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 4064LMX-30
 ATB on left side; Rectangular Boom

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CRANE SAFETY RULES

CAUTION!

1. READ AND UNDERSTAND OPERATOR'S MANUAL.
2. INSPECT VEHICLE AND CRANE, INCLUDING ITS OPERATION BEFORE DAILY USE.
3. USE THIS EQUIPMENT ONLY ON SOLID LEVEL GROUND WITH OUTRIGGERS OR JACKSTANDS PROPERLY SET.
4. BEFORE OPERATING THE CRANE REFER TO MAXIMUM LOAD CHART ON CRANE FOR OPERATING LOAD LIMITS.
5. BE SURE LOAD BEING LIFTED IS WITHIN SAFE WINCH CAPACITY AS WELL AS SAFE CRANE CAPACITY. MULTI-PART LINE OPERATION IS REQUIRED WHEN SINGLE LINE LOAD CAPACITY OF WINCH IS EXCEEDED.
6. DO NOT OPERATE, WALK, OR STAND UNDER THE BOOM OR ANY SUSPENDED LOAD.
7. ALWAYS PAY OUT LOAD LINE BEFORE EXTENDING BOOM. WIRE ROPE DAMAGE AND / OR BREAKAGE MAY OCCUR.
8. BOOM MUST BE IN ITS REST BEFORE MOVING VEHICLE.
9. BOOM TIP MUST BE DIRECTLY OVER THE LOAD BEFORE ANY LIFTING IS STARTED. DO NOT DRAG LOADS WITH THIS CRANE.
10. MAINTAIN THIS CRANE AS REQUIRED IN THE OWNER'S MANUAL.
11. DO NOT ALLOW PERSONNEL TO RIDE ON THE LOAD LINE, LOAD, OR BOOM OF THIS CRANE.
12. IT IS UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN TEN FEET OF HIGH VOLTAGE LINE



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F1122-B
05/12/08

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INTRODUCTION

This crane is a powerful machine designed to lift and move heavy loads. There are many hazards associated with these operations. Liftmoore has designed this crane to be as safe as possible but -

IT IS THE OPERATOR'S RESPONSIBILITY TO PREVENT ACCIDENTS!

This takes pre-planning, attention, and knowledge of basic principles and rules. Even if you have used similar cranes, reading this manual in its entirety will help prevent damage, injury, or even loss of life; benefits well worth the short amount of time it takes to read these pages.

REGULATORY AUTHORITY

Use of this crane is governed by OSHA 29 CFR 1910.180 and may be governed by other federal, state, or local regulations.

IT IS THE OPERATOR'S RESPONSIBILITY TO UNDERSTAND AND COMPLY WITH ALL APPLICABLE REGULATIONS GOVERNING THE OPERATION, INSPECTION, AND MAINTENANCE OF THIS CRANE.

Personnel should be trained, tested, and certified, as recommended by OSHA and ANSI standards, before operating this crane.

USING THIS MANUAL

This manual assumes that the crane is mounted on a typical service body type or similar truck, which is powered by the vehicle electrical or hydraulic system, and is controlled by either the standard pendant control or FM radio control sold by Liftmoore, Inc.

This manual is supplied to provide basic guidelines for the safe use, routine maintenance, and general inspections of this crane.

This manual is supplied to provide basic guidelines for the safe use, routine maintenance, and general inspections of this crane.

Laws, regulations, standards, or policies may be more restrictive than this manual. If a conflict exists for any limit or condition, the safest or most prohibitive shall be used. Under no circumstances shall the load, moment, or stability ratings be exceeded.

Pay particular attention to the following:

WARNING! – Draws attention to hazards, conditions, or procedures that if not observed could result in injury or death.

CAUTION! – Draws attention to hazards, conditions, or procedures that if not observed could result in damage to the crane, load, or other equipment. Equipment failure could in turn lead to injury or death.

NOTE! – Draws attention to conditions or procedures that are essential to emphasize.

For questions, interpretations, or to report errors, please contact Liftmoore, Inc, Engineering Dept.



OPERATING PRACTICES

OPERATING RESTRICTIONS

DUTY CYCLE

For Electric Cranes the duty cycle time should be limited to 10%. This is limited by heat buildup in the motors and declining charge in the batteries. (Installing extra batteries near the crane helps keep the voltage at maximum.)

PERSONNEL

LIFTING OR MOVING OF PERSONNEL IS STRICTLY PROHIBITED! This crane was neither designed nor intended to lift personnel. Under no circumstances should anyone be allowed to ride on the crane, line, or load. All non-essential personnel must be kept away when using the crane. The load must never be moved over people, nor must anyone be allowed to pass or stand under a suspended load.

ELECTRICAL LINES

Consult ANSI B30.5 for operating procedures, minimum safe distances, and prohibited zones when working around electrical lines or poles.

When operating near electrical power lines, the crane must be positioned so that the distance from the crane to the lines or poles is equal to or greater than the length of the fully extended boom plus the minimum safe distance required.

All parts of the crane, line, and load must be kept a minimum safe distance from electrical power lines and poles. This distance is 10 feet for electrical lines carrying 50kV or less.

UNDER NO CIRCUMSTANCES SHOULD A CRANE BE OPERATED UNDER ELECTRICAL POWER LINES.

SETUP

POSITION The vehicle must be positioned so that the load is kept as close to the crane base as possible to reduce the moment on the crane. Consideration must be given to starting and ending position as well as firmness and slope of the ground and any obstructions.

OUTRIGGERS The outriggers or jackstands must be firmly set and the vehicle as level as possible. This will reduce the stresses on the rotation drive and keep the load off the vehicle's suspension. Keep in mind that the weight on the vehicle will shift as the crane and load is rotated.

MANUAL BOOM EXTENSION If the manual extension part of the boom is needed, it must be extended and the boom pin placed in the required position. Insert the pin and replace the pin's hairpin keeper before attempting to lift any load.

LOAD LIMIT The operator must understand the crane load chart. The operator must ensure that the load is within the load limits over the entire range which it will be moved. Be sure to include the weight of any lifting devices including the travel block.

The load limit chart is attached to the side of the crane to aid the operator.

The boom angle indicator and chart aids the operator in determining the load capacity at various boom angles and extensions. It also gives the load limit at that configuration.

STABILITY A stability chart must be posted near the crane. The operator must understand the stability chart. The crane may be de-rated over some areas of its operating radius.



TRAVEL BLOCK The operator must determine if the load is within the single line compatibility of the winch or if a multi-part line configuration is needed.

REEVING Ensure the proper routing of the rope through the sheaves and travel block. The rope must lie in the sheave groove and must not rub against any metal objects.

Ensure the rope is correctly wound on the winch drum. The crane assembly drawing will indicate if the rope must be wound over the top or bottom of the drum. The rope must never contact any part of the winch mounting.

WARNING!

If the winch winding direction is reversed the brake will not work and the load will fall.

ATTACHING THE LOAD

POSITION The boom tip must be moved over the load before lifting so that it will be lifted straight up.

CAUTION!

Never drag a load with the crane. Dragging a load puts very high stresses on the crane for which it was not designed.

ROPE Check the rope condition to ensure it is not frayed or damaged. Ensure that the rope is not kinked and that it does not contact any sharp edges or make any sharp bends.

If using double line configuration, ensure that the lines are not twisted.

CAUTION!

Never wrap the hoist rope around the load! Serious damage to the rope WILL occur.

HOOK Always make sure the load is applied to the throat of the hook. Never use a bent hook.

CAUTION!

Always lift with the throat of the hook. Never lift with the load applied to the tip of the hook. Doing so will bend the hook.

SLINGS If the load does not have a lifting eye, use a nylon, chain, or other type of sling designed for lifting and rated for loads greater than that being lifted.

BALANCE Ensure the load will be secure and balanced when lifted. Ensure that the load cannot shift in the sling and that the sling cannot slide across the hook should the load become unbalanced.

LIFTING THE LOAD

Before lifting, ensure that the load is free from all mountings and is no way attached or stuck to anything.

Ensure that at least five full wraps remain on the winch drum at all times.

Test the winch brake by lifting the load a few inches and ensuring that it does not slip.



HOLDING THE LOAD

The operator must keep the load in sight at all times once it is lifted.

The operator must never leave the controls once the load is lifted.

The operator must ensure that no one is allowed to pass or stand under a suspended load.

TRANSIT

While in transit, the crane must be stowed, preferably in a boom rest. The crane must be prevented from rotating and the hook prevented from swinging.

CAUTION!

Never move the vehicle with a suspended load. Doing so will put dynamic loads on the crane for which it was not designed.

MOVING THE LOAD

Before moving the load, make sure the path is free of any obstructions or people.

Avoid sudden accelerations or stops. Speeds must be kept to a minimum, especially rotation, to keep the load from swinging.

Avoid sudden reversing of direction. Do not reverse direction while the load is still moving.

Make sure that no part of the crane, boom, or load makes contact with any obstruction or comes within a minimum of ten feet from any electrical line.



INSPECTION AND MAINTENANCE

OSHA and ANSI require frequent and periodic inspections. Records of these inspections must be kept readily available. Liftmoore requires periodic maintenance to ensure proper operation and prolonged life of the crane.

INSPECTION

DAILY INSPECTION

OSHA 29CFR 1910.180 (d)(2)(i) requires the following be checked daily prior to use:

- All control mechanisms for maladjustment interfering with proper operation as well as for excessive wear of components and contamination by lubricants or other foreign matter.
- All safety devices for malfunction. This should include the anti-two block and pressure switch.
- Deterioration or leakage in air or hydraulic systems.
- Crane hooks with deformations or cracks. For hooks with cracks or having more than 15 percent in excess of normal throat opening or more than 10 deg. twist from the plane of the unbent hook.
- Electrical apparatus for malfunctioning, signs of excessive deterioration, dirt, and moisture accumulation. This should include the battery terminals, master disconnect switch, electrical swivel
- The wire rope shall be replaced if any of the following conditions are noted:
 - Kinking, crushing, bird-caging, or other damage
 - Reductions from nominal diameter of more than one-sixty-fourth inch for diameters up to and including five-sixteenths inch, one-thirty-second inch for diameters three-eighths inch to and including one-half inch.
 - Thimble is not in place or is damaged
 - Any evidence of heat damage
 - Six or more randomly distributed broken wires in 1 lay
 - Three or more broken wires in 1 strand in 1 lay

MONTHLY INSPECTION

A thorough inspection of all ropes in use shall be made at least once a month and a certification record which includes the date of inspection, the signature of the person who performed the inspection and an identifier for the ropes shall be prepared and kept on file where readily available. All inspections shall be performed by an appointed or authorized person. Any deterioration, resulting in appreciable loss of original strength shall be carefully observed and determination made as to whether further use of the rope would constitute a safety hazard. Some of the conditions that could result in an appreciable loss of strength are the following:

- Reduction of rope diameter below nominal diameter due to loss of core support, internal or external corrosion, or wear of outside wires.
- A number of broken outside wires and the degree of distribution of concentration of such broken wires.



- Worn outside wires.
- Corroded or broken wires at end connections.
- Corroded, cracked, bent, worn, or improperly applied end connections.
- Severe kinking, crushing, cutting, or unstranding.

PERIODIC INSPECTION

An Annual Inspection Form is included in this manual. OSHA 29CFR 1910.180 (d)(2)ii) requires periodic inspections of this crane. Liftmoore recommends an annual inspection using the included form.

MAINTENANCE PRECAUTIONS

The crane should be maintained monthly for safety reasons and to reduce stress on the crane.

WARNING!

Never perform any maintenance while the crane has any type of load on it. Use the manual operation procedure to lower the load if necessary.

WARNING!

Hydraulic cylinders may have high pressure stored in them even after hydraulic power is removed.

The counterbalance and pilot operated check valve in the cylinder will always hold some pressure in the cylinder. Slightly extending the cylinder then retracting a small amount will relieve most of the pressure in the cylinder. **DO NOT DEADHEAD THE CYLINDER!** This will store the maximum amount of pressure in the cylinder. Care should be taken when either valve is removed from the cylinder as some pressure will still remain.

After any maintenance has been performed the crane shall not be operated until all guards have been reinstalled, all safety

devices reactivated, and maintenance equipment removed.

LUBRICATION Refer to the crane specification section for the periodic maintenance schedule and type of lubrication required.

BOLTS Bolts may loosen over time due to vibration; therefore they should be checked periodically. If bolts need to be replaced, make sure they are replaced with bolts of equal or greater strength. Check the periodic maintenance schedule (Crane Specification Section) for bolt specification and torque.

NOTE!

Sheave and boom and cylinder pivot bolts are not standard bolts. The shank and thread length of these bolts have been modified so that they do not pivot on the threads. Consult the parts section of this manual for part numbers of these bolts.

OTHER MAINTENANCE

Refer to parts drawings for any specific maintenance or adjustment procedures such as hydraulic winch brake, rotation drive gear set adjustment, Ect.



MONTHLY INSPECTION REPORT

Crane Model No. _____ Serial Number _____

| | | |
|--|-----------|----------|
| Are Boom Hitch Pins and Keepers in place? | Yes _____ | No _____ |
| Wire Line Hook with Safety Latch Working? | Yes _____ | No _____ |
| Is Hook OK, (Not bent)? | Yes _____ | No _____ |
| Is Thimble on Wire Rope OK? | Yes _____ | No _____ |
| Is Traveling Block in use? | Yes _____ | No _____ |
| Is Wire Rope OK, not kinked or frayed? | Yes _____ | No _____ |
| Are all Boom Sections straight? | Yes _____ | No _____ |
| Are Sheave Bolts in place and tight? | Yes _____ | No _____ |
| Do all Sheaves rotate easily? | Yes _____ | No _____ |
| Are Mounting Bolts tight? | Yes _____ | No _____ |
| Is Anti Two-Block functioning properly? | Yes _____ | No _____ |
| Is Boom Angle Indicator in place and functioning and is Chart legible? | Yes _____ | No _____ |
| Are Cylinder Mounting Bolts secure? | Yes _____ | No _____ |
| Are Winch Mounting Bolts tight? | Yes _____ | No _____ |
| When stopped does winch drift less than 1.0 Inches? | Yes _____ | No _____ |
| Is Load Chart in place and easily read? | Yes _____ | No _____ |
| Are functions on Pendant operating correctly? | Yes _____ | No _____ |
| Is Hydraulic Reservoir full? | Yes _____ | No _____ |
| Is Outrigger straight and functioning? | Yes _____ | No _____ |

Any items checked 'No' must be repaired before using this crane.



