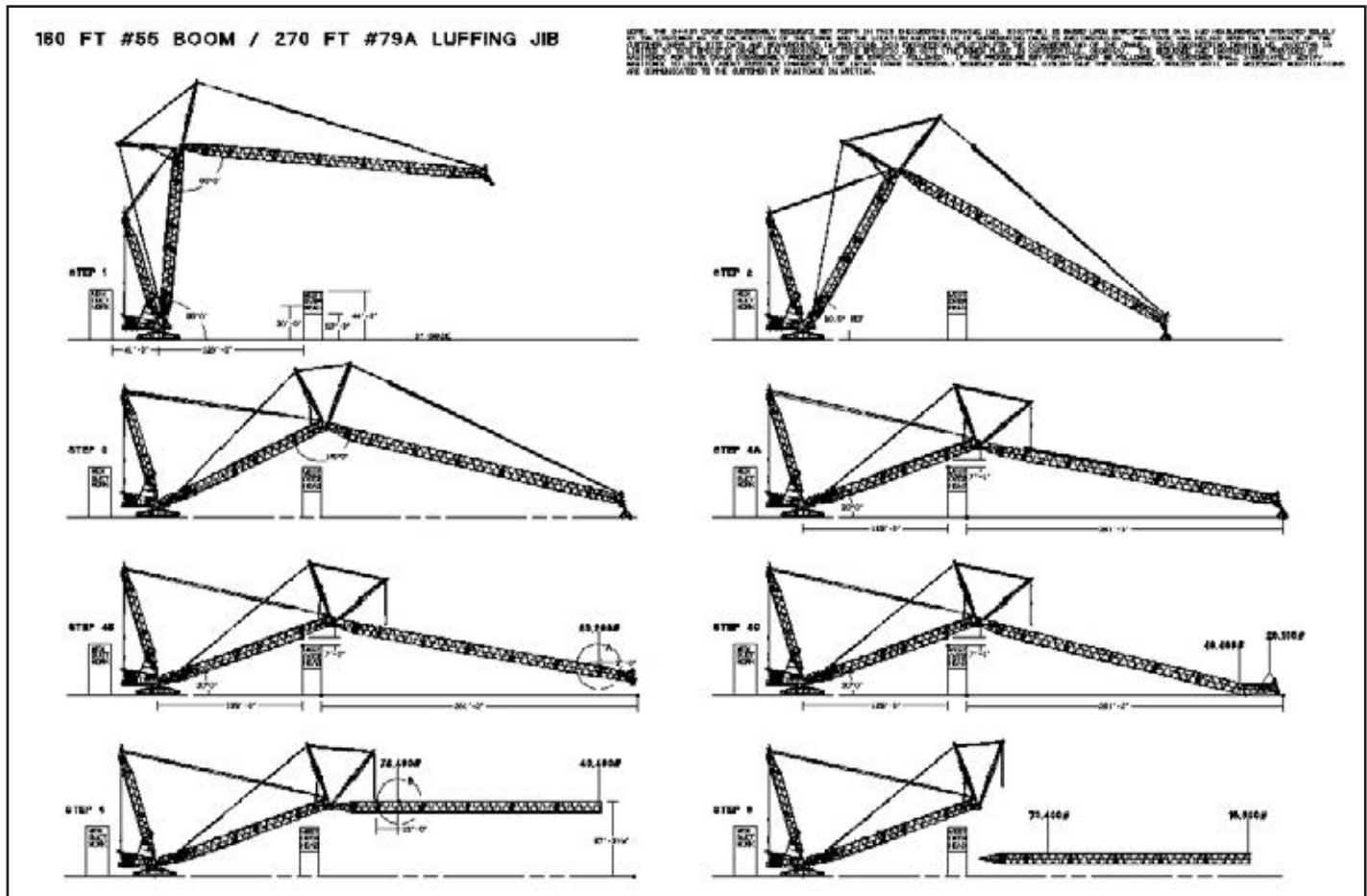
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Lift plan/erection procedure

## Description

When the job site has space restrictions, Lift Solutions can lay out your lift or generate assemble/disassemble in the air procedures.



## Existing models

All

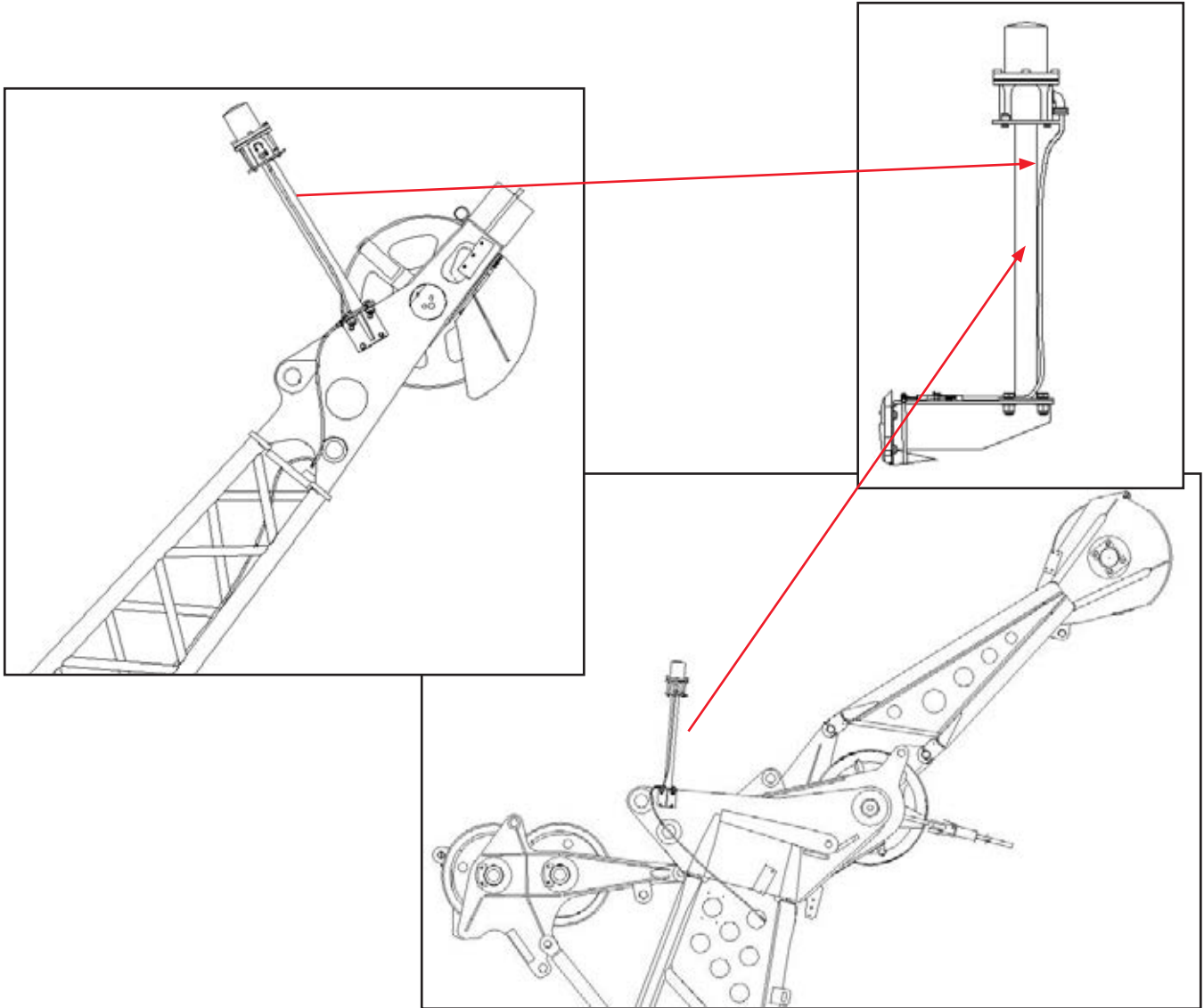
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Lights, boom position

## Description

Boom position lights on boom point, jib point, fixed mast or jib strut. Consists of light(s), wiring, mounting hardware and battery charger with power receptacle.



