

# LOAD KING



## OPERATION, SERVICE, & PARTS MANUAL

**LOAD KING**

**LK12000**



**WARNING:** Operating, servicing and maintaining this equipment can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. These chemicals can be emitted from or contained in other various parts and systems, fluids and some component wear by-products. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your equipment and vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your equipment or vehicle and after operation. For more information go to [www.P65Warnings.ca.gov/passenger-vehicle](http://www.P65Warnings.ca.gov/passenger-vehicle).

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

For more information go to [www.P65warnings.ca.gov/diesel](http://www.P65warnings.ca.gov/diesel).

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## LK12000

Introduction

About Custom Truck One Source



## Introduction

### Company

**Load King** has been producing first-class heavy equipment since 1956. Cutting-edge innovation and engineering excellence make us the market leader. **Load King** is a key part of the Custom Truck One Source family of brands, offering standard and custom trailers, vocational equipment, and a full line of Boom Trucks and Truck Cranes. For more information, please visit **Load King's** website: [www.loadkingmfg.com](http://www.loadkingmfg.com)

### About Custom Truck One Source

Custom Truck One Source is the first true single-source provider of specialized truck and heavy equipment solutions. With sales, rentals, aftermarket parts and services, equipment customization, remanufacturing, financing solutions, and asset disposal, our team of experts, vast equipment breadth and integrated network of locations across North America offer superior service and unmatched efficiency for our customers.

# LK12000

## Introduction

### Construction and Industrial Equipment Product Safety

## Construction and Industrial Equipment Product Safety

It is the responsibility of the owner of the equipment to be knowledgeable about federal, state and local regulations that effect the total usage of the equipment, and responsibility to working personnel and the public. Since regulations are subject to change, and differ from one locality to another, this manual makes no attempt to provide such information.

**Load King** provides appropriate operation and maintenance manuals for various construction and industrial equipment products that it manufactures and sells. Appropriate national consensus standards, industry standards, and safety-related manuals are included with the shipment of each **Load King** product as applicable. It is company policy to provide this information for the Owner or Operator of the equipment. It is expected that the Owner or Operator will utilize these manuals and standards to provide the appropriate information and training to those people who are to operate, maintain, and supervise the use of equipment.

Construction and industrial equipment is designed and manufactured to perform heavy-duty work. Under normal usage, the equipment will wear. For this reason it is essential that the Owner/Operator establish and perform a periodic inspection of the equipment. The objective of inspection programs is to prevent accidents, reduce downtime and keep the equipment working efficiently. These inspection programs should be designed to discover worn, cracked, broken or deteriorated parts and loose or missing fasteners before they result in a problem.

Proper training and inspection programs are essential to avoid injuries to persons, damage to property and excessive maintenance costs.

Read and understand the manuals provided with this equipment. Assistance is available from the distributors of your **Load King** product and from the **Load King** manufacturing facility.



When operating a hydraulic crane, the Operator should realize that hydraulic and structural competence, not tipping load, is often the determinant of lifting capacity. The Operator must be guided solely by the appropriate manufacturer's load rating chart when considering load weights. The manufacturers rated loads must never be exceeded.

For any additional information regarding the care and operation of the machine, contact the **Load King** service representative. Include the machine model and serial number in all communication to aid service personnel in providing the correct information.

The information, specifications, and illustrations in this publication are based on the information in effect at the time of approval for printing. **Load King** reserves the right to make changes at any time without obligation.

## Intended Use

This mobile crane is designed to lift, lower, move, and position freely suspended loads within its rated capacity while on firm, level ground. The crane is designed exclusively for assembly type, non-duty cycle operations. Use of this product in any other way is prohibited and contrary to its intended use.

Other crane applications outside of the intended use statement above must be approved in writing by **Load King**.

## Bulletin Distribution and Compliance

Safety of product users is of paramount importance to **Load King**. Various service bulletins are used by **Load King** to communicate important safety and product information to dealers and machine owners. The information contained in these service bulletins is tied to specific machines using the machine's model number and PIN/serial number. Distribution of service bulletins is based on the most current owner on record, along with the associated dealer; so it is important to register the machine and keep contact information up to date. To ensure the safety of personnel and the reliable continued operation of your machine, it is essential to implement the actions indicated in all relevant service bulletins.

## Contacting the Manufacturer

When it is necessary to contact the manufacturer, please be prepared to supply the model name, product identification number (PIN), and serial number of the machine, along with your name and contact information. At minimum, the manufacturer should be contacted for:

- Accident reporting
- Questions regarding product applications and safety
- Standards and regulations compliance information
- Questions regarding product modifications
- Current owner updates, such as changes in machine ownership or changes in contact information (see [Transfer of Machine Ownership](#) in this chapter for more information)

### Manufacturer contact information:

Custom Truck One Source  
7701 Independence Ave.  
Kansas City, MO 64125  
Parts: (816) 241- 8387  
Service: (833) 281-7911  
info@customtruck.com  
<https://store.loadkingmfg.com>

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Introduction

Product Information Number

## Product Information Number

### Transfer of Machine Ownership

Taking a few minutes to update owner information will ensure that you receive important safety, maintenance and operating information that applies to your machine.

Please register your machine by visiting us on the web at [www.loadkingmfg.com](http://www.loadkingmfg.com) or calling us toll free at 833-571-1466.

### Load King Warranty Data Record

Warranty Form Submission		Date	
Date of Delivery			
Model Number			
S/N			
Dealer			
Address			
Customer			
Address			

Record this information at the time that warranty registration form is completed and returned to **Load King**.



#### **WARRANTY**

**Load King** (herein after referred to as the COMPANY) warrants all products manufactured by it and purchased by you to be free from defects in material and manufacture at the time of shipment. This warranty includes:

Two years on **Load King** parts

Two years on repair labor

Three years on structural parts

The COMPANY will furnish replacements for such parts as the COMPANY finds to have been defective at the time of delivery or, at the COMPANY's option, will make or authorize repairs to such parts, provided that, upon request, such parts are returned, transportation is prepaid to the factory from which they were shipped.

This warranty shall not apply to any Product which has been subjected to misuse, misapplication, overloading, neglect (including but not limited to use of unauthorized parts or attachments), adjustments or repair. Engines, motor, tires, wheels, suspensions, axles, etc. and any accessories furnished with or used in the COMPANY's products, but which are not manufactured by the COMPANY, are not warranted by the COMPANY but are sold only with the express warranty, if any, or the manufacturers thereof. This warranted is limited to the first purchaser/user and is not transferable.

THE FOREGOING IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED (INCLUDING, WITHOUT LIMITATIONS, OF MERCHANTABILITY AND FITNESS OF ANY PRODUCT FOR A PARTICULAR PURPOSE), AND OF ANY OTHER OBLIGATION OR LIABILITY ON THE PART OF THE COMPANY. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE THEREOF.

#### **LIMITATION OF LIABILITY**

It is expressly understood and agreed by you that the COMPANY's liability for its products, whether due to breach of warranty, or otherwise is limited to the furnishing of such replacement parts, F.O.B. factory, and the COMPANY will not be liable for any other injury, loss, damage, or expense, whether direct or consequential, including but not limited to loss of use, income, profit, or production, injury to person or increase in cost of operation, spoilage of or damage to material, arising out of or in connection with the sale, installation, use or inability to use, or the repair or replacement of the COMPANY's products.

All used vehicles and/or bodies are sold in the "AS IS" condition and no expressed or implied warranty is made.

All of COMPANY'S Products are of high quality and are manufactured in conformity with the best commercial practices in the various lines. The COMPANY guarantees all Products manufactured by it to be free from defects in material and manufactured at the time of shipment, for one (1) year from date of delivery. In addition, the COMPANY guarantees the portion of the product to be considered structural for one (1) year from date of manufacture.

While **Load King**, LLC. designs and manufactures its specific equipment configurations to industry standards, it is ultimate responsibility of the buyer/operator to assure that all loads are properly loaded and distributed. All loads must comply with the applicable state and federal load limits.

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## Specifications

The **Load King** 12030 Service Crane is hydraulically powered with proportional control for all functions. The crane is provided with remote control which utilizes a Canbus controller. Maximum reach is 30 feet and boom elevation varies from -10 to +80 degrees. Loads can be controlled at angles below level as well as above level. Rotation is 400° total. With boom tip lighting the unit also serves as a mobile work light.



### 12030 Crane Features

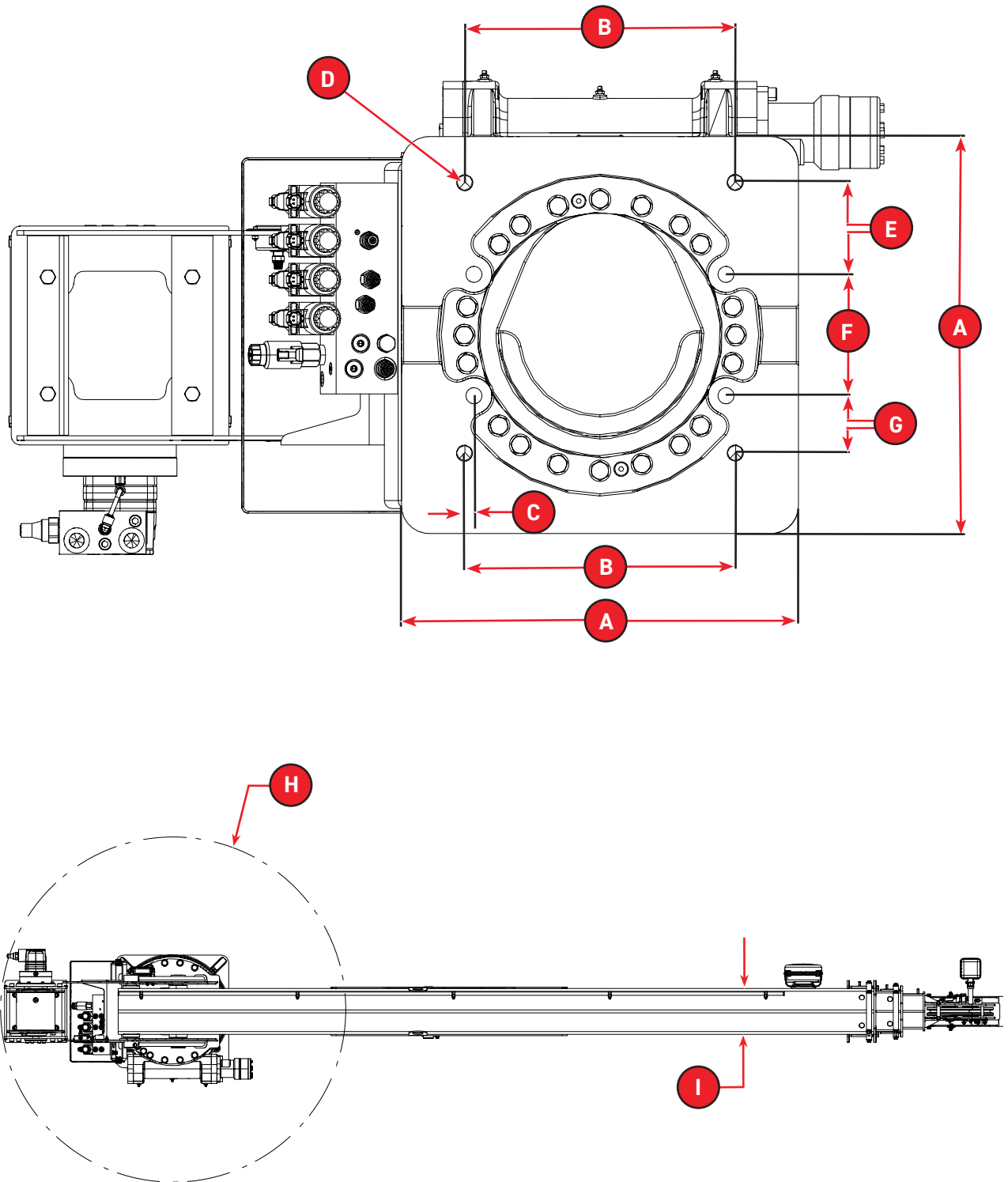
Parameter	Value	Metric Equivalent / Notes
Crane Rating	90,000 FT	13.7 ton-m (Foot-Ton=Reach x load)
Horizontal Reach	360"	9.1 m
Hydraulic Extend	204"	5.18 m
Crane Weight	2800 lbs	1270.059kg
Center of Gravity	42" Forward of centerline	1.06 m
Load Line	7/16" IWRC x 110FT	11.11 mm x 33.5 m (IWRC = Independent wire Rope Core)
Storage Height	41"	1.04 m
Storage Length	192"	4.87 m
Mounting Space Required	21.65" x 21.65"	Sqaure Base are required for Mounting

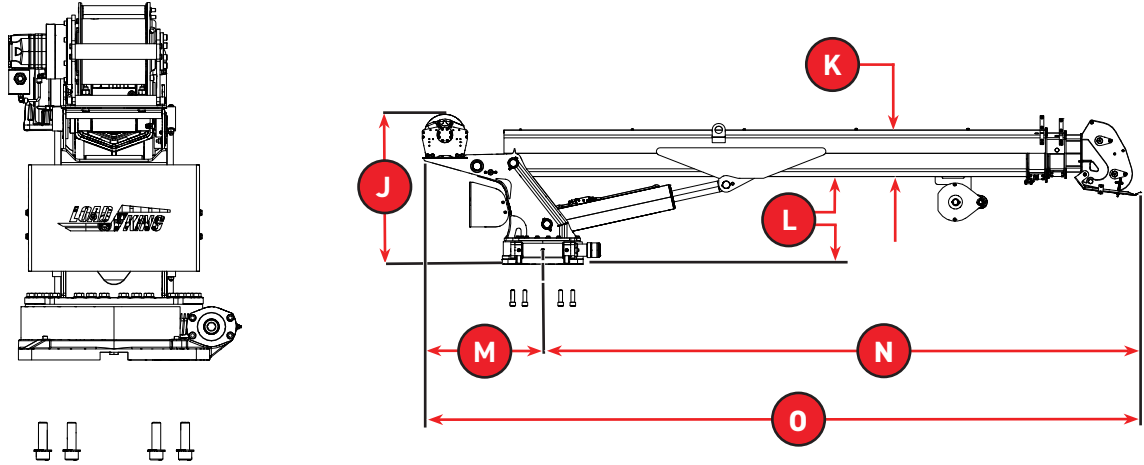
# LK12000

Specifications

Crane Measurements for 12030

## Crane Measurements for 12030





**12030 Dimensions**

Reference Letter	Dimensions
A	21.75"
B	14.75"
C	0.50"
D	1"-8 BOLT
E	5.00"
F	6.50"
G	3.25"
H	33.50"
I	8.75"
J	40.50"
K	12.50"
L	23.75"
M	32.25"
N	160.50"
O	192.75"



All dimensions listed are approximate, depending on the full dimensions of the chassis on which the crane body is mounted. If exact dimensions are required, contact your **Load King** service representative.

# LK12000

Specifications  
Hydraulic Requirements

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## Hydraulic Requirements

ISO 32 hydraulic fluid, 8 gpm flow @ 3000 psi

## Minimum Chassis Requirements

Gross Vehicle Weight Rating (GVWR)- 33,000 LBS# (14968 kg)

Body- **Load King** Voyager III rated 90,000 FT-LBS# (13.71 ton-m)

## Details of Crane Functions Described

Rotation is 400 degrees non-continuous and is provided by a hydraulic motor driven worm gear slewing drive. Patented hourglass worm technology provides increased gear strength, and the drive is rated IP55 for dust and water incursion.

Boom Extend is provided by two double acting cylinders in a piggyback arrangement. The first cylinder extends/retracts the 2nd stage boom, the second cylinder extends/retracts the 3rd stage boom. The cylinders have a dual counterbalance valve to hold the boom extension above and below level.

Hoist Up and Down is provided by a hydraulic motor connected to a planetary gear box and cable drum with holding brake.

Boom Up and Down is provided by a double acting cylinder with a single counterbalance valve on the base end of the cylinder.

## Safety

### Owners, Users, and Operators

**Load King** appreciates your choice of our machine for your application. Our number one priority is user safety, which is best achieved by our joint efforts. We feel that you make a major contribution to safety if you, as the equipment users and Operators:

- Comply with OSHA, federal, state, and local regulations.
- Read, understand, and follow the instructions in this and other manuals supplied with this machine.
- Follow safe work practices.
- Only have trained and competent Operators, directed by informed and knowledgeable supervision, running the machine.



OSHA prohibits the alteration or modification of this crane without written manufacturer's approval. Use only factory-approved parts to service or repair this unit.

If there is anything in this manual that is not clear or you believe should be added, please send your comments to **Load King** Cranes, 7701 Independence Ave, Kansas City, MO 64125; or contact us by telephone at Parts: (816) 241- 8387 Service: (833) 281-7911.  
Email: [info@loadkingmfg.com](mailto:info@loadkingmfg.com).

Many aspects of crane operation and testing are discussed in standards published by the American National Standards Institute. These standards are updated on an annual basis with addenda, that are sent by ASME to the original purchasers of the standard. **Load King** recommends owners purchase and refer to the following standards.

ANSI/ASME B30.5 - Mobile and Locomotive Crane (latest version)

These standards can be purchased from:

American Society of Mechanical Engineers  
Two Park Avenue  
New York, NY 10016-5990  
800-843-2763 (U.S./Canada)  
001-800-843-2763 (Mexico)  
973-882-1170 (outside North America)

Email:  
[CustomerCare@asme.org](mailto:CustomerCare@asme.org)  
[www.asme.org](http://www.asme.org)






# LK12000

Safety

Safety Definitions Used in This Manual





## Safety Definitions Used in This Manual

The following table describes text and symbols used to highlight important information.

Signal Word	Symbol	Explanation
<b>DANGER</b>		Danger indicates a hazardous situation which, if not avoided, will result in death or serious injury.
<b>WARNING</b>		Warning indicates a hazardous situation which, if not avoided, could result in death or serious injury.
<b>CAUTION</b>		Caution indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
<b>READ</b>		Read is used to alert readers of information to be read on machinery.
<b>NOTE</b>		Note is used for a tip or suggestion to help readers carry out a procedure successfully.

### Safety Sign Maintenance

- Keep Operator's safety in mind at all times.
- Use mild soap and water to clean safety signs.
- Do not use solvent-based cleaners because they will damage the safety sign material.
- Replace any missing or damaged safety signs or decals.

	The crane is not electrically insulated. It must never be used near energized power lines. <b>Load King</b> cranes, load lines, and the load handled must always maintain a safe minimum distance from electrically energized power lines.
	Never alter hydraulic valve settings unless recommended by factory authorized personnel. To do so could result in equipment malfunction or failure and can result in serious personal injury or death.
	Never alter the Hydraulic Overload Protection (HOP) system. Its function is to protect the crane from overload.
	Never alter the Anti-Two Block (A2B). Its function is to prevent contact between the load block and boom tip sheave. The load may be suddenly dropped should contact occur resulting in serious personal injury or death..

## Safety Guidelines



These safety rules must be followed. All personnel are required to read and understand the Operator's Manual as there are instructions which are detailed specific to this machine.

## Personal Protection Equipment

Before beginning operation, service, or maintenance, conduct a hazard assessment to determine appropriate personal protective equipment for the working conditions and the operating environment. For more information refer to the applicable OSHA 1910.132 standards, ANSI standards, federal, state, local, and jobsite regulations.

### Common Types of PPE



**Safety Glasses** – Impact resistant lenses offering limited protection for the user's eyes from flying debris.



**Ear Plugs** – A device that is inserted into the ear canal to protect the user's hearing from loud noises or the intrusion of foreign bodies and dust.



**Hard Hat** – A helmet used to protect the user's head from injuries obtained from falling objects and debris.



**Leather Gloves** – Gloves used to protect the user's hands from minor cuts and other injuries.



**Safety Boots** – Boots designed to protect the user's feet from various types of injury such as cuts, puncture wounds, or crushed toes.

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## Safety

### Workplace Safety

## Workplace Safety

### Training and Knowledge

- Safe operations must always be the Operator's most important concern.
- This crane must only be operated by trained personnel, who have demonstrated their ability to do so safely.
- Comply with the requirements of current Occupational Safety and Health Administration (OSHA) standards, the current ASME B30.5 (latest edition).
- Read and understand all safety signs and warnings.
- Read and understand the Load Rating Charts.
- By understanding the Load Rating Charts, the Operator can determine what the crane can safely lift before attempting the actual lift.
- The Operator must understand crane signals and take signals only from designated signal persons; however, the Operator must obey the stop signal from anyone.

### Operator's Responsibilities

- Read and understand the Operator's Manual.
- Ensure the machine is in proper order and that all operational aids and warning signals are functional before operating.
- Keep the machine clean, including all instrumentation, windows, lights, and other glazed surfaces.
- Remove all oil, grease, mud, ice, and snow from walking surfaces.
- Store all tools, rigging, and other necessary items in the toolbox.
- Do not lift a load without referring to the Load Rating Chart.
- Know the load to be lifted.
- Be alert, physically fit, and free from the influences of alcohol, drugs, or medications that might affect the Operator's eyesight, hearing, or reactions.
- Keep people, equipment, and material outside of the work area.
- Signal person(s) must be used when the Operator's vision is blocked or when working in hazardous areas such as near power lines or people.
- Be aware of the location of other machinery, vehicles, personnel, and other obstacles in the work area.
- Do not allow personnel on the truck bed.
- Make sure everyone is clear of the work area before moving the hook, boom, load, or outriggers.
- Start and stop movements smoothly and swing at speeds that will keep the load under control.
- Keep at least three full wraps of wire rope on the winch drum when operating.
- Use tag lines to keep loads under control when feasible.
- Keep the load as close to the ground as possible.
- Use shortest boom length required to complete job.
- Do not leave a running machine unattended or load suspended.

- Use the outriggers in accordance with requirements of the Load Rating Chart and Operator's Manuals.

### **Signal Person's Responsibilities**

- Standard crane signals must be used and understood.
- Assist the Operator in safe and efficient operation of the crane, without endangering people or property.
- Have a clear understanding of each lift to be made.
- Signal persons must place themselves where they can be clearly seen, where they can safely observe the entire operation, and out of harm's way should something unexpected happen.

### **Responsibilities of All Crew Members**

- Unsafe conditions and/or practices must be corrected.
- Obey all warning signs.
- Watch out for their own safety and the safety of others.
- Know and understand proper machine erection and rigging procedures.
- Alert the Operator and signal person to hazards, i.e., power lines, unstable ground.

### **Management Responsibilities**

- Operator's must be competent, physically fit, and licensed if required.
- The Operator, signal persons, and riggers must be trained on correct crane operations and usage.
- The Operator and signal persons must know the standard crane signals.
- The job site must have a supervisor present that is responsible for site safety.
- Crew members must be given specific safety responsibilities and be instructed to report any unsafe conditions to the site supervisor.
- Supply the weight and the characteristics of all loads to be lifted to the Operator.
- Verify that all crew members are familiar with OSHA, ANSI B30.5 requirements, state, and local jobsite requirements, as well as the instructions in manuals, and all other applicable requirements.

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## Safety

### Workplace Safety

#### Planning the Job

- Have a clear understanding of the work to be done.
- Consider all hazards at the jobsite.
- Know what crew members are needed to complete the job.
- Assign job responsibilities.
- Appoint a competent signal person.
- Establish how the signal person will communicate with the Operator.
- Know the weight and the characteristics of the loads to be lifted.
- Utilize rigging and other equipment to complete the job safely.
- Establish how equipment can be safely transported to the job site.
- Determine how the load will be rigged.
- Determine the lift radius, boom angle, and the rated lifting capacity of the crane.
- Pre-plan the course of each lift to determine the best route to reach the load's target destination.
- Identify the location of gas lines, power lines, or other structures and determine if the crane or structures needs to be moved.
- Ensure that the supporting surface is strong enough to support the machine and load.
- Establish special safety precautions, if necessary.
- Consider the weather conditions.
- Keep unnecessary people and equipment away from the work area.
- Position the machine to use shortest boom and radius possible.

#### Operator Prelift Check

- Check the machine logbook, to see if periodic maintenance and inspections have been performed.
- Ensure that necessary repairs have been completed.
- Inspect wire rope for damage such as kinks, broken wires, or crushed sections.
- Ensure that no unauthorized field modifications have been made to the crane.
- Check for air and hydraulic oil leaks.
- Check that all controls are in the neutral position before starting engine.
- After starting the engine, check all gauges and indicators for proper readings.
- Test all controls in the control station, such as swing, boom extend/retract/up/down, outriggers extend/retract.
- Check brakes.
- Check hoist brakes by lifting a load a few inches off the ground and holding it.

## Operator Aids Check

Ensure that the listed items are in place and operational:

- Boom angle indicator
- Backup alarms
- ATB devices
- Overload protection

## Operation Overload Protection

- Know the weight and characteristics of all loads to be lifted.
- Place the boom lifting point directly above the load when lifting.
- The load radius will increase when the load is lifted due to boom deflection. To compensate for the boom deflection, maintain the radius by raising the boom.
- Know the weight of the hook and rigging, the boom and/or jib length, parts of line and the work area.
- Use next lower rated capacity when working at boom lengths or radius within the range on the rated lifting capacity chart.
- Do not lift a load without knowing whether it is within the rated capacity.
- Do not lift loads if winds create a hazard. Lower the boom if necessary. Refer to the Load Rating Chart and the Operator's Manual for possible restrictions.
- Avoid side-loading the boom.
- Do not allow the load or any other object to strike the boom.
- Loads shall be freely suspended.

## Operation Setup

When preparing the crane for operation, ensure that the load-bearing ground surface is strong enough to support the crane, including the load to be lifted.

Ensure that the crane is level for all operations. Check frequently, and re-level the crane if necessary.



Ensure that personnel and the public maintain a safe distance from rotating cranes. Place barricades to restrict access to the crane area. Verify that all areas are clear prior to swinging.

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## Safety Workplace Safety

### Power Line Safety

- Determine whether there are power lines in the area before starting any job. Only operate around power lines in accordance with federal, state, and local regulations, as well as ASME B30.5 (latest edition).
- Use a signal person when working around power lines as established by the utility Owner/Operator or registered professional engineer. This should be someone who is a qualified person with respect to electrical power transmission and distribution per OSHA regulation 1926.1408 and 1926.1409.
- Do not remove materials from under power lines with a crane if the boom or other components of the crane will come into contact with the power lines.
- No part of the crane or the load should contact, or violate the minimum allowable clearance required for operation of the crane near electrical lines. For further clarification, see the following table:

Maintain Required Clearance from Power Lines	
Line Voltage	Required Clearance
0 to 50 kV	10 ft. (3.0 m)
500 to 200 kV	15 ft. (4.6 m)
2000 to 350 kV	20 ft. (6.1 m)
350 to 500 kV	25 ft. (7.6 m)
500 to 750 kV	35 ft. (10.7 m)
750 to 1000 kV	45 ft. (1.37 m)
Greater than 1000 kV	Determine specified clearance after consultation with utility Owner/Operator.

Before operating the machine, contact the electric power line owner to disconnect, move, or insulate power lines.

- If contact with power lines occurs, keep all personnel away from the crane.

## Travel

- Care must be taken when the crane is driven, whether on or off the job site.
- Pre-plan the path of travel to determine the best route to the destination.
- A signal person shall be utilized when the Operator's vision is blocked or obstructed during traveling operations.
- Maintain awareness of people, power lines, low or narrow clearance, bridge or road load limits, steep hills, or uneven terrain.
- Place the boom in the stowed position.
- Inflate the tires to the specified pressure.
- Drive slowly and avoid sudden stops and starts.
- Use the seat belt during all transit and travel.
- Ensure that ground level surfaces can support the weight of the machine and any stored load.
- Set the parking brake when parking the machine.

# LK12000

## Safety

### Temporary Interruption of Crane Operations

## Temporary Interruption of Crane Operations

As a general rule, if it is not possible to maintain sufficient control over a rigged crane, the boom and the equipment shall be taken down. The boom and rigging should be stowed if the crane's operations are interrupted and may be left unsupervised.

The following instructions are valid for every mobile crane, regardless of type, configuration, the rigging mode or the environment:

- The crane shall be left in the smallest, most stable, valid operational configuration that the job site practically allows; this includes parameters such as boom angle and slewing orientation.
- The engine shall be switched off.
- All control levers shall be put into the neutral or in a locked position.
- Close all control panels that are fitted with a lock/key when they are not in use.
- The radio remote control, if it is available, shall be kept in a safe place to prevent unauthorized use or unintended movement. Make sure that the batteries are recharged.
- The parking brake of the truck chassis shall be applied.
- The wheels shall be secured with chocks, the slew brake applied, and the main boom secured.

An urgent situation may arise such that the crane must be left unattended while the boom is in an extended or telescoping position. Should this occur, jobsite conditions may not allow the boom and jib to be fully lowered to the ground. Under these conditions, a qualified Operator must determine an appropriate configuration in which the crane may be safely left unattended. This qualified Operator must be familiar with all aspects of the situation, including the job site configuration, the limitations present, and other pertinent considerations. The following instructions must also be followed:

- Create an emergency action plan that includes instructions on how to safely stow the crane. The plan must take into consideration the amount of space needed around the crane to dismantle or lower the boom, jib, or other equipment. This plan should take into account natural disasters (e.g., tornado, flood, fire) as well as industrial accidents, chemical exposure, public acts of violence, or other incidents as listed at the beginning of this document.
- The crane shall not be left with load on the hook.
- All slings or fastening ropes shall be removed from the crane hook.
- The hook block shall be at the highest position so that there is no contact possible between the wire ropes and the boom or other obstacles.
- The crane location and configuration shall not create hazards to road traffic, e.g., risk of collision with surrounding obstacles. This may require a specific risk assessment prior to leaving the crane unattended.

## LK12000

### Safety

#### Potential Hazards Presented by an Unattended Crane



- Check for leakage and unintended (slow) movement on all load-bearing hydraulic cylinders and winches:
  - Outrigger vertical cylinders
  - Boom lifting cylinder(s)
  - Hoist winch
  - Boom extension cylinder(s)
  - Swing mechanism



Slight movement of hydraulic cylinders can also be due to changing ambient temperature or oil temperature (e.g., due to sun warming or hydraulic oil cooling).