ANNUAL CRANE CERTIFICATION (29CFR1910.180)

OWNER _____

MODEL NUMBER _____ SERIAL NUMBER _____

DATE _____

Check the following:

___ *Crane Mounting Bolts (Torque)*

___ *Winch mounting Bolts (Torque)*

___ *Boom mounting bolts*

___ *Cylinder mounting bolts*

___ *Cracks on boom (Check when extended)*

___ *Extension Pads not worn excessively*

___ *Cracks on housing*

___ *Weld cracks on boom*

___ *Weld cracks on housing*

___ *Boom swing approximately one inch or less at boom tip when retracted*

___ *Hydraulic leaks*

___ *Hoses not chafed or cracked*

Sheaves not cracked

___ *Boom Tip*

___ *Traveling Block*

___ *Sheaves not worn excessively*

___ *Boom Tip*

___ *Traveling Block*

___ *Sheaves rotate freely*

___ *Boom Tip*

___ *Traveling Block*

- ___ *Load Chart in place and legible*
- ___ *Boom angle chart in place and legible*
- ___ *Labels in place (See manufacturer's chart)*
- ___ *Crane Hook Throat Opening within 15% of standard*
- ___ *Crane Hook not bent more than 10 degrees from plane*
- ___ *Hook safety latch operating properly*
- ___ *Booms pin(s) and Keeper(s) in place (Manual Extension Section)*
- ___ *Wire Rope removed if the following occurs:*

Six randomly distributed broken wires in one lay or three broken wires in one strand in one lay.

Wear of one-third the original diameter of outside individual wires.

Kinking, crushing, bird-caging or any other damage.

Evidence of heat damage.

Reduction from nominal diameter of more than one sixty-fourth inch for diameters to five-sixteenths diameter and one-thirty-second inch for diameters three-eighths to one-half inch.

- ___ *Wire Line installed as manufacturer requires.*
- ___ *Protective covers in place*
- ___ *Grease crane as required*

Check fluid level

- ___ *Winch*
- ___ *Gearbox*
- ___ *Reservoir*

Control system for proper operation

___ *Winch Up and Down*

___ *Boom Up and Down*

___ *Boom In and Out*

___ *Rotation CW and CCW*

Anti Two-Block (Required on Power Extendible Cranes) interrupts:

___ *Boom Down*

___ *Boom Out*

___ *Winch Up*

___ *Boom Up stopped by Up Limit Switch*

___ *Outrigger or jackstand operable*

___ *Outrigger crushing decal in place*

___ *Outrigger and Jackstand operates properly*

___ *Boom rest in place and used*

___ *Load Sensor trips when overloaded*

___ *Winch Down does not overrun when stopped*

___ *Crane stability chart in place and visible.*

I certify that I have performed the above tests and that any deficiencies were corrected and now comply as above.

Signed _____

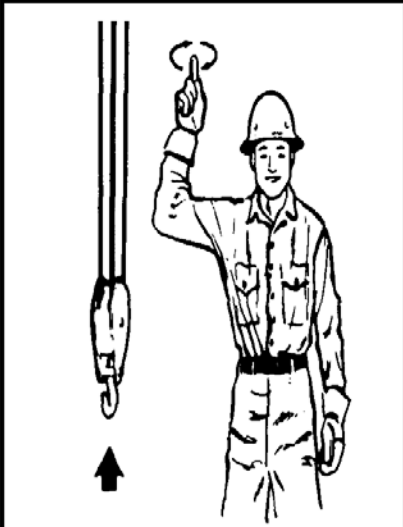
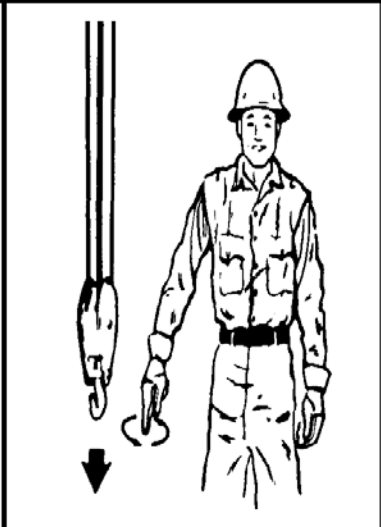
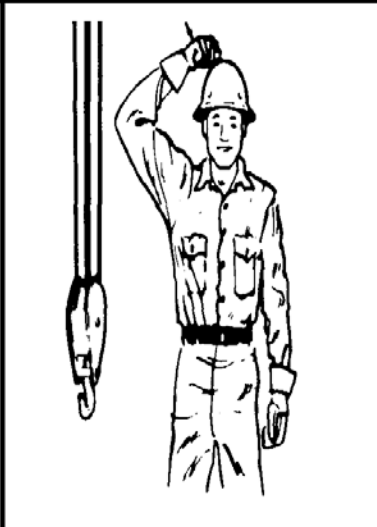
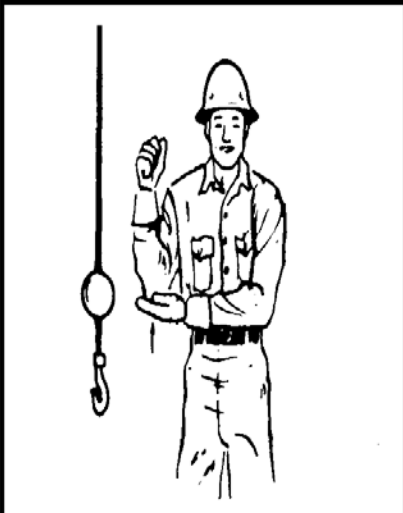
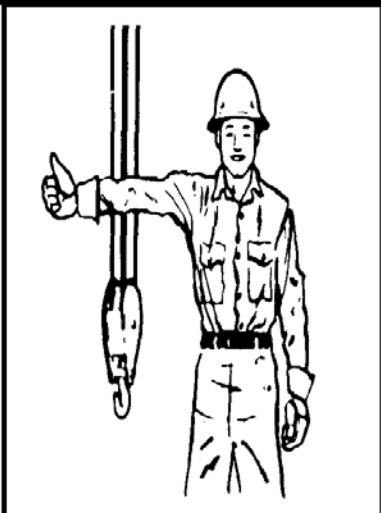
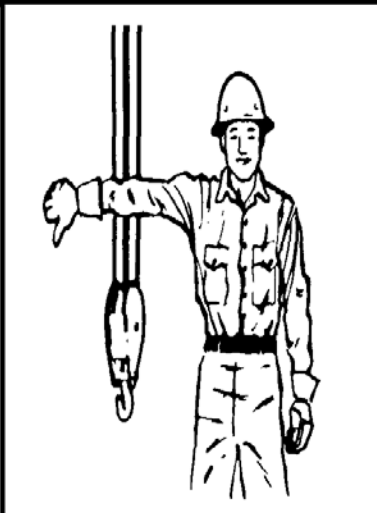
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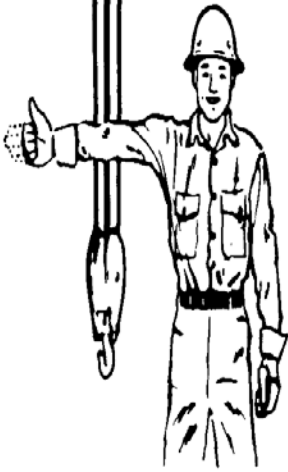
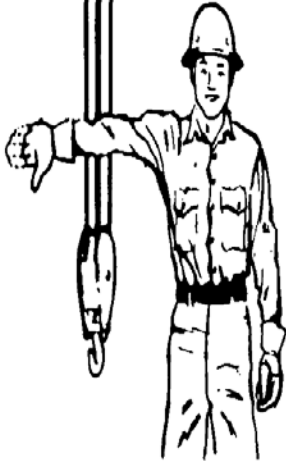
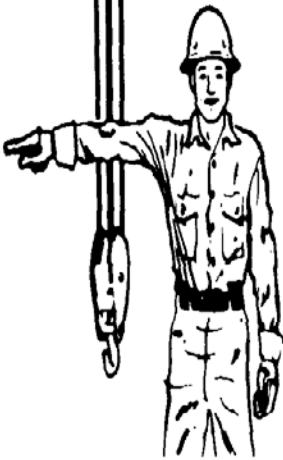
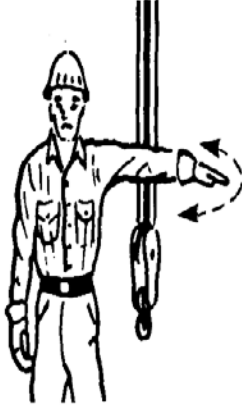
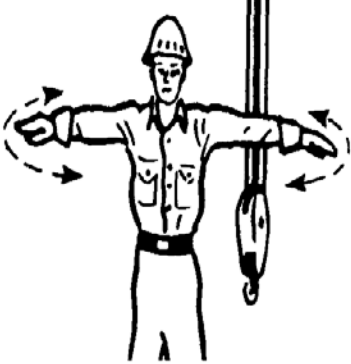
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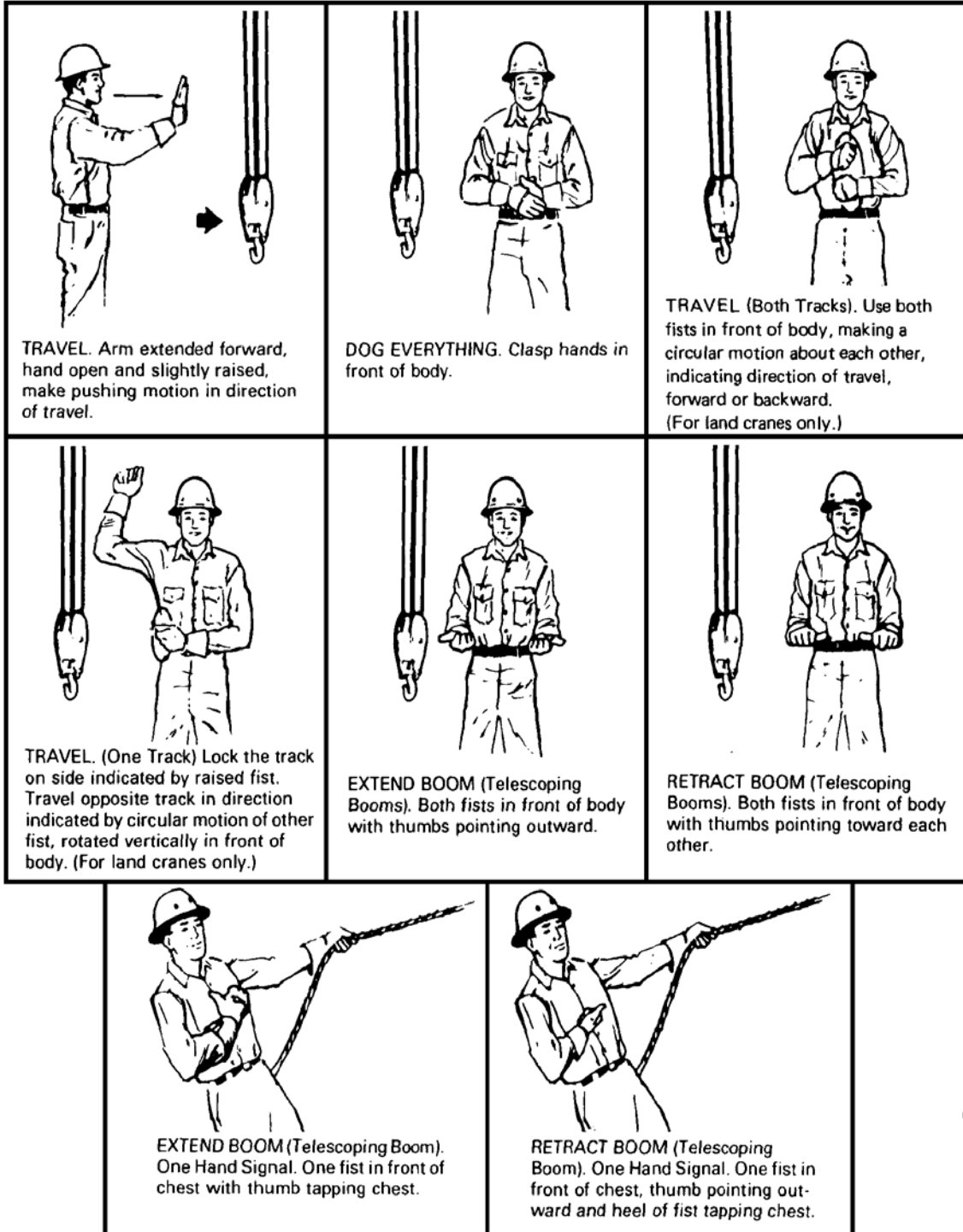
Address _____

City _____ *State* _____

STANDARD HAND SIGNALS FOR CONTROLLING CRANE OPERATIONS

| | | |
|---|---|---|
|  <p>HOIST. With forearm vertical, forefinger pointing up, move hand in small horizontal circle.</p> |  <p>LOWER. With arm extended downward, forefinger pointing down, move hand in small horizontal circle.</p> |  <p>USE MAIN HOIST. Tap fist on head; then use regular signals.</p> |
|  <p>USE WHIPLINE (Auxiliary Hoist). Tap elbow with one hand; then use regular signals.</p> |  <p>RAISE BOOM. Arm extended, fingers closed, thumb pointing upward.</p> |  <p>LOWER BOOM. Arm extended, fingers closed, thumb pointing downward.</p> |

| | | |
|---|---|---|
|  <p data-bbox="256 747 594 926">MOVE SLOWLY. Use one hand to give any motion signal and place other hand motionless in front of hand giving the motion signal. (Hoist slowly shown as example.)</p> |  <p data-bbox="630 747 964 894">RAISE THE BOOM AND LOWER THE LOAD. With arm extended, thumb pointing up, flex fingers in and out as long as load movement is desired.</p> |  <p data-bbox="1003 747 1338 926">LOWER THE BOOM AND RAISE THE LOAD. With arm extended, thumb pointing down, flex fingers in and out as long as load movement is desired.</p> |
|  <p data-bbox="266 1493 597 1566">SWING. Arm extended, point with finger in direction of swing of boom.</p> |  <p data-bbox="639 1493 954 1598">STOP. Arm extended, palm down, move arm back and forth horizontally.</p> |  <p data-bbox="997 1493 1328 1598">EMERGENCY STOP. Both arms extended, palms down, move arms back and forth horizontally.</p> |



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SAFETY SYSTEM

The safety system is designed to help prevent damage to the crane that would be caused by overload or two-blocking. The system consists of a load sensor, anti-two block device (optional on smaller, electric cranes), and limiting system control board.