## Existing models

777, 14000, 999, 2250, MAX-ER 2000, 16000, 18000, 21000

## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Lights, boom

## Description

Boom lighting consists of multiple lights mounted on the boom to illuminate areas under the boom. Power for lights come from generator assembly.



## Existing models

222WC, 555, 777, 14000, 999, 2250, 16000, 18000

## Notes

Number and type of lights to be specified by customer. See generator assembly for description. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Lights, rotating bed

## Description

Rotating bed lighting consists of multiple lights mounted on the rotating bed to illuminate areas around the machine. Power for the lights come from the generator assembly.



## Existing models

222WC, 555, 777, 14000, 999, 2250, 16000

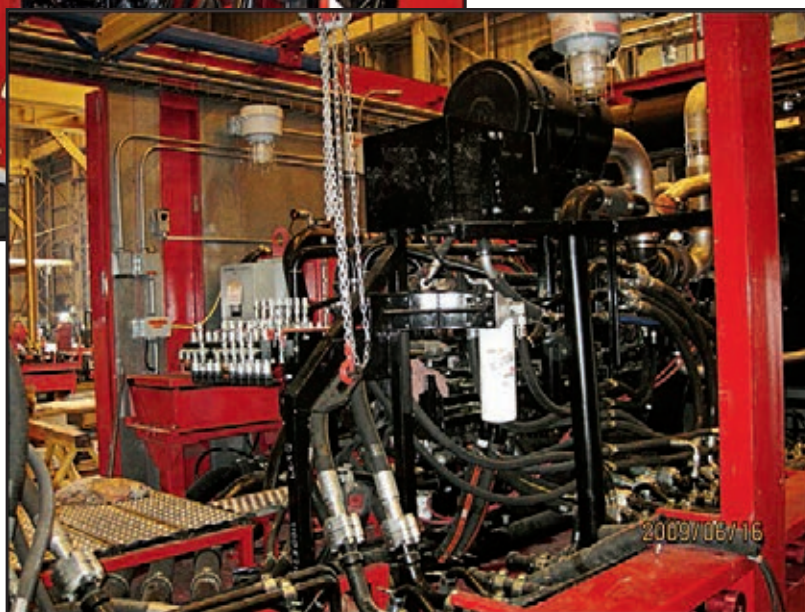
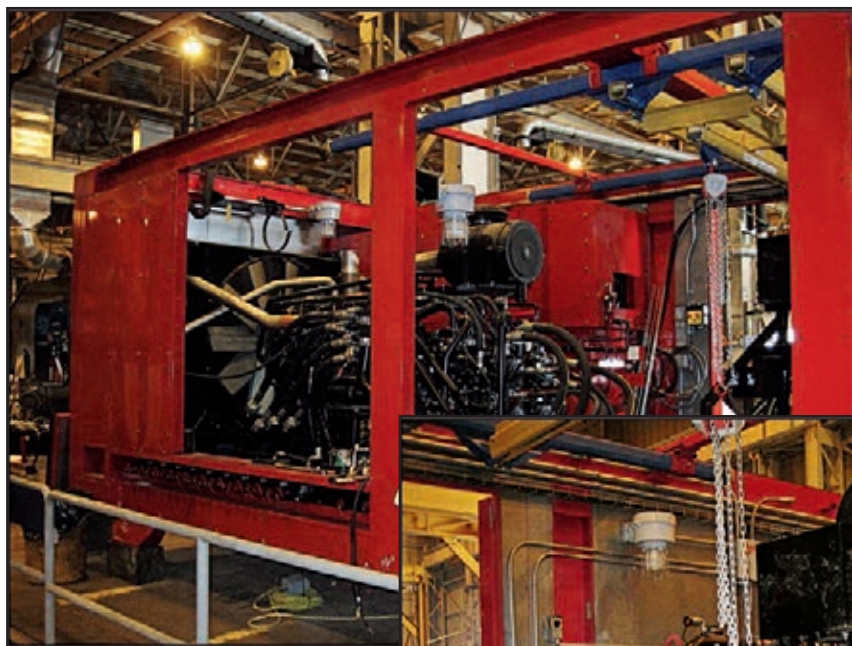
## Notes

Number and type of lights to be specified by customer. See generator assembly for description. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Lights, service

## Description

Service lights on rotating bed to illuminate components for service work.



## Existing models

18000

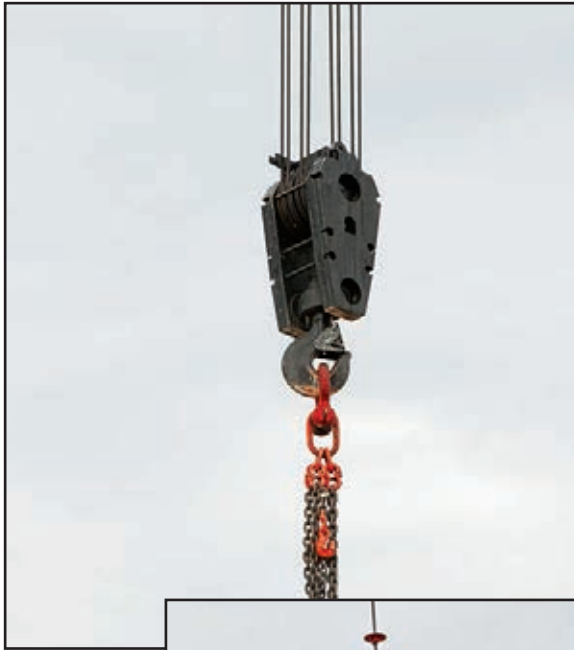
## Notes

Number and type of lights to be specified by customer. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Load block/weight ball

## Description

Load block/weight ball designed to customer requirement: overhaul weight, duplex hook, quick reeve and GOST approved retention of hook nut.