- The weather forecast shall be obtained in advance for the whole period the crane is erected.
  - Changing meteorological conditions, including, but not limited to wind, ice accumulation, precipitation, flooding, or lightning, should be considered when determining the location and configuration of a crane when it is to be left unattended.
  - The crane boom should be lowered before wind speeds exceed the defined values. This may not be possible depending on job site and crane setup.
  - If, due to unforeseen weather conditions, the wind speeds are in excess of the defined values with the boom in the up position, the crane should be secured as best it can and all personnel cleared from the area.

### Potential Hazards Presented by an Unattended Crane

The following are examples of possible events that could occur while a crane is left unattended; these possible risks shall be taken into account:

- Storms or bad weather; including, but not limited to lightning, wind, rain or flooding.
- Ground giving way due to severe rain, landslides or washout. If the crane was parked and/or supported on icy ground, the ice may melt under the wheels or outrigger supports.
- Slow retraction of the crane's hydraulic cylinders (e.g., outrigger support cylinders, lift cylinders, and/or telescoping cylinders on unpinned telescoping systems) due to changes in ambient temperature, oil temperature, or leakage.
- Vandalism

Any of the hazards listed above may result in the following events:

- The crane may topple over.
- The crane may move.
- Unsafe operational conditions may be created.
- Unauthorized operation of the crane may occur.

# LK12000

## Safety

### Potential Hazards Presented by an Unattended Crane

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#### Resuming Crane Operations

Before crane operation is resumed after a period of inactivity/crane being unattended, the Operator is required to check the condition of the crane and its location.

#### Ending Crane Operations

Prior to leaving the crane, the Operator must be certain the crane is in a condition acceptable to be left unattended.

#### End of Operations Checklist

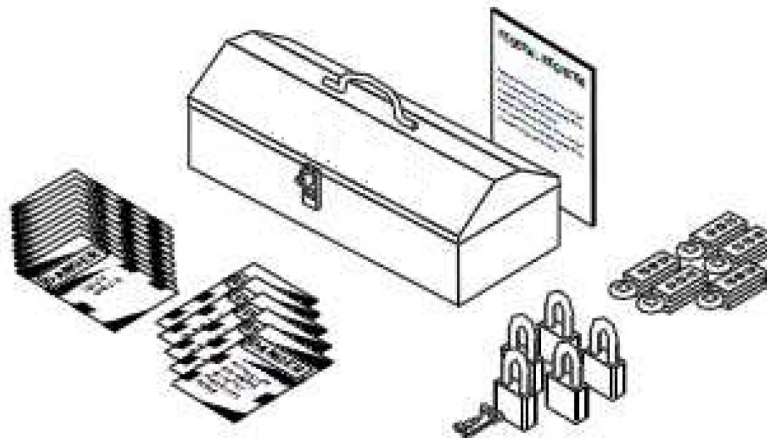
1. \_\_\_\_\_ Is the load fully on the ground and unhooked from the crane?
2. \_\_\_\_\_ Is the telescopic boom retracted completely?
3. \_\_\_\_\_ Is the crane boom all the way down?
4. \_\_\_\_\_ Is the parking brake on the truck chassis engaged?
5. \_\_\_\_\_ Is the crane secured from unauthorized use?
6. \_\_\_\_\_ Is the vehicle cab unoccupied?
7. \_\_\_\_\_ Is the engine off and the key removed?
8. \_\_\_\_\_ Is the vehicle parking brake engaged?
9. \_\_\_\_\_ Are the controls in neutral?

## Lock Out and Tag Out

Occupational Health and Safety Code of Federal Regulations number 1910.147 requires that employers establish and follow a Lock Out and Tag Out procedure and train their employees in that procedure before any employee can operate, service, or maintain any piece of power equipment.

Employers are required to make periodic inspections to confirm that their Lock Out and Tag Out procedures are being followed. They must monitor and update their program on an ongoing basis. Employees are responsible for ensuring that equipment is locked out and tagged out in accordance with the employer's policy.

The contents of a typical Lock Out and Tag Out kit are illustrated in the figure below:



Typical Lock Out and Tag Out Kit

### What is Lock Out and Tag Out?

Lock Out and Tag Out is a procedure that is designed to prevent the unexpected or accidental startup of equipment, and to alert all workers whenever it is unsafe to operate any piece of equipment. When used as intended, Lock Out and Tag Out also protects personnel from energy stored in devices such as springs, accumulators, batteries, or hydraulic systems.

### How to Lock Out and Tag Out

- Install one or more locks to hold the master switch lever in the OFF position.
- If the switch is keyed, turn the key to the OFF position and remove the key.
- Disconnect the batteries.
- Regardless of which lockout method is used, place one or more tags on machine control panels, access doors and electrical panels.

### When is Lock Out and Tag Out Required?

- Any time anyone is maintaining, repairing, lubricating, or working on the equipment for whatever reason.
- When the equipment is broken or unfit or unsafe to operate for whatever reason.
- Whenever the equipment is left unattended.

## **LK12000**

Safety

Lock Out and Tag Out

---

### **Who Must Apply a Lock and Tag?**

- Any person working on the equipment.
- Foreman or other person responsible for the work being done.
- If several people are working on a machine at the same time, each person must apply their own lock and tag.

### **When Can a Lock and Tag Be Removed?**

After performing these six steps:

1. All safety guards are back in place.
2. All work is complete and tools are put away.
3. All workers are notified that a lock is being removed.
4. All workers are positioned safely for startup.
5. Controls are positioned for safe startup.
6. The machine is ready for safe operation.

### **Who Can Remove a Lock and Tag?**

- Only the person who applied a lock and tag is permitted to remove them.

The Lock Out and Tag Out rules laid out here are generic. To get instructions for your particular workplace, consult your employer's Lock Out and Tag Out procedure.

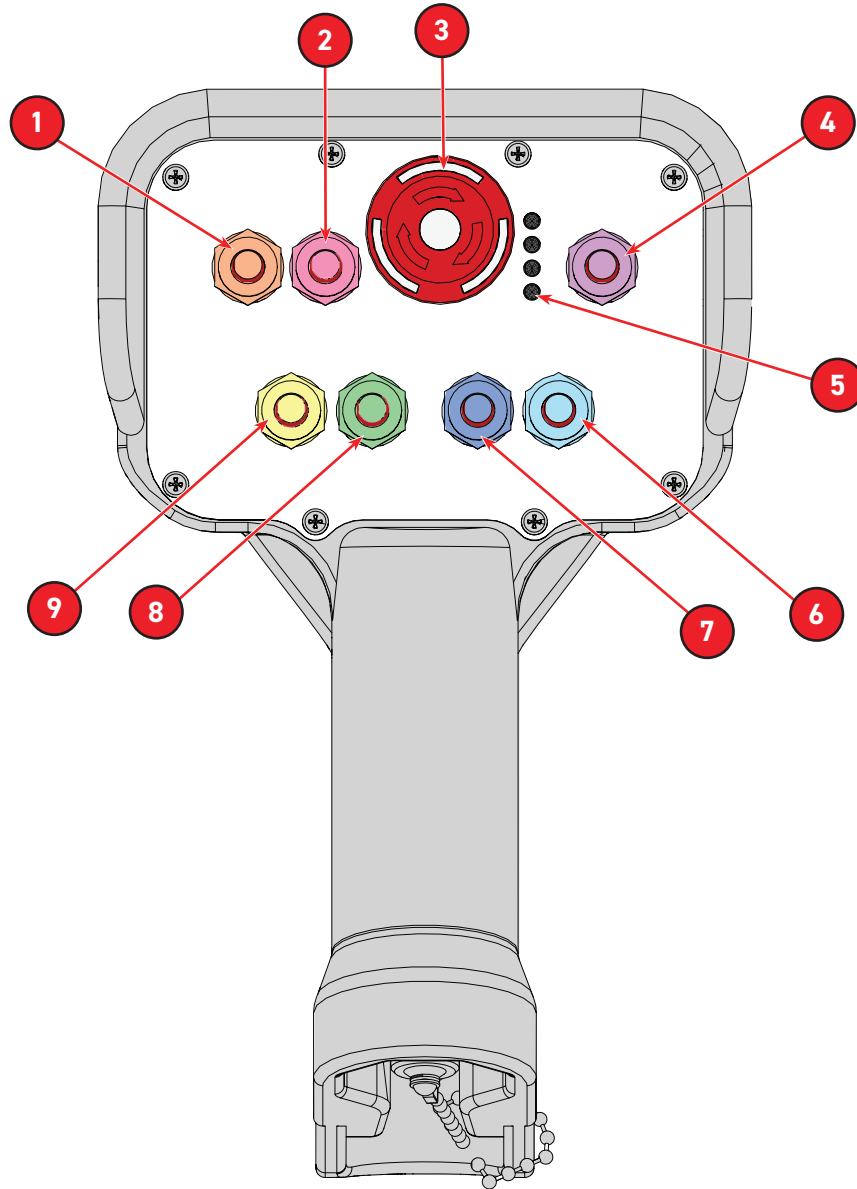
# LK12000

Description of Machine and Controls  
Remote controls



## Description of Machine and Controls

### Remote controls



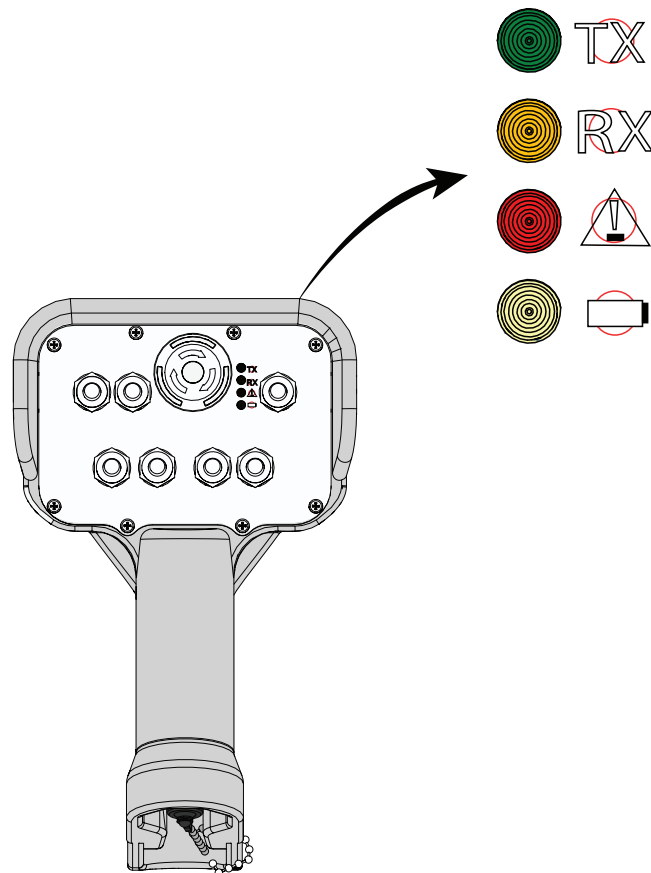
	UP	DOWN		UP	DOWN
1.	Engine Aux	Engine Fast Idle	6.	Boom Down	Boom Up
2.	Engine Start	Engine Stop	7.	Winch Wire Down	Winch Wire Up
3.	Emergency Stop	Emergency Release	8.	Boom Telescope Extend	Boom Telescope Retract
4.	Boom Light	Onboard Compressor On	9.	Turret Counterclockwise	Turret Clockwise
5.	Led Lights	Tx & Rx Lights			



# LK12000

Description of Machine and Controls

Remote controls

## TX & RX Lights



The Crane remote includes lights which indicate the following:			
Symbol	Light	Color	Condition
TX	Transmit - Green LED 1	Steady lit	Switch active
		Blink	Transmitting
RX	Receive - Amber LED 2	Blink	Receiving.
	Error- Red LED 3	Steady Lit when stop is pushed in or released	Stuck switch; contact cervis, Inc. support
		Flashing while stop is released (unit turned on)	Switch conflict; switch is being held by the user
	Battery - Amber LED 4	Cycle On/Off	Change batteries



Your **Load King** 12030 crane is designed for material handling and specifically for hoisting loads within the range of the Load Chart provided.

## LK12000

Description of Machine and Controls  
Features of the Load King 12030 Crane



Failure to comply with these regulations may result in equipment damage, property damage, and can result in serious personal injury or death.

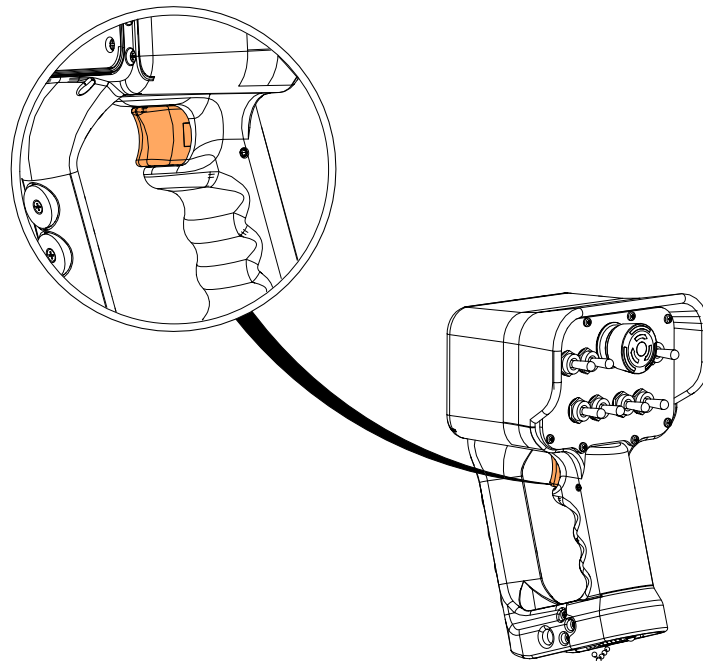
This manual will primarily be concerned with equipment features and use of the **Load King** 12030 crane.

## Features of the Load King 12030 Crane

Your **Load King** crane has specific features designed to enhance safety and contribute to ease of operation.

Remote controls and proportional control of all functions are provided. A pistol grip radio transmitter sends commands to the turret mounted receiver. The transmitter is linked only to its receiver by transmitted identity codes. The remote system complies with J1939. The overload protection system controls are programmed into the receiver.

To begin operations twist the E-Stop clockwise until it pops up. Hold the boom light switch for a few seconds until the TX and RX lights are flashing. This indicates the remote and receiver are linked up. The remote will time out after 15 minutes of inactivity. To restart engage the boom light switch again.



The pistol grip index finger lever movement corresponds to the speed at which the functions operate. To operate the Rotate, Boom Extend, Winch, or Boom Elevation first select a function and then move the finger lever the desired amount for starting speed. The function or functions will then move at speeds according to the position of the finger lever.

Emergency Stop is activated by pushing down on the E-Stop button. Release the E-Stop by twisting clockwise.

In the event of a transmitter or receiver failure the tether cable can be connected to restore operations. Failing that the control valve is equipped with manual overrides. Press the Dump Valve and Flow Valve override plus the function desired to override and operate manually.

# LK12000

## Description of Machine and Controls Features of the Load King 12030 Crane

Anti-Two Block (ATB) feature prevents contact between the load block and boom tip sheave.



The load may be suddenly dropped should contact occur resulting in serious injury personal injury or death.

The ATB is active at all times until disengaged by releasing the ATB switch. Adjust the ATB frame bracket to disengage the switch at contact. When the ATB has made contact The following functions are disabled: Hoist Up, Boom Extend and Boom Down. To exit the ATB active condition reverse travel by Hoisting Down, Retracting Boom or Boom Up.

Your ATB feature also assists in stowing the hook for travel. The ATB will stop Hoist UP as the load line is tightened to prevent stowing damage and relieve the load line of tension when stowed. Check the adjustment of the ATB frame bracket to disengage the ATB switch just before the load block meets the stow bumper.

Hydraulic Overload Protection (HOP) is active at all times to help prevent overload situations. The pressure transducer located on the Lift cylinder sends a pressure signal to the controller module. If the hydraulic pressure is above the set pressure the HOP alarms the following functions are disabled: Hoist Up, Boom Extend, and Boom Down. To exit the HOP active condition do any movement that reduces the load on the boom Hoist Down (to ground), Boom Retract, or Boom Up until the alarm is silent.

If the HOP condition was triggered by fully extending the Boom Lift cylinder (which results in high pressure), follow these steps:

1. Press and hold the mute button on the module located in the crane compartment until the HOP notification appears.
2. While still holding override is active for 3 seconds to lower the Boom to relieve the condition.
3. Release the mute button when condition is relieved.



Mute Button

## LK12000

Description of Machine and Controls  
Features of the Load King 12030 Crane



### Planetary Hoist

The hoist is intended to be used only for lift loads vertically.



Do not drag loads sideways using the Hoist or Boom functions. Undo stresses may cause component or boom failure even for light loads resulting in serious injury personal injury or death.

The hoist is planetary geared for speed and efficiency. It is equipped with a spring applied hydraulically released brake. Hoist speed is 90 FPM (feet per minute) single parted.

The Load Block BDY00236 enables the crane load line to be two parted. The end of the load line is snatched back to the boom tip instead of connected to the hook.

### Boom Elevation

The Lift Cylinder raises and lowers the boom. It has a single counterbalance on the base end. None is required for the rod end.

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## Install Instructions

### Introduction

**Load King** cranes require to be installed on a truck chassis with adequate frame reinforcement, PTO, pump, and hydraulics. For information on your crane model's minimum chassis requirements, consult the parts and specifications manual.

### Chassis Preparation

Take these actions before installing the crane:

1. Make sure the carrier vehicle meets the minimum chassis requirements for your crane model by inspecting it.
2. Remove any impediments from the area of the chassis frame where the crane body will be installed.
3. Install the PTO as directed by the PTO's manufacturer.
4. Install the pump. Verify that the pump rotates in the correct direction prior to torquing pump bolt to manufacturer's specification.
5. Install suction line from pump to underside of reservoir.
6. Install pressure line from pump to crane pressure port.
7. Before engaging PTO, make sure the reservoir outlet ball valve is open.
8. Spray any unpainted areas with paint.

### Frame Strength

To prevent overstressing the truck frame due to loads imposed by the crane and its load, use the appropriate truck frame. The frame might need to be strengthened. The minimum crane chassis parameters in the specifications section of your manual include the minimum truck frame resistance-to-bending moment (RBM).

### PTO & Pump

A Power Take Off (PTO) needs to be correctly suited to the crane's requirements as well as the vehicle's powertrain. Determine the following to appropriately choose a PTO:

1. Make and model of the carrier vehicle transmission
2. Power needs for auxiliary equipment and crane
3. PTO speed required
4. The direction that the PTO must turn
5. Necessary PTO torque

Use a hydraulic pump that is directly mounted to the PTO if at all possible. Installing the PTO and the pump requires adhering to the manufacturer's instructions.

# LK12000

## Install Instructions Engine Speed Regulation

### Engine Speed Regulation

The hydraulic pump's output rate controls how quickly the crane operates. The pump must run at the speed needed to achieve the right delivery rate (required pump speed) in order for the crane to operate at the speeds specified in the crane specifications. You need to know the pump's rated capacity, the pump speed needed to achieve that capacity, and the delivery rate needed to ensure proper crane operation in order to calculate the necessary pump speed.

By dividing the required pump speed by the engine to PTO ratio, the engine RPM required for the required pump speed may be calculated. In most cases, the PTO ratio is expressed as a percentage of engine speed.

Contact your dealer or **Load King** if you are unsure of the engine to PTO ratio or the pump capacity. You need to know the PTO and transmission model numbers as well as the truck's make, model, and year in order to calculate the engine to PTO ratio. You need to know the brand and model of the pump in order to determine the correct pump capacity.

Your crane's ability to operate effectively depends on the right pump speed. When determining the cause of very slow operation, look at the pump speed. Engine speed can be checked using a tachometer with precise calibration.

Pump Capacity	Engine to PTO Ratio

#### FORMULA TO DETERMINE REQUIRED PUMP SPEED:

- C = Rated Pump capacity
- D = Delivery Rate Required for Proper Pump Performance
- RPM = Pump Speed Required for Rated Pump Capacity D

To Calculate:

$$\text{Required Pump Speed} = (D/C) \times \text{RPM}$$

Example:

If D = 9GPM, C = 13 GPM, and RPM = 2000,  
Required Pump Speed = (9 GPM/13GPM) x 2000 = 1385 RPM

#### FORMULA TO DETERMINE ENGINE RPM:

$$\text{Required Engine RPM} = \text{Required Pump Speed}/\text{PTO Ratio (\%)}$$

Example:

If Required Pump Speed = 1385 RPM and PTO Ratio = 70%  
Required Engine RPM = 1385 RPM/0.70 = 1980 RPM

## LK12000

Install Instructions  
Engine Speed Regulation



### Crane Installation

Your crane is intended to be used in conjunction with a **Load King** body mounted on a vehicle that satisfies the minimum chassis specifications, which include a particular body style, cab-to-axle and wheelbase dimension, resistance-to-bending-moment (RBM), frame section modulus, axle ratings, and gross vehicle ratings. Your crane parts/specifications manual contains a chart with this data.

Check with **Load King** to see if the crane may be mounted on a body other than a **Load King** mechanic's body before proceeding.



Use of this crane on a body that is unable to support the loads placed on it is NOT recommended. Avoid getting serious injury or death.

Make sure there is adequate place to mount the crane and that the platform is robust enough to hold the crane and the rated load in addition to checking that the chassis meets the minimal requirements. The body needs to be built to withstand the forces the crane applies when lifting the entire rated load.



Before installing the crane, install the body. Before installation, the crane should not be opened or unfolded.

Steps for Crane Installation:

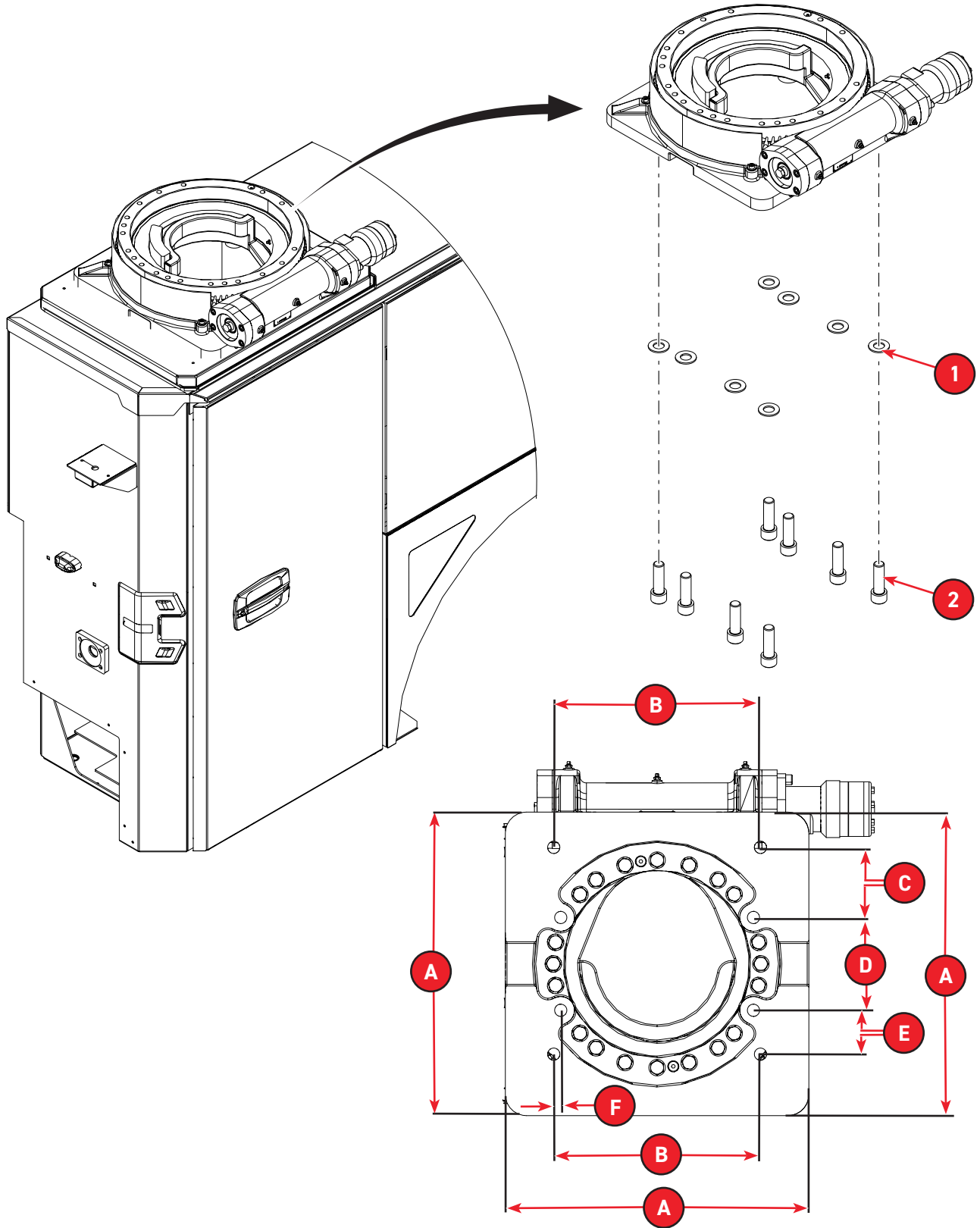
1. Use a hoisting tool that can support the crane's weight. (For information on the crane weight, refer to the specifications section of the crane components/specifications manual.) Place fabric slings under the turret below the winch and on the crane's lower boom next to the stow hook. Ensure the crane is properly balanced by only elevating by six inches off the ground.
2. The mounting screws and washers should be put in place to fasten the crane base to the truck body. Torque according to the installation prints. Please refer to the parts/specifications manual for the particular crane to obtain the installation drawings.

The components utilized in every installation may differ. Use of appropriate-sized pumps, long enough hoses, and fast enough PTO's is crucial. Before beginning any installation, carefully read the relevant installation kit in the parts area.

# LK12000

Install Instructions  
Installation Model

## Installation Model



# LK12000

Install Instructions  
Installation Model



## Installation Model Parts

Item No.	Part Number	Description	Qty.
1	WSH2-XA000008Z0	SAE WASHER, 1, GR8, ZN	8
2	SHCS-CA00C25AZ1	SOCKET HEAD CAP SCREW, 1-8 X 3.25 LEN, ZN, FULL THREAD	8

Reference Letter	Dimensions
A	21.75"
B	14.75"
C	5.00"
D	6.50"
E	3.25"
F	0.50"

### Notes:

1. The crane installation kit contains the 3.25" Long screws supplied. Prior to mounting, determine the top plate thickness of the crane box. If different length screws are needed, they must be zinc coated, grade 8, and the appropriate length. Make sure screws pass mounting plate after installation.
2. Mounting screws to be torqued to 501 ft\*lb and mark with witness mark.

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# LK12000

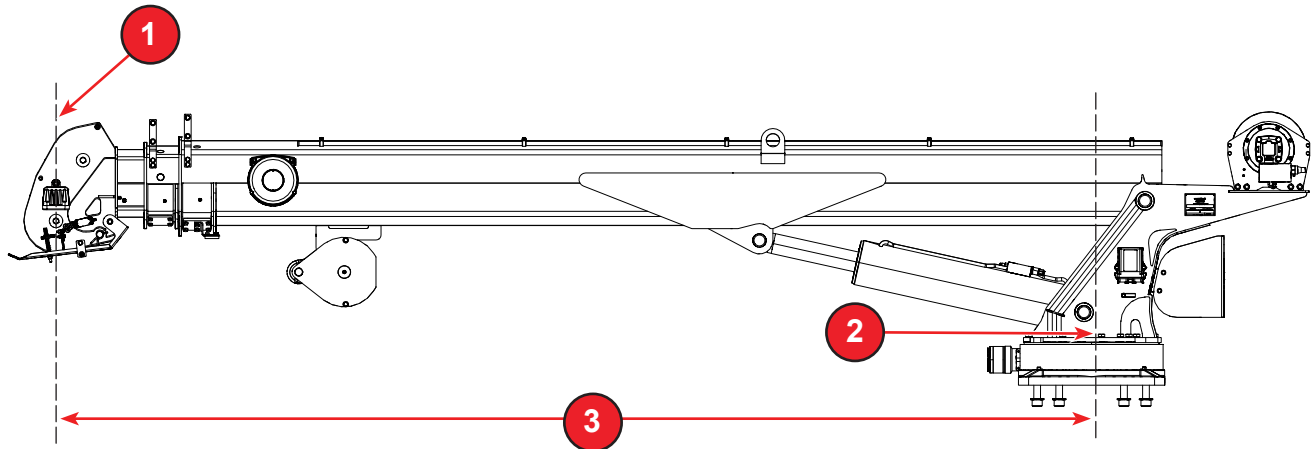
Maintenance and Service  
Maximum Load and Boom Angle Charts



## Maintenance and Service

### Maximum Load and Boom Angle Charts

#### Operating Radius



1. Center line of load
2. Center line of bearing
3. Load radius

#### Using the Maximum Capacity Load Chart

The maximum load capacity charts are shown. Their purpose is to show the Operator the load capacities at various radii and boom angles.

The boom extension corresponds with the reading from the boom angle placard. By reading the boom angle from the boom angle placard, the operator can determine the approximate operating radius and by using the maximum load that can be lifted if that radius is maintained.