When the applicable switch detects an overloading or two-block condition, the limiting system will prevent activation of winch up, and extend out since these directions would cause damage. Winch down, boom down, boom up, extend in, and power rotation will still function so that the crane can be moved to a safe configuration.

CAUTION!

Never de-activate or override safety functions. Doing so can result in serious damage to the crane and possibly injury or death.

LOAD SENSOR

A pressure activated switch in the elevation cylinder acts as a load sensor. This switch is normally closed and opens at the preset pressure corresponding to the load rating of the crane.

CAUTION!

The load sensor will not function when the elevation cylinder is fully retracted and is inaccurate when the boom is below horizontal.

CAUTION!

The operator must never rely strictly on the load sensor to determine overload conditions. The load and load limits must always be known and adhered to.

ANTI-TWO BLOCK

The anti-two block device (optional on smaller electric cranes), mounted on the boom crown plate, consists of a normally open switch actuated by a lever. A weight is attached to the lever and holds the switch

closed. If the weight is lifted by the hook or travel block the switch opens.

The power and signal wires are wired through the cord reel, which is in turn wired to the ATB switch.

LIMITING SYSTEM CONTROL

Two systems are included to limit crane overloads and wire rope breakage. When a crane overload occurs, the load sensor will stop winch up, extension out and boom down. To prevent breaking the wire rope, the Anti Two-Block device stops winch up and extension out when either is engaged.

The capacity of boom up is limited by the pressure setting of the relief valve in the manifold.

There is a one second delay before the deactivation of boom down when the load sensor is tripped to prevent false readings caused by pressure spikes.

MISCELLANEOUS

UP LIMIT SWITCH

The up limit switch prevents the elevation cylinder from reaching full extension. If the elevation cylinder were to "dead-head", the resulting pressure would activate the load sensor, preventing boom down. The boom would then have to be lowered using the manual operation buttons on the solenoid valves.

CIRCUIT BREAKER, FUSE

For electric cranes a 150 Amp circuit breaker is supplied with the crane. It should be installed as close to the battery as possible. For hydraulic cranes a 10 Amp blade type fuse is supplied.

DISCONNECT SWITCH

A power disconnect switch is supplied with the crane. Power to the crane should be turned off whenever not in use. This is to prevent inadvertent or unauthorized use and will help prevent corrosion at electrical connections.



BASIC TROUBLESHOOTING

The following chart gives a quick reference to help identify and correct problems. Refer to the following pages for more detailed information.

| PROBLEM | PROBABLE CAUSE | CORRECTIVE ACTION |
|--|--|--|
| NO FUNCTIONS WORK | Not receiving electrical power Not receiving hydraulic power Control problem | Check all connections Check all fuses and circuit breakers Check for electrical power at first electrical connection and trace back to crane Check flow from pump Deadhead cylinder and check pressure at pump See control section |
| FUNCTION NOT WORKING winch up, extension out not working Boom down, winch down, extension in not working Other function not working | No signal from ATB or Load sensor (switch tripped, bad switch, bad wiring or not receiving power) Relay card malfunction Not receiving enough pressure Faulty wiring Valve coils bad | Check input signal to relay board if no signal, trace back to switch Check LEDs on board for error codes and outputs Deadhead cylinder and check pressure at pump Check differential pressure valve for contamination Check relief valve for proper setting and possible contamination Check all wiring for breaks or shorts Check all ground wires for good connection Check coil resistance |
| ALL FUNCTIONS SLOW * These items only apply to cranes with proportional control systems. | Not receiving enough flow Low battery voltage Check with engine running * Proportional valve problem * Control problem | Check fluid levels Check all filters and any other restrictions Charge battery (BATTERY MAY BE BAD) Try manual operation of proportional valve Check voltage at valve for approx. at min and max(see troubleshooting form for specific valves) See control section |



TROUBLESHOOTING SAFETY SYSTEM

DTCH Relay Card

To check functions controlled by the safety system check the status indicators. (See Relay Box Assembly drawing.) If only one of the safety functions is not working, activate that function and check for error codes and/or its output status indicator.

For non-FM systems, if the status indicator lights then the problem is in the wiring or in the solenoid coil. If the light does not illuminate, check the control pendant. If the control pendant is good then the crane control module needs to be replaced.

For FM systems, check for error codes. If none are present, see the FM Troubleshooting section.

If boom out, boom down and winch up are not working, confirm that the control board has power. Confirm that the board is receiving a signal from the ATB and load sensor.

If the error code is active, ensure that the crane is not overloaded and that the ATB lever is holding the switch closed. Check for voltage at the ATB and Load Sensor inputs.

CHECK LOAD SENSOR SWITCH

If the load sensor input is not receiving voltage, locate the load sensor connector inside the crane housing. The plug side will have a red wire and a gray wire, the receptacle side will have a red and a white wire.

Disconnect and check for continuity between the two pins on the receptacle (switch side). If there is no continuity then the load sensor is bad and needs to be replaced.

CHECK ATB SWITCH

If the ATB input is not receiving voltage remove the ATB housing cover and disconnect the connector. Check for continuity on the switch side. Lifting the weight should break the continuity. If either of these conditions is incorrect the switch is bad and needs to be replaced.

CHECK CORD REEL

Check the ATB switch if not done so already. Locate the ATB connector inside the crane housing. The plug side will have a red wire and a black wire. The receptacle side will have a white wire and a black wire.

Disconnect the plug going to the switch. Check for continuity between the two pins on the receptacle. Have someone lift the weight on the ATB and continuity should be broken. If either of these conditions are incorrect then the cord reel is bad and needs to be replaced.

CHECK POWER TO SAFETY SWITCHES

If the safety switch is good, check for voltage at pin 1 (the red wire) on the plug. If there is no voltage, follow the wire back to the 6-pin power distribution plug, checking for breaks or shorts.

Remove the power distribution receptacle (cap).

NOTE!

Removing the cap will disconnect power to all electrical components. Be sure to replace the cap before continuing.

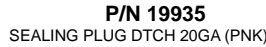
Check the cap for bent pins. Check that all wires are fully seated in the plug. If they are not, then remove the green locking wedge and push the wires forward until seated. Reinstall the wedge ensuring that no wires are pushed back.



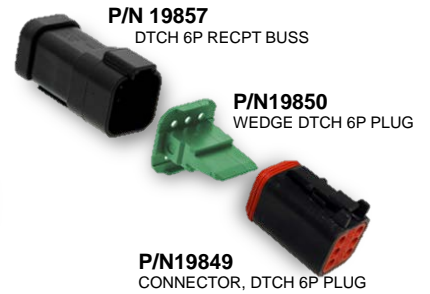
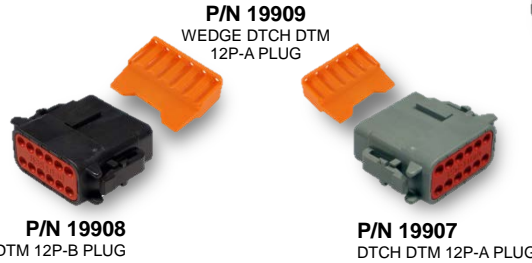
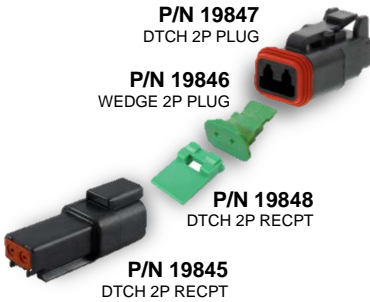
DEUTSCH CONNECTIONS & PINS



FEMALE'S



MALE'S



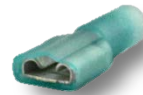
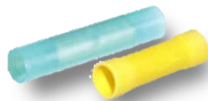
RED RING INSUL
P/N 18770 22-18GA #10

BLU RING INSUL
P/N 15802 14-16GA #8
P/N 15736 14-16GA #10
P/N 21478 14-16GA 0.25
P/N 15871 14-16GA 0.31

YEL RING INSUL
P/N 16781 10-12GA #8
P/N 16111 10-12GA 0.25
P/N 15771 10-12GA 0.31
P/N 26725 14-16GA .437

BRAZED RING
P/N 15837 4GA 0.31
P/N 15563 6GA 0.25
P/N 15148 6GA 0.31
P/N 15737 1/0GA 0.31

LUG RING
P/N 16915 #1GA 0.25
P/N 17063 #1GA 0.37
P/N 16922 #4GA 0.25
P/N 17064 #4GA 0.37
P/N 16923 #1/0GA 0.25
P/N 17062 #1/0GA 0.37



QUICK SPLICE
P/N 31407 14-18GA (TAN)
P/N 32141 18-22GA (RED)

BUTTED CONN
P/N 15565 14-16GA (BLU)
P/N 16110 10-12GA (YLW)

FUSE CONN.
P/N 19921 HOLDER 16GA
P/N 18456 15AMP BLADE

FEMALE TERM
P/N 15797 10-12GA (YLW)
P/N 15566 14-16GA (BLU)

MALE TERM
P/N 15838 10-12GA (YLW)
P/N 32118 14-16GA (BLU)



F2435-0
06/16/16
I:FORMS

HOUSTON, TEXAS
FAX: (800) 824-5559 (USA & Canada)
FAX: (713) 688-6324
PHONE: (713) 688-5533
www.liftmoore.com

SECTION 3 CRANE SPECIFICATIONS

MODEL 4064LMX CRANES

MOMENT RATING 40 000 FT-LBS

MAX SINGLE LINE LOAD 3 200 LBS

MAX DOUBLE LINE LOAD 6 400 LBS

LIFTING CAPACITIES AT VARIOUS LOAD RADII

| LOAD RADIUS (FT) | CAPACITY (LBS) |
|---------------------|-------------------|
| 6.25≤ | 6400 |
| 8 | 5000 |
| 10 | 4000 |
| 12 | 3333 |
| 14 | 2857 |
| 16 | 2500 |
| 18 | 2222 |
| 20 | 2000 |
| 22 | 1818 |
| 24 | 1661 |
| 26 | 1538 |
| 28 | 1428 |
| 30 | 1333 |

POWERED FUNCTIONS AND EXPECTED TIMES

| | | | |
|----------------|----------|-----------|--------------|
| WINCH | UP: 10s | DOWN: 11s | 3 REVOLUTION |
| BOOM ELEVATION | UP: 13s | DOWN: 12s | |
| BOOM EXTENSION | OUT: 35s | IN: 25s | |
| ROTATION | 90° 10s | | |

HYDRAULIC REQUIREMENTS

| | |
|----------|----------|
| PRESSURE | 2750 PSI |
| FLOW | 8 GPM |



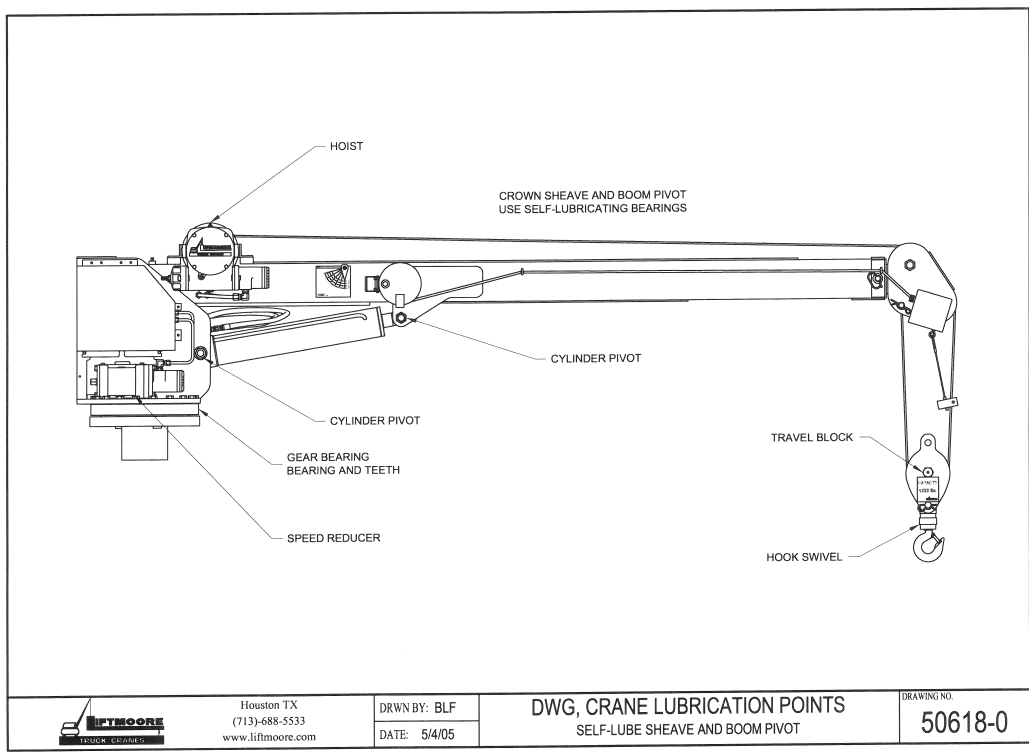
F1319-0
10/13/17

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PHONE: (713) 688-5533
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| PERIODIC MAINTENANCE SCHEDULE | | |
|-------------------------------|--|--------------------------------|
| MODEL 4064 CRANES | | |
| BOLTS | | |
| MOUNTING BOLTS | 7/8-9 GRADE 8 TORQUE 600FT-LBS DRY | EVERY 4 MONTHS |
| BEARING BOLTS | 5/8-11 GRADE 8 TORQUE 220FT-LBS DRY | EVERY 4 MONTHS |
| LUBRICATION | | |
| GREASE FITTINGS | SEE DRAWING 50618 | EVERY OTHER WEEK |
| HYDRAULIC FLUID | STANDARD Chevron AW Hydraulic Oil 46 or equivalent SAE 15 weight oil COLD WEATHER AW 32 or equivalent SAE 10 weight oil | CHECK DAILY, FILL AS NEEDED |
| WINCH GEARBOX | SAE 90, AGMA 5S | EVERY MONTH |
| ROTATION GEARBOX | EP 01 Grease | EVERY MONTH |
| BEARING (ZERK AND TEETH) | Oil Center Research PM 600 Military grease or equivalent Benton Based Grease NLGI Grade 2 | EVERY 6 HOURS OF OPERATION |