## Existing models

All

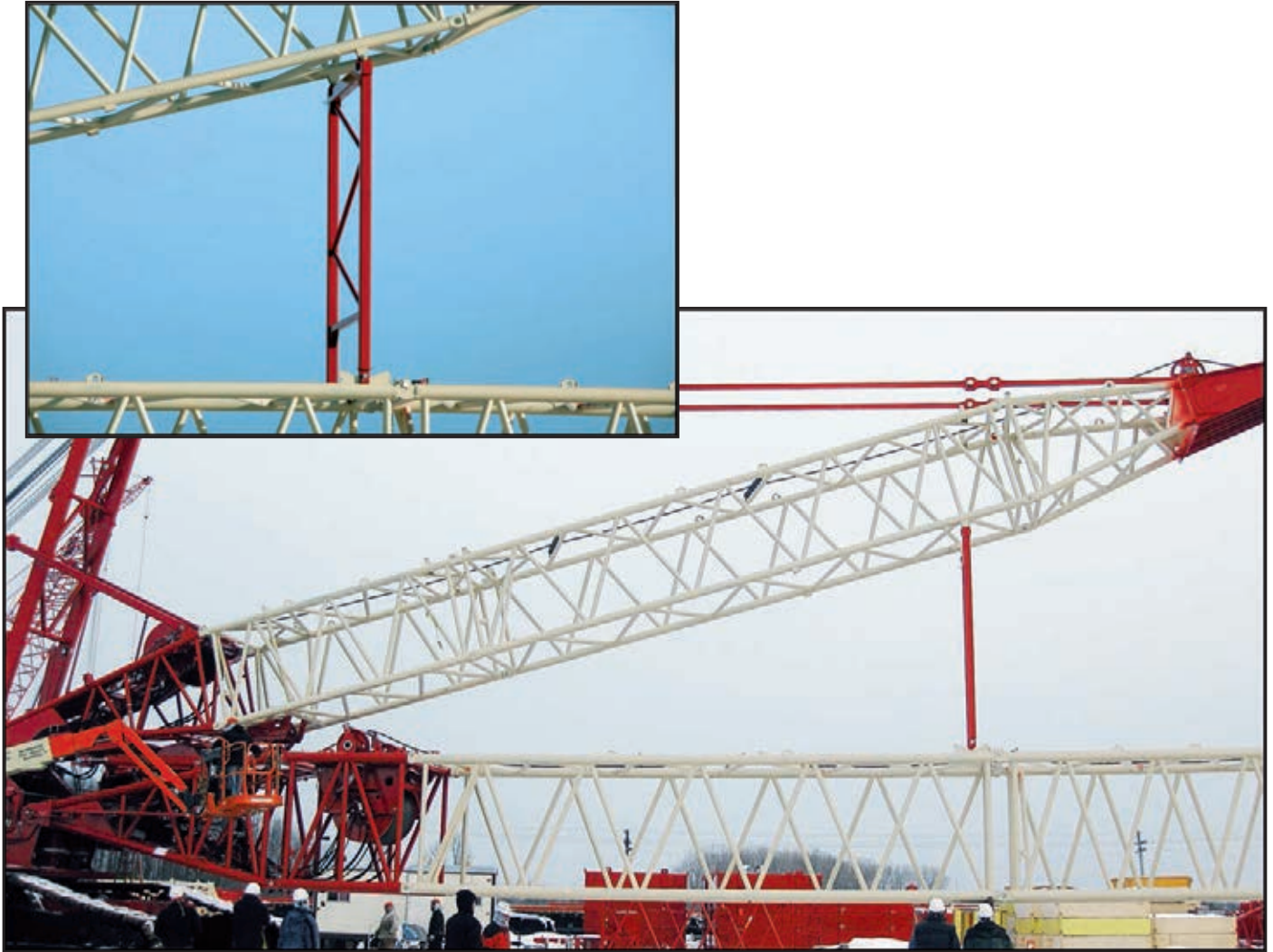
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Mast lay down

## Description

Design to allow for fixed mast to lay down on boom for moving under obstructions. Consists of special procedures and support components.



## Existing models

4600 Ringer, 18000

## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Operator's cab, cage

## Description

Wire cage to protect operator cab glass while performing clamshell, dynamic compaction or drop ball work.



## Existing models

1015

## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Operator's cab, elevated

## Description

Elevated operator's cab allows operator to see over piers, boat rails or tunnel jobs. Consists of ladders, handrails, platforms and rotating bed modification to support the structure.



## Existing models

888, 999, 2250, 4100W

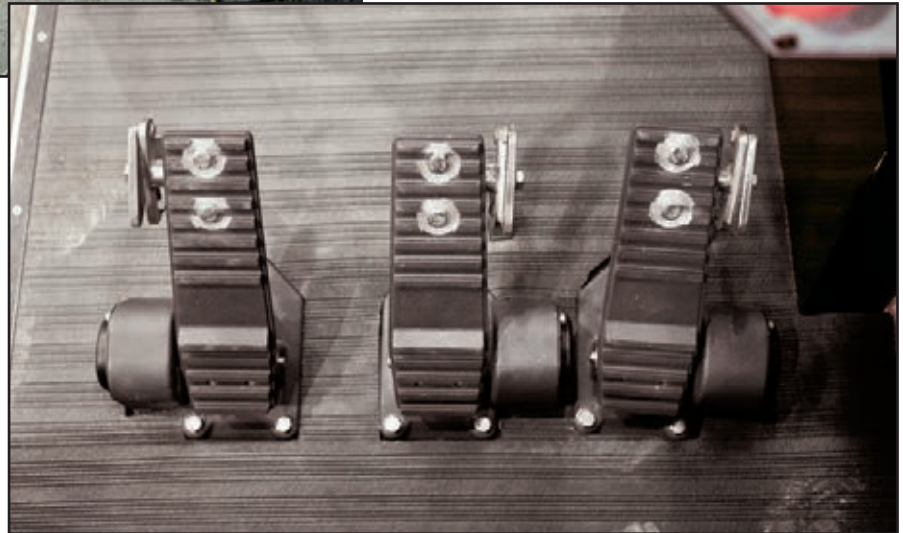
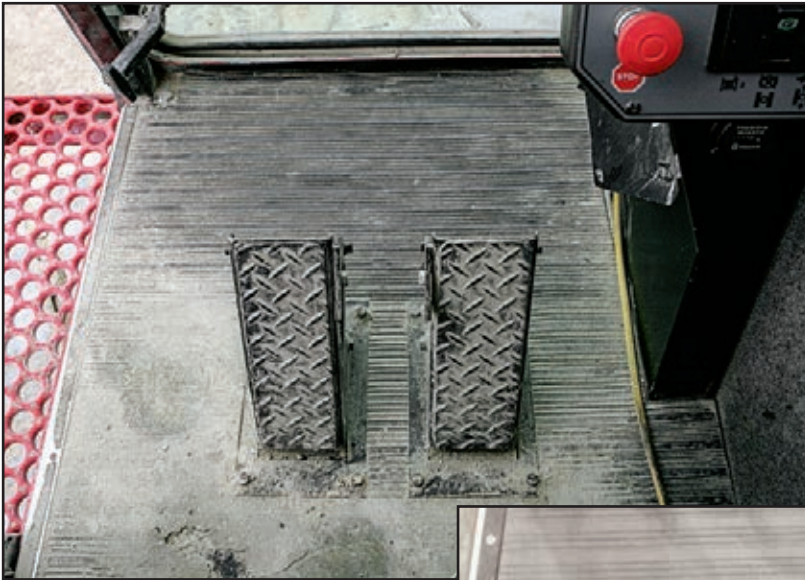
## Notes

Contact Lift Solutions with cab height requirements. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Pedals, travel

## Description

Foot pedals allow operator to travel while booming, swinging or running hoist drums. Consists of foot pedals mounted in cab floor plate.



## Existing models

555, 777, 14000, 2250

## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Personnel handling

## Description

Consists of a drum with wire rope, rope guides, special detachable upper boom point with single sheave for whip line and second single sheave for personnel handling line. Optional emergency lowering capability available for customer supplied or Manitowoc supplied emergency backup power.