# LK12000

Maintenance and Service

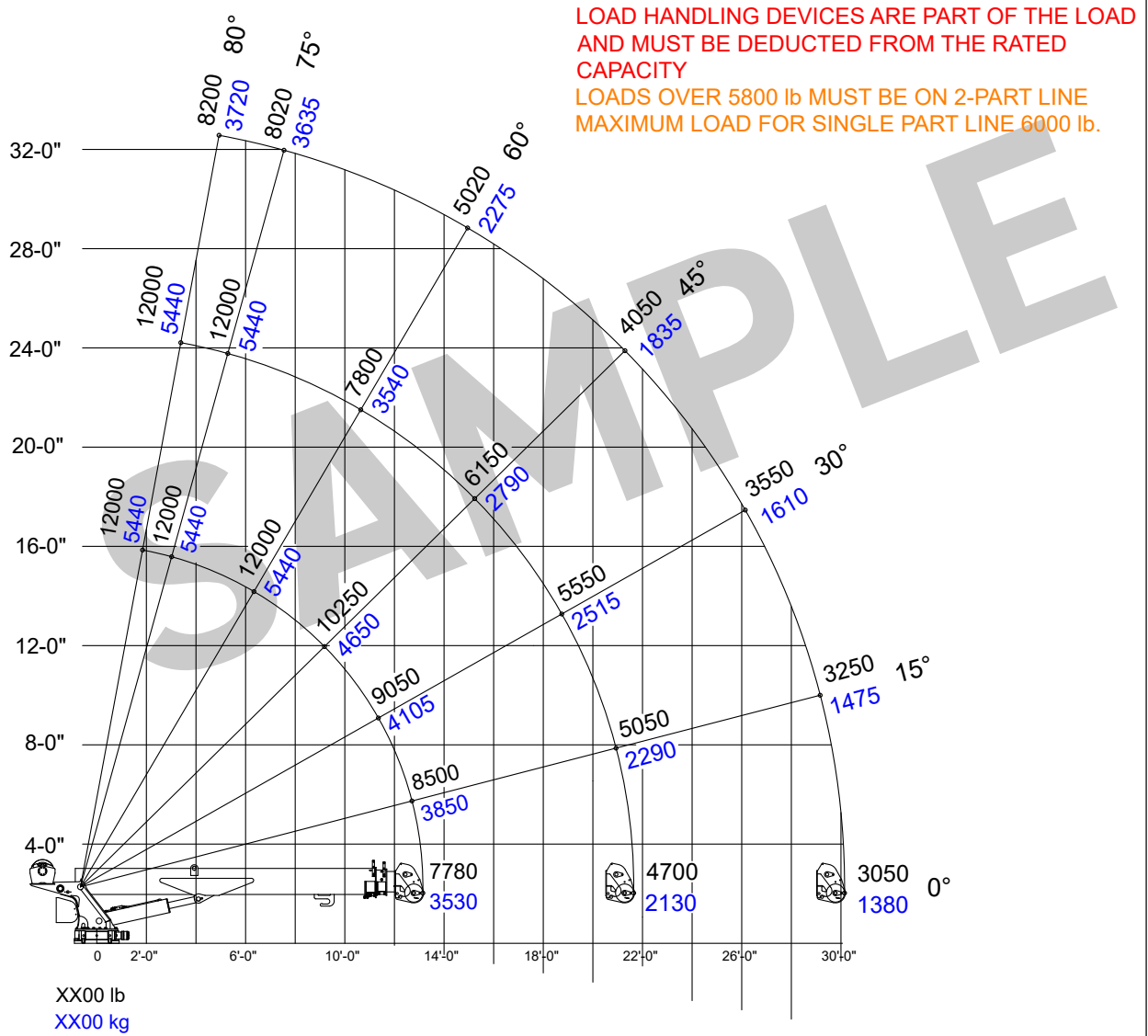
Maximum Load and Boom Angle Charts



# 12030

P/N C1069256 REV B

## HYDRAULIC CAPACITY CHART



7/16" NON-ROTATION RESISTANT WIRE  
ROPE ULTIMATE STRENGTH 20,200 lb MIN.

SERVICE CALL 833-CT1S-911 (833-281-7911) Email: CIC@CUSTOMTRUCK.COM

## Service



This unit must be regularly maintained and inspected for safe and efficient performance. See Maintenance Schedule.

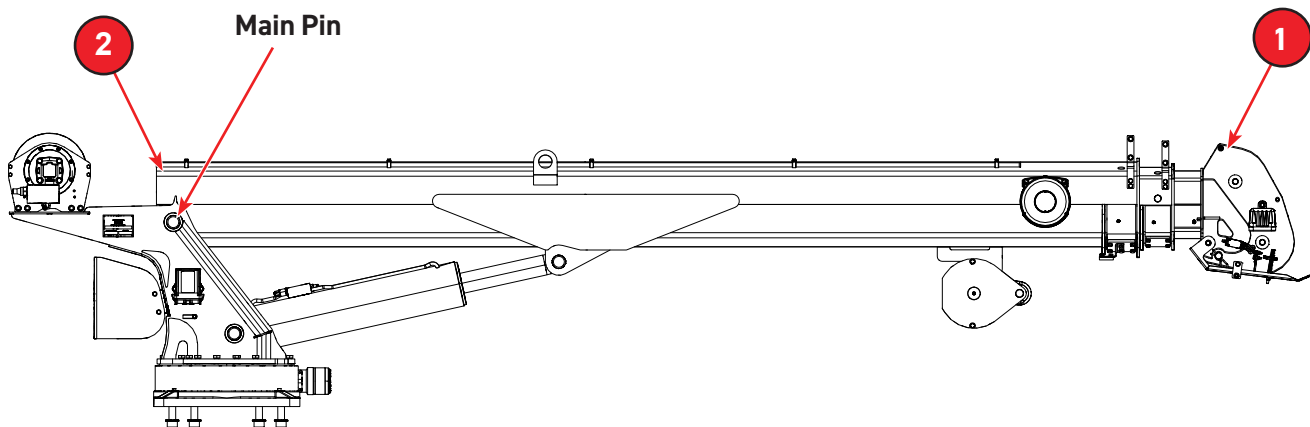
## Inspection

Inspect the unit daily if in daily use or periodically if in occasional use. Determine the inspection intervals according to Ch. 5 Inspection, Testing, and Maintenance Requirements of ASME B30.5.

### Checklist-

- Check for loose or worn parts, missing safety related parts, and damaged parts.
- Check the load line for crushed strands and broken strands.
- Inspect that all lubricated items have been lubricated.
- Check the Transmitter that all functions are operable. Check the E-Stop.
- Check the Anti-Two Block (A2B) switch by lifting the A2B frame to disengage the switch. The Hoist should not raise with the A2B system disengaged.
- Check for hydraulic leaks.
- Test the Hydraulic Overload Protection (HOP) annually. The transducer should cause the HOP to disengage at 3000 psi. The HOP stops the following Hoist Raise, Boom Extend, and Boom Lower until the system pressure is less than the set pressure. Exiting the HOP alarm mode can be accomplished by Lowering the load to the ground, retracting the boom (most effective), or raising the boom.

	Any deficiencies found should be corrected immediately and before operation of the crane. Failure to do so could result in equipment malfunction or failure and can result in serious injury personal injury or death.
	If removal of the main pin is ever necessary secure the boom tip with a 2500# freight strap to the rear of the 1st Stage Boom as shown below. The booms can extend out or separate with the main pin removed. Failure to do so could result in equipment malfunction or failure and can result in serious injury personal injury or death.

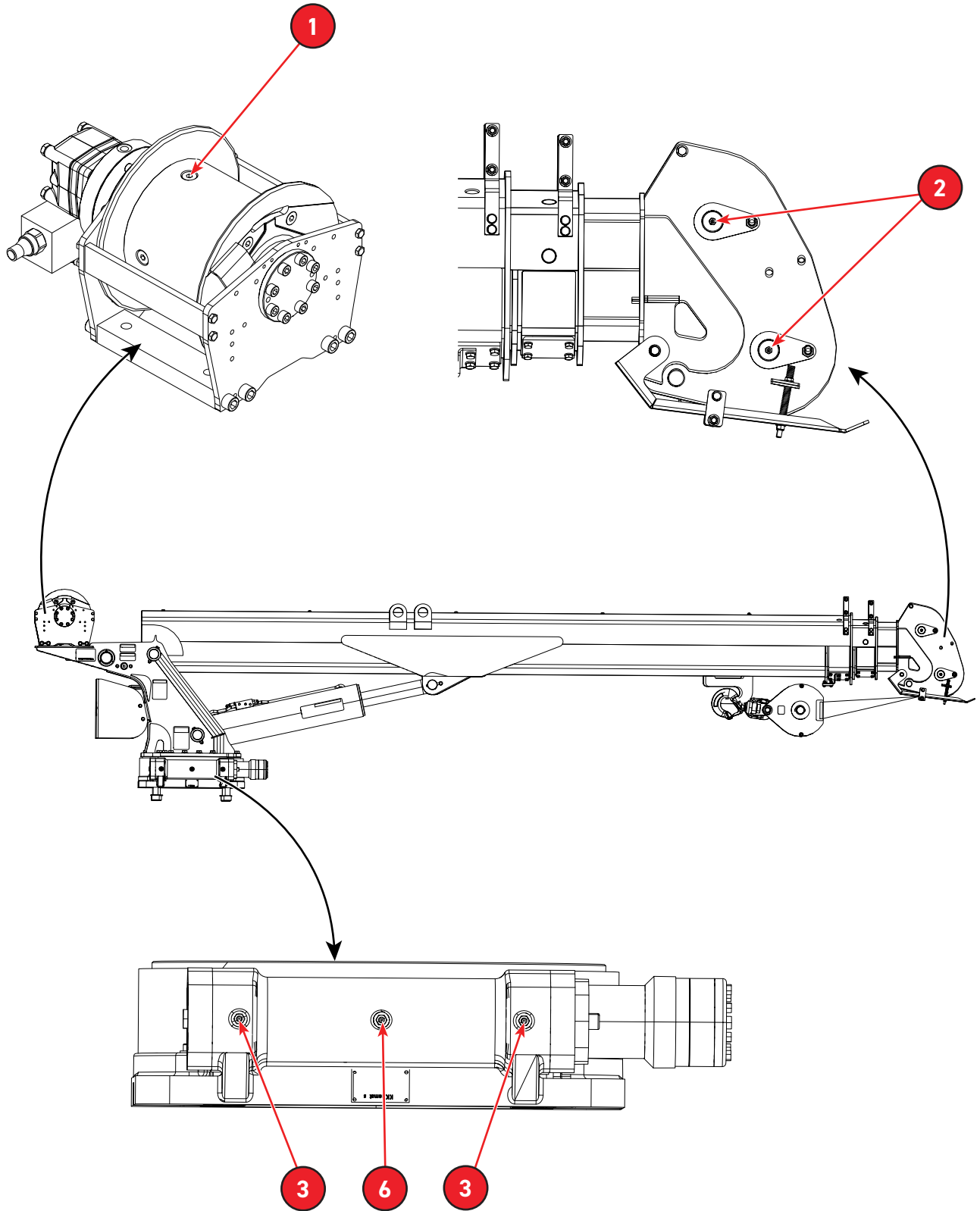


1.	1st Stage Boom Tip
2.	Main Boom Assembly

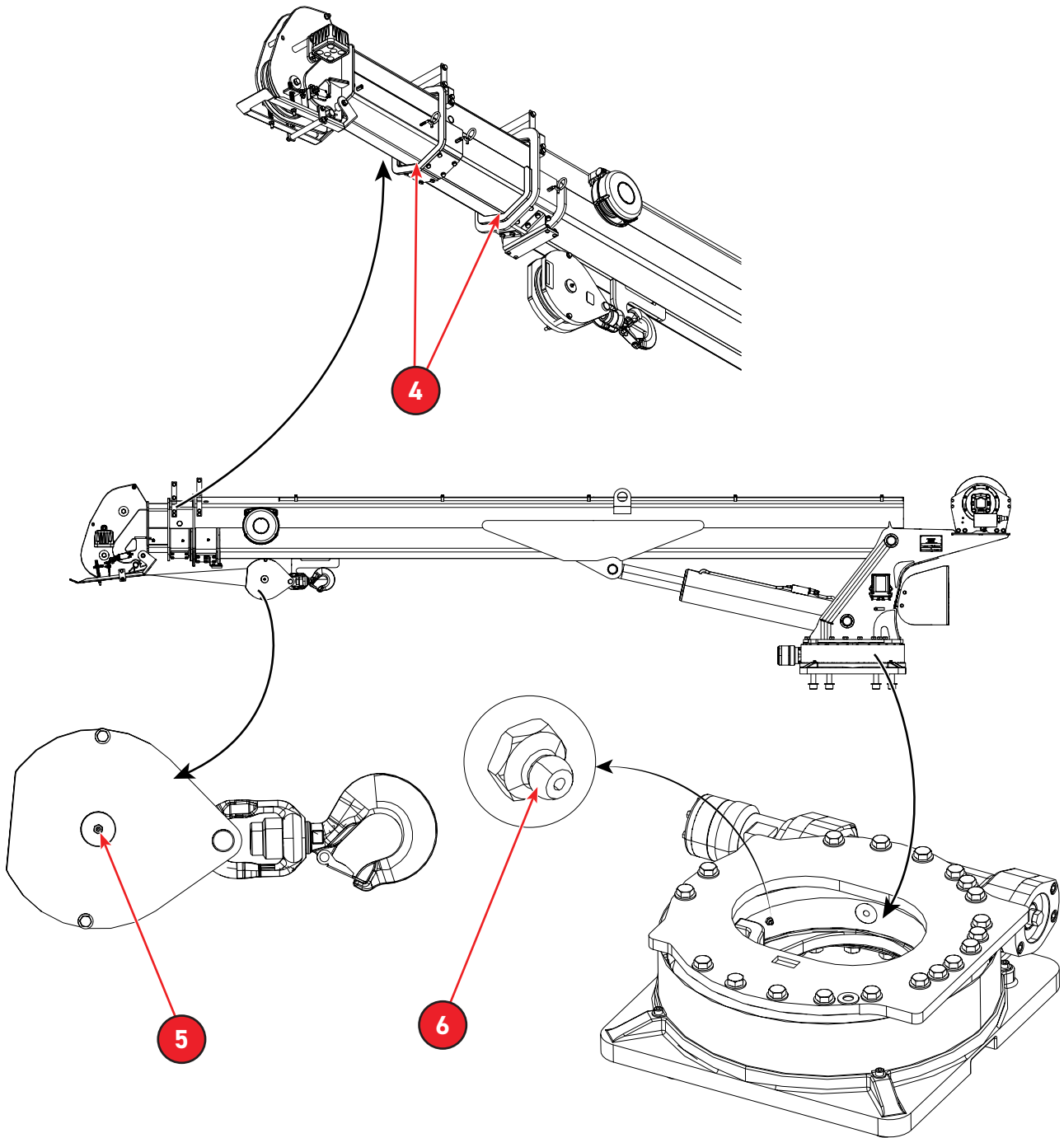
# LK12000

Maintenance and Service  
Lubrication Chart

## Lubrication Chart



**LK12000**  
Maintenance and Service  
Lubrication Chart



# LK12000

## Maintenance and Service Lubrication Chart

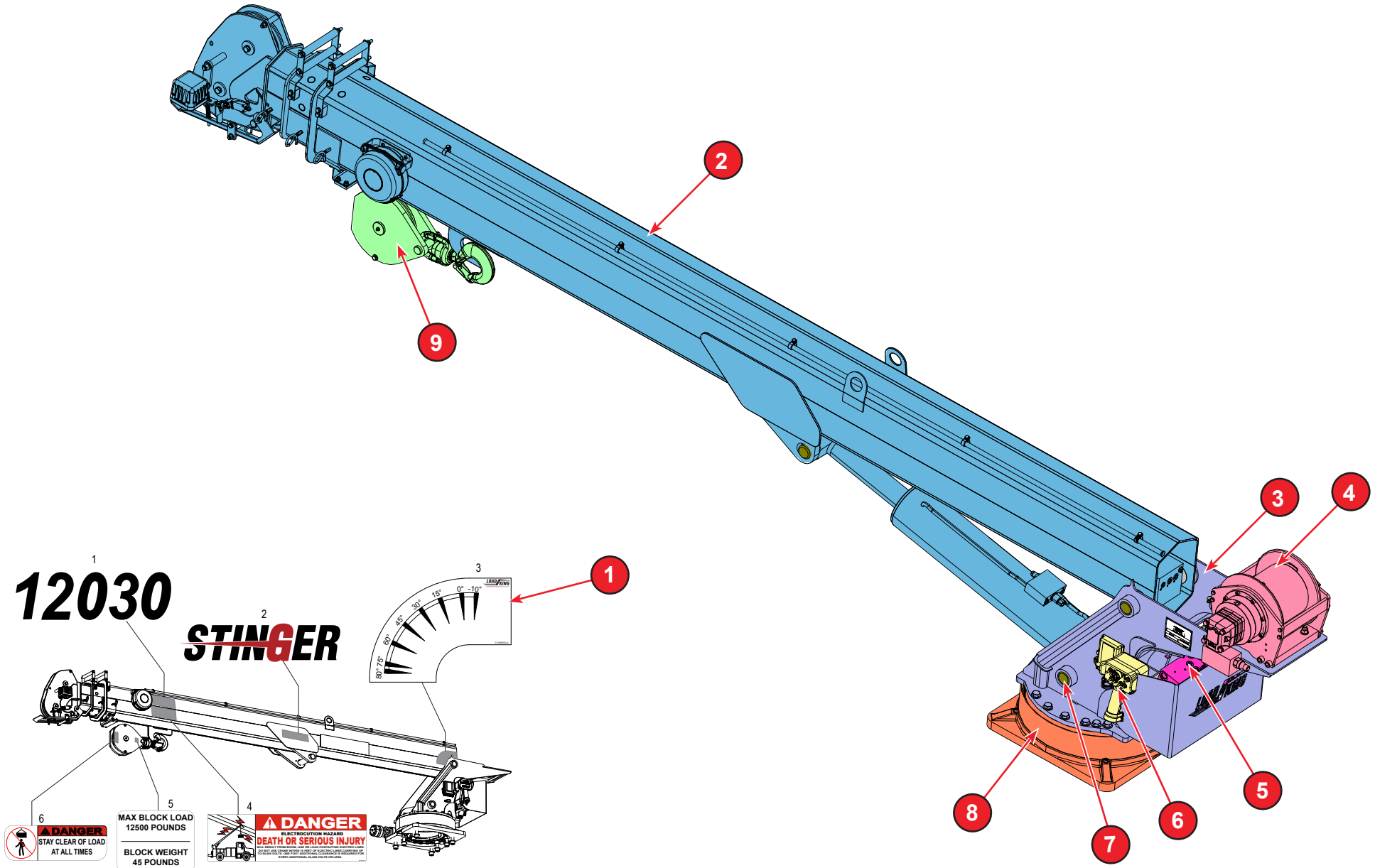
<b>Ref</b>	<b>Description</b>	<b>Lubricant</b>	<b>Hours</b>
1.	Wire Rope Load Line	Light Oil	1 Month
2.	Sheave Bearing	Multi-Lube A	8
3.	Slew Drive Roller Bearing	Multi-Lube A	150
4.	Bottom of 2nd & 3rd Booms	Lube-A-Boom	8
5.	Load Block Sheave Bearing	Multi-Lube A	8
6.	Slew Drive Worm Thread	Multi-Lube A	150





# **CRANE OVERVIEW**

# CRANE OVERVIEW



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

## 12K SERVICE CRANE OVERVIEW

- 1 DECALS
- 2 BOOM
- 3 TURRET
- 4 WINCH
- 5 HYDRAULICS
- 6 CONTROLS
- 7 PIN INSTALLATION
- 8 SLEW DRIVE
- 9 SNATCH BLOCK

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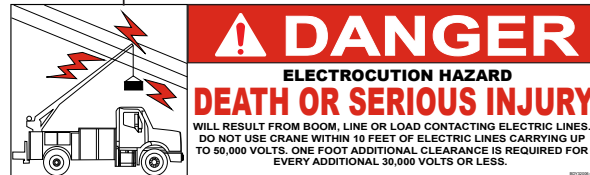
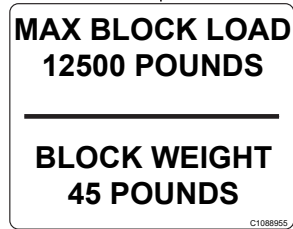
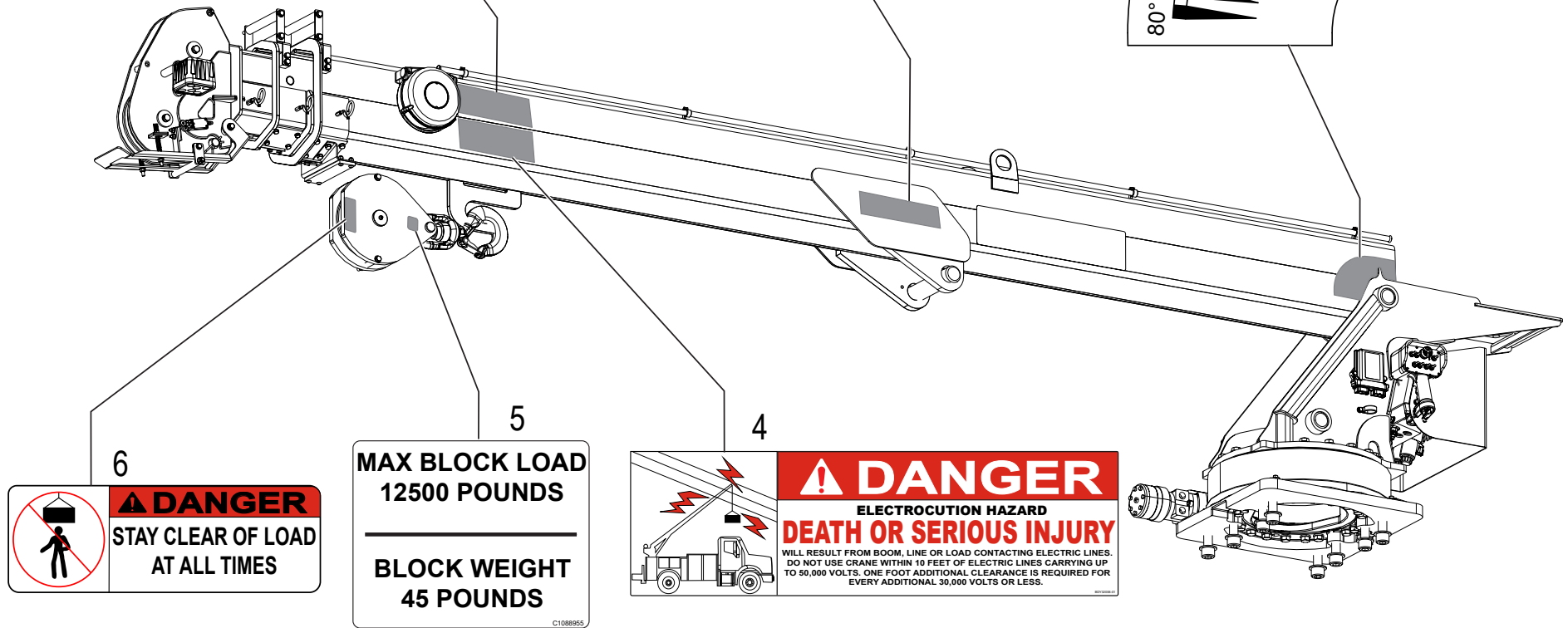
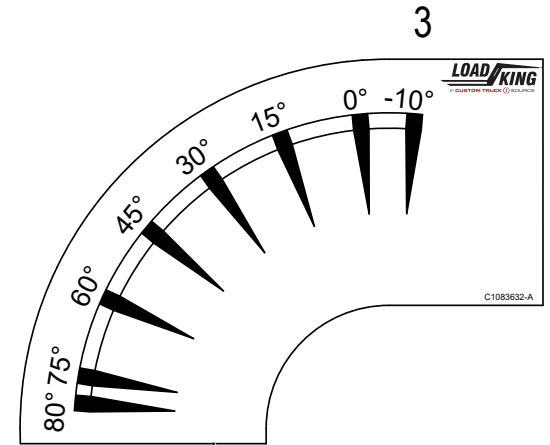
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

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**DECALS**

# 12030

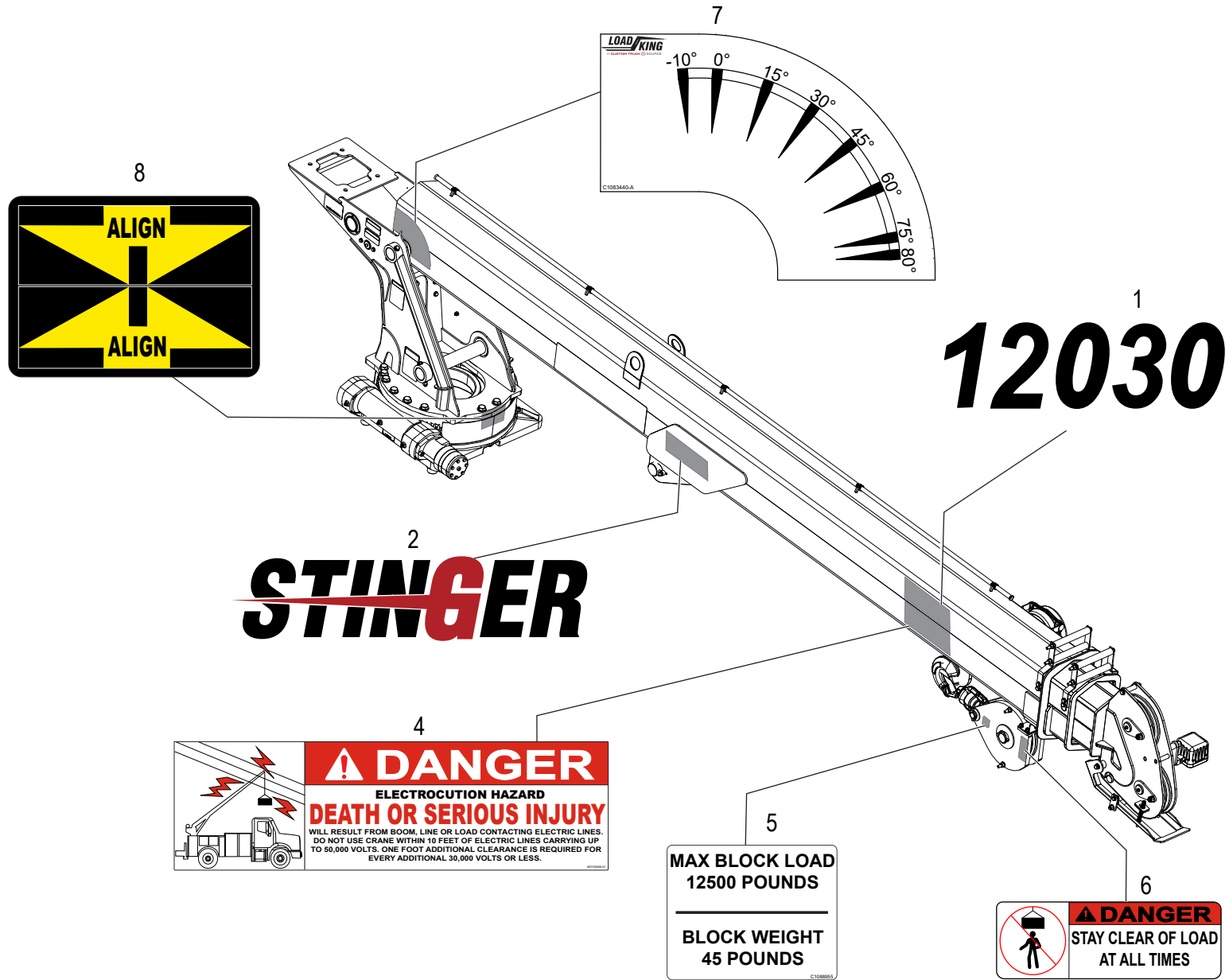
# 2 STINGER



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1088927</b>	<b>LK12000 DECAL KIT</b>		
1	C1088933	DECAL, 12030	1	Total 2 used in LK12000 DECAL KIT
2	BDY32006-04	DECAL, STINGER	1	Total 2 used in LK12000 DECAL KIT
3	C1083632	ANGLE DECAL LH	1	
4	BDY32006-01	DECAL, ELECTROCUTION HAZARD	1	Total 2 used in LK12000 DECAL KIT
5	C1088955	BLOCK WEIGHT DECAL, 12K	1	Total 2 used in LK12000 DECAL KIT
6	BDY32006-07	DECAL, DANGER STAY CLEAR OF LOAD	1	Total 2 used in LK12000 DECAL KIT