CRANE LUBRICATION POINTS



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10/13/17

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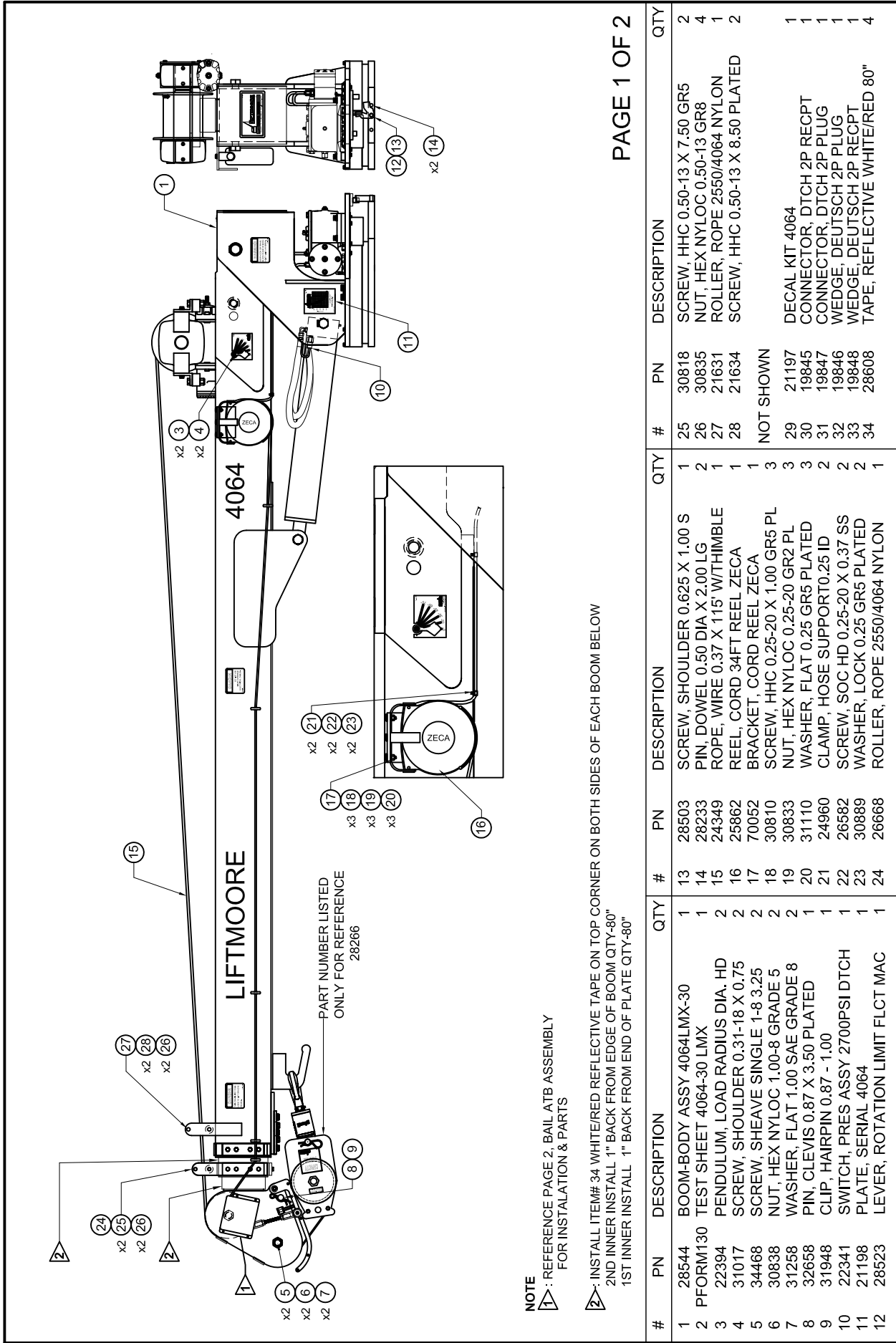
LIST FOR BOX, CRANE PARTS 4064LMX-30

Items with * have detailed DWG's.

P/N 28547 - BOX, CRANE PARTS 4064LMX-30 FT
REC. BOOM, BAIL ATB

- 1) P/N 28546 - MANUAL, CRANE 4064LMX-30 1pc
- 2) *P/N 28266 - BLOCK, TRAV ASSY 6.4K lbs/6.5D..... 1pc
- 3) P/N 22431 - INSTALLATION INTS. 4064..... 1pc
- 4) P/N 25820 - DECAL, LOAD CAPACITY 40,000..... 1pc
- 5) P/N 23144 - LEVEL & TAPE ASSEMBLY..... 1pc





NOTE
 1: REFERENCE PAGE 2, BAIL ATB ASSEMBLY FOR INSTALLATION & PARTS

2: INSTALL ITEM# 34 WHITE/RED REFLECTIVE TAPE ON TOP CORNER ON BOTH SIDES OF EACH BOOM BELOW
 2ND INNER INSTALL 1" BACK FROM EDGE OF BOOM QTY-80"
 1ST INNER INSTALL 1" BACK FROM END OF PLATE QTY-80"

| # | PN | DESCRIPTION | QTY | # | PN | DESCRIPTION | QTY | # | PN | DESCRIPTION | QTY |
|----|----------|--------------------------------|-----|----|-------|----------------------------------|-----|-----------|-------|----------------------------------|-----|
| 1 | 28544 | BOOM-BODY ASSY 4064LMX-30 | 1 | 13 | 28503 | SCREW, SHOULDER 0.625 X 1.00 S | 1 | 25 | 30818 | SCREW, HHC 0.50-13 X 7.50 GR5 | 2 |
| 2 | PFORM130 | TEST SHEET 4064-30 LMX | 1 | 14 | 28233 | PIN, DOWEL 0.50 DIA X 2.00 LG | 2 | 26 | 30835 | NUT, HEX NYLOC 0.50-13 GR8 | 4 |
| 3 | 22394 | PENDULUM, LOAD RADIUS DIA. HD | 2 | 15 | 24349 | ROPE, WIRE 0.37 X 115' W/THIMBLE | 1 | 27 | 21631 | ROLLER, ROPE 2550/4064 NYLON | 1 |
| 4 | 31017 | SCREW, SHOULDER 0.31-18 X 0.75 | 2 | 16 | 25862 | REEL, CORD 34FT REEL ZECA | 1 | 28 | 21634 | SCREW, HHC 0.50-13 X 8.50 PLATED | 2 |
| 5 | 34468 | SCREW, SHEAVE SINGLE 1-8 3.25 | 2 | 17 | 70052 | BRACKET, CORD REEL ZECA | 1 | NOT SHOWN | | | |
| 6 | 30838 | NUT, HEX NYLOC 1.00-8 GRADE 5 | 2 | 18 | 30810 | SCREW, HHC 0.25-20 X 1.00 GR5 PL | 3 | 29 | 21197 | DECAL KIT 4064 | 1 |
| 7 | 31258 | WASHER, FLAT 1.00 SAE GRADE 8 | 2 | 19 | 30833 | NUT, HEX NYLOC 0.25-20 GR2 PL | 3 | 30 | 19845 | CONNECTOR, DTCH 2P RECPT | 1 |
| 8 | 32658 | PIN, CLEVIS 0.87 X 3.50 PLATED | 1 | 20 | 31110 | WASHER, FLAT 0.25 GR5 PLATED | 3 | 31 | 19847 | CONNECTOR, DTCH 2P PLUG | 1 |
| 9 | 31948 | CLIP, HAIRPIN 0.87 - 1.00 | 1 | 21 | 24960 | CLAMP, HOSE SUPPORT 0.25 ID | 2 | 32 | 19846 | WEDGE, DEUTSCH 2P PLUG | 1 |
| 10 | 22341 | SWITCH, PRES ASSY 2700PSI DTCH | 1 | 22 | 26582 | SCREW, SOC HD 0.25-20 X 0.37 SS | 2 | 33 | 19848 | WEDGE, DEUTSCH 2P RECPT | 1 |
| 11 | 21198 | PLATE, SERIAL 4064 | 1 | 23 | 30889 | WASHER, LOCK 0.25 GR5 PLATED | 2 | 34 | 28608 | TAPE, REFLECTIVE WHITE/RED 80" | 4 |
| 12 | 28523 | LEVER, ROTATION LIMIT FLCT MAC | 1 | 24 | 26668 | ROLLER, ROPE 2550/4064 NYLON | 1 | | | | |