## Existing models

777, 14000, 999, 2250, 16000

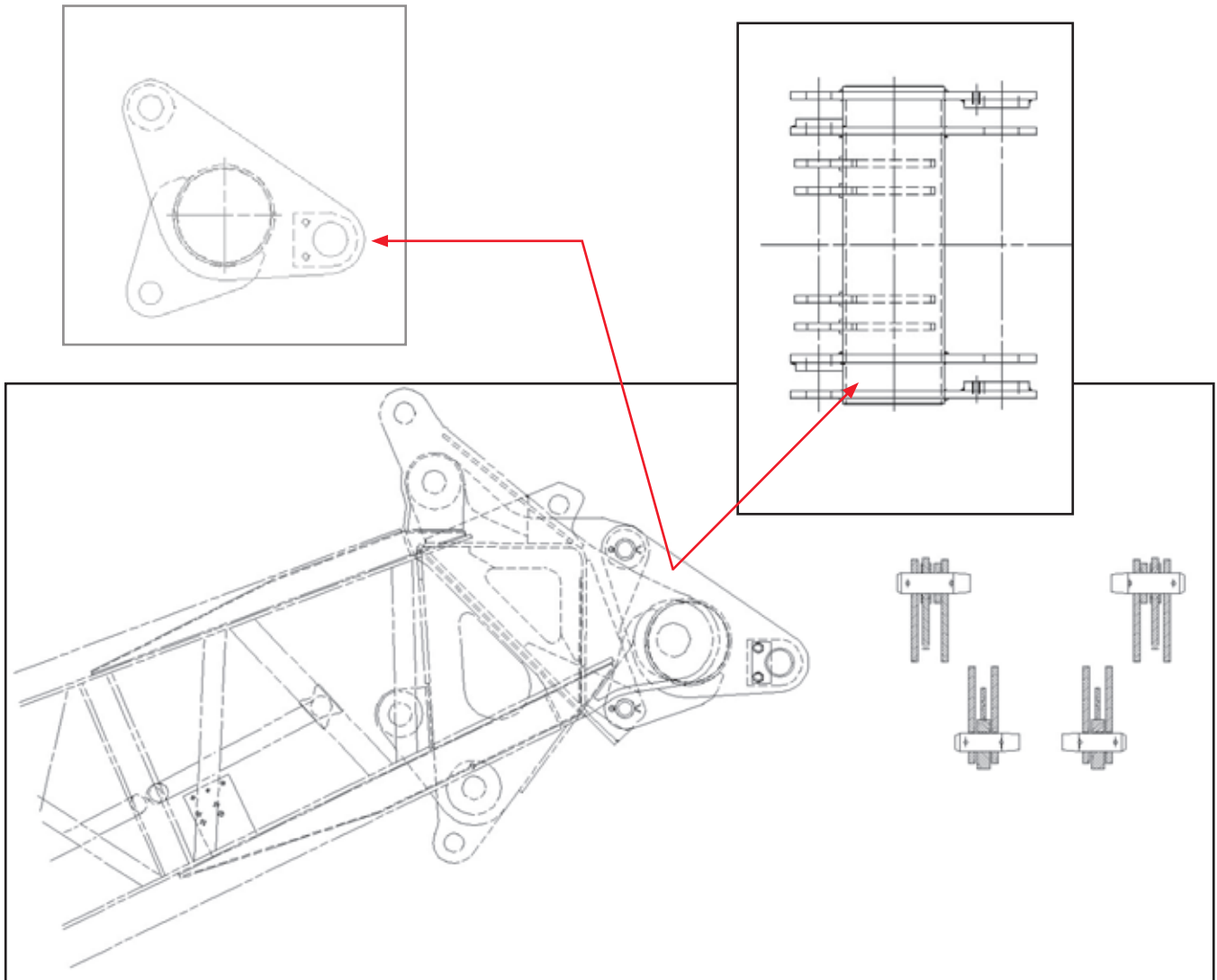
## Notes

See Emergency Backup Power for related descriptions regarding this solution. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Pile lead adapter

## Description

Pile lead adapters are designed to connect fixed leads to a boom top. Consists of weldment and/or links and optional hydraulics to control batter.



## Existing models

555, 777, MLC165, 14000, 2250

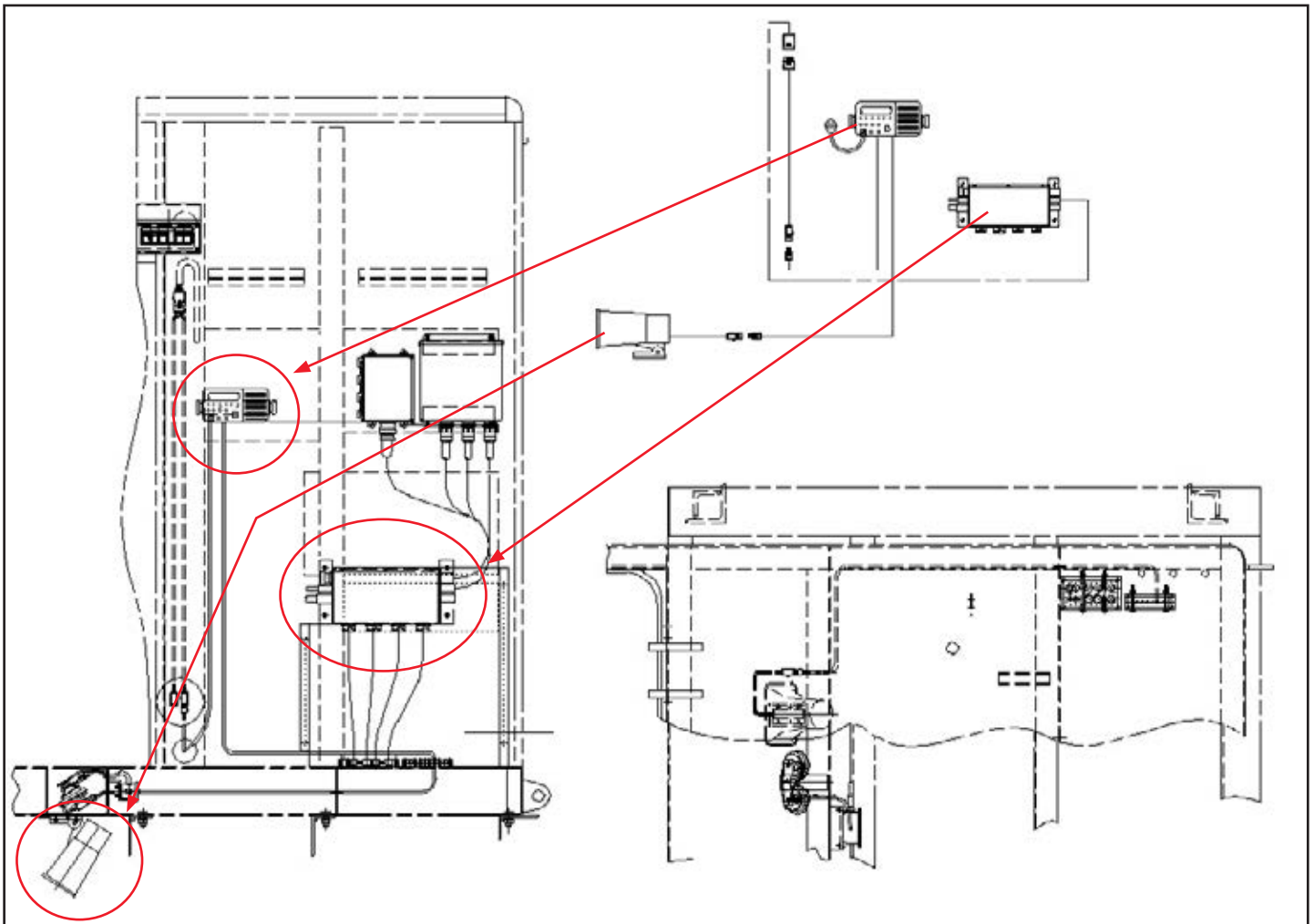
## Notes

Contact Manitowoc with the make and model of your pile driver for an adapter to match. See hydraulic equipment/attachments for hydraulic description. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Public Address (PA) system

## Description

PA system allows communication from the operator to support crew. Consists of cab mounted microphone, loudhailer and speaker.