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

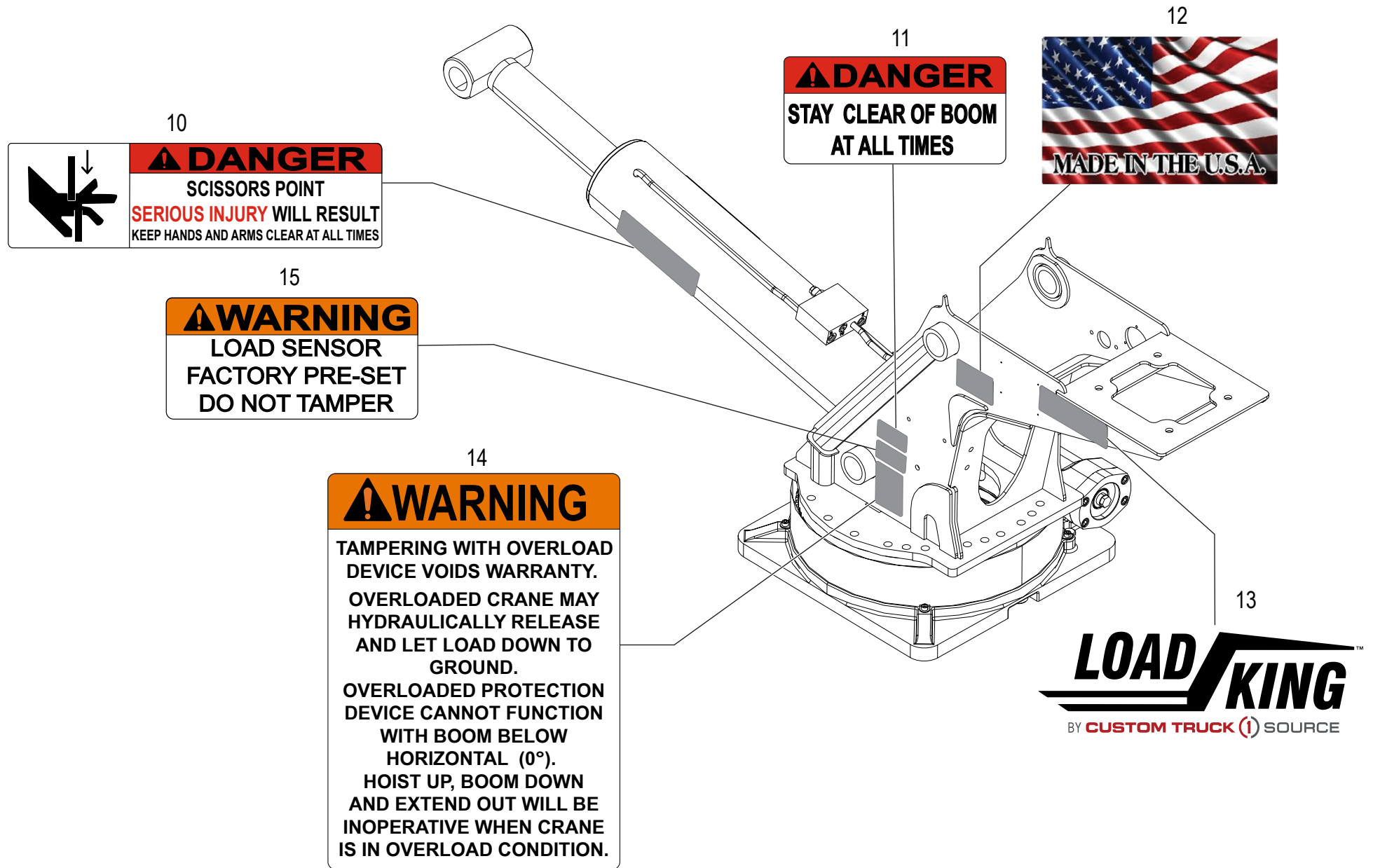


WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1088927</b>	<b>LK12000 DECAL KIT</b>		
7	C1083440	ANGLE DECAL RH	1	
8	BDY32006-11	DECAL, ALIGN ARROWS	1	
9*	BDY32006-10	DECAL, GREASE ARROWS	1	

\* ITEM NOT SHOWN IN THE ILLUSTRATIONS

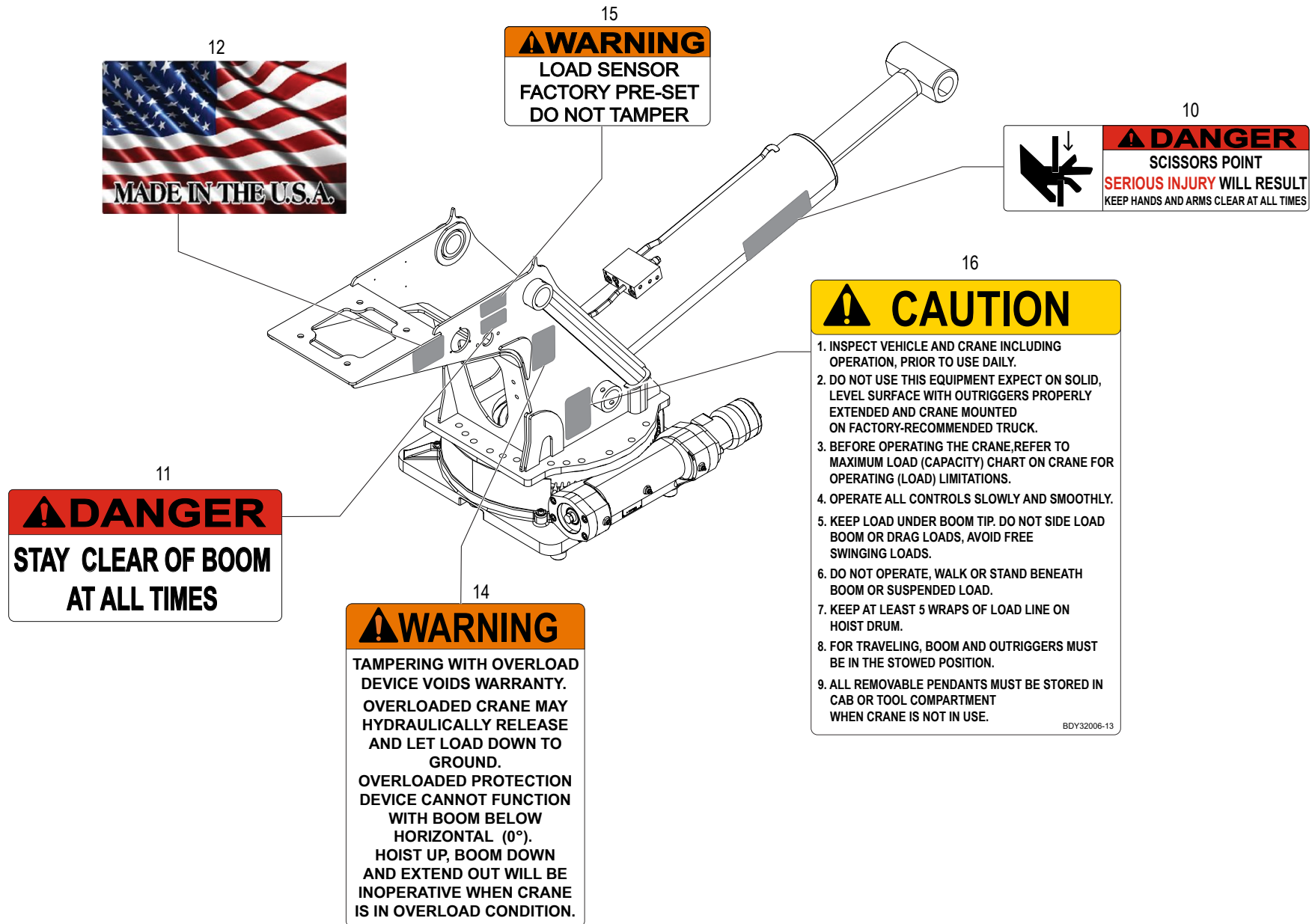
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1088927</b>	<b>LK12000 DECAL KIT</b>		
10	BDY32006-05	DECAL, DANGER SCISSOR POINT	1	Total 2 used in LK12000 DECAL KIT
11	BDY32006-12	DECAL, DANGER STAY CLEAR OF BOOM	1	Total 2 used in LK12000 DECAL KIT
12	BDY32006-09	DECAL, MADE IN THE U.S.A.	1	Total 2 used in LK12000 DECAL KIT
13	BDY32006-14	DECAL, LOADKING (LOGO)	1	
14	BDY32006-08	DECAL, WARNING TAMPERING WITH OVERLOAD	1	Total 2 used in LK12000 DECAL KIT
15	BDY32006-06	DECAL, LOAD SENSOR WARNING	1	Total 2 used in LK12000 DECAL KIT

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



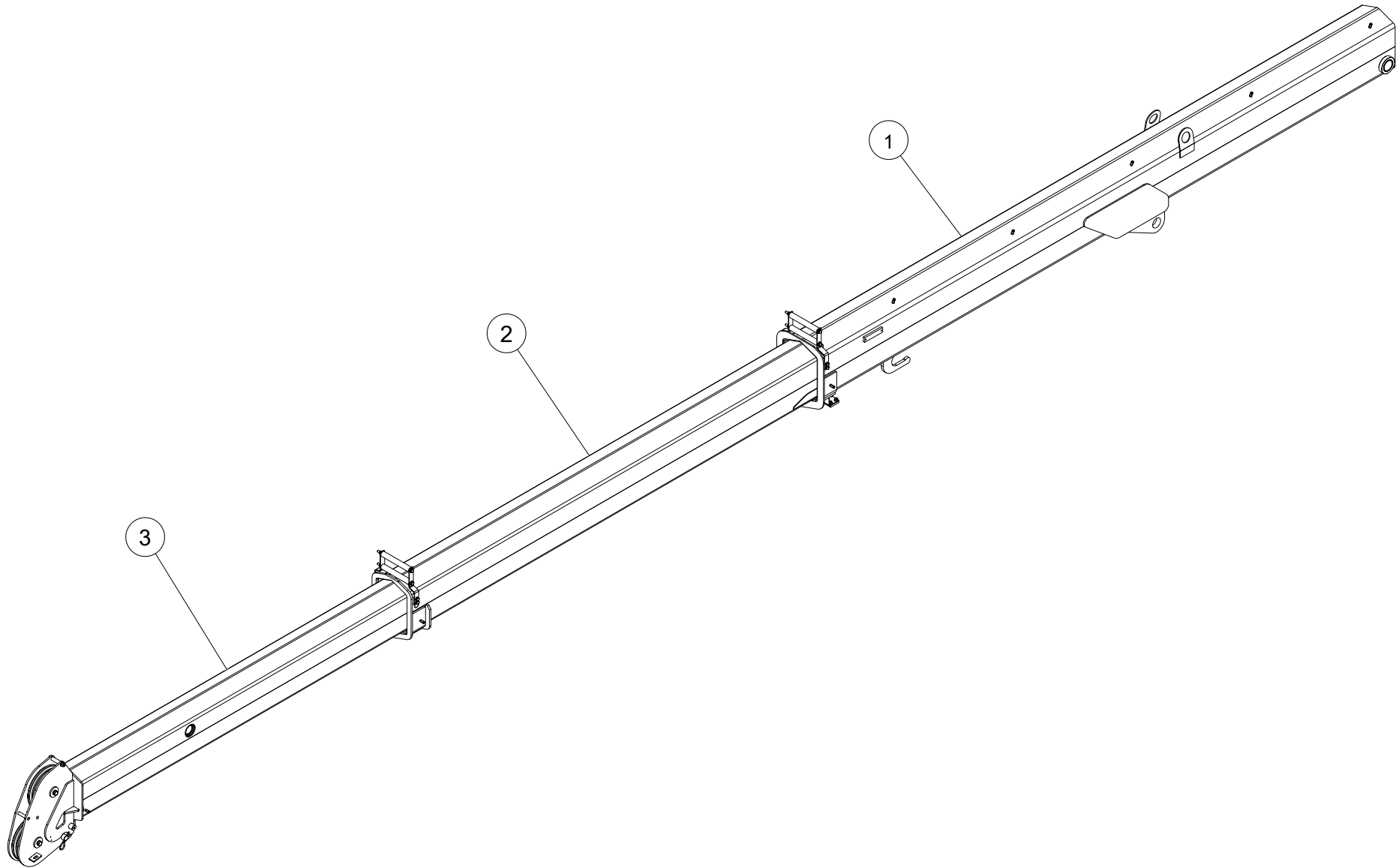
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1088927</b>	<b>LK12000 DECAL KIT</b>		
16	BDY32006-13	DECAL, CAUTION RULES	1	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

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**BOOM**



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WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

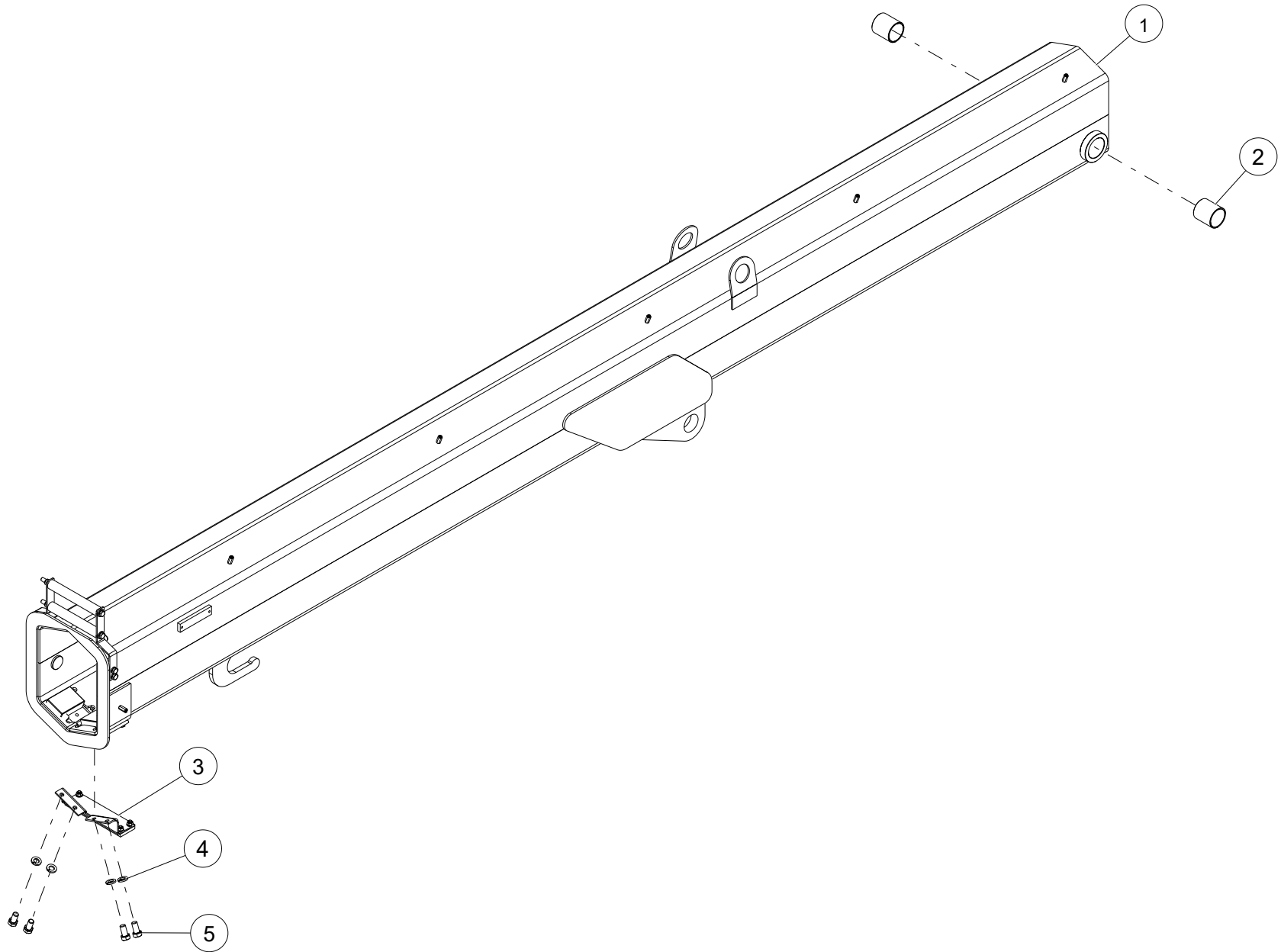
## 30' BOOM ASSY LK12000

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ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>BDY32324</b>	<b>30' BOOM ASSY LK12000</b>		
1	<b>C1084884</b>	1ST STG BOOM WLDMT	1	SEE PAGE 68
2	<b>BDY32326</b>	2ND STG BOOM WLDMT.	1	SEE PAGE 72
3	<b>BDY32327</b>	3RD STG BOOM WLDMT.	1	SEE PAGE 76

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

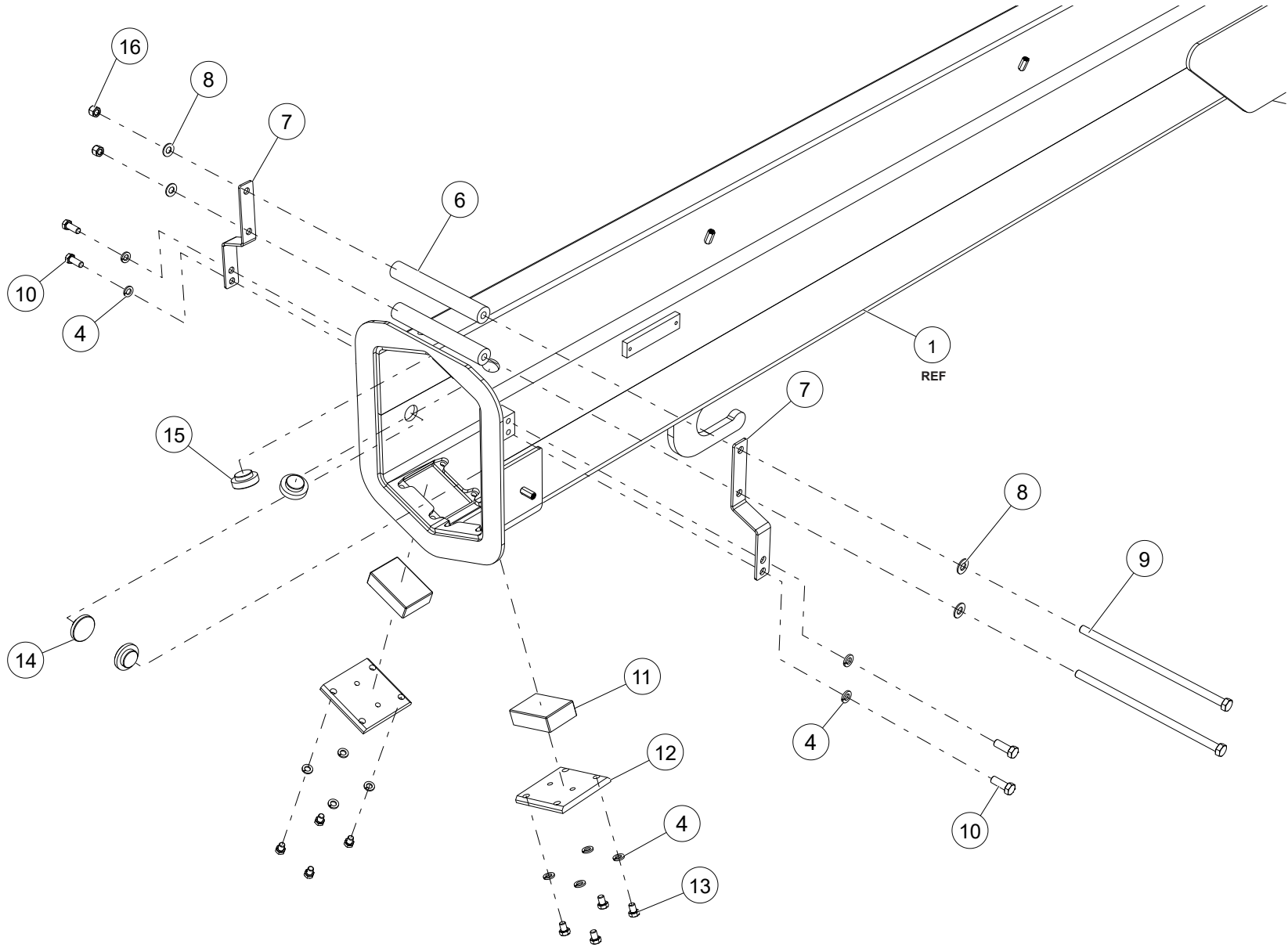
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WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1084884</b>	<b>1ST STG BOOM WLDMT</b>		
1	C1084884	1ST STG BOOM WLDMT	1	
2	C1070574	2.00 ID X 2.25 OD X 2.625LG BUSHING	2	
3	<b>BDY00239</b>	BLOCK BUMPER ASSY.	1	SEE PAGE 80
4	WSH4-X3750008Z0	SPIRAL LOCK WASHER, 3/8, GR8, ZN	4	Total 16 used in 1ST STG BOOM WLDMT
5	HHCS-C3757508Z0	HEX HEAD CAP SCREW, 3/8-16 X 3/4 LEN, GR8, ZINC	4	

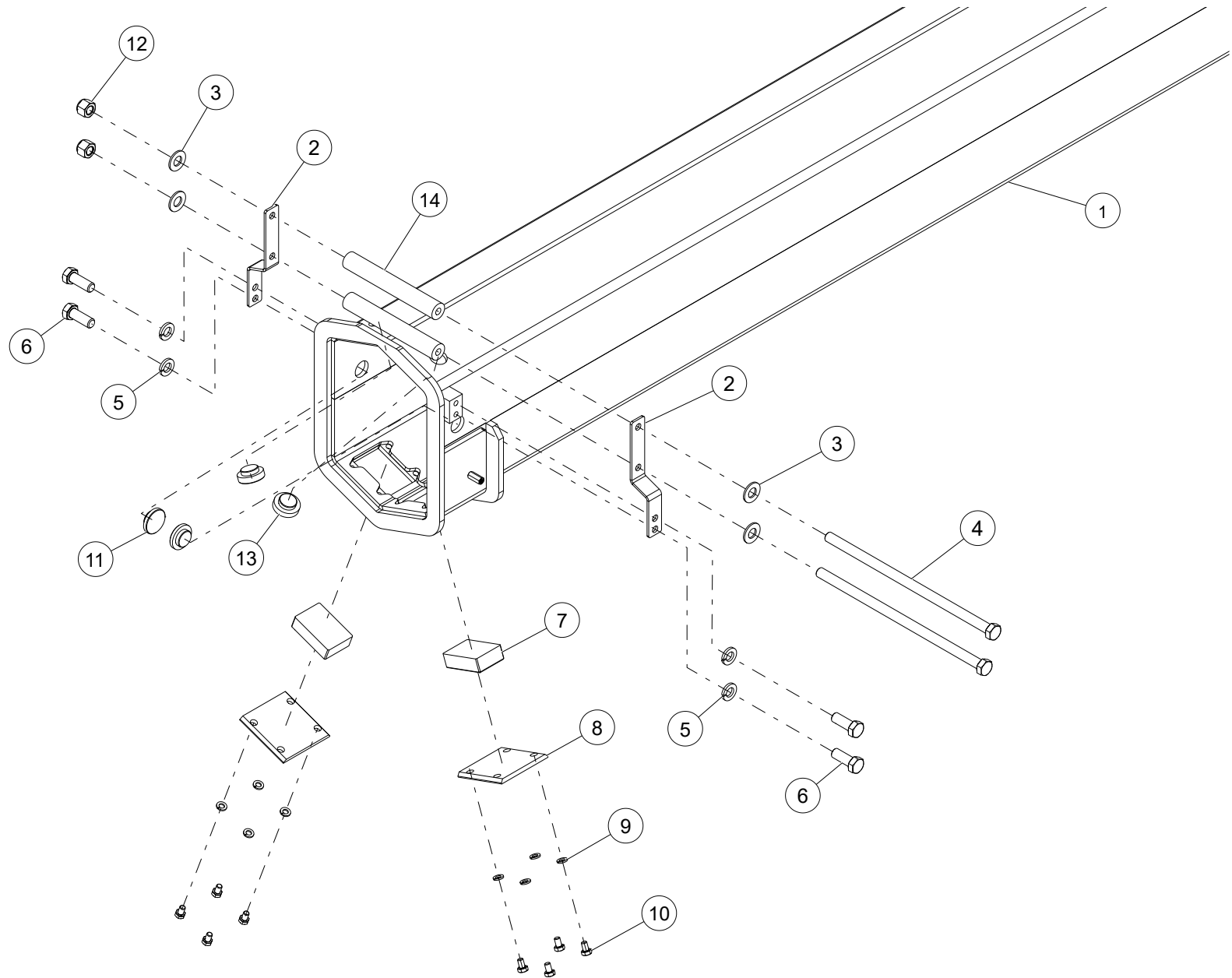
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1084884</b>	<b>1ST STG BOOM WLDMT</b>		
6	C1073445	ROLLER, ROPE GUIDE	2	
7	BDY32129	ROPE GUIDE, BRKT, 1ST STG	2	
8	WSH1-X3750008Z0	WASHER, 3/8, GR8, ZN	4	
9	HHCS-C375H508Z0	HEX HEAD CAP SCREW, 3/8-16 X 8 1/2 LEN, GR8, ZINC	2	
10	HHCS-C375A008Z0	HEX HEAD CAP SCREW, 3/8-16 X 1 LEN, GR8, ZN	4	
11	BDY00048-03	RUB PAD 2.44 x 3.44 x 1.00	2	
12	BDY00108-01	PAD KEEPER	2	
13	HHCS-C3755008Z0	HEX HEAD CAP SCREW, 3/8-16 X 1/2 LEN, GR8, ZN	8	
14	BDY00049-02	WALL PUCK DIAMETER 1.50 x 0.47	2	
15	BDY00049-03	WALL PUCK 1.50 x 0.63	2	
16	NUT3-C3750008Z0	NYLON LOCK NUT, 3/8-16, GR8, ZN	2	

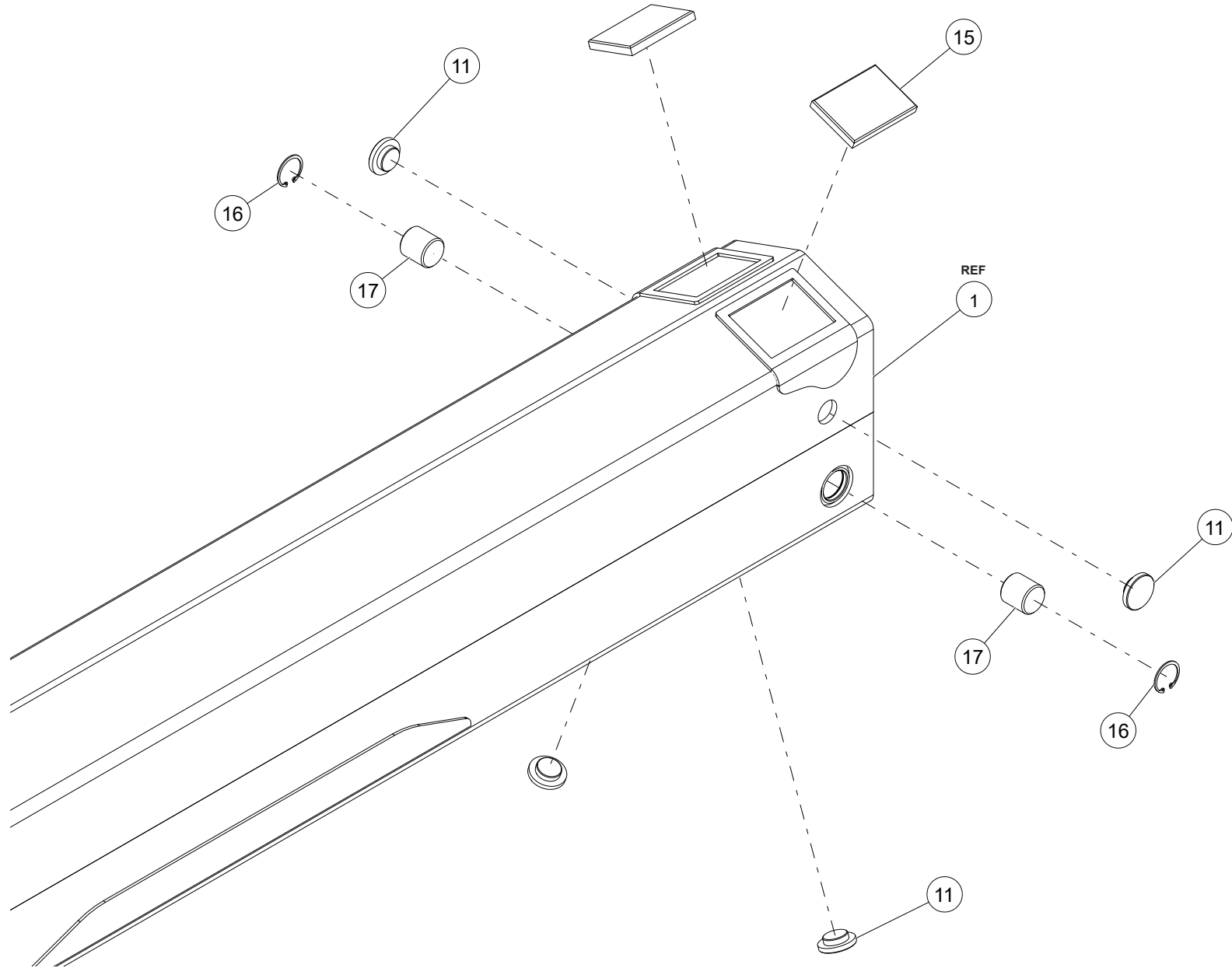
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>BDY32326</b>	<b>2ND STG BOOM WLDMT</b>		
1	BDY32326	2ND STG BOOM WLDMT.	1	
2	BDY32128	ROPE GUIDE, BRKT, 2ND STG	2	
3	WSH1-X3750008Z0	WASHER, 3/8, GR8, ZN	4	
4	HHCS-C375H508Z0	HEX HEAD CAP SCREW, 3/8-16 X 8 1/2 LEN, GR8, ZINC	2	
5	WSH4-X3750008Z0	SPIRAL LOCK WASHER, 3/8, GR8, ZN	4	
6	HHCS-C375A008Z0	HEX HEAD CAP SCREW, 3/8-16 X 1 LEN, GR8, ZN	4	
7	BDY00048-04	RUB PAD 1.94 x 2.94 x 0.94	2	
8	BDY00108-02	PAD KEEPER	2	
9	WSH4-X3130008Z0	SPIRAL LOCK WASHER, 5/16, GR8, ZN	8	
10	HHCS-C3135008Z0	HEX HEAD CAP SCREW, 1/4-20 X 2 1/2 LEN, GR8, ZINC	8	
11	BDY00049-02	WALL PUCK DIAMETER 1.50 X 0.47	2	Total 6 used in 2ND STG BOOM WLDMT
12	NUT3-C3750008Z0	NYLON LOCK NUT, 3/8-16, GR8, ZN	2	
13	BDY00049-03	WALL PUCK Ø1.50 X 0.63	2	
14	C1073445	ROLLER, ROPE GUIDE	2	