LIFTMOORE
 HOUSTON, TEXAS

CRANE ASSY 4064LMX-30

DRAWING NO. **28545-A**

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DRWN BY: AA
 DATE: 6/5/17

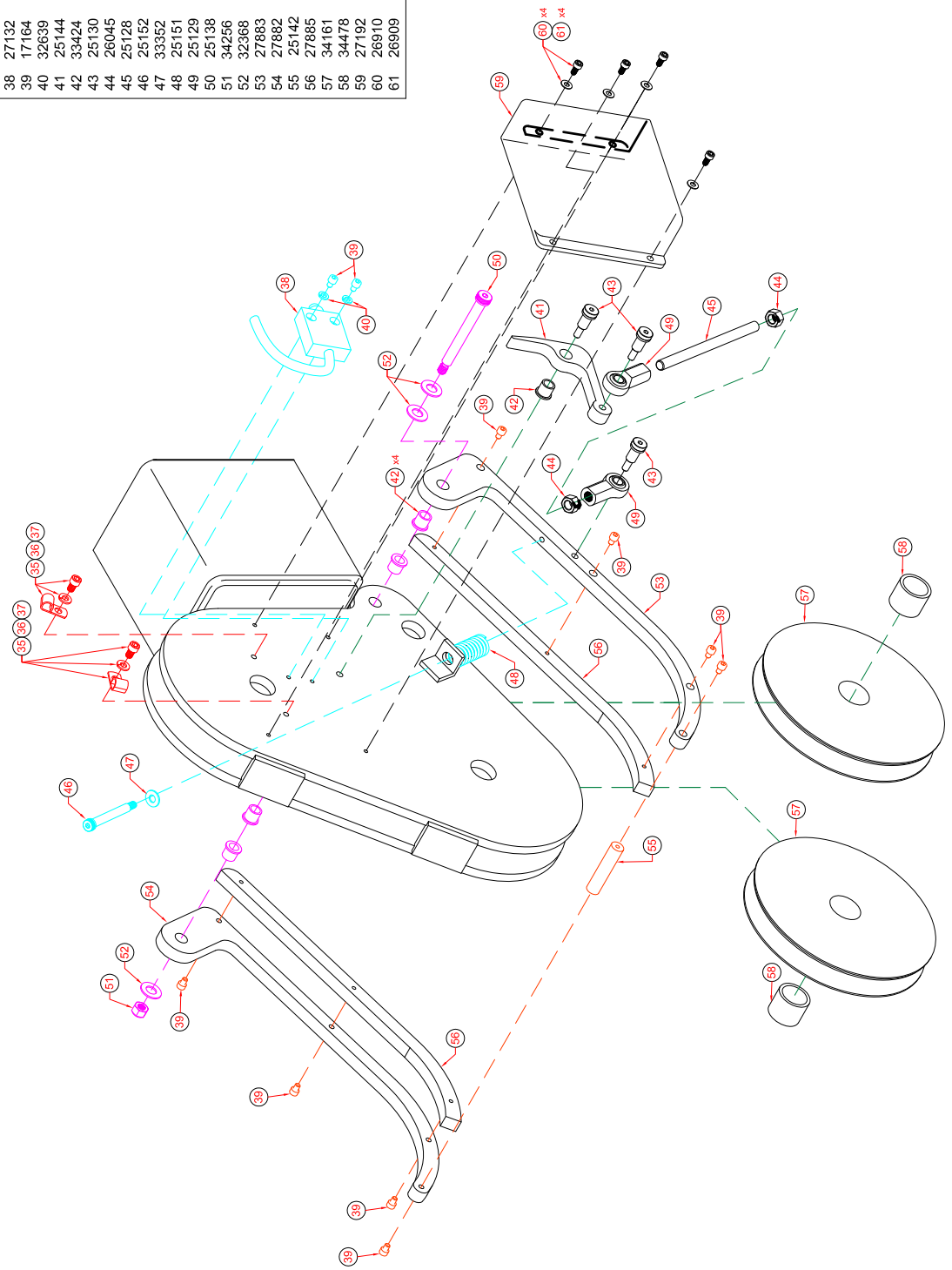
CRANE ASSY 4064LMX-30

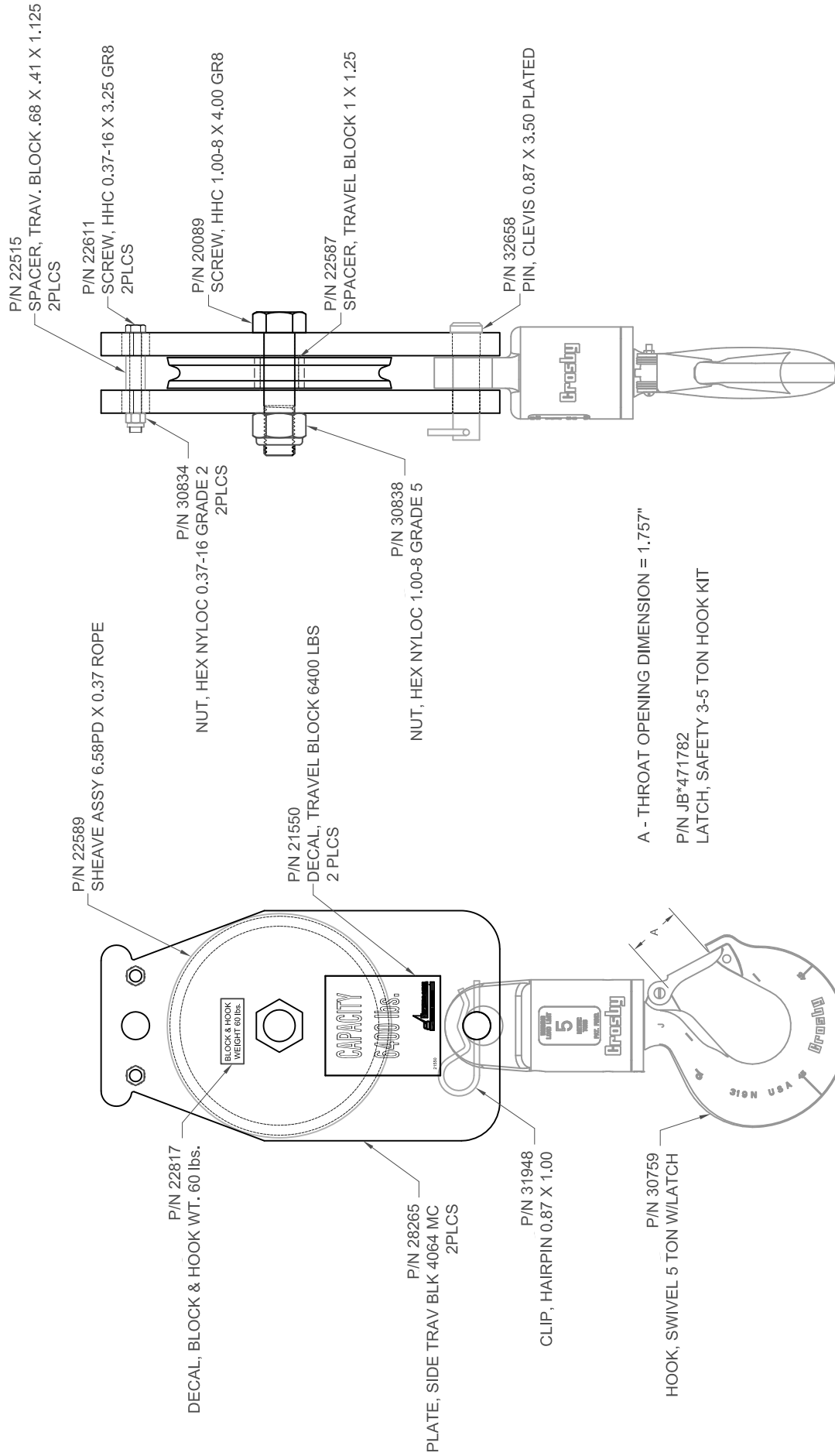
DRWN BY: AA
DATE: 6/5/17

Houston TX
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| # | PN | DESCRIPTION | QTY |
|----|-------|--------------------------------|-----|
| 35 | 24960 | CLAMP, HOSE SUPPORT 0.25 ID | 2 |
| 36 | 26582 | SCREW, SOC HD 0.25-20 X 0.37SS | 2 |
| 37 | 30889 | WASHER, LOCK 0.25 GR5 PLATED | 2 |
| 38 | 27132 | SWITCH, LIMIT ATB ASSY 2W/DTCH | 1 |
| 39 | 17164 | SCREW, SOC HD 10-24 X 0.62 SS | 10 |
| 40 | 32639 | WASHER, LOCK #10 GR2 PLATED | 2 |
| 41 | 25144 | LEVER, ANTI-TWO BLOCK MACH | 1 |
| 42 | 33424 | BUSHING, 0.37 X 0.50 X 0.50L N | 5 |
| 43 | 25130 | SCREW, SHOULDER 0.375 X 0.625 | 3 |
| 44 | 26045 | NUT, HEX 0.37-24 SS GR8 | 2 |
| 45 | 25128 | ALL THREAD STUD 3/8-24 X 5.75 | 1 |
| 46 | 25152 | SCREW, SHOULDER 0.313 X 2.25 | 1 |
| 47 | 33352 | WASHER, FLAT 0.25 SAE SS GR304 | 1 |
| 48 | 25151 | SPRING, COMPRESSION | 1 |
| 49 | 25129 | BALL JOINT ROD END | 2 |
| 50 | 25138 | SCREW, SHOULDER 0.375 X 3.25 | 1 |
| 51 | 34256 | NUT, HEX NYLOC 0.31-18 SS 304 | 1 |
| 52 | 32368 | WASHER, FLAT 0.37 SAE SS GR304 | 3 |
| 53 | 27883 | LEVER, LT SIDE MACH | 1 |
| 54 | 27882 | LEVER, RT SIDE MACH | 1 |
| 55 | 25142 | SPACER, LEVER | 1 |
| 56 | 27885 | LEVER, BAIL SUPPORT - MACH | 2 |
| 57 | 34161 | SHEAVE, 6.58PD X 0.37 ROPE | 2 |
| 58 | 34478 | BUSHING, 1.00 X 1.25 X 1.00L F | 2 |
| 59 | 27192 | COVER, BAIL ATB | 1 |
| 60 | 26910 | WASHER, FLAT #10 SS | 4 |
| 61 | 26909 | SCREW, SOC HD 10-24 X 0.37 SS | 4 |



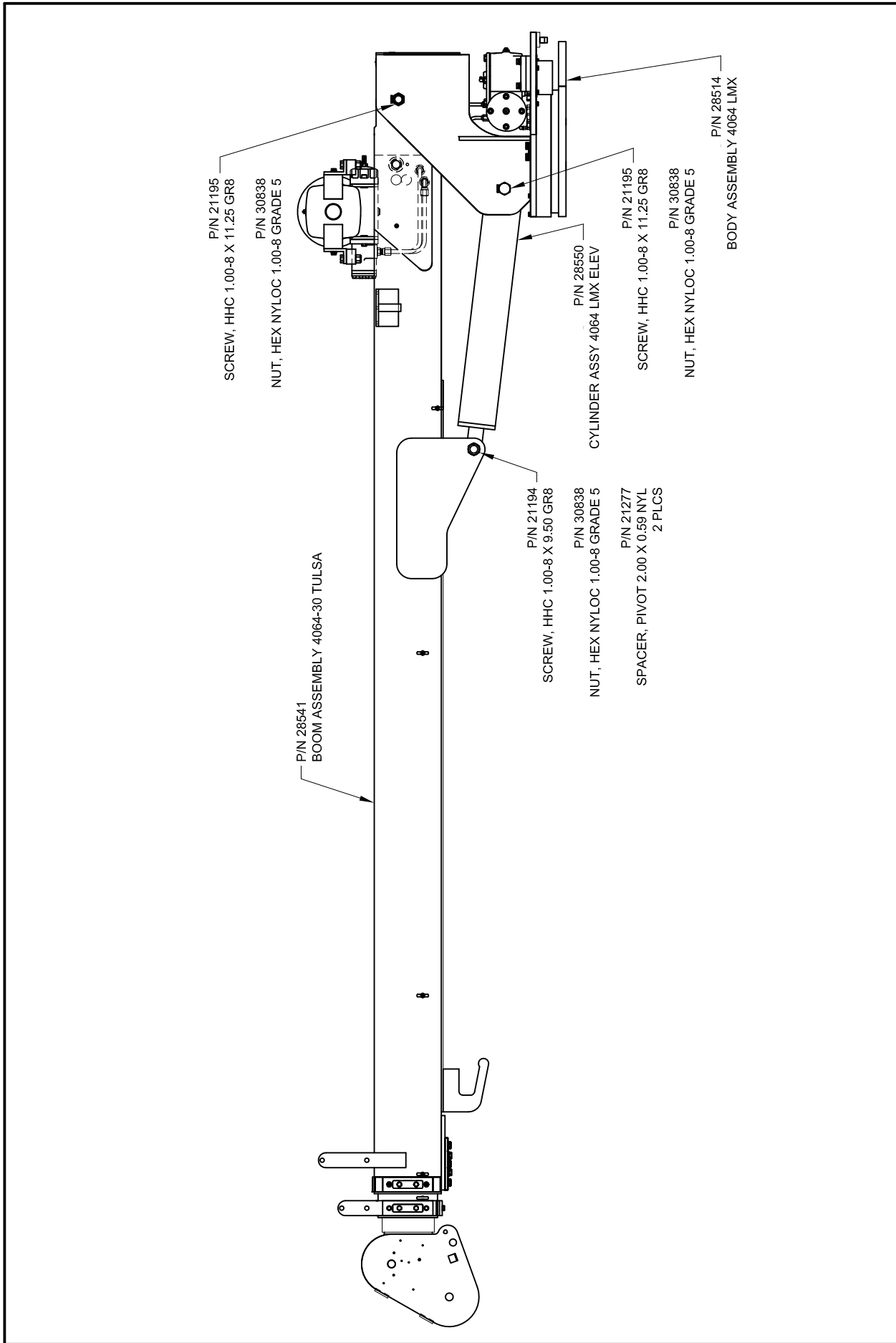


A - THROAT OPENING DIMENSION = 1.757"

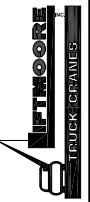
CAUTION:

NEVER USE A HOOK WHOSE THROAT OPENING HAS BEEN INCREASED, OR WHOSE TIP HAS BEEN BENT MORE THAN 10 DEGREES OUT OF PLANE FROM THE HOOK BODY, OR IS IN ANY WAY DISTORTED OR BENT.

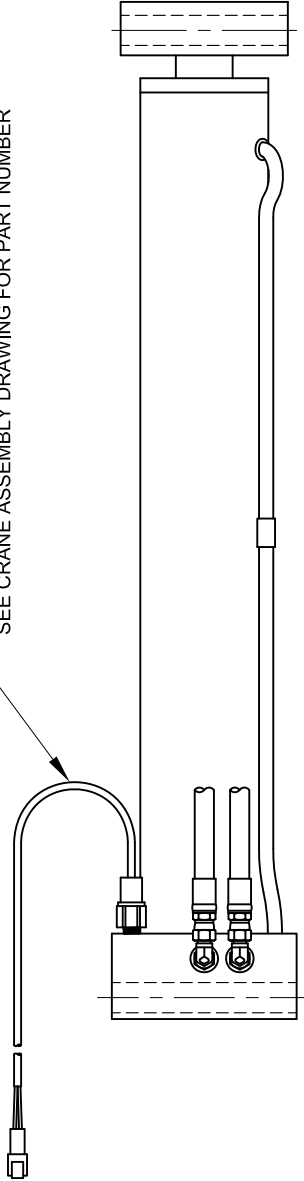
| | | | | |
|--|---|--------------------------------|--|-------------------------------|
| | Houston TX (713)-688-5533 www.liftmoore.com | DRAWN BY: AA DATE: 11/17/16 | BLOCK, TRAV ASSY 6.4K lbs/6.5D 6.58PD X 0.37 ROPE; 30759 HOOK | DRAWING NO. 28266-0 |
|--|---|--------------------------------|--|-------------------------------|



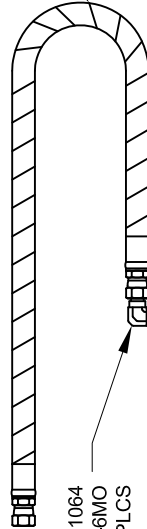
| | | | |
|--|-------------------------------------|--|---------------------------------------|
| <p>Houston TX (713)-688-5533 www.liftmoore.com</p> | <p>DRWN BY: AA DATE: 6/2/17</p> | <p>BOOM-BODY ASSY 4064 LMX-30 TULSA WINCH</p> | <p>DRAWING NO. 28544-0</p> |
|--|-------------------------------------|--|---------------------------------------|



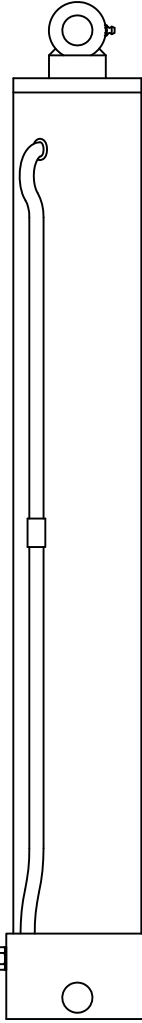
SWITCH, PRES ASSY 2700PSI DTCH
(NOT PART OF ASSEMBLY).
SEE CRANE ASSEMBLY DRAWING FOR PART NUMBER



P/N 31413
HOSE, HYD #6 31.00"
2 PLCS

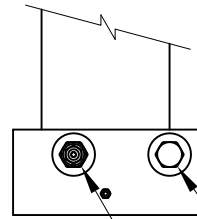
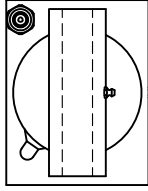


P/N 31064
ADAPTER, 90° 6MJ-6MO
2 PLCS



P/N 31224
COVER, ZERK
2 PLCS

P/N 28502
CYLINDER ELEV. 4064



COUNTER BALANCE VALVE

P.O. CHECK VALVE / PLUG

| REPLACEMENT PARTS FOR CYLINDER | |
|--------------------------------|-------------|
| DESCRIPTION | PART NUMBER |
| SEAL KIT | TM*SK-00271 |
| COUNTER BALANCE VALVE | 18577 |
| P.O. CHECK VALVE PLUG | TM*PP00482 |
| CYLINDER, 4.5 X 24.0 X 2.0 POC | 18301 |

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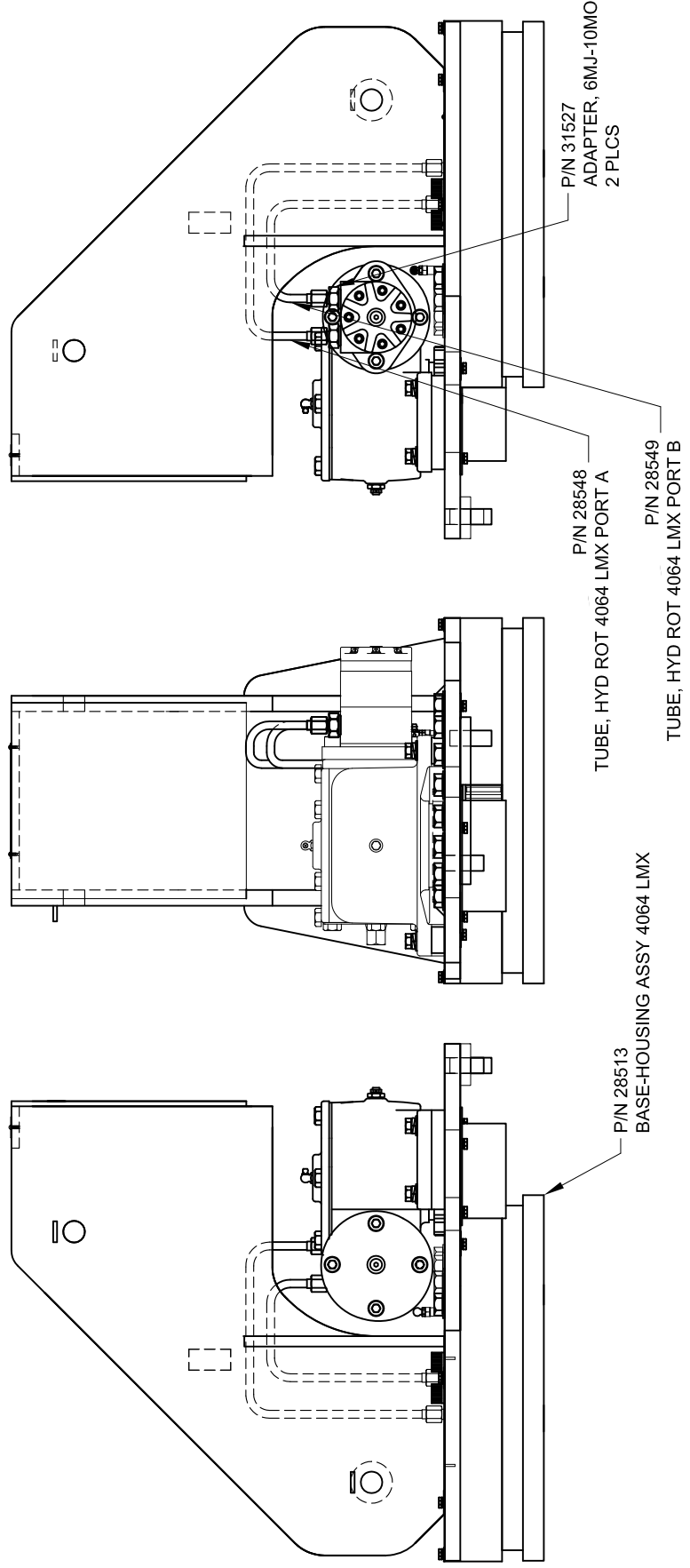
CYLINDER ASSY 4064LMX ELEV DTCH

DRWN BY: JE

DATE: 10/13/17

DRAWING NO.