## Existing models

777

## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Rated Capacity Limiter, external display

## Description

Externally mounted display of RCL/RCI data for crew visibility. Consists of display screen visible to work crew.



## Existing models

222, 555, 777, 14000

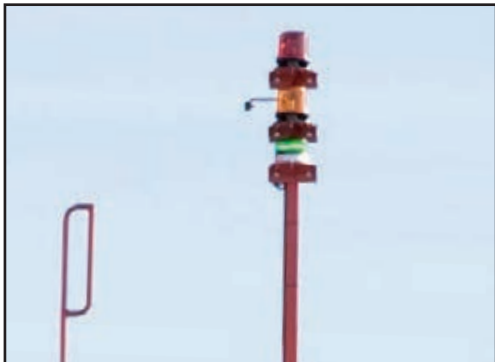
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Rated Capacity Limiter, light bar

## Description

Light bar displaying a green/yellow/red light indication based upon percentage of rated capacity.



## Existing models

MLC165, 14000, 31000

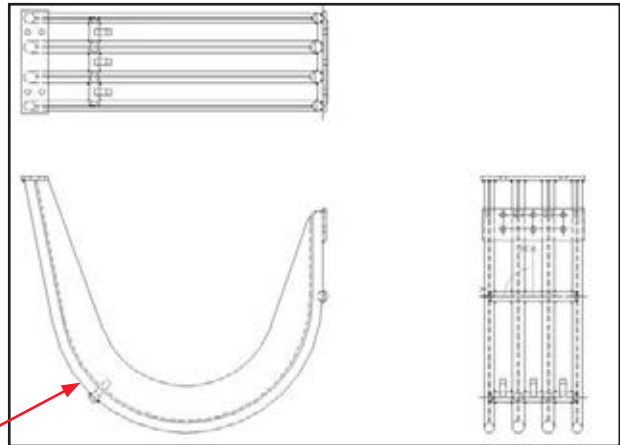
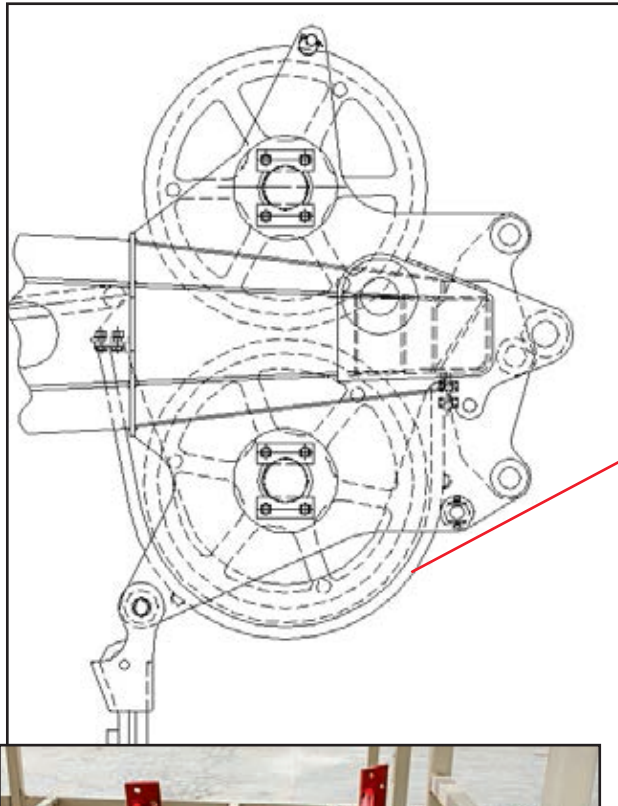
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Rope guards

## Description

Designed to keep hoist rope on the sheaves.



## Existing models

777, 2250

## Notes

Contact Manitowoc regarding machine operation for guidance on rope guards. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Rope guides

## Description

Rope guides are designed for all rigging to keep rope clear of crane structure and to control fleet angles.



## Existing models

All

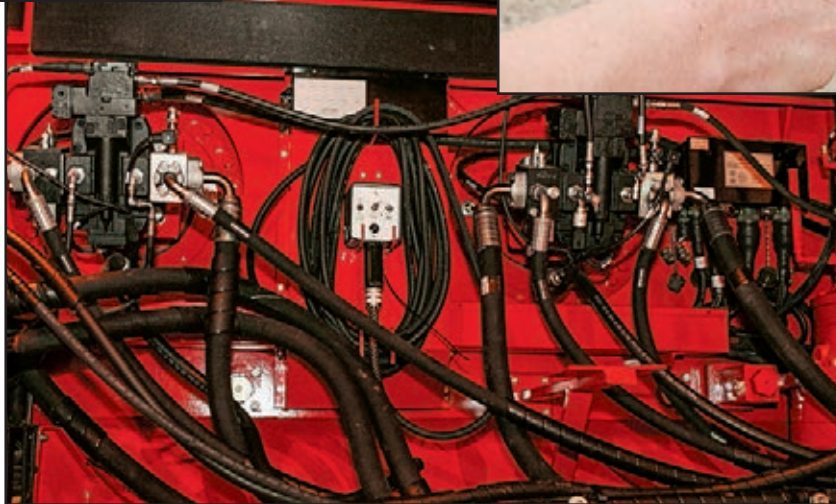
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Set-up remote control

## Description

Special design remote control, wired or wireless, to control the assembly or disassembly of the crane.