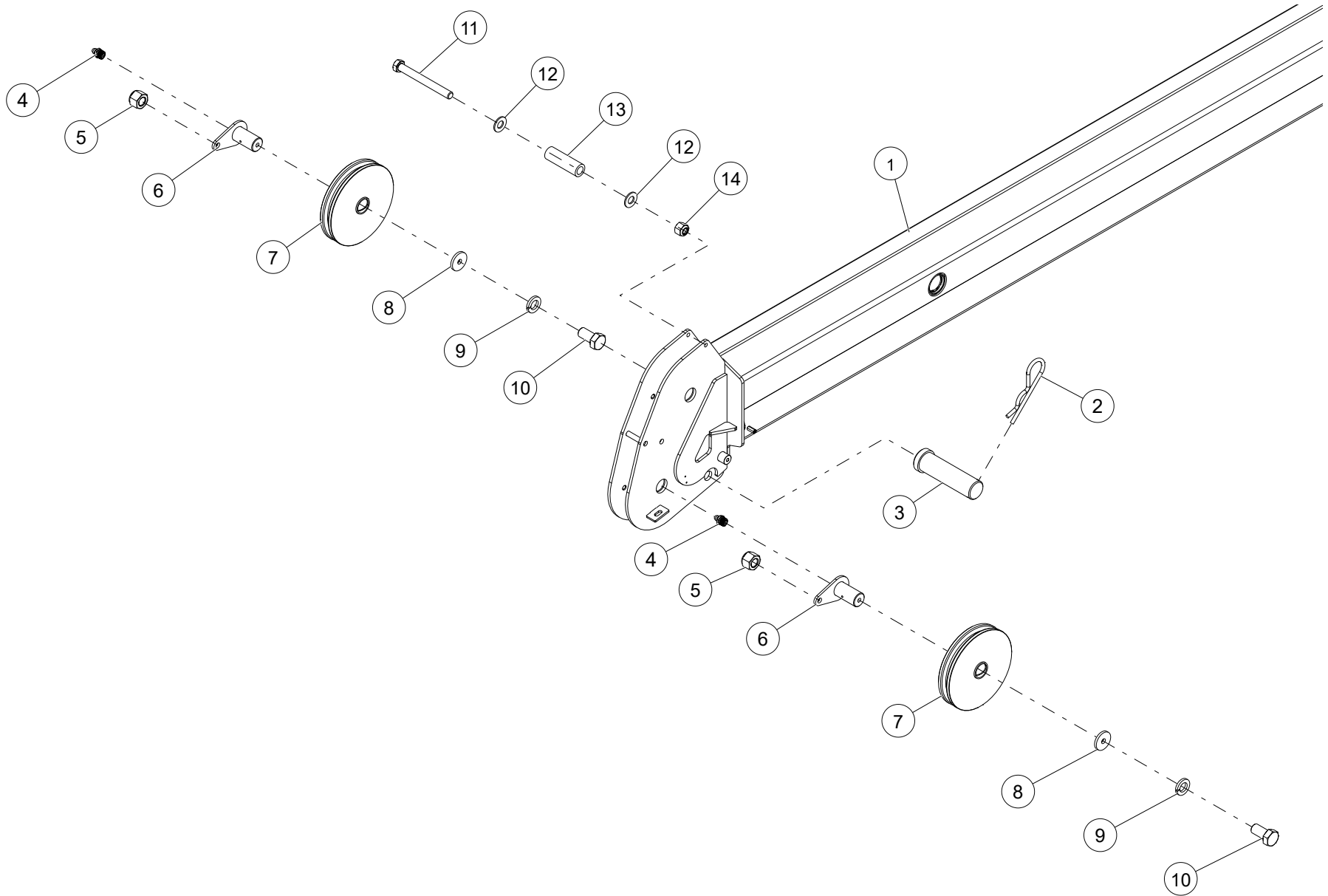
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>BDY32326</b>	<b>2ND STG BOOM WLDMT</b>		
15	BDY00048-06	RUB PAD 2.44 x 3.44 x 0.38	2	
16	RET2-XA25000XZ0	INTERNAL RETAINING RING, 1-1/4 BORE, ZN	2	
17	C1070770	PIN 1.25 DIA X 1.260 LG	2	

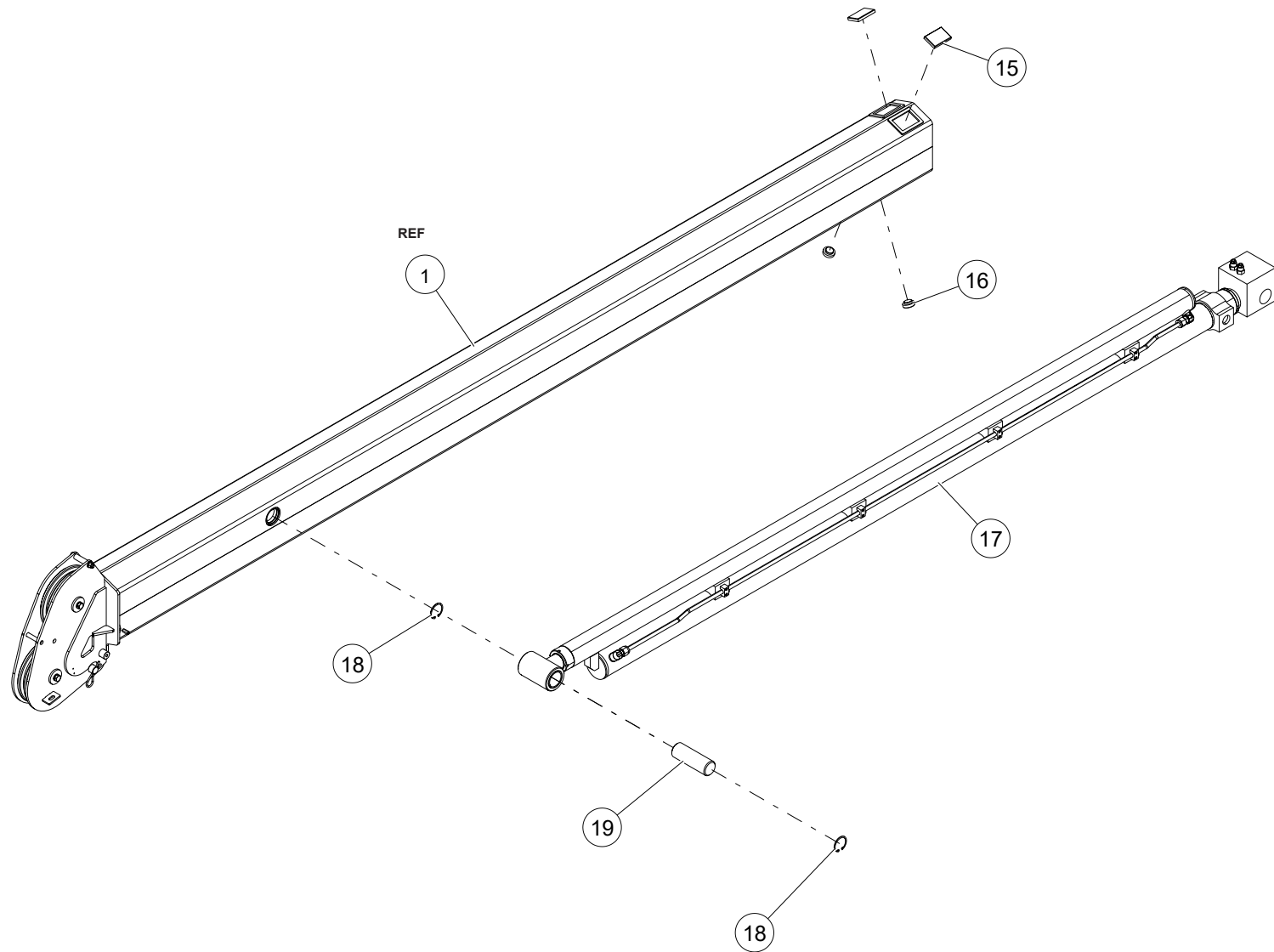
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>BDY32327</b>	<b>3RD STG BOOM WLDMT</b>		
1	BDY32327	3RD STG BOOM WLDMT	1	
2	PIN2-X172C50YZ0	HAIRPIN, 11/64 DIA X 3 1/2 LEN, ZINC	1	
3	BDY20033-515	CLEVIS PIN 1" DIA X 2-15/16 LG ZN	1	
4	1001350	ZERK, GREASE FITTING STRAIGHT STEEL 1/8 NPT	2	
5	NUT3-C5000008Z0	NYLON LOCK NUT, 1/4-20, GR8, ZN	2	
6	BDY00131-01	SHAFT WLDMT 1.5" X 3.27	2	
7	BDY00127	SHEAVE ASSEMBLY, 7/16" ROPE DIA, 8.7" OD, 1-1/2" WD	2	
8	BDY00132-02	WASHER 2" OD X 1/2 ID	2	
9	WSH4-X5000008Z0	SPIRAL LOCK WASHER, 1/2, GR8, ZN	2	
10	HHCS-C500A008Z0	HEX HEAD CAP SCREW, 1/2-13 X 1 LEN, GR8, ZN	2	
11	HHCS-C375C508Z0	HEX HEAD CAP SCREW, 1/4-20 X 2 1/2 LEN, GR8, ZINC	1	
12	WSH1-X3750008Z0	WASHER, 3/8, GR8, ZN	2	
13	BDY00144-04	BOOM TIP SPACER	1	
14	NUT3-C3750008Z0	NYLON LOCK NUT, 3/8-16, GR8, ZN	1	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



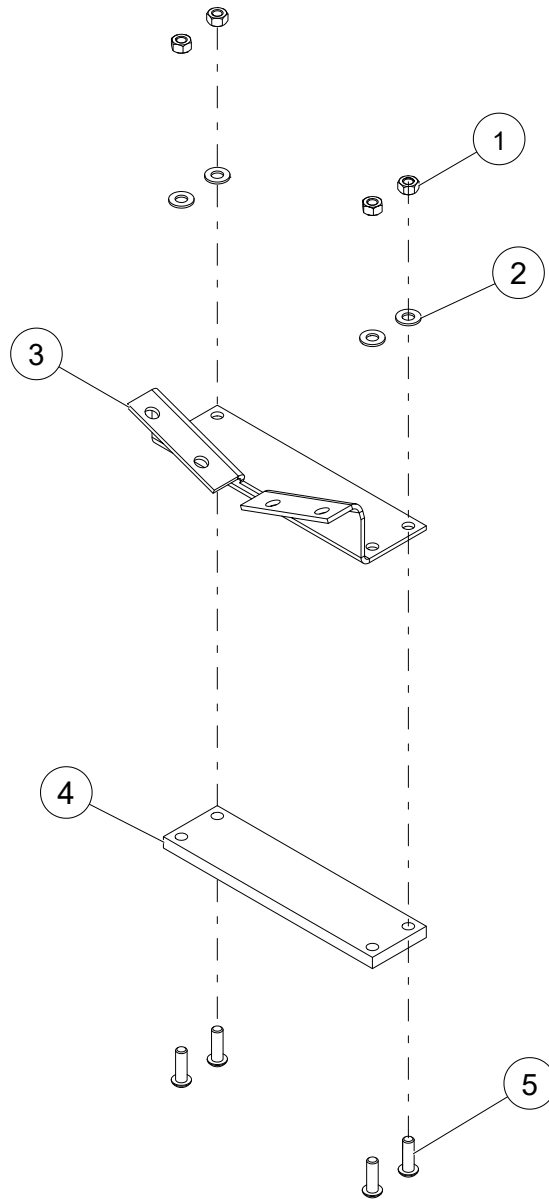
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>BDY32327</b>	<b>3RD STG BOOM WLDMT</b>		
15	BDY00048-05	RUB PAD 1.94 x 2.94 x 0.38	2	
16	BDY00049-03	WALL PUCK 1.50 x 0.63	2	
17	<b>C1065592</b>	30' SERVICE CRANE EXT CYL, 12K	1	SEE PAGE 82
18	RET2-XB00000XZ0	INTERNAL RETAINING RING, 2 BORE, ZN	2	
19	BDY32330	2" EXT CYL PIN	1	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

# BLOCK BUMPER ASSY

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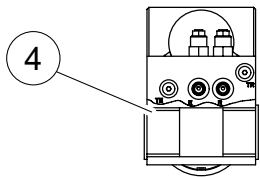
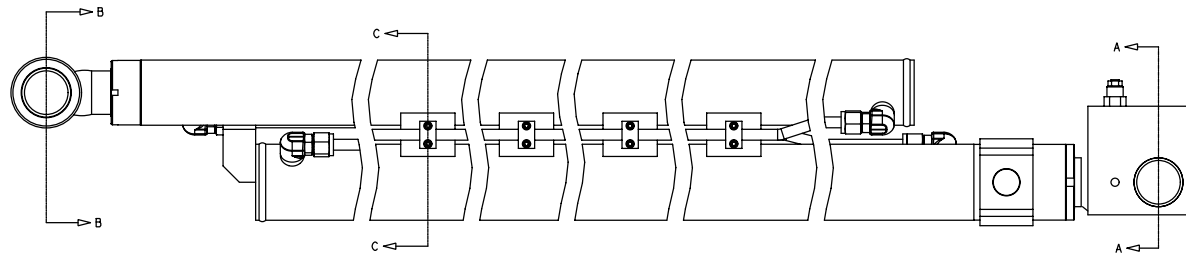
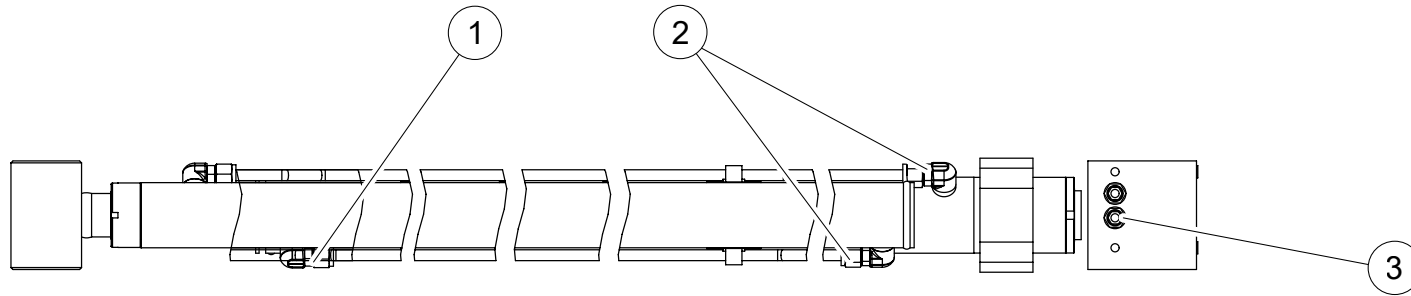
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

## BLOCK BUMPER ASSY

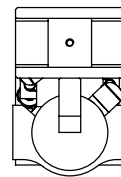
ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>BDY00239</b>	<b>BLOCK BUMPER ASSY</b>		
1	NUT1-C3130008Z0	HEX NUT, 5/16-18, GR8, ZN	4	
2	WSH2-X3130008Z0	SAE WASHER, 5/16, GR8, ZN	4	
3	BDY00239-01	FRAME, BLOCK BUMPER	1	
4	BDY00239-02	RUB PAD, BLOCK BUMPER	1	
5	SH03-C313A00BZ0	SHCS BUTTON HEAD, 5/16-18 X 1 LEN, ZN	4	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

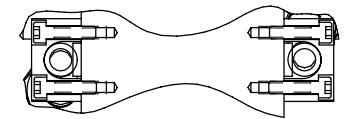
# 30' SERVICE CRANE EXT CYL, 12K



SECTION A-A



SECTION B-B



SECTION C-C

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

## 30' SERVICE CRANE EXT CYL, 12K

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1065592</b>	<b>30' SERVICE CRANE EXT CYL, 12K</b>		
1	C1090301	#8 O-RING TUBE SEAL CONNECTOR	1	
2	C1090300	#8 O-RING TUBE SEAL CONNECTOR BORED	1	
3	C1090302	COUNTERBALANCE VALVE	2	
4	C1090303	MRP BEARING PWR32-24	4	
5*	C1090299	SEAL KIT FOR BOTH CYLINDERS	1	

\* ITEM NOT SHOWN IN THE ILLUSTRATIONS

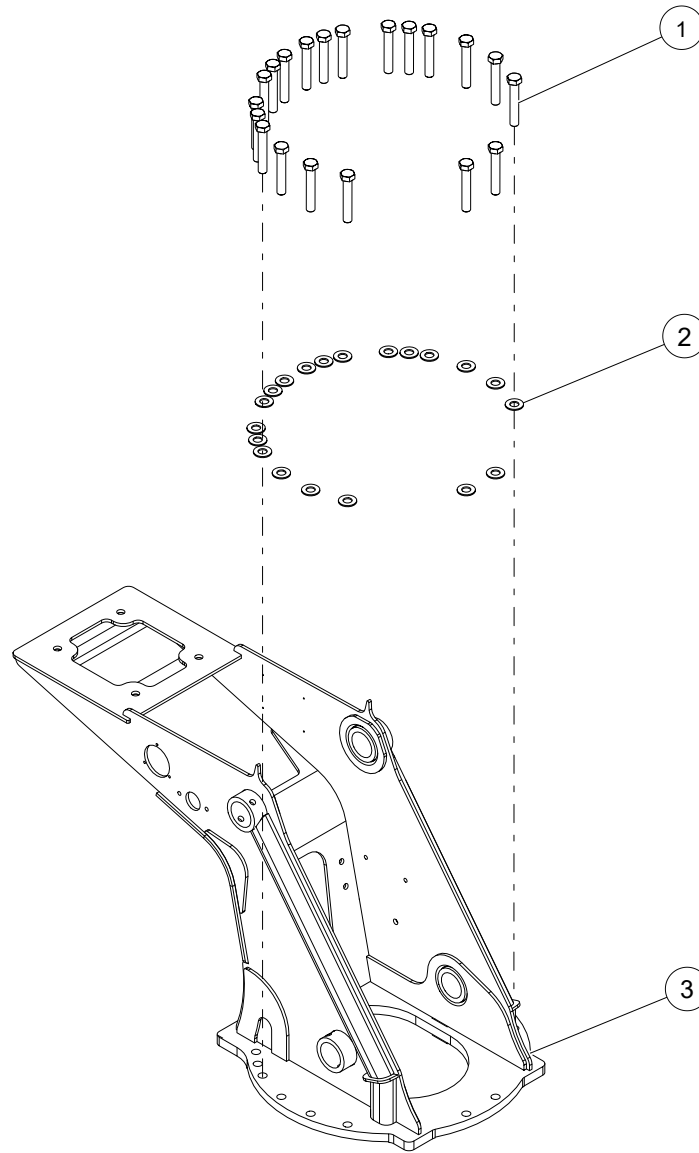
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

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# **TURRET ASSEMBLY**

# TURRET ASSEMBLY

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WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

## TURRET ASSEMBLY

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ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>BDY32332</b>	<b>TURRET ASSY LK12000</b>		
1	HHCS-C625B258M1	HEX HEAD CAP SCREW, 5/8-11 X 2 1/4 LEN, GR8, MA, FULL THREAD	20	
2	WSH1-X6250008M0	WASHER, 5/8, GR8, MA	20	
3	C1077234	TURRET WELDMENT	1	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

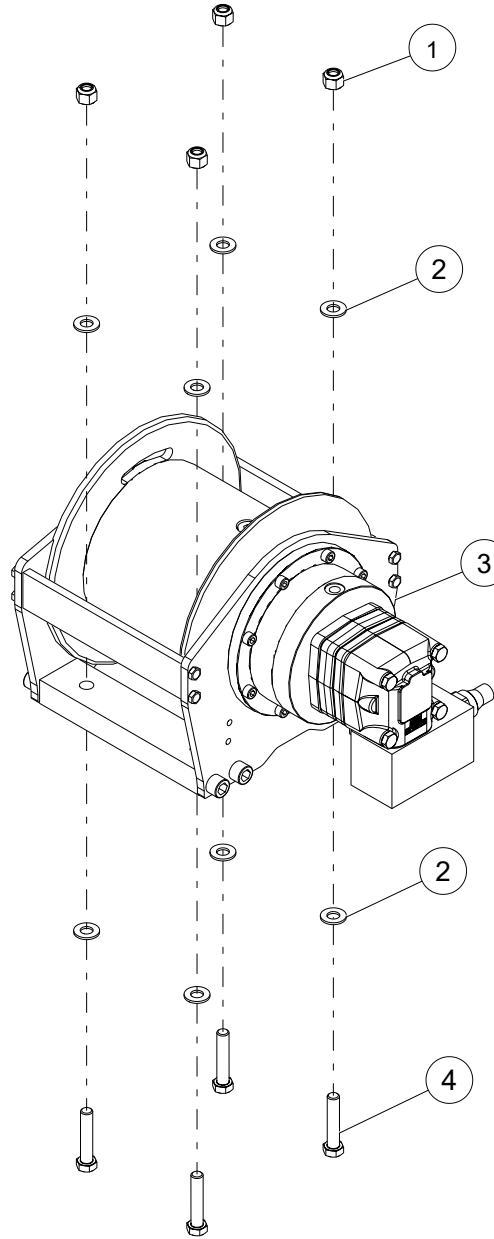
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# **WINCH INSTALLATION**

# WINCH INSTALLATION

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WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

## WINCH INSTALLATION

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ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1074034</b>	<b>WINCH INSTALL LK12000</b>		
1	NUT3-C5000008Z0	NYLON LOCK NUT, 1/2-13, GR8,ZN	4	
2	WSH1-X500008Z0	WASHER, 1/2, GR8, ZN	8	
3	<b>BDY20022-05</b>	WINCH, 12K	1	SEE PAGE 92
4	HHCS-C500B508Z0	HEX HEAD CAP SCREW, 1/2-13 X 2 1/2 LEN, GR8, ZN	4	
5*	C1090421	7/16" WRC x 110 FT WIRE ROPE	1	

\* ITEM NOT SHOWN IN THE ILLUSTRATION

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WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

# NON - ILLUSTRATED PAGE

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

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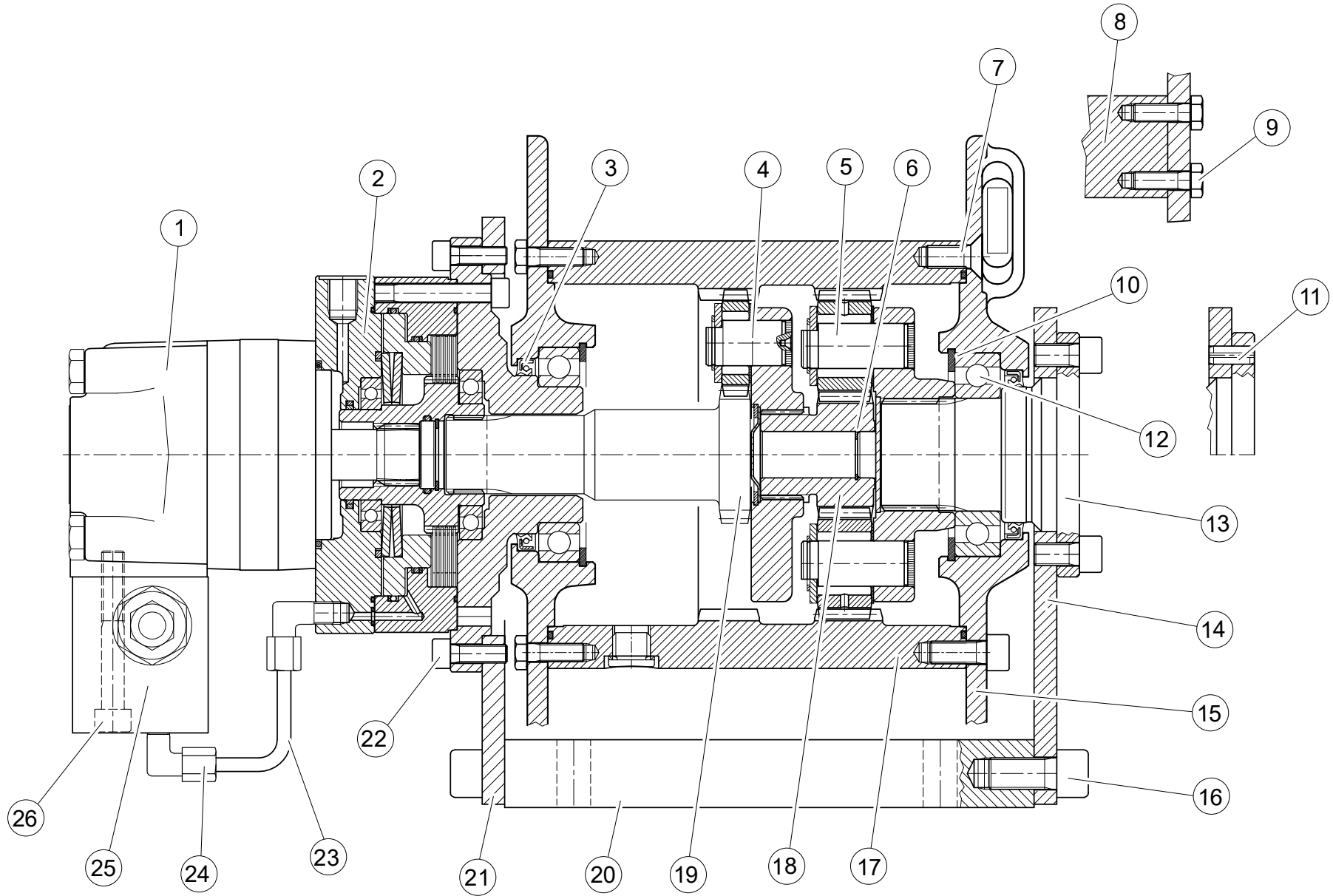
## WINCH 12K

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ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>BDY20022-05</b>	<b>WINCH 12K</b>		
1	<b>C1090250</b>	WINCH	1	SEE PAGE 94
2	<b>C1090252</b>	BRAKE UNIT	1	SEE PAGE 98

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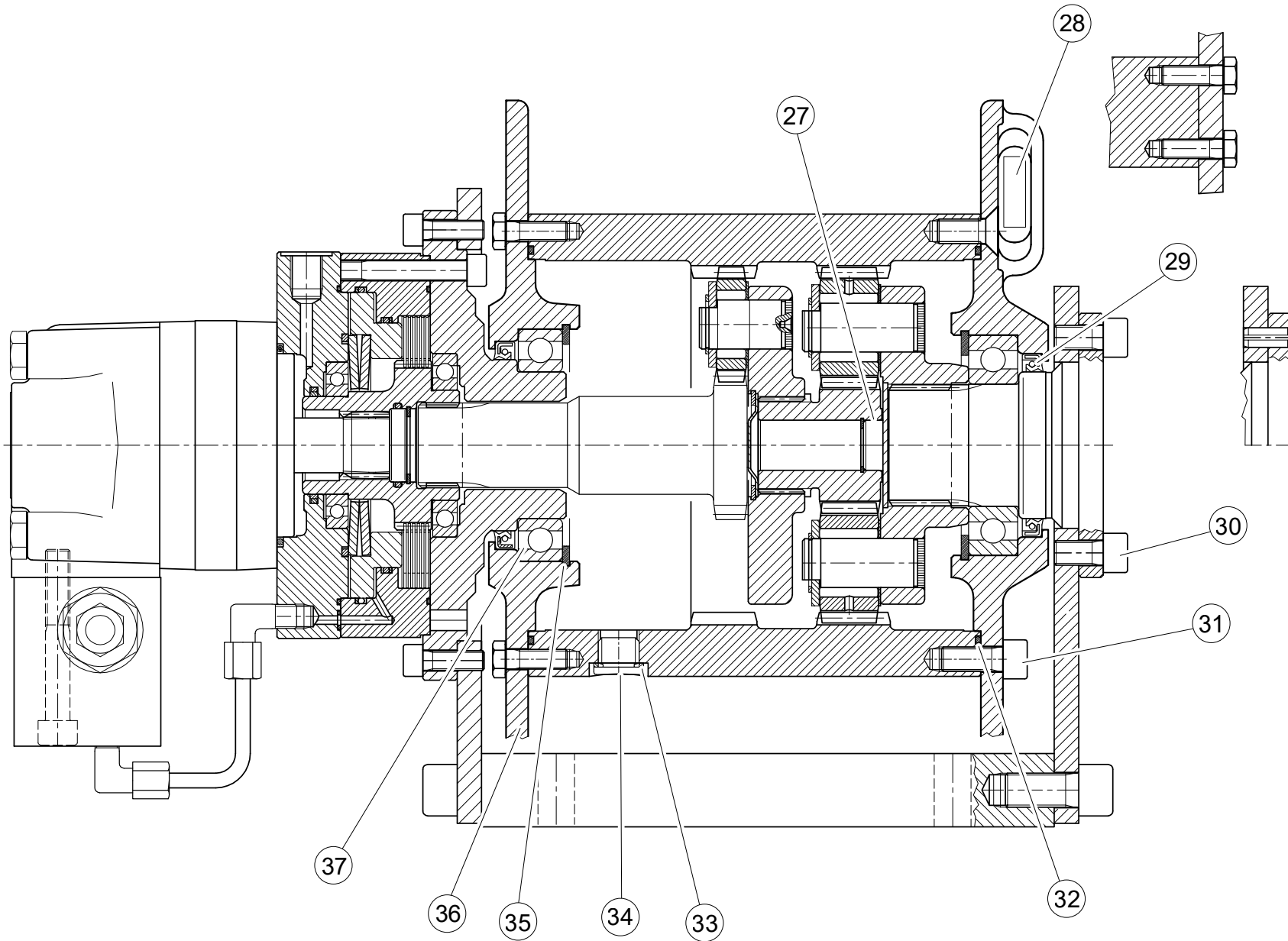
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1090250</b>	<b>WINCH</b>		
1	C1090254	ENGINE	1	
2	<b>C1090252</b>	BRAKE UNIT	1	SEE PAGE 98
3	C1090255	OIL RETAINER SEAL	1	
4	C1090256	REDUCTION GEAR UNIT (RE 110)	1	
5	C1090257	REDUCTION GEAR UNIT	1	
6	C1090258	SEEGER	1	
7	C1090264	HEX SOCKET COUNTERSUNK HEAD	2	
8	C1090265	CROSS MEMBER	2	
9	C1090266	HEXAGON SCREW	16	
10	C1090267	SEEGER	1	
11	C1090269	SPRING PIN	2	
12	C1090270	BALL BEARING	1	
13	C1090271	ANTIROTATION FLANGE	1	
14	C1090268	GEAR SIDE SUPPORT	1	
15	C1090272	SIDE FLANGE (GEAR SIDE)	1	
16	C1090273	HEX SOCKED HEAD CAP SCREW	8	
17	C1090274	WINCH DRUM	1	
18	C1090275	SUN GEAR	1	
19	C1090276	SUN GEAR	1	
20	C1090277	FASTENING SURFACE PLATE	2	
21	C1090278	MOTOR SIDE SUPPORT	1	
22	C1090279	HEX SOCKED HEAD CAP SCREW	8	
23	C1090280	BRAKE PIPE	1	
24	C1090281	90° CONNECTION (CONICAL)	2	
25	C1090282	VALVE	1	
26	C1090283	HEX SOCKED HEAD CAP SCREW	2	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