28550-0



P/N 31527
ADAPTER, 6MJ-10MO
2 PLCS

P/N 28548
TUBE, HYD ROT 4064 LMX PORT A

P/N 28549
TUBE, HYD ROT 4064 LMX PORT B

P/N 28513
BASE-HOUSING ASSY 4064 LMX

ITEMS WITH * HAVE DETAIL DRAWINGS

DRAWING NO.
28514-0

BODY ASSEMBLY 4064 LMX

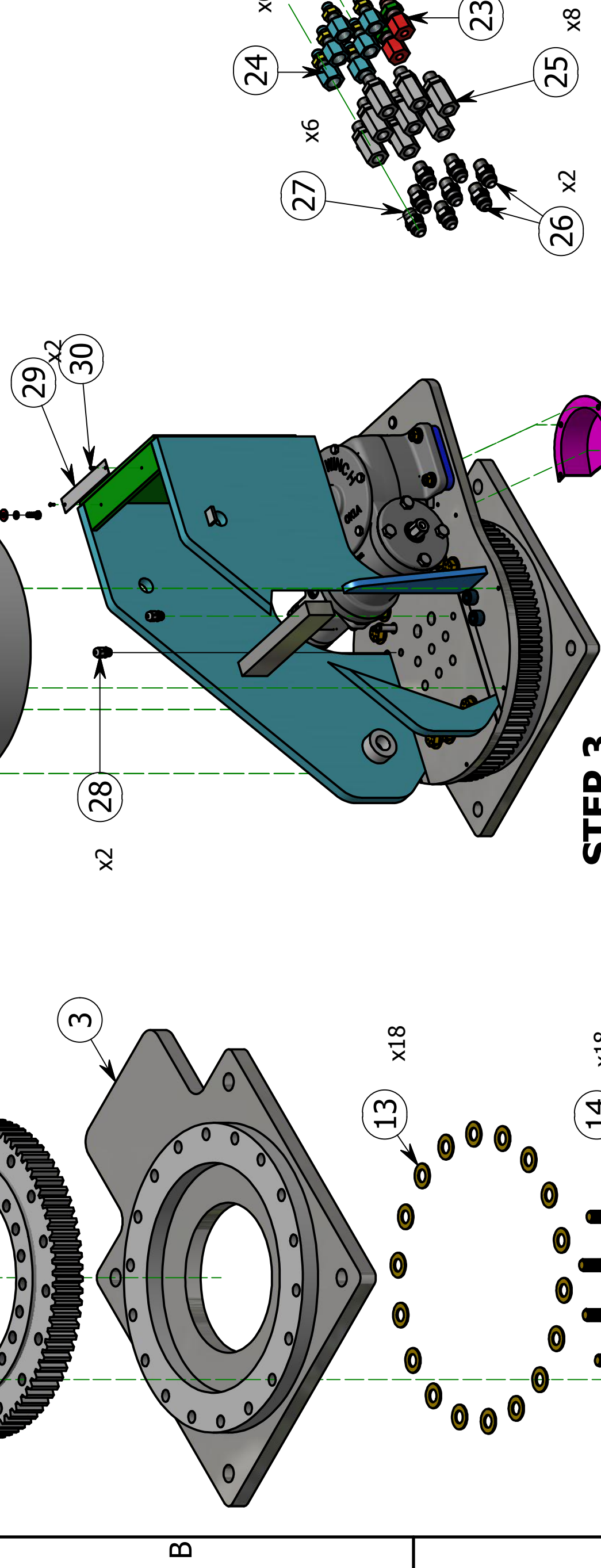
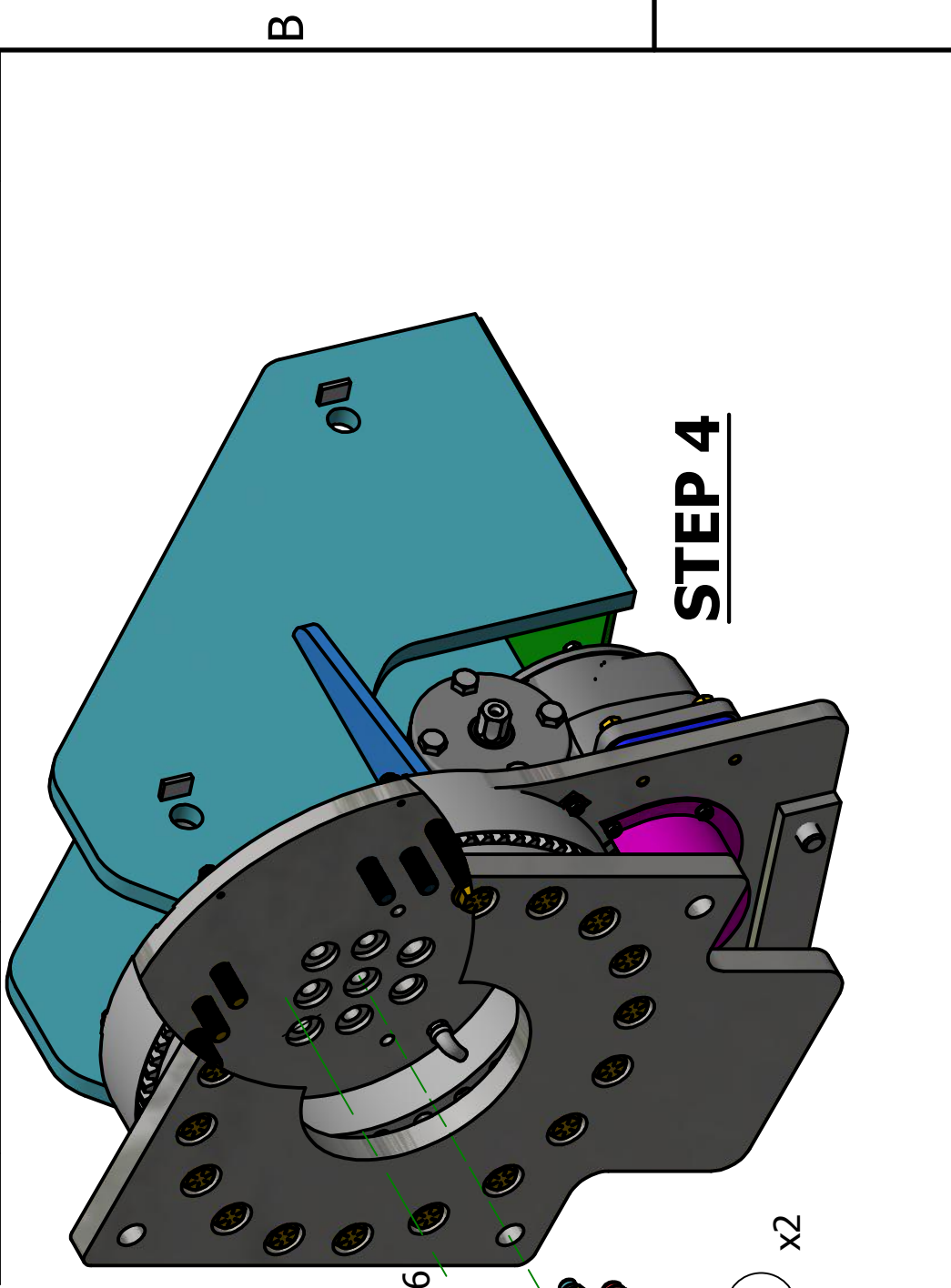
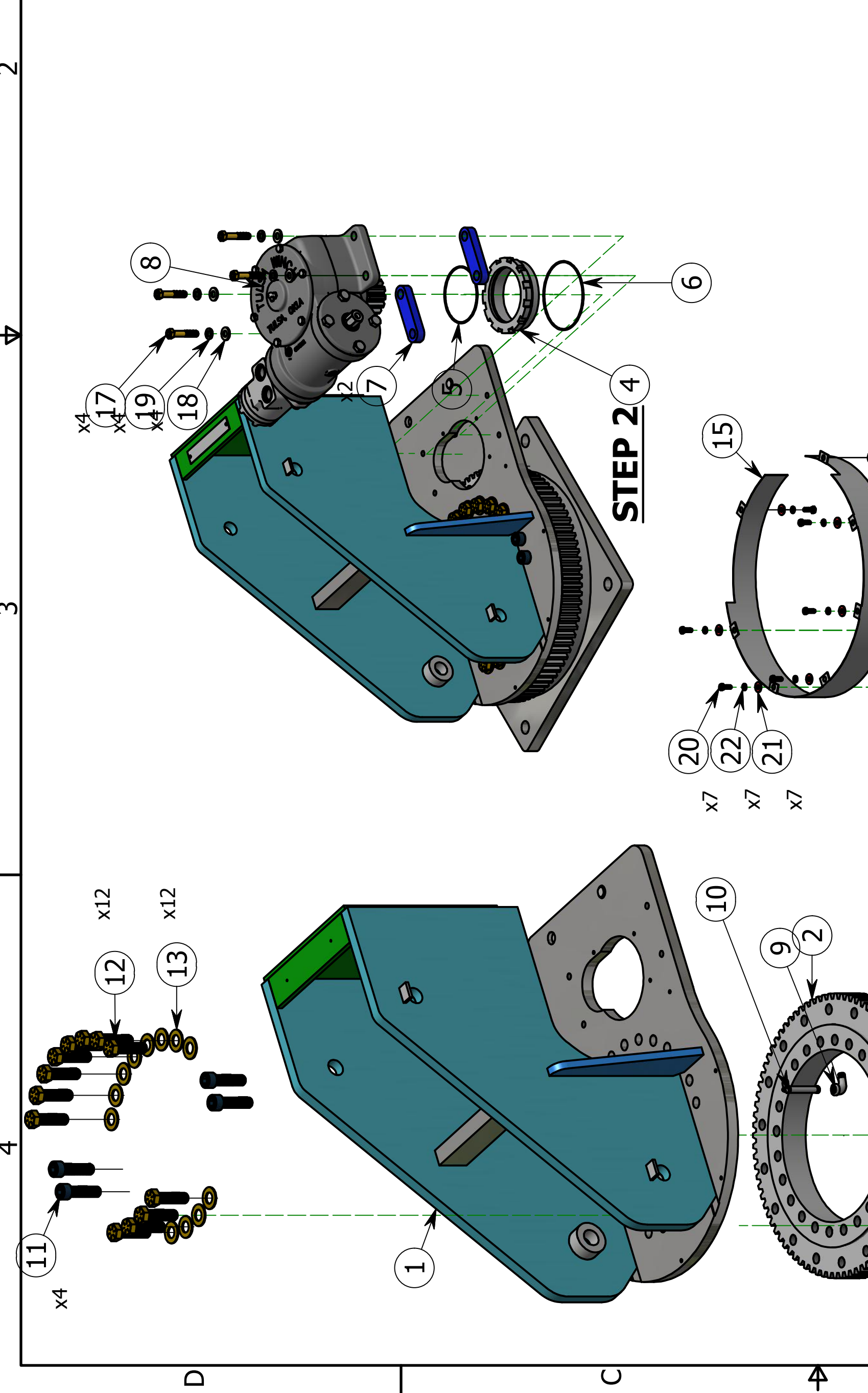
DRWN BY: AA