## Existing models

16000

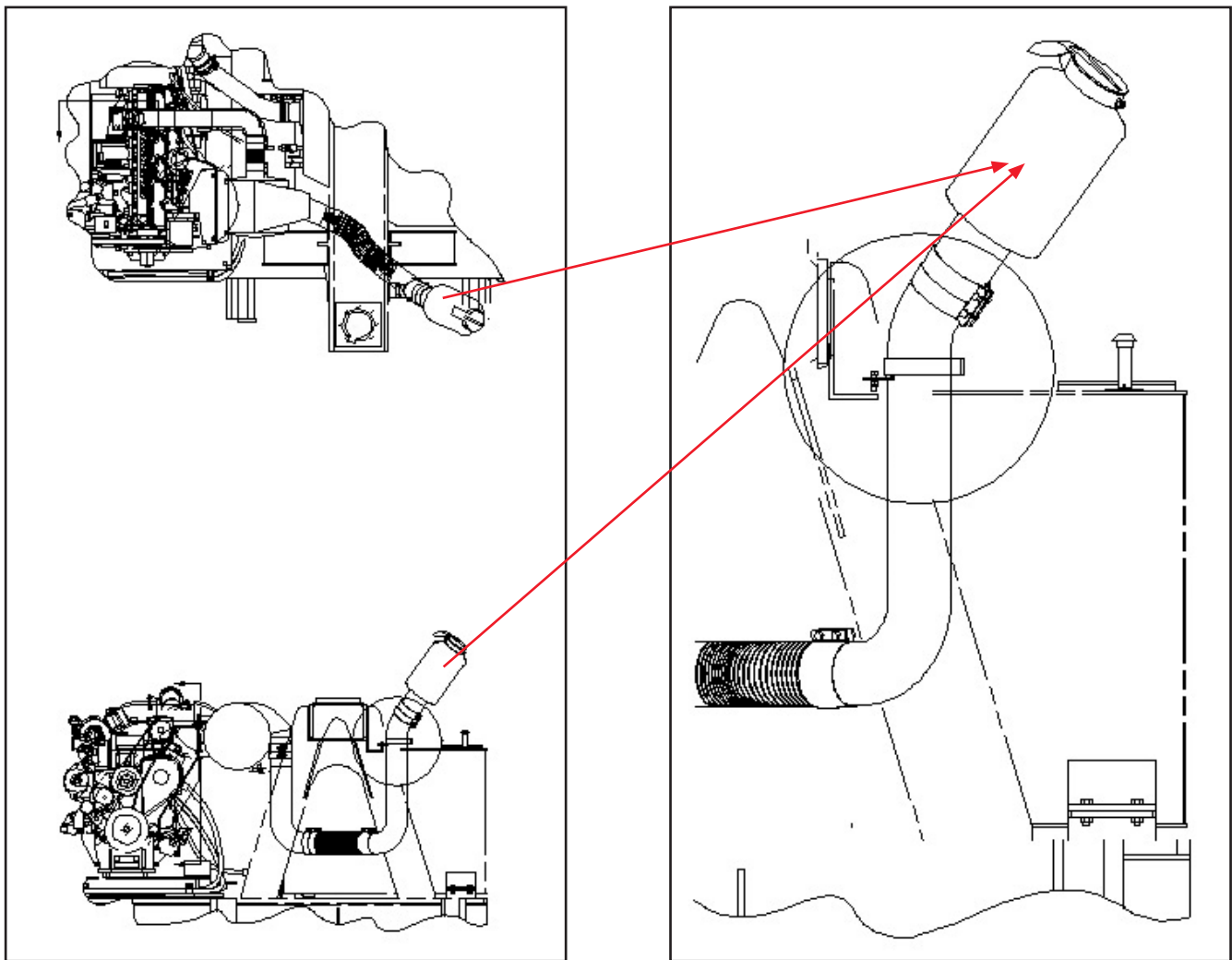
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Spark arrestor

## Description

For job sites requiring spark arrestor technology.



## Existing models

555, 14000, 999, 16000

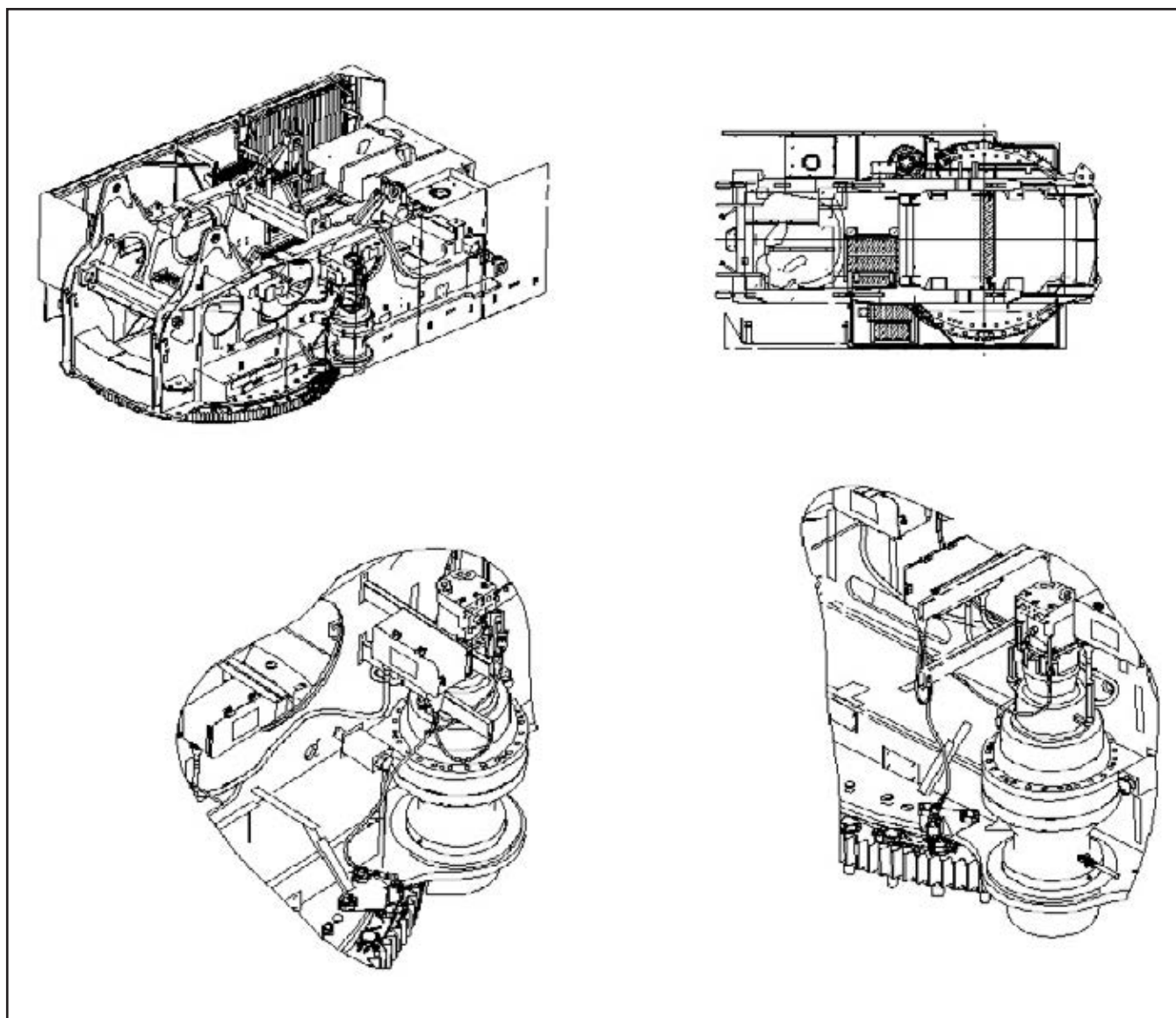
## Notes

For Tier III and lower engines. For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Swing limiter

## Description

To set swing boundaries, electronic and mechanical swing limits are available for your crane.