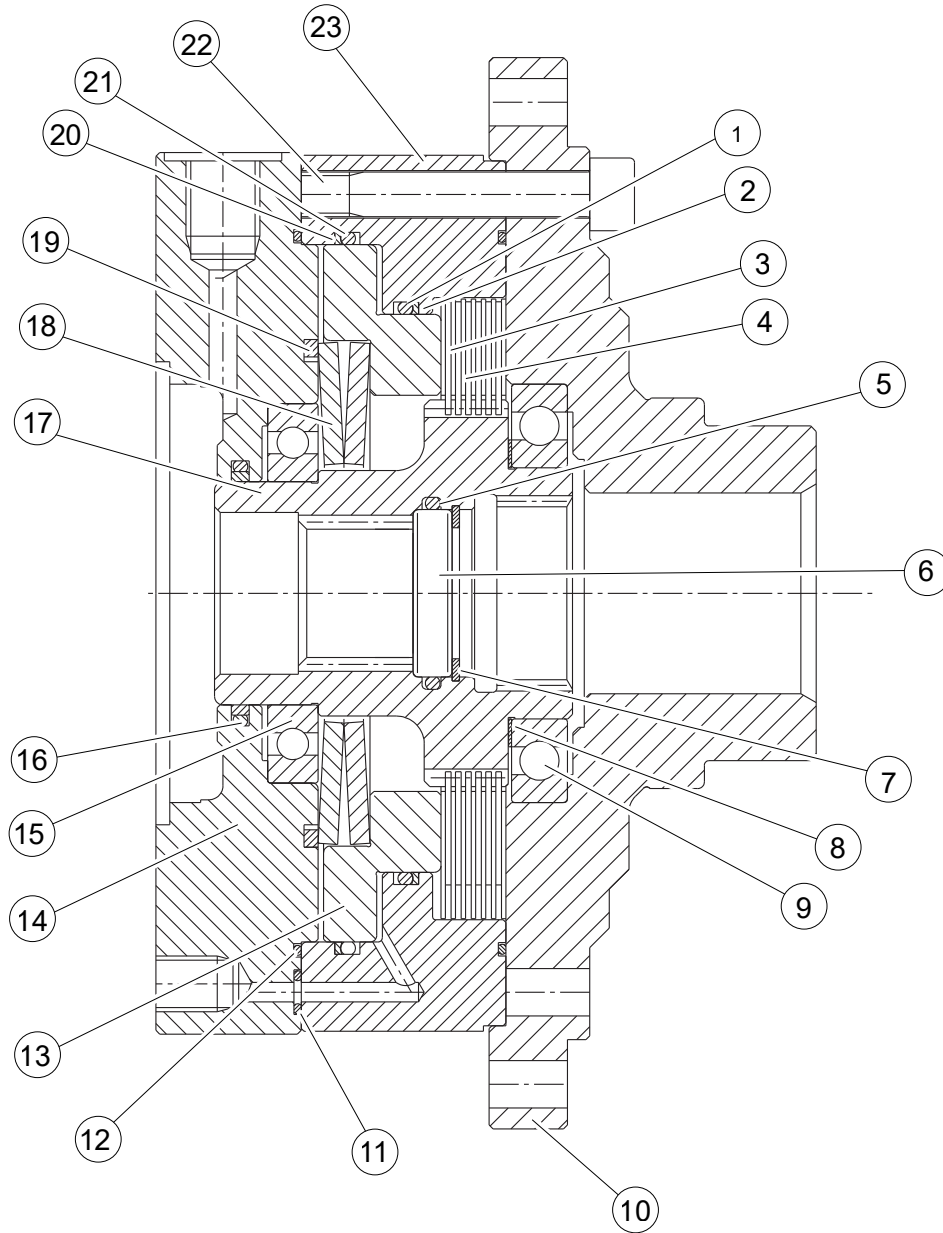


WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1090250</b>	<b>WINCH</b>		
27	C1090284	INSERT	1	
28	C1090285	THIMBLE	1	
29	C1090286	OIL RETAINER SEAL	1	
30	C1090287	HEX SOCKED HEAD CAP SCREW	8	
31	C1090288	HEX SOCKED HEAD CAP SCREW	4	
32	C1090289	O-RING JOINT	2	
33	C1090290	COPPER WASHER	1	
34	C1090291	PLUG	1	
35	C1090292	RETAINING RING	1	
36	C1090293	SIDE FLANGE (MOTOR SIDE)	1	
37	C1090294	BALL BEARING	1	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

# BRAKE UNIT



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

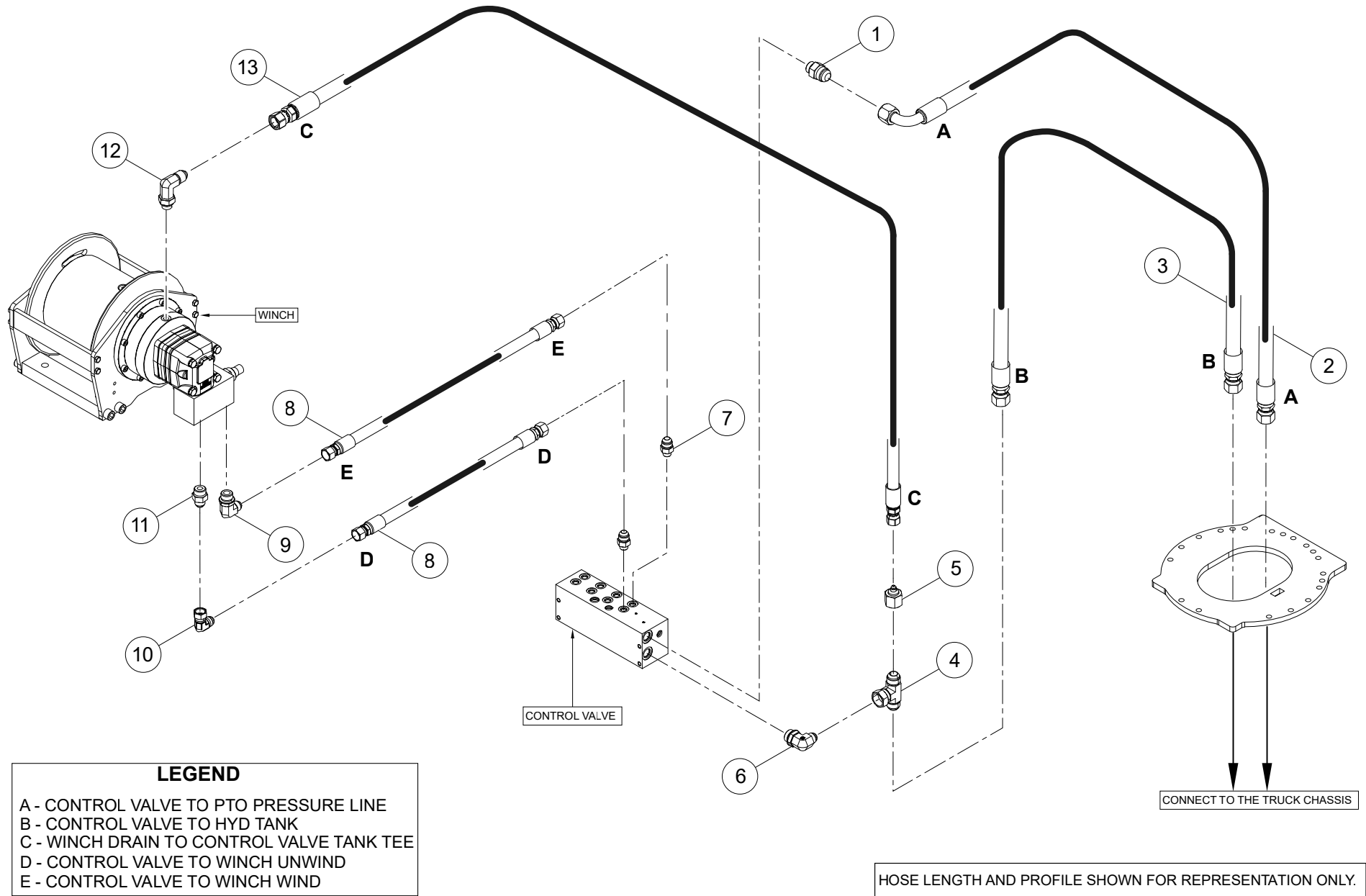
## BRAKE UNIT

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1090252</b>	<b>BRAKE UNIT</b>		
1	C1090305	O-RING JOINT	1	
2	C1090306	ANTIEXTRUSION RING	1	
3	C1090307	DISC	7	
4	C1090308	DISC	6	
5	C1090309	O-RING JOINT	1	
6	C1090304	INSERT	1	
7	C1090310	SEEGER	1	
8	C1090311	SHIM RING	1	
9	C1090312	BALL BEARING	1	
10	C1090313	SUPPORTING FLANGE	1	
11	C1090314	O-RING JOINT	1	
12	C1090315	O-RING JOINT	2	
13	C1090316	PISTON	1	
14	C1090317	FLANGE	1	
15	C1090318	BALL BEARING	1	
16	C1090319	SEAL	1	
17	C1090320	GEAR	1	
18	C1090321	BELLEVILLE WASHER	2	
19	C1090322	SHOULDER RING	1	
20	C1090323	O-RING JOINT	1	
21	C1090325	ANTIEXTRUSION RING	1	
22	C1090326	HEX SOCKED HEAD CAP SCREW	8	
23	C1090327	BRAKE BODY	1	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

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# **HYDRAULIC INSTALL**



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

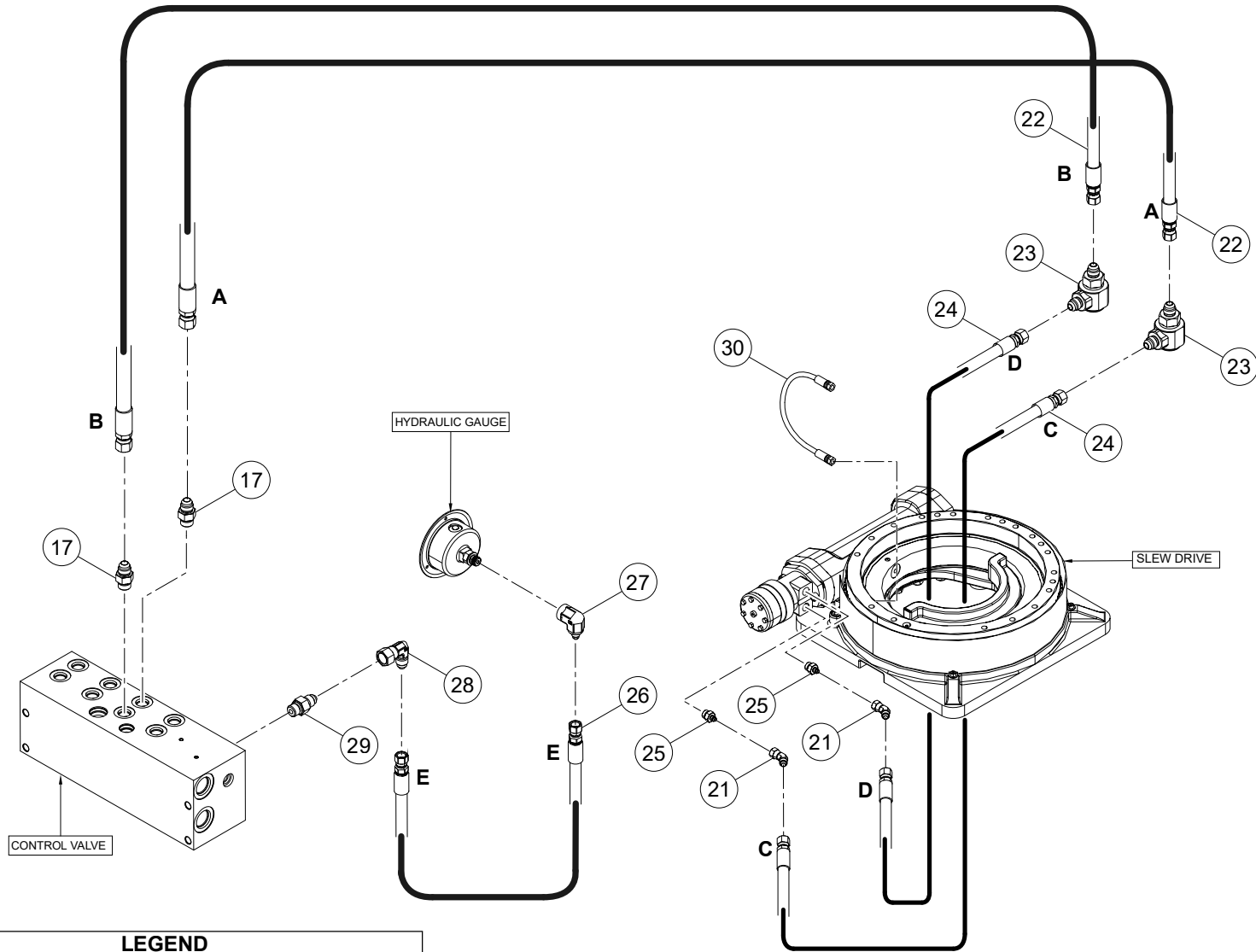
ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1074036</b>	<b>HYDRAULIC INSTALL LK12000</b>		
1	1009613	ADAPTOR, MJIC-12 / MORB-10	1	
2	C1090507	HOSE, -10, 3000, 90FJIC-10SW / FJIC-10SW, 40"	1	
3	C1090508	HOSE, -12, 3000, FJIC-12SW / FJIC-12SW, 22"	1	
4	1017345	TEE, -12MJIC, -12MJIC, -12FJICSW	1	
5	1009429	REDUCER, -12FJIC / -4MJIC	1	
6	1013403	ELBOW,90,MJIC-12/MORB-12	1	
7	1009601	ADAPTOR, MJIC-8 / MORB-6	2	
8	C1056684	HOSE, -8, 3000, FJIC-8SW / FJIC-8SW, 40	2	
9	1013395	ELBOW,90,MJIC-8/MORB-10	1	
10	1013226	ELBOW,90,MJIC-8/FJIC-8SW	1	
11	1009603	ADAPTER, MJIC-8/MORB-10	1	
12	1013586	ELBOW, -4 MBPP/ -4MJIC	1	
13	C1055768	HOSE, -4, 3000, FJIC-4SW / FJIC-4SW, 31	1	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1074036</b>	<b>HYDRAULIC INSTALL LK12000</b>		
14	C1092603	HOSE, -6, 3000, FJIC-6SW / FJIC-6SW, 26	2	
15	1015782	ELBOW,45,6-MJIC-6-MORB	2	
16	BDY20025	TRANSDUCER 5000 PSI 4-20MA 3PIN	1	
17	1009595	ADAPTER, MORB-6/MJIC-6	4	Total 6 used in HYDRAULIC INSTALL
18	BDY00427	LIFT CYLINDER	1	
19	C1090509	HOSE, -6, 3000, FJIC-6SW /FJIC-6SW, 35	2	
20	1009597	6MJIC / -6MORB (LONG)	2	
21	1015714	6 MJIC/6 FJIC 45.0	2	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



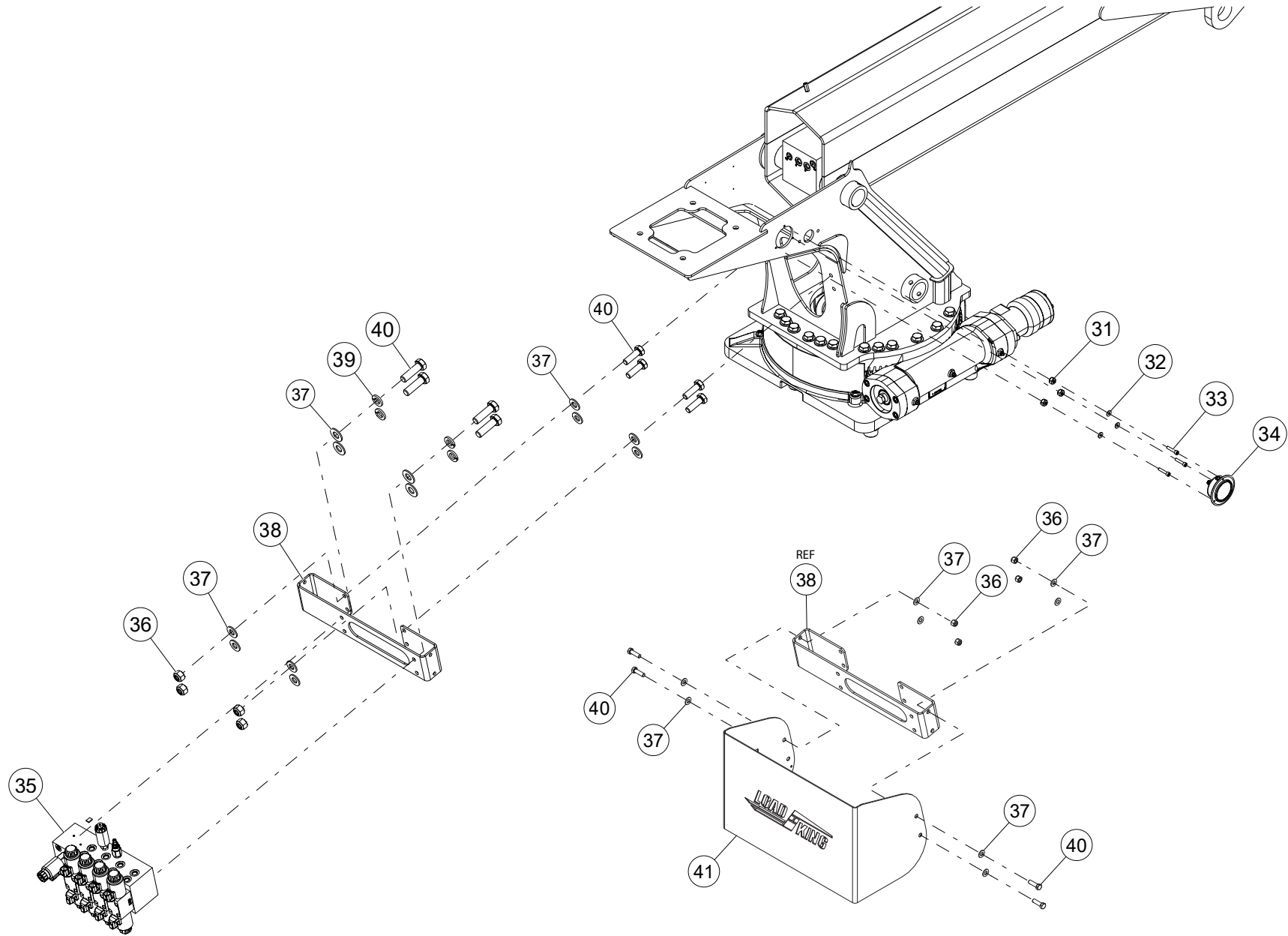
**LEGEND**  
 A - CONTROL VALVE TO THROUGH SWIVEL CW  
 B - CONTROL VALVE TO THROUGH SWIVEL CCW  
 C - THROUGH CW SWIVEL TO SWING DRIVE CW (Bottom)  
 D - THROUGH CCW SWIVEL TO SWING DRIVE CCW (Top)  
 E - CONTROL VALVE TO HYDRAULIC GAUGE

HOSE LENGTH AND PROFILE SHOWN FOR REPRESENTATION ONLY.

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1074036</b>	<b>HYDRAULIC INSTALL LK12000</b>		
21	1015714	6 MJIC/6 FJIC 45.0	2	
22	C1090510	HOSE, -6, 3000, FJIC-6SW/FJIC-6SW, 40"	2	
23	C1090460	90 DEGREE SWIVEL, -6 MJIC TO -6 MJIC	2	
24	C1090526	HOSE, -6, 3000, FJIC-6SW / FJIC-6SW, 21	2	
25	1009598	ADAPTER, -10 MORB / -6 MJIC	2	
26	C1056689	HOSE, -4, 3000, FJIC-4SW / FJIC-4SW, 24	1	
27	1013758	ELBOW,90,FNPT-4/MJIC -4	1	
28	1013224	ELBOW,90,MJIC-4/FJIC-4SW	1	
29	1009586	ADAPTER,MJIC-4/MORB-4	1	
30	C1090046	HOSE, -4, 3000, FJIC-4SW / FNPTF-4F, 22	1	

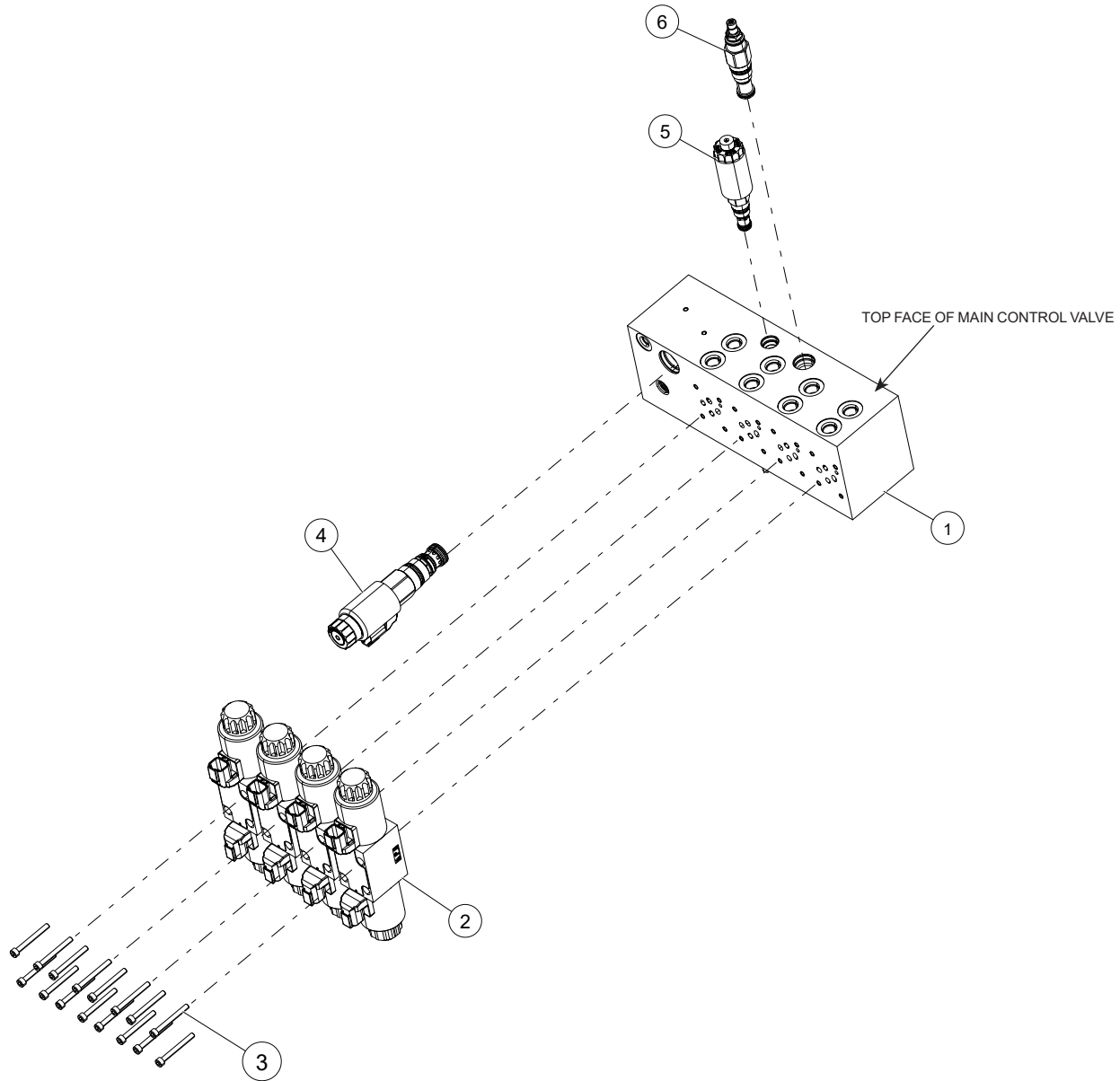
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1074036</b>	<b>HYDRAULIC INSTALL LK12000</b>		
31	NUT3-C1380008Z0	NYLON LOCK NUT, 6-32, GR8, ZN	3	
32	WSH1-X1380008Z0	WASHER, #6, GR8, ZN	3	
33	SHCS-C138625AZ0	SOCKET HEAD CAP SCREW, 6-32 X 5/8 LEN, ZN	3	
34	BDY20003-01	HYDR. GAUGE 0-5000 PSI	1	
35	<b>BDY32299</b>	SERVICE CRANE MAIN CONTROL VALVE	1	SEE PAGE 110
36	NUT3-C3750008Z0	NYLON LOCK NUT, 3/8-16, GR8, ZN	8	
37	WSH1-X3750008Z0	WASHER, 3/8, GR8, ZN	20	
38	C1078576	VALVE MOUNTING BRACKET	1	
39	WSH4-X3750008Z0	SPIRAL LOCK WASHER, 3/8, GR8, ZN	4	
40	HHCS-C375A258Z0	HEX HEAD CAP SCREW, 3/8-16 X 1 1/4 LEN, GR8, ZN	12	
41	C1078578	VALVE COVER	1	

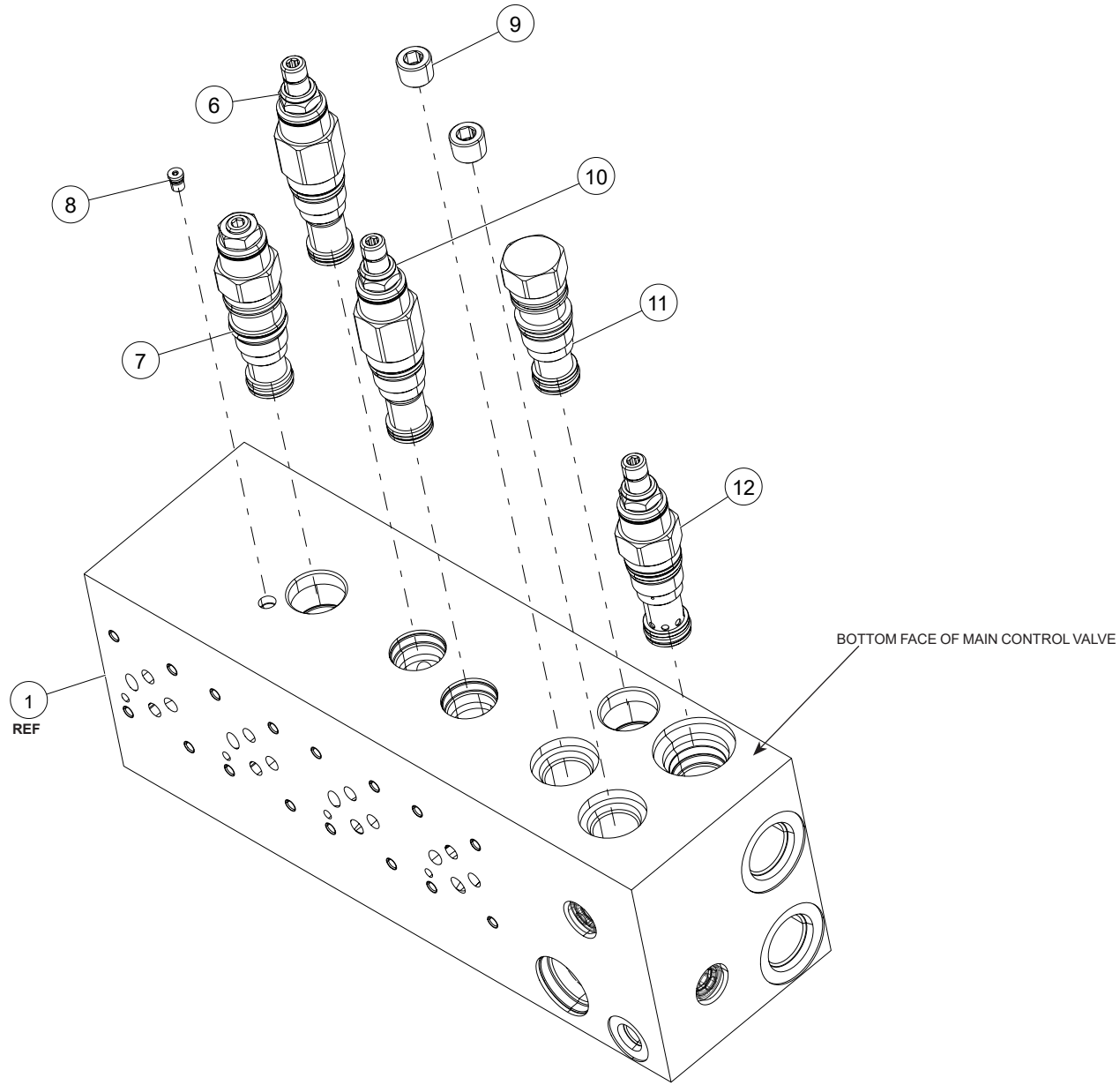
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>BDY32299</b>	<b>SERVICE CRANE MAIN CONTROL VALVE</b>		
1	C1008546	BODY	1	
2	C1008556	ISO 03 VALVE	4	
3	C1008557	INCH BOLT KIT	4	
4	C1008549	THROTTLE VALVE	1	
5	C1008548	S/O DIRECTIONAL VALVE	1	
6	C1008552	RELIEF VALVE, STD SET	1	Total 2 used in MAIN CONTROL VALVE