DATE: 6/1/17

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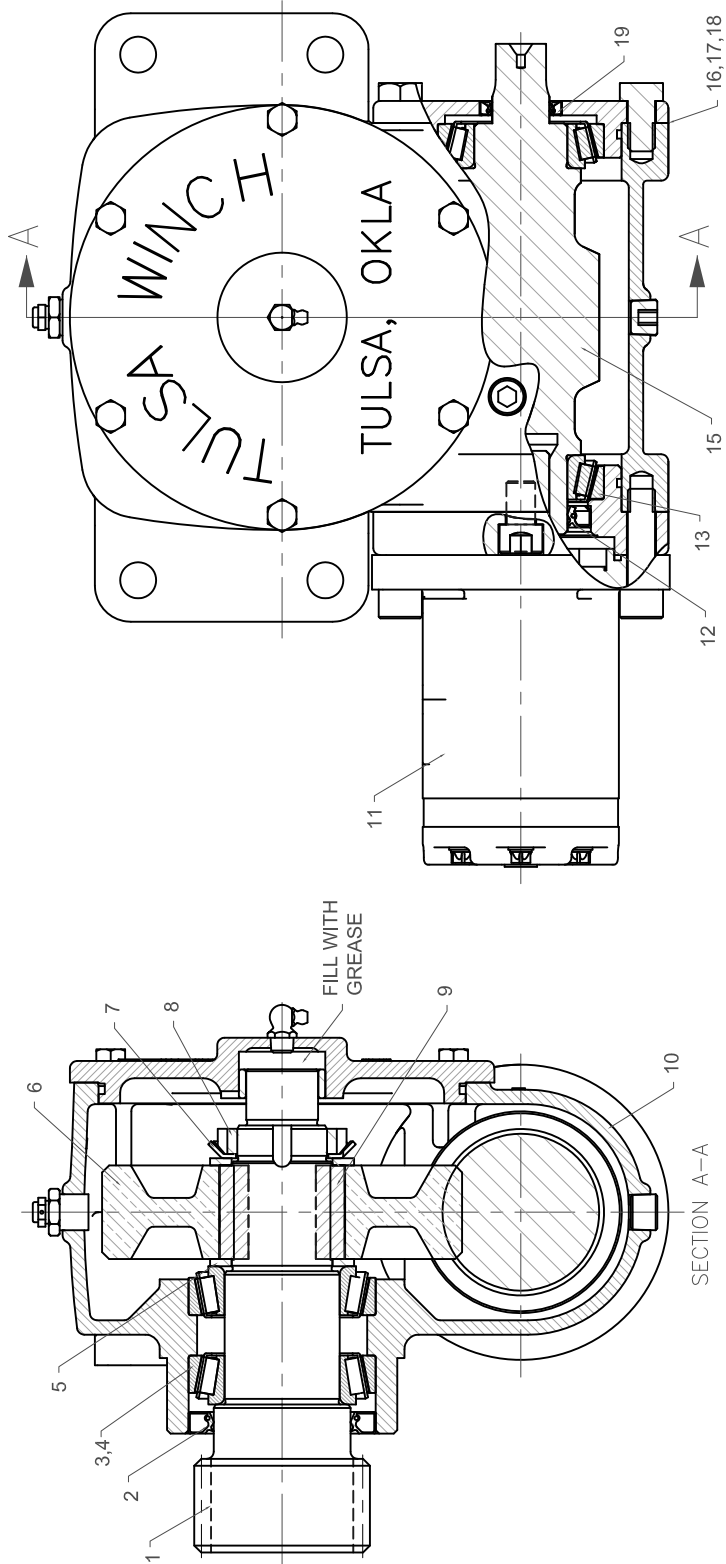


| ITEM | P/N | DESCRIPTION | QTY |
|------|---------|--------------------------------|-----|
| 1 | 28509-0 | HOUSING WELDMENT 4064 LMX | 1 |
| 2 | 22916-0 | BEARING, GEAR 4064 | 1 |
| 3 | 28506-B | PLATE, BASE 4064 LMX - MACH | 1 |
| 4 | 31288-0 | RING, ECCENTRIC | 1 |
| 5 | 17473-0 | O-RING, 155 BUNA 70 DUROMETER | 1 |
| 6 | 17472-0 | O-RING, 158 BUNA 70 DUROMETER | 1 |
| 7 | 21184-A | SPACER, SPEED REDUCER 4064 | 2 |
| 8 | 21605-A | REDUCER, SPEED TULSA 14 TOOTH | 1 |
| 9 | 23037-0 | ADAPTER, ELBOW MALE X FEMALE | 1 |
| 10 | 19824-0 | ZERK, 0.12 NPT STRAIGHT X 2.62 | 1 |
| 11 | 30867-0 | SCREW, SOC HD 0.62-11 X 2.25 | 4 |
| 12 | 31100-0 | SCREW, HHC 0.62-11 X 2.25 GR8 | 12 |
| 13 | 31054-0 | WASHER, FLAT 0.62 SAE GR8 | 30 |
| 14 | 31605-0 | SCREW, HHC 0.62-11 X 3.00 GR8 | 18 |
| 15 | 21183-A | COVER, GEAR 4064 | 1 |
| 16 | 19720-C | COVER, GEAR PINION 72100 | 1 |
| 17 | 19994-0 | SCREW, HHC 0.43-14 X 2.25 GR8 | 4 |
| 18 | 31062-0 | WASHER, FLAT 0.43 SAE GRADE 8 | 4 |
| 19 | 30972-0 | WASHER, LOCK 0.43 GR5 PL | 4 |
| 20 | 30457-0 | SCREW, HHC 0.25-20 X 0.75 GR5 | 10 |
| 21 | 31110-0 | WASHER, FLAT 0.25 GR5 PLATED | 7 |
| 22 | 30889-0 | WASHER, LOCK 0.25 GR5 PLATED | 10 |
| 23 | 33594-0 | ADAPTER, 6FP-8MJ BH | 2 |
| 24 | 31522-0 | ADAPTER, 6FP-6MJB | 6 |
| 25 | 31864-0 | ADAPTER, 6FP-6MP SWIVEL | 8 |
| 26 | 32545-0 | ADAPTER, 6MP-8MJ | 2 |
| 27 | 30907-0 | ADAPTER, 6MJ-6MP | 6 |
| 28 | 18714-0 | CONNECTOR, CGB 0.25NPT 0.20 | 2 |
| 29 | 23389-A | PLATE, SERIAL NO. MACH | 1 |
| 30 | 22406-0 | SCREW, DRIVE | 2 |



| | |
|--|---|
| LIFTMOORE, INC HOUSTON TX (713)-688-5533 | |
| BASE-HOUSING ASSY 4064 LMX | |
| TYPICAL TOLERANCE | MACHINE ±.005 PLASMA ±1/32 WELD ±1/16 |
| CAD DRAWING DO NOT SCALE | SHEET: 1 OF 1 |
| DRWN BY: JE | DWG NO. 28513 |
| DATE: 10/12/17 | |


| | | | | | |
|--|--|----|------------|-----|---|
| DRAWING CONVERTED TO 3D FORMAT AND EDIT PARTS | | AT | 10/12/2017 | REV | A |
| DESCRIPTION | | BY | DATE | REV | |
| | | | | | |



1. APPLY LOC-TITE TO THREADS OF SHAFT (ITEM 1) THEN TORQUE BEARING LOCKNUT (ITEM 8) TO 50 FT-LBS. LOOSEN AND RETORQUE TO 20-30 FT-LBS.
2. PAINT ALL EXTERIOR SURFACES EXCEPT GEAR, GEAR SHAFT, ECCENTRIC RING, AND HOUSING PILOT WITH TMI PRIME SPEC 709169 (WHITE PAINT).
3. SHIM AS NECESSARY TO ACHIEVE -.002 TO .000 WORM MOVEMENT AXIALLY. (USE SHIMS 42366, 42367, & 42368 TO ACHIEVE PROPER MOVEMENT).
4. FILL WITH E.P. 0 GREASE.

ITEMS WITH * HAVE DETAIL DRAWINGS

| # | PN | DESCRIPTION | QTY | # | PN | DESCRIPTION | QTY | # | PN | DESCRIPTION | QTY |
|---|----------|------------------------|-----|----|-----------|-------------------------------|-----|----|----------|-------------------|-----|
| 1 | TW*43469 | SHAFT, OUTPUT, HFG938D | 1 | 8 | TW*26528 | LOCKNUT | 1 | 15 | TW*43745 | WORM, SR, HFG945D | 1 |
| 2 | TW*41979 | SEAL, OIL, HFG938D | 1 | 9 | TW*40518 | KEY | 2 | 16 | TW*42366 | SHIM, G1600D | 2 |
| 3 | TW*41983 | CUP, BEARING, HFG93 | 2 | 10 | TW*43492 | HOUSING, HFG938D | 1 | 17 | TW*42367 | SHIM, G1600D | 2 |
| 4 | TW*41982 | CONE, BEARING, HFG9 | 2 | 11 | 19978 | MOTOR, HYD 4.50 CID CHAR-LYNN | 1 | 18 | TW*42368 | SHIM, G1600D | 2 |
| 5 | TW*40510 | WASHER, THRUST | 2 | 12 | TW*33155 | SEAL, OIL | 1 | 19 | TW*24180 | SEAL, OIL | 1 |
| 6 | TW*42578 | GEAR, SR, HFG945D | 1 | 13 | TW*996515 | CONE, BEARING | 2 | | | | |
| 7 | TW*41299 | WASHER, LOCK | 1 | 14 | TW*996516 | CUP, BEARING | 2 | | | | |



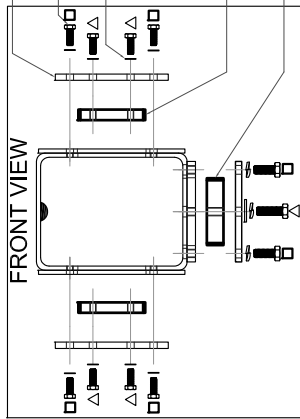
Houston TX
(713)-688-5533
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DRWN BY: TV
DATE: 04/22/05

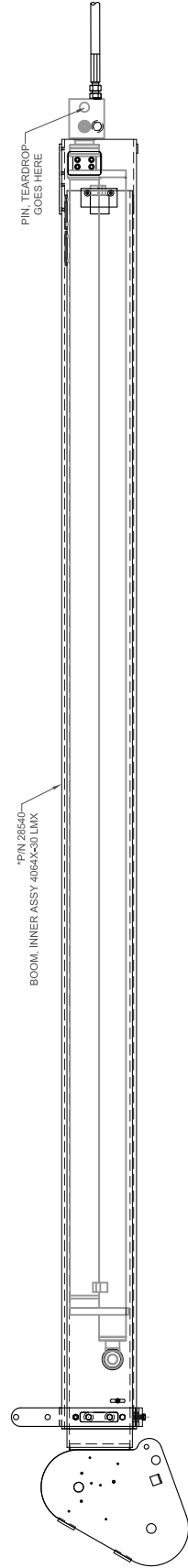
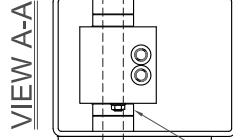
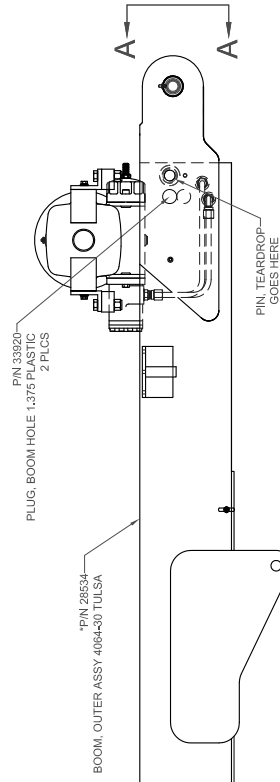
DRAWING NO.
21605-0

REDUCER, SPEED TULSA 14 TOOTH
15K IN-LBS, 14T PINON, BEARING

NOTE: ADD VIBRA TITE TO ALL PADS



TORQUE VALUES
 ▽ = 10 FT-LBS
 □ = 30 FT-LBS



- PIN 25683
PLATE, MOUNT SIDE WEAR PAD
2 PLCS
- PIN 30813
SCREW, HHC 0.37-16 X 1.00 GR8
8 PLCS
- PIN 33438
WASHER, LOCK 0.37 GR6 PLT LT.
8 PLCS
- PIN 25681
PAD, NYLON 0.75 X 1.00 X 4.00 TAP
2 PLCS
- PIN 25682
PAD, NYLON 1" X 4" X 4" TAP

- PIN 33920
PLUG, BOOM HOLE 1.375 PLASTIC
2 PLCS
- PIN 28534
BOOM, OUTER ASSY 4064-30 TULSA
- PIN 19833
PIN, TEARDROP 1.00 X 8.00
- PIN 33169
SCREW, HHC 0.37-16 X 0.62 GR8
- PIN 30473
WASHER, LOCK 0.37 GR6 PLATED

- PIN 33367
SCREW, EYE 0.25-20 W/ NUT
4 PLCS
- PIN 31425
SCREW, HHC 0.50-13 X 1.25 GR8
4 PLCS
- PIN 30655
SCREW, HHC 0.50-13 X 1.50 GR8
2 PLCS
- PIN 30474
WASHER, LOCK 0.50 GR6 PLATED
4 PLCS
- PIN 18923
WASHER, FLAT 0.40 SAE GR8
2 PLCS
- PIN 30474
WASHER, LOCK 0.50 GR6 PLATED
2 PLCS
- PIN 25706
PLATE, MOUNT BOTTOM WEAR PAD

- PIN 28540
BOOM, INNER ASSY 4064-30 LMX
- PIN 26043
SPACER, PIVOT 1.00 X 0.625
2 PLCS

NOTE: USE TO MOUNT PLATE ON TO BOOM

ITEMS WITH * HAVE DETAIL DRAWINGS

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DRWN BY: AA
 DATE: 5/31/17

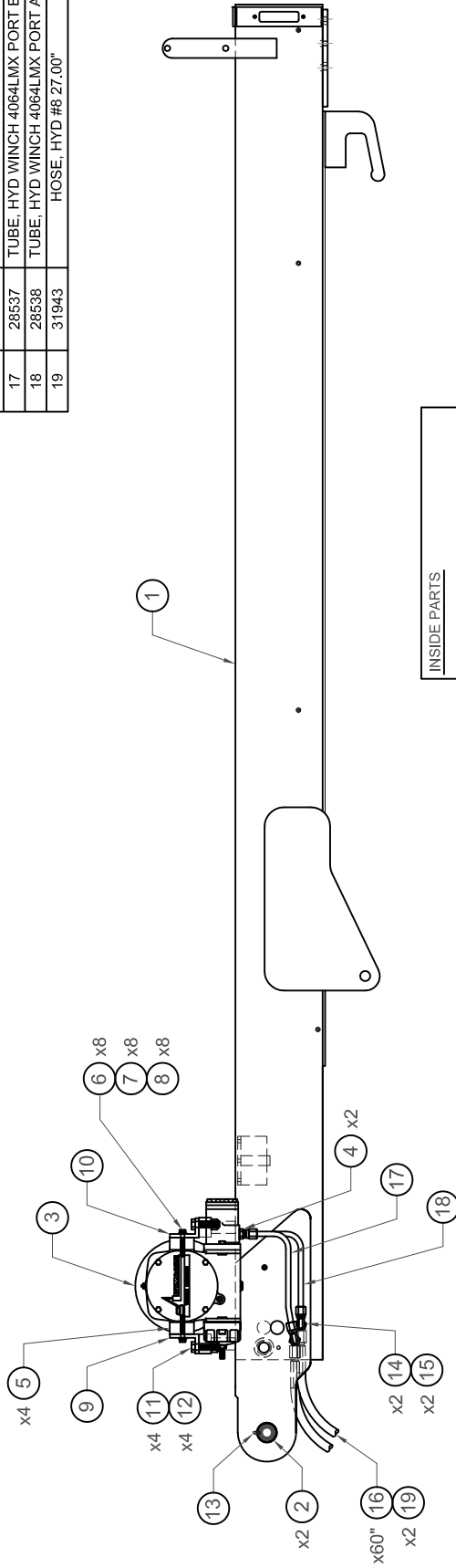
BOOM ASSEMBLY 4064-30 TULSA

DRAWING NO.