## Existing models

555, 14000, 888, 999, 15000, 2250, 16000, 18000

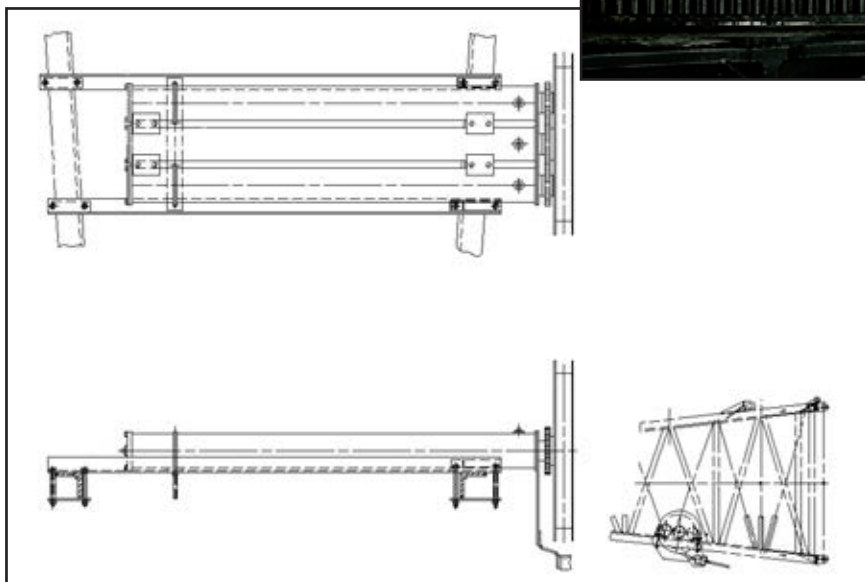
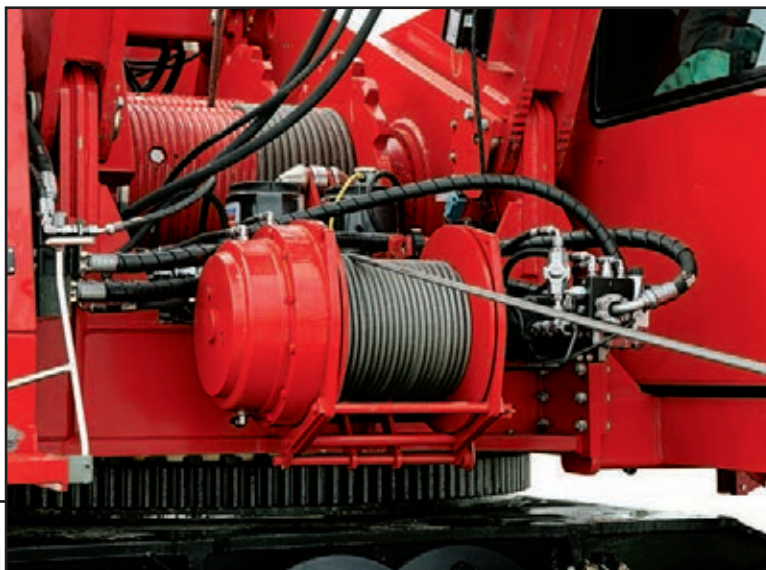
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Tagline

## Description

For clamshell/duty-cycle work where bucket or grab control is required. Consists of spring loaded or hydraulic tagline.



## Existing models

777, 1400, 999, 2250, 16000, 18000

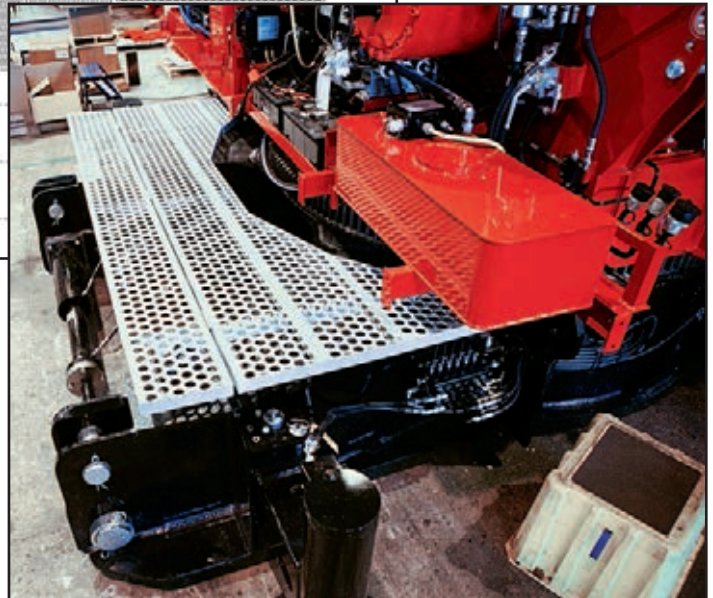
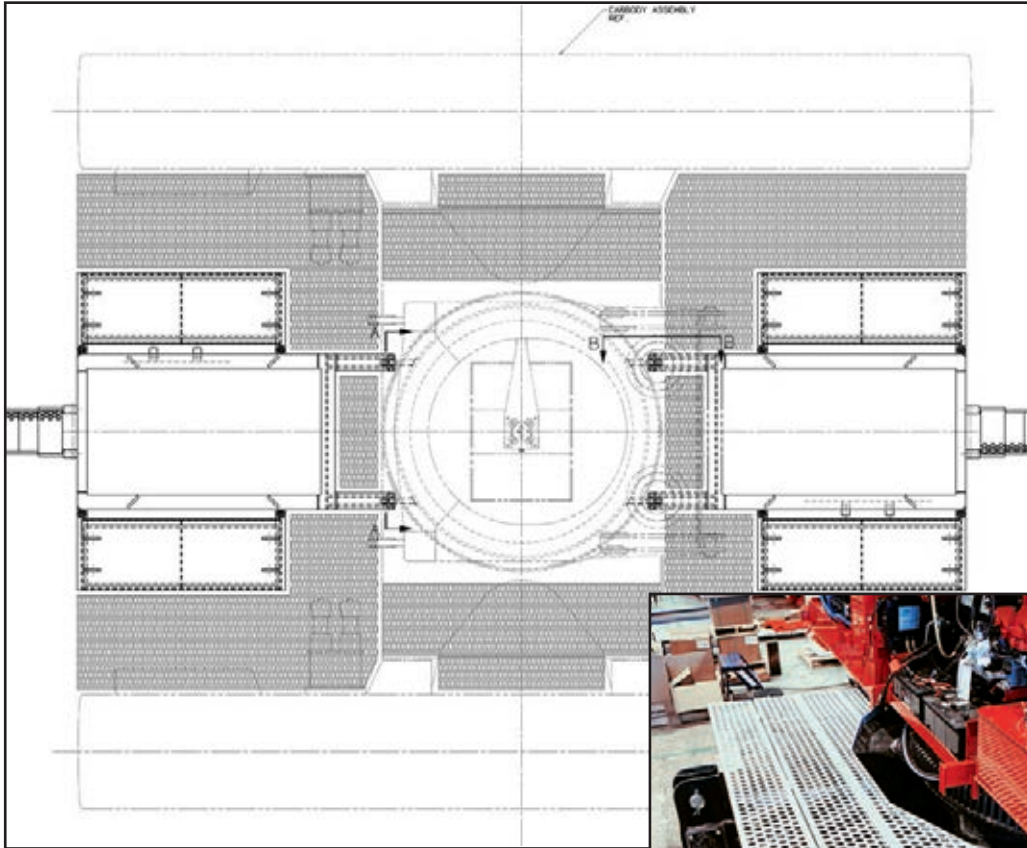
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Walkways, carbody

## Description

Special walkways are available on carbody to access machinery or perform required inspections.