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

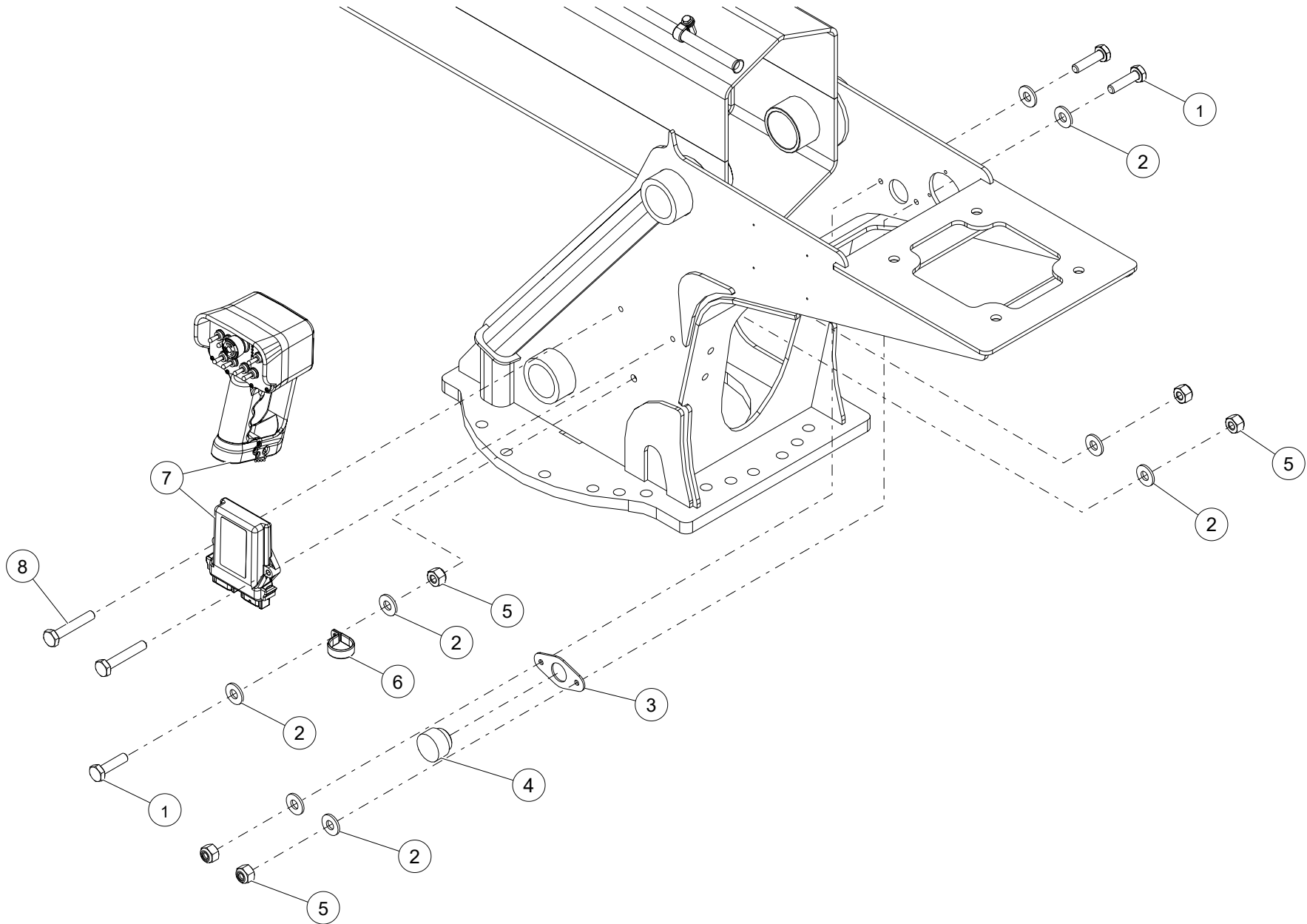
<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>	<b>NOTES</b>
	<b>BDY32299</b>	<b>SERVICE CRANE MAIN CONTROL VALVE</b>		
7	C1008547	COUNTERBALANCE VALVE	1	
8	C1008555	-0 ZERO LEAK GOLD PLUG	1	
9	C1008554	ORIFICE-.250 NPTF PIPE PLUG	2	
10	C1008551	RELIEF VALVE, 2400 PSI	1	
11	C1008550	MODULATING ELEMENT	1	
12	C1008553	RELIEF VALVE, 3000 PSI	1	
13*	C1070003	SEAL KIT, SERVICE CRANE MANIFOLD	1	

\* ITEM NOT SHOWN IN THE ILLUSTRATION

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

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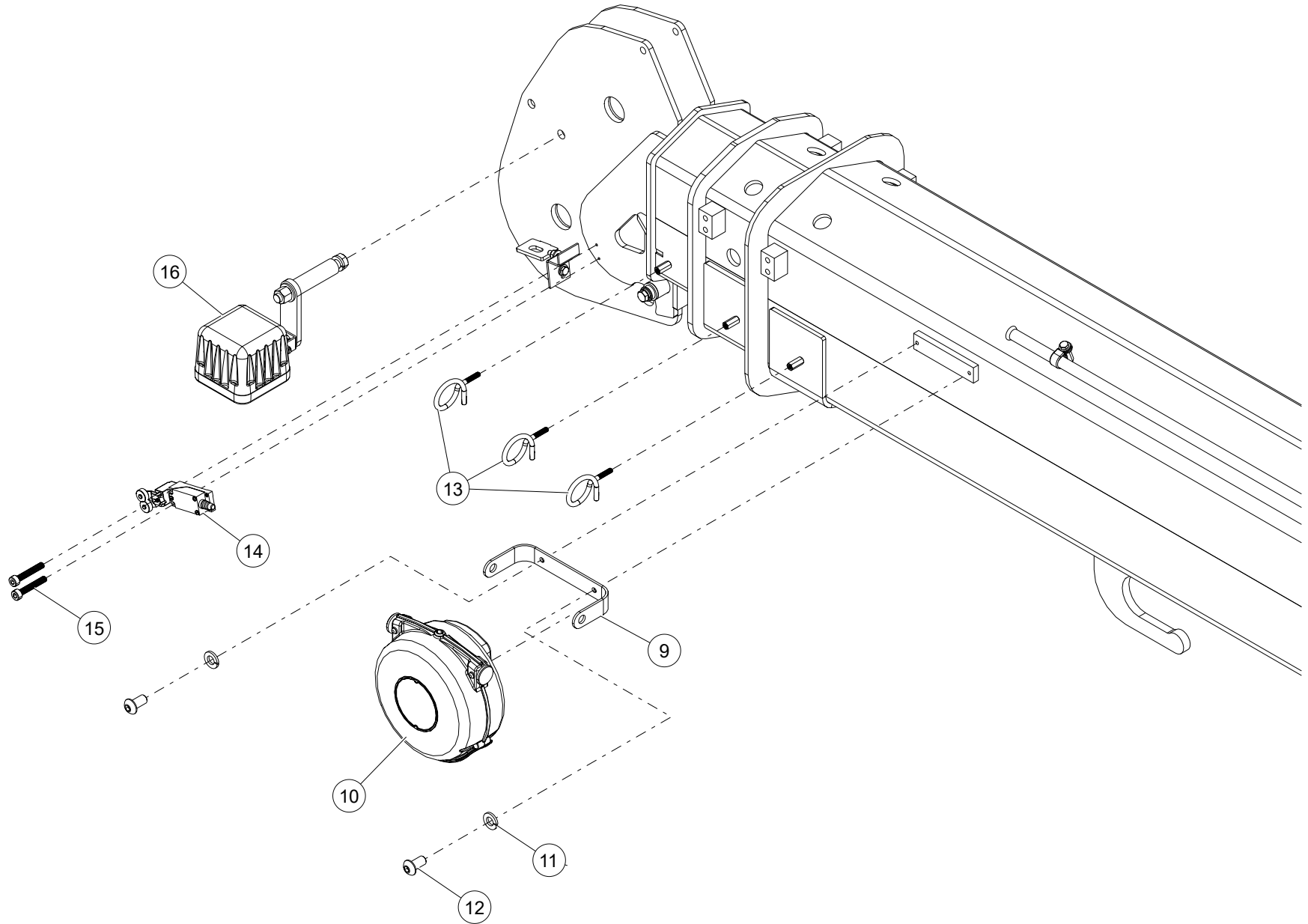
# **CONTROLS**



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>	<b>NOTES</b>
	<b>C1074102</b>	<b>CONTROLS LK12000</b>		
1	HHCS-C250A008Z0	HEX HEAD CAP SCREW, 1/4-20 X 1 LEN, GR8, ZN	3	Total 5 used in CONTROLS LK12000
2	WSH1-X2500008Z0	WASHER, 1/4, GR8, ZN	8	Total 22 used in CONTROLS LK12000
3	C1078588	ALARM PLATE	1	
4	BDY00155-01	ALARM W/ LIGHT	1	
5	NUT3-C2500008Z0	NYLON LOCK NUT, 1/4-20, GR8, ZN	5	Total 7 used in CONTROLS LK12000
6	C1046811	LOOP CLAMP 1/2"	1	
7	<b>C1079735</b>	PISTOL GRIP & BASE	1	SEE PAGE 124
8	HHCS-C250A508Z0	HEX HEAD CAP SCREW, 1/4-20 X 1 1/2 LEN, GR8, ZN	2	

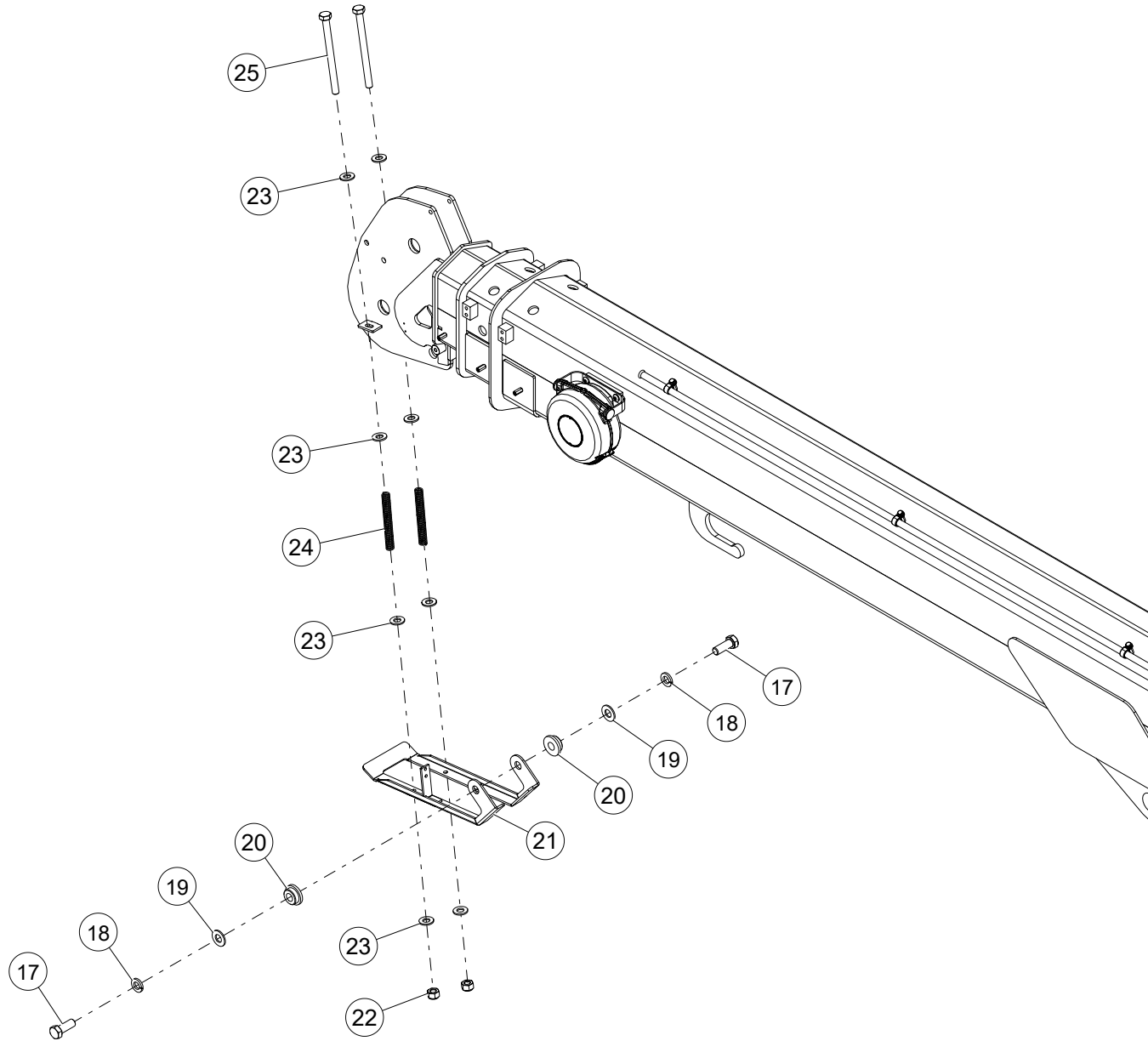
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>	<b>NOTES</b>
	<b>C1074102</b>	<b>CONTROLS LK12000</b>		
9	BDY32094	MOUNTING BRACKET, CABLE REEL, SERVICE CRANE	1	
10	<b>BDY20026</b>	CABLE REEL 16-4 CABLE 17' TRAVEL+25" NO-TRAVEL X 15' LEAD	1	SEE PAGE 128
11	WSH4-X2500008Z0	SPIRAL LOCK WASHER, 1/4, GR8, ZN	2	
12	SH03-C250500ZZ0	SHCS BUTTON HEAD, 1/4-20 X 1/2 LEN, ZN	2	
13	BDY20050	ROUTING RING	3	
14	BDY20019	SAFETY LIMIT SWITCH	1	
15	C1073374	SOCKET HEAD CAP SCREW, M4X0.7 X 25 LEN, ZN	2	
16	<b>BDY00147</b>	BOOM TIP WORK LIGHT KIT	1	SEE PAGE 130

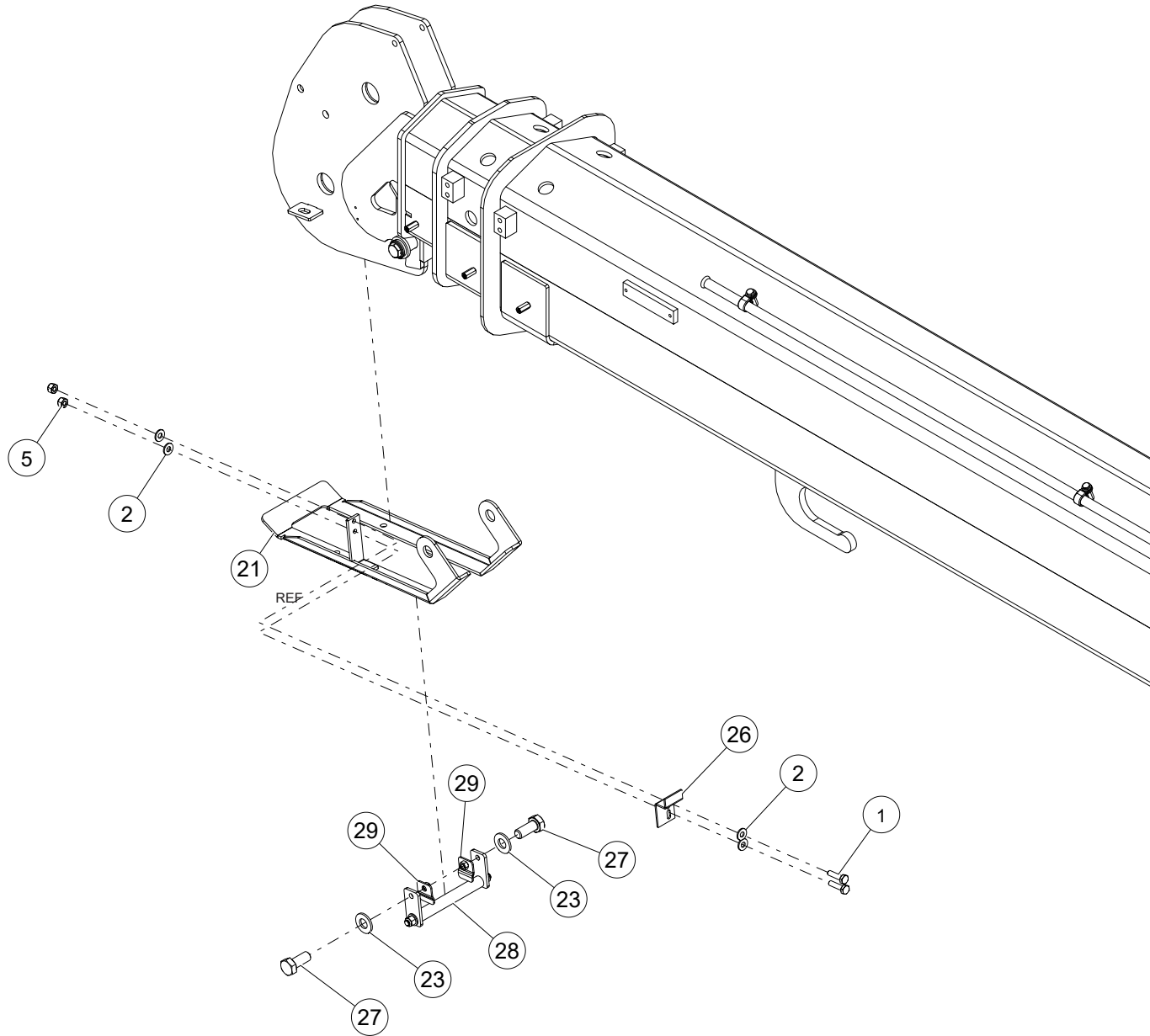
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1074102</b>	<b>CONTROLS LK12000</b>		
17	HHCS-C375A008Z0	HEX HEAD CAP SCREW, 3/8-16 X 1 LEN, GR8, ZN	2	
18	WSH4-X3750008Z0	SPIRAL LOCK WASHER, 3/8, GR8, ZN	2	
19	WSH1-X3750008Z0	WASHER, 3/8, GR8, ZN	2	
20	BDY32125	SLEEVE BEARING, A2B BRKT, LK SERVICE CRANE	2	
21	BDY00144	ANTI-TWO BLOCK WLDMT.	1	
22	NUT3-C3130008Z0	NYLON LOCK NUT, 5/16-18, GR8, ZN	2	
23	WSH1-X3130008Z0	WASHER, 5/16, GR8, ZN	8	Total 10 used in CONTROLS LK12000
24	BDY32024	SPRING, CPRSN, 4IN LG, .5IN OD X .063IN WIRE DIA	2	
25	HHCS-C313D008Z0	HEX HEAD CAP SCREW, 5/16-18 X 4 LEN, GR8, ZN	2	

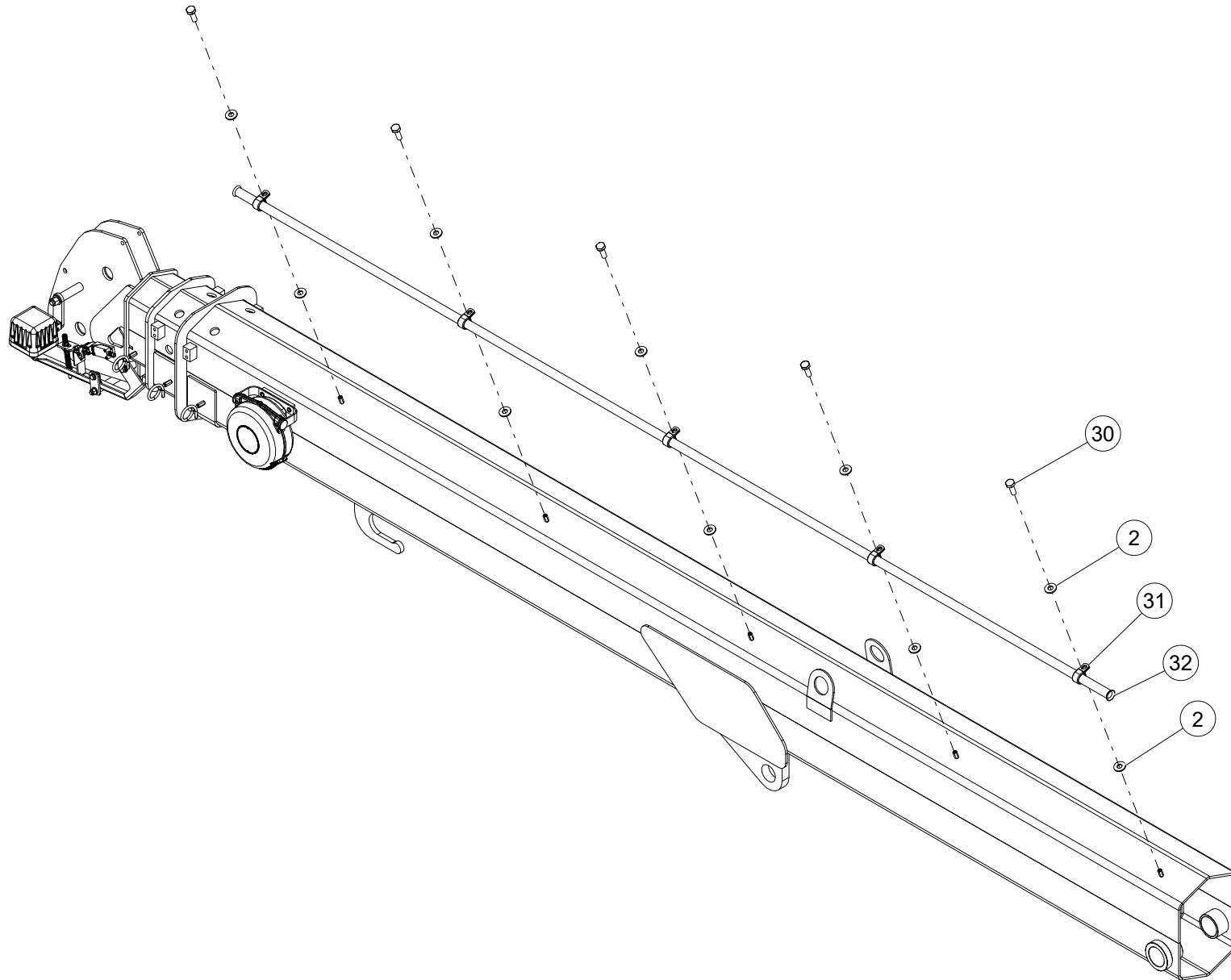
WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1074102</b>	<b>CONTROLS LK12000</b>		
26	BDY00144-03	A2B TARGET	1	
27	HHCS-C3137508Z0	HEX HEAD CAP SCREW, 5/16-18 X 3/4 LEN, GR8, ZN	2	
28	<b>BDY00112</b>	CUTOFF BAR WLDMT	1	SEE PAGE 132
29	BDY00111	HOIST CUTOFF ASSY	2	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

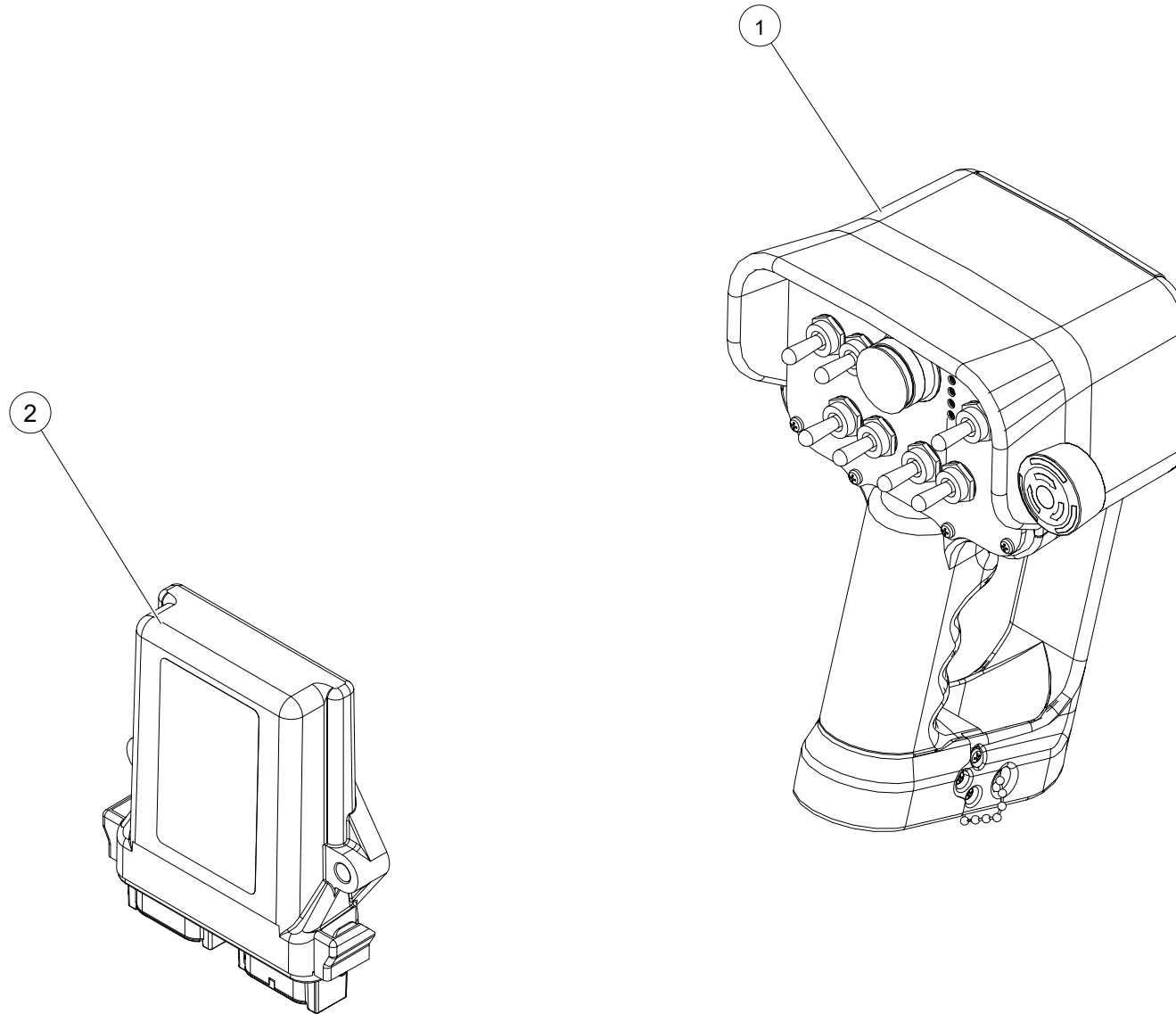


WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>	<b>NOTES</b>
	<b>C1074102</b>	<b>CONTROLS LK12000</b>		
30	HHCS-C2507508Z0	HEX HEAD CAP SCREW, 1/4-20 X 3/4 LEN, GR8, ZN	5	
31	BDY32069	LOOP CLAMP, VIB DAMPING, ZN PLD STEEL, 5/8" ID, 1 5/8" LG	5	
32	BDY32033	STEEL TUBING, SMLS, 5/8" OD, 0.049" WALL THKNS, 128" LG	1	
33*	C1079842 *	HARNESS, ABOVE ROTATION SERVICE CRANE	1	

\* ITEM NOT SHOWN IN THE ILLUSTRATIONS

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

## PISTOL GRIP & BASE

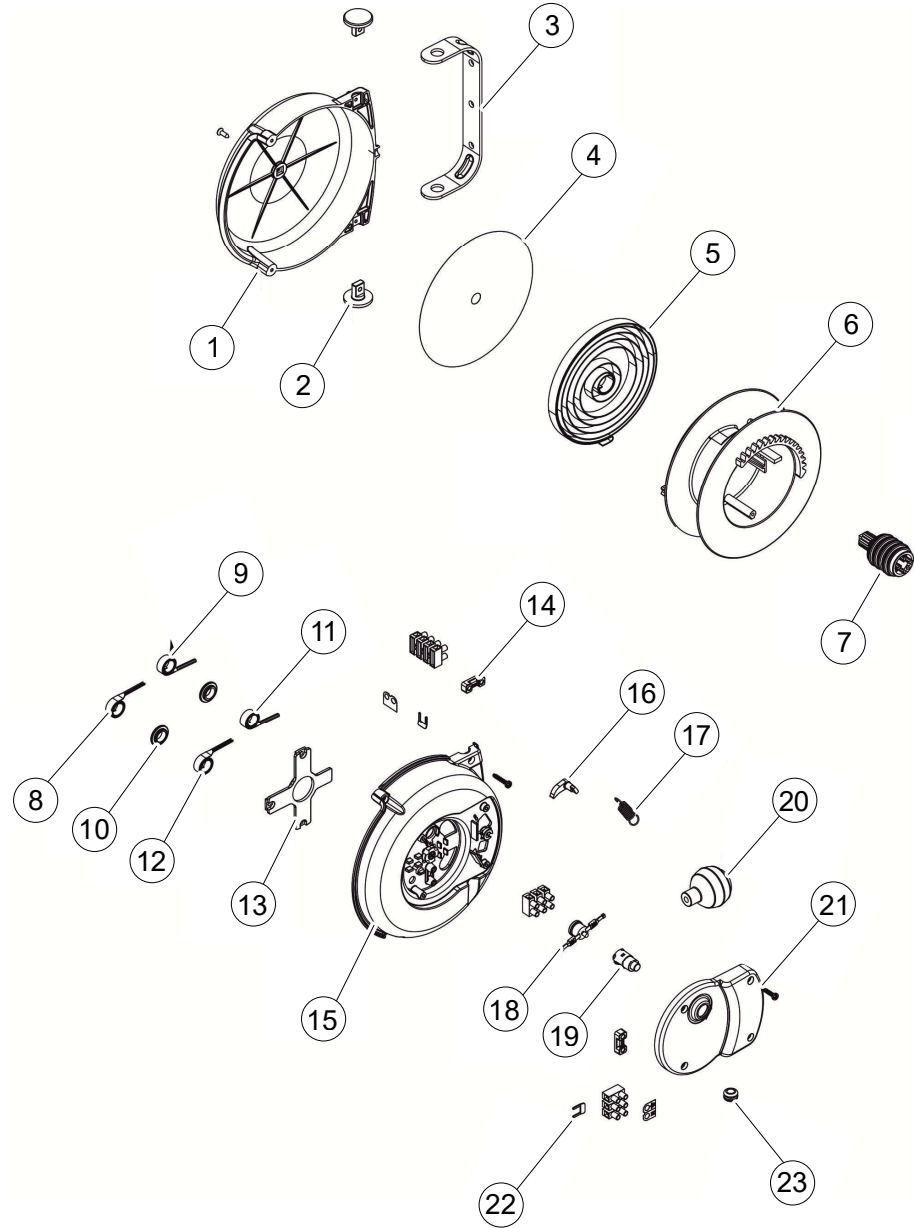
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ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1079735</b>	<b>PISTOL GRIP &amp; BASE</b>		
1	C1079736	PISTOL GRIP	1	
2	C1079737	MODULE RECEIVER	1	

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WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

# CABLE REEL



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

## CABLE REEL

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>BDY20026</b>	<b>CABLE REEL 16-4 CABLE 17' TRAVEL+25" NO-TRAVEL X 15' LEAD</b>		
1	C1008511	HALF-CASE SPRING SIDE	1	
2	C1008512	PIN BRACKET	2	
3	C1008513	BRACKET	1	
4	C1008514	SPRING HOLDER PLATE	1	
5	C1008515	SPRING	1	
6	C1008516	REEL	1	
7	C1008517	COLLECTOR	1	
8	C1008518	BLU BRUSH 150 MM	1	
9	C1008519	Y-G BRUSH 180 MM	1	
10	C1008520	SPACER	1	
11	C1008521	Y-G BRUSH 130 MM	1	
12	C1008522	BLACK BRUSH 200 MM	1	
13	C1008523	BEARING	1	
14	C1008524	CABLE STOPPING	2	
15	C1008525	HALF-CASE COLLECTOR SIDE	1	
16	C1008526	RATCHET	1	
17	C1008527	RATCHET SPRING	1	
18	C1008528	THERMO-SWITCH 50	1	
19	C1008529	TRIP FREE GROUP	1	
20	C1008530	STROKE END PAD	1	
21	C1008531	COVER	1	
22	C1008532	CONNECTOR LINK	1	
23	C1008533	RUBBER	1	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

## CONTROLS

LK12000 Parts Manual

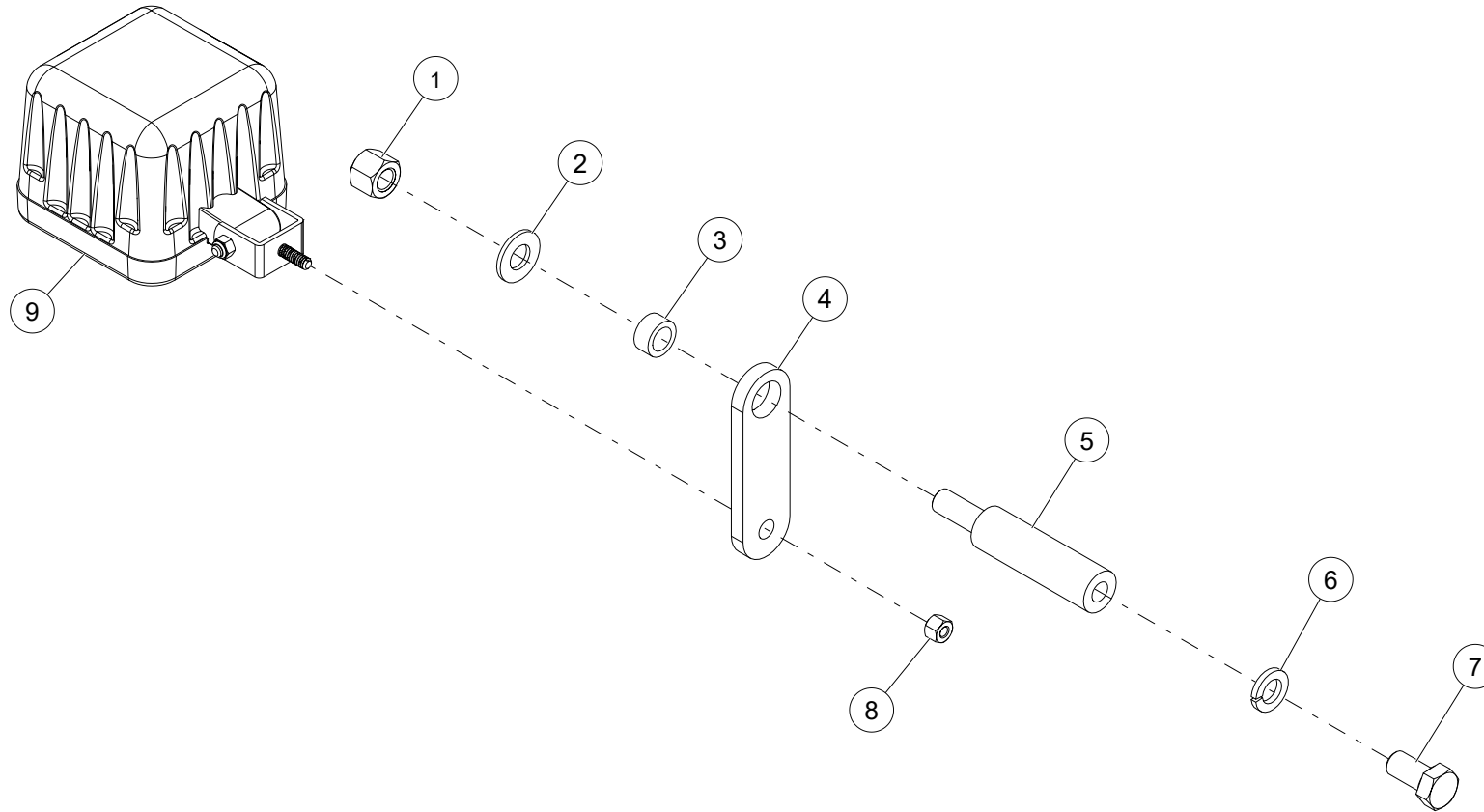


DATE: 12-2025

PAGE: 129

# WORK LIGHT KIT

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WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

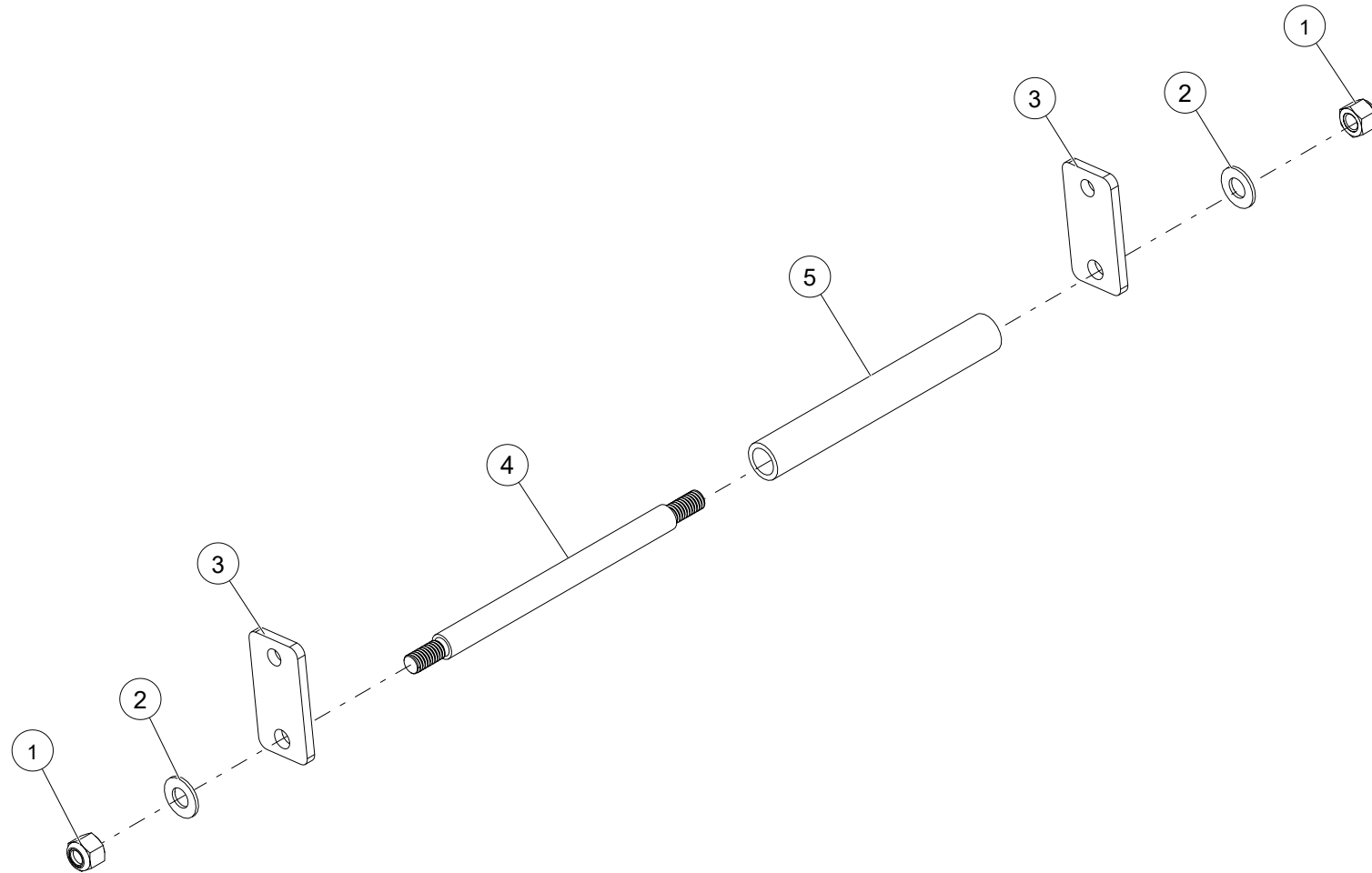
## WORK LIGHT KIT

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>BDY00147</b>	<b>WORK LIGHT KIT</b>		
1	1003571	NYLOCK NUT 1/2-13 GR 5 ZN	1	
2	WSH1-X5000008Z0	WASHER, 1/2, GR8, ZN	1	
3	BDY20001-08	SLEEVE BEARING 1/2 ID 3/4 OD 3/8 W	1	
4	BDY00147-02	LIGHT MTG. ARM	1	
5	BDY00147-01	LIGHTING STANDOFF	1	
6	WSH4-X5000008Z0	SPIRAL LOCK WASHER, 1/2, GR8, ZN	1	
7	HHCS-C500A008Z0	HEX HEAD CAP SCREW, 1/2-13 X 1 LEN, GR8, ZN	1	
8	NUT3-C5000008Z0	NYLON LOCK NUT, 1/4-20, GR8, ZN	1	
9	BDY10042	WORK LIGHT 2600 LUMEN	1	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

# CUTOFF BAR WLDMT

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WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

## CUTOFF BAR WLDMT

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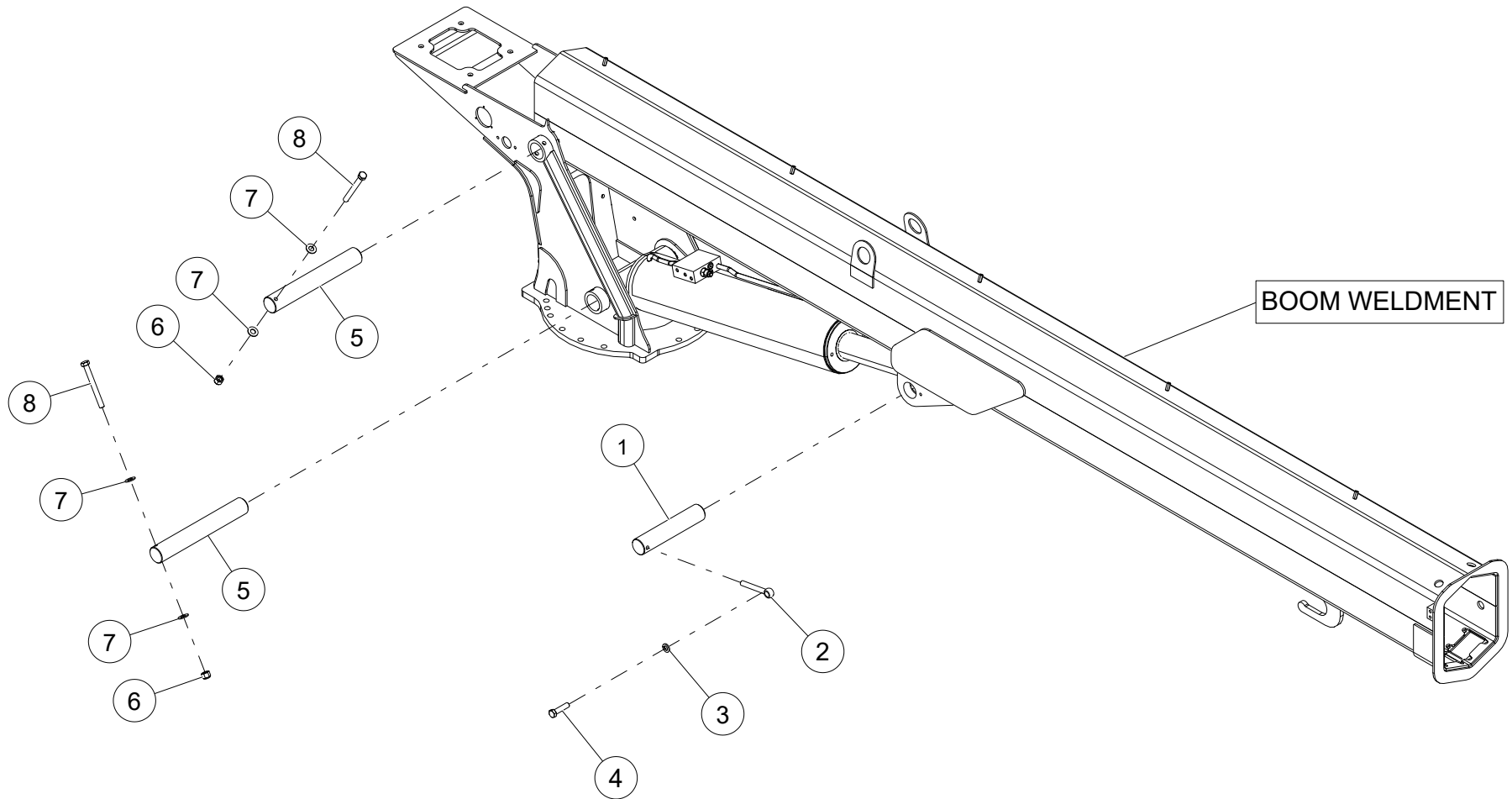
ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>BDY00112</b>	<b>CUTOFF BAR WLDMT</b>		
1	NUT3-C3750008Z0	NYLON LOCK NUT, 3/8-16, GR8, ZN	2	
2	WSH1-X3750008Z0	WASHER, 3/8, GR8, ZN	2	
3	BDY00112-01	END PLATE	2	
4	BDY00112-02	STOW ROD	1	
5	BDY00112-03	UHMW ROLLER	1	

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WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

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# **PIN INSTALLATION**



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

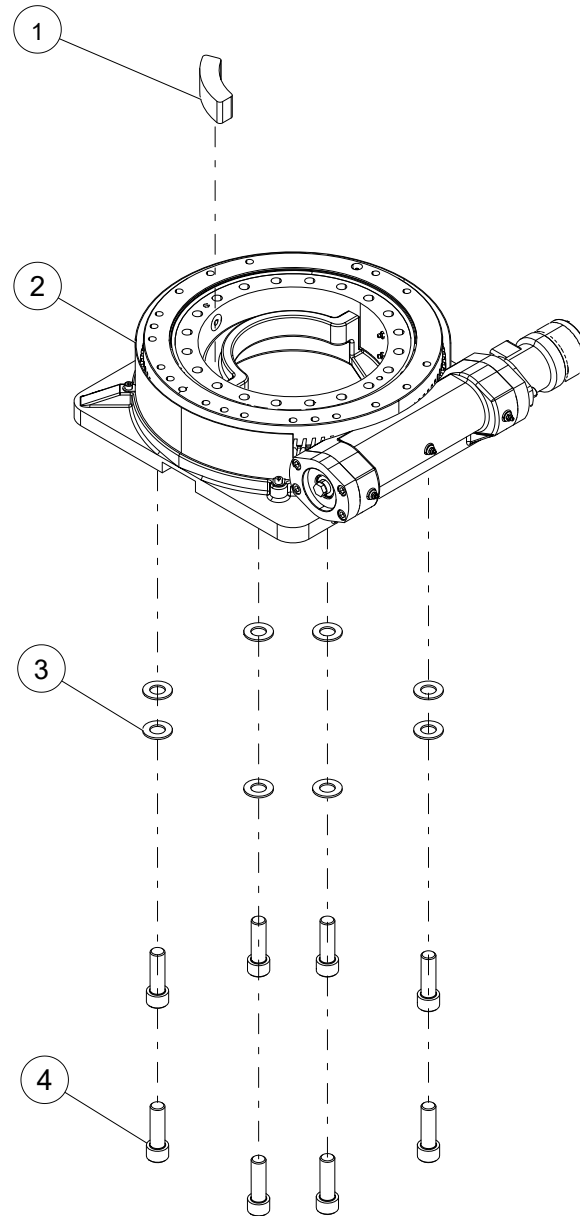
## PIN INSTALLATION LK12000

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1074035</b>	<b>PIN INSTALL LK12000</b>		
1	C1073173	HINGE PIN	1	
2	C1077486	3/8 DIA ROD END, 3.88 LG	1	
3	WSH4-X3750008Z0	SPIRAL LOCK WASHER, 3/8, GR8, ZN	1	
4	HHCS-C375A508Z0	HEX HEAD CAP SCREW, 3/8-16 X 1 1/2 LEN, GR8, ZN	1	
5	C1077301	2" PIN	2	
6	NUT3-C3750008Z0	NYLON LOCK NUT, 3/8-16, GR8, ZN	2	
7	WSH1-X3750008Z0	WASHER, 3/8, GR8, ZN	4	
8	HHCS-C375C508Z0	HEX HEAD CAP SCREW, 3/8-16 X 3 1/2 LEN, GR8, ZN	2	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

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# **SLEW DRIVE INSTALLATION**



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

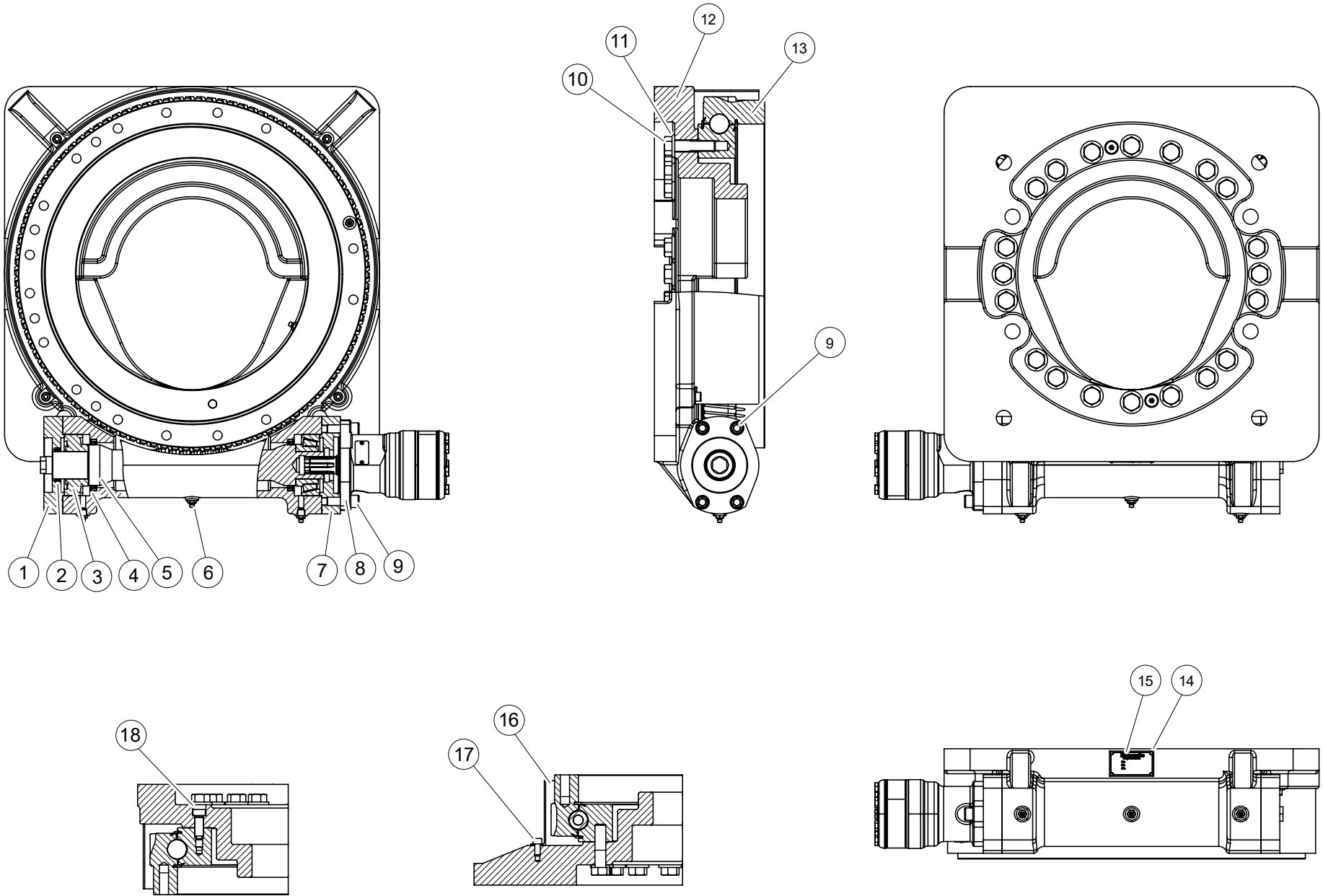
## SLEW DRIVE INSTALLATION LK12000

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ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1073857</b>	<b>SLEW DRIVE INSTALL LK12000</b>		
1	C1078581	ROTATION STOP BLOCK	1	
2	<b>C1087605</b>	SLEW DRIVE, LK12000	1	SEE PAGE 142
3	WSH2-XA000008Z0	SAE WASHER, 1, GR8, ZN	8	
4	SHCS-CA00C25AZ1	SOCKET HEAD CAP SCREW, 1-8 X 3 1/4 LEN, ZN, FULL THREAD	8	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

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WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

## SLEW DRIVE LK12000

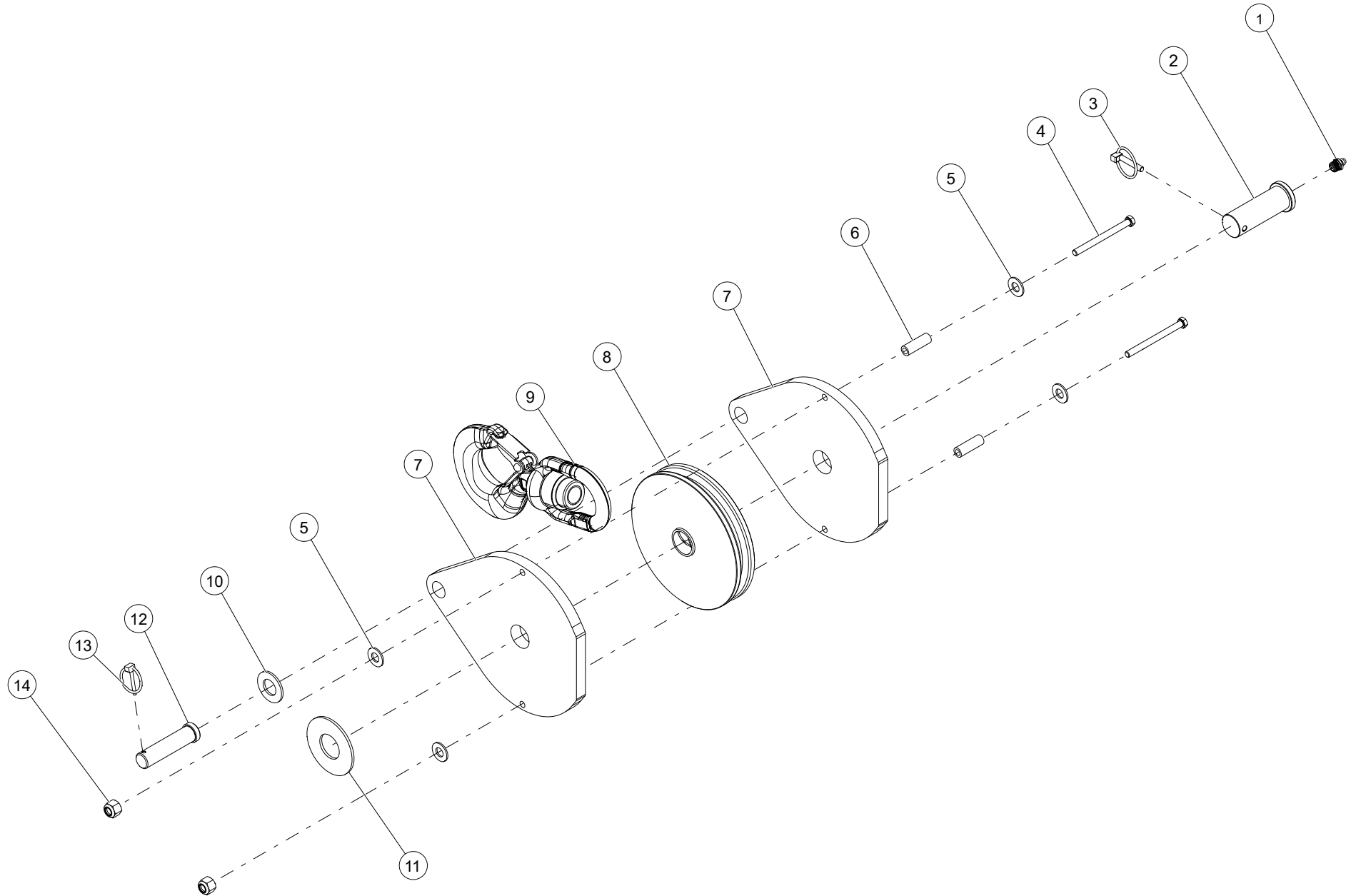
ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>C1087605</b>	<b>SLEW DRIVE LK12000</b>		
1	C1090328	END CAP	1	
2	C1090329	OIL SEAL	1	
3	C1090330	TRB,GB/T297,32308	2	
4	C1090331	OIL SEAL	2	
5	C1090332	17" WORM	1	
6	C1090333	GREASE FITTING,1/8"	3	
7	C1090334	MOTOR FLANGE ADAPTER	1	
8	C1090336	HYDRAULIC MOTOR	1	
9	C1090337	HEXAGON SOCKET HEAD CAP SCREW	10	
10	C1090341	HEX HEAD BOLT,ASME B18.2.1,5/8"-11UNC×2.5",GRADE 8,GEOMET GRADE 4	20	
11	C1090342	HIGH STRENGTH PLAIN WASHERS FOR STEEL STRUCTURES	20	
12	C1090339	17" BASE	1	
13	C1090340	17" SLEWING BEARING	1	
14	C1090347	RIVET,GB/T827,2×5	4	
15	C1090346	NAME PLATE,65×37×0.8	1	
16	C1090344	PROTECTIVE COVER,ID536,S17	1	
17	C1090345	HEXAGON SOCKET HEAD CAP SCREW	4	
18	C1090343	HEXAGON SOCKET HEAD SHOULDER SCREWS	2	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

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# **SNATCH BLOCK**

# SNATCH BLOCK LK12000



WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED

## SNATCH BLOCK LK12000

ITEM	PART NUMBER	DESCRIPTION	QUANTITY	NOTES
	<b>BDY00236</b>	<b>SNATCH BLOCK LK12000</b>		
1	1001350	ZERK, GREASE FITTING STRAIGHT STEEL 1/8 NPT	1	
2	BDY32298	MOD. CLEVIS PIN 1.50 DIA	1	
3	MP5-6093	5/16" LINCH PIN - 1-3/4" LONG	1	
4	HHCS-C375D508Z0	HEX HEAD CAP SCREW, 3/8-16 X 4 1/2 LEN, GR8, ZN	2	
5	WSH1-X3750008Z0	WASHER, 3/8, GR8, ZN	4	
6	BDY32118	SPACER, 5/8" OD X 3/8" ID X 1 7/8" L, CS	2	
7	BDY00237-01	SNATCH BLOCK SIDE PLATE	2	
8	BDY00127	SHEAVE ASSEMBLY, 7/16" ROPE DIA, 8.7" OD, 1-1/2" WD	1	
9	C1086569	SWIVEL BEARING HOIST HOOK, 7T	1	
10	WSH2-XA000008Z0	SAE WASHER, 1, GR8, ZN	1	
11	WSH2-XA500008Z0	SAE WASHER, 1-1/2, GR8, ZN	1	
12	BDY32117	CLEVIS PIN, 1" DIA, 3.68" USABLE LT, ZN PLD, 1004-1045 CS	1	
13	PIN5-X188A25XZ0	LOCK PIN WITH WIRE RING, 3/16 DIA X 1 1/4 LEN, ZINC	1	
14	NUT3-C3750008Z0	NYLON LOCK NUT, 3/8-16, GR8, ZN	2	

WHEN ORDERING PARTS, SPECIFY MODEL NUMBER, SERIAL NUMBER AND DESCRIPTION OF PARTS REQUIRED







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# LK 12000 MANUAL

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