## Existing models

999

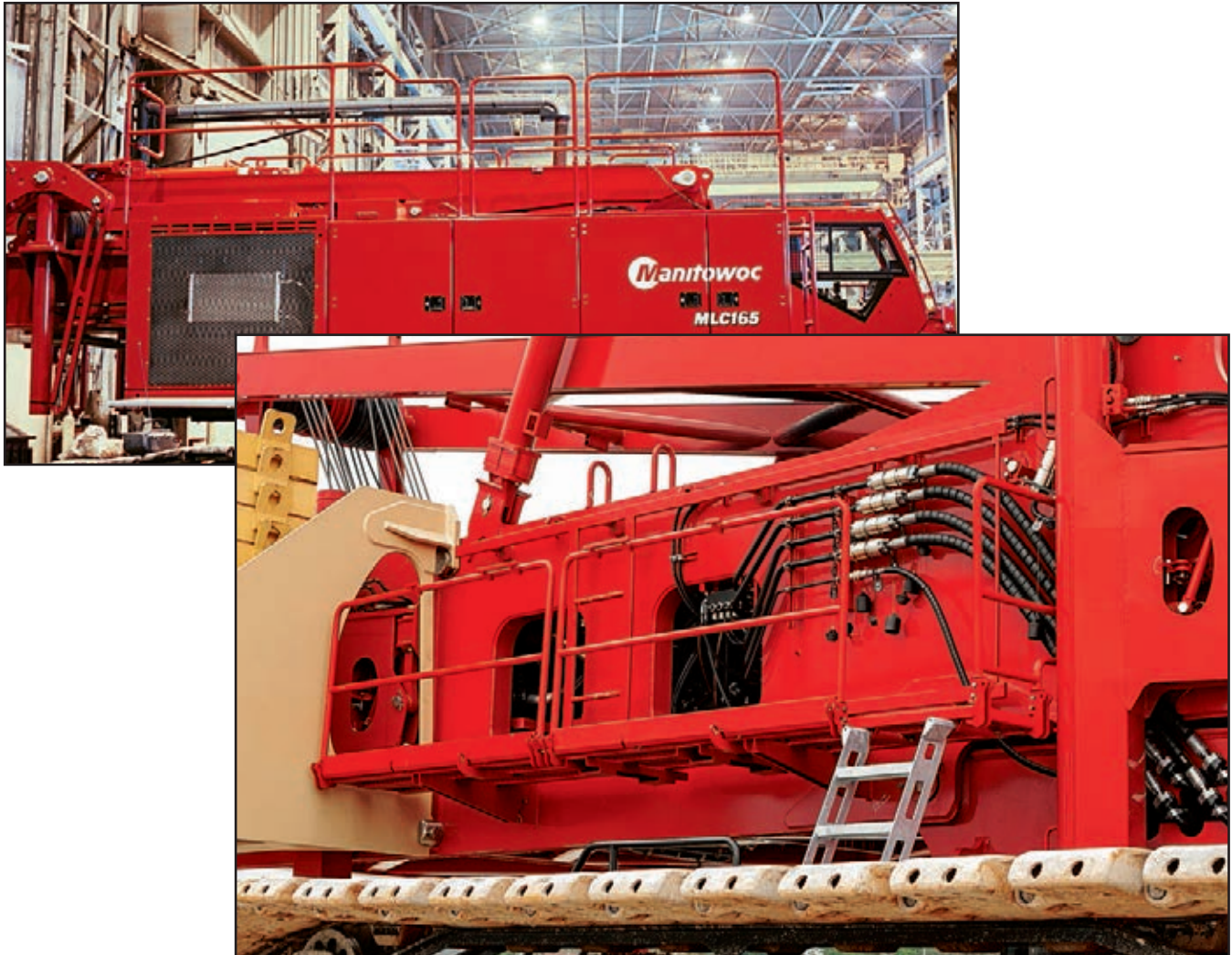
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Walkways, rotating bed

## Description

Special walkways with handrails are available on rotating bed to access machinery or perform required inspections.



## Existing models

2250, 18000

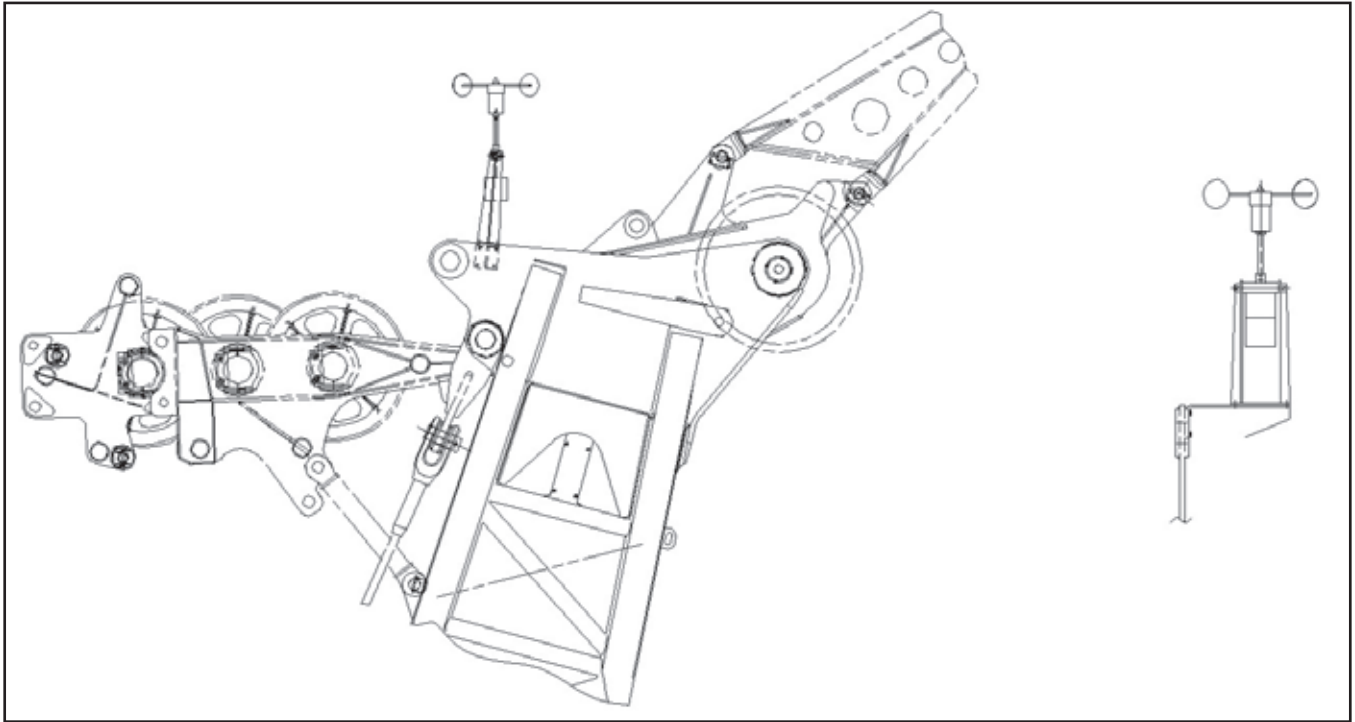
## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

# Wind speed alarm

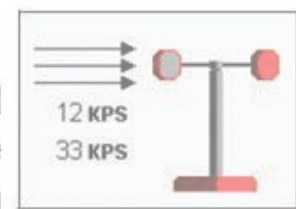
## Description

An audio alarm is available to enhance the standard wind speed indicator.



## Wind Speed Indicator

Wind speed icon displays the steady wind speed and maximum gust wind speed. The indicator is reset with Confirm button in **level 3**.



## Existing models

2250

## Notes

For pricing and lead time, please contact your local dealer or the Lift Solutions Team with specific product requirements.

This document is non-contractual. Constant improvement and engineering progress make it necessary that we reserve the right to make specification, equipment, and price changes without notice. Illustrations shown may include optional equipment and accessories and may not include all standard equipment.