28541-0



| | | | |
|----|-------|--------------------------------|----|
| 5 | 16620 | SPACER, WINCH 36/5080 MACH | 4 |
| 6 | 31095 | SCREW, HHC 0.37-16 X 2.50 GR8 | 8 |
| 7 | 30888 | WASHER, FLAT 0.31 GR5 PLATED | 8 |
| 8 | 30473 | WASHER, LOCK 0.37 GR5 PLATED | 8 |
| 9 | 16617 | ANGLE, WINCH MT 36/5080 REAR M | 1 |
| 10 | 16618 | ANGLE, WINCH MT 36/5080 FRONT | 1 |
| 11 | 31577 | SCREW, HHC 0.62-11 X 2.50 GR8 | 4 |
| 12 | 34006 | NUT, HEX NYLOC 0.62-11 GRADE 5 | 4 |
| 13 | 30936 | ZERK, 0.25-28 STRAIGHT | 1 |
| 14 | 31910 | ADAPTER, 90° 8MJ-8MJ BH | 2 |
| 15 | 32547 | ADAPTER, 90° 8FJX-8MJ | 2 |
| 16 | 31408 | WRAP, 3/4" BLACK SPIRAL CUT | 60 |
| 17 | 28537 | TUBE, HYD WINCH 4064LMX PORT B | 1 |
| 18 | 28538 | TUBE, HYD WINCH 4064LMX PORT A | 1 |



INSIDE PARTS

P/N 21280
HOSE, HYD #8 18.50"

P/N 33566
HOSE, HYD #8 16.50"

P/N 26049
ADAPTER, 90° 8MJ+6MP

P/N 22187
ADAPTER, 90° LL 6MPI-8MJ

P/N 31408
WRAP, 3/4" BLACK SPIRAL CUT

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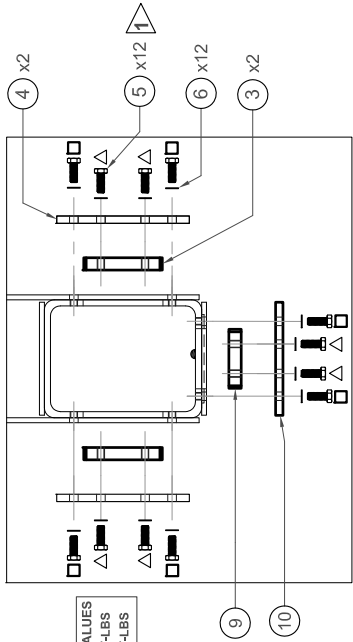
DRWN BY: AA
DATE: 5/31/17

BOOM, OUTER ASSY 4064-30 TULSA

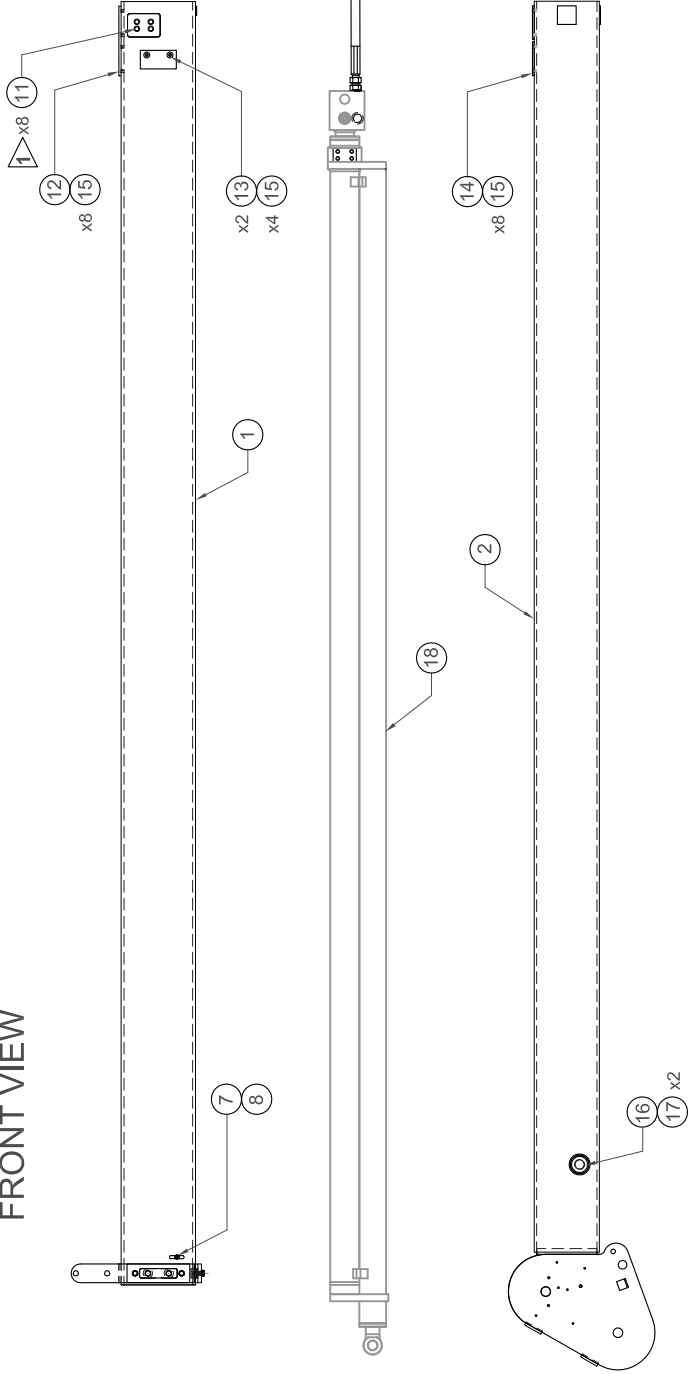
DRAWING NO.
28534-A

PARTS LIST

| ITEM # | PART NUMBER | DESCRIPTION | QTY |
|--------|-------------|--------------------------------|-----|
| 1 | 28639 | BOOM, INNER 1ST 4064X-30 LMX W | 1 |
| 2 | 27257 | BOOM, INNER 2ND 4064X-30 WELD | 1 |
| 3 | 25691 | PAD, NYLON 0.750 X 1 X 4 TAP | 2 |
| 4 | 25693 | PLATE, MOUNT SIDE WEAR PAD | 2 |
| 5 | 30813 | SCREW, HHC 0.37-16 X 1.00 GR8 | 12 |
| 6 | 33436 | WASHER, LOCK 0.37 GR5 PLT.I.T. | 12 |
| 7 | 33367 | SCREW, EYE 0.25-20 W/ NUT | 1 |
| 8 | 30889 | WASHER, LOCK 0.25 GR5 PLATED | 1 |
| 9 | 25690 | PAD, NYLON 0.750 X 1 X 3 TAP | 1 |
| 10 | 25694 | PLATE, MOUNT BOTTOM WEAR PAD | 1 |
| 11 | 23862 | SCREW, SOC HD 0.37-16 X 1.25 | 8 |
| 12 | 33955 | PAD, NYLON 0.26 X 4 X 7.5 CSK | 1 |
| 13 | 34033 | PAD, NYLON 0.200 X 4 X 2 CSK | 2 |
| 14 | 34032 | PAD, NYLON 0.20 X 4 X 3.62 CSK | 2 |
| 15 | 33614 | SCREW, SOC FH 0.25-20 X 0.50 | 20 |
| 16 | 21196 | CS, 1.00 DIA X 4.62 | 1 |
| 17 | 30692 | RING, SNAP 1" INTERNAL CS | 2 |
| 18 | 28604 | CYLINDER ASSY 4064X-30 EXT | 1 |



FRONT VIEW



NOTE
 1: ADD VIBRA-TITE TO THREADS

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BOOM, INNER ASSY 4064X-30 LMX

DRWN BY: AA
 DATE: 5/31/17

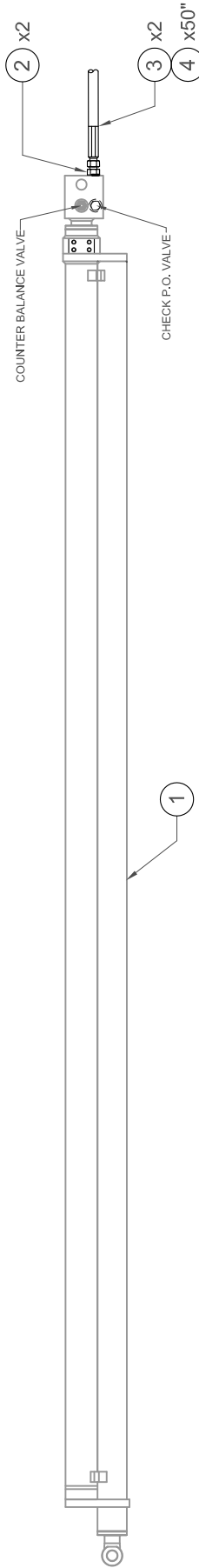
DRAWING NO.

28540-B

PARTS LIST

| ITEM # | PART NUMBER | DESCRIPTION | QTY |
|--------|-------------|-------------------------------|-----|
| 1 | 25544 | CYLINDER, 2.50 X 202.0 X 1.50 | 1 |
| 2 | 31063 | ADAPTER, 6MJ-6MO | 2 |
| 3 | 33565 | HOSE, HYD #6 26.00" | 2 |
| 4 | 31408 | WRAP, 3/4" BLACK SPIRAL CUT | 50 |

| REPLACEMENT PARTS FOR CYLINDER | |
|--------------------------------|-------------|
| DESCRIPTION | PART NUMBER |
| CHECK P.O. VALVE | 31591 |
| COUNTERBALANCE VALVE | 30851 |



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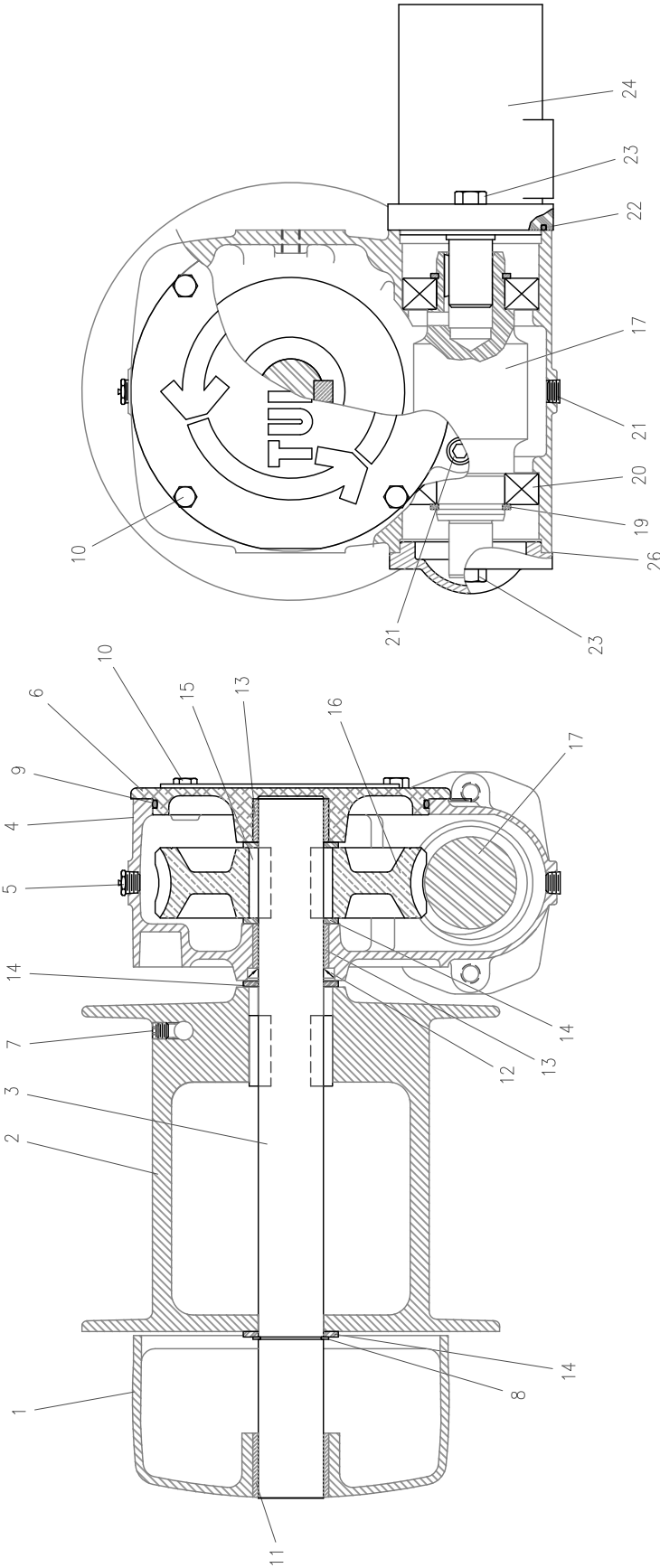


CYLINDER ASSY 4064LMX-30 EXT
 PIGGY BACK CYLINDER ASSY

DRAWING NO.

28604-0

DRWN BY: JE
 DATE: 5/31/17



| # | PN | DESCRIPTION | QTY | # | PN | DESCRIPTION | QTY | # | PN | DESCRIPTION | QTY |
|---|----------|-------------------|-----|----|----------|-------------|-----|----|----------|------------------|-----|
| 1 | TW*40955 | END BRACKET, MACH | 1 | 10 | TW*40407 | CAPSCREW | 4 | 19 | TW*40396 | RING, RETAINING | 2 |
| 2 | TW*41310 | DRUM | 1 | 11 | TW*40399 | BUSHING | 1 | 20 | TW*40395 | BEARING | 2 |
| 3 | TW*41311 | SHAFT, OUTPUT | 1 | 12 | TW*40401 | SEAL OIL | 1 | 21 | TW*32220 | PLUG, PIPE | 2 |
| 4 | TW*40383 | HOUSING | 1 | 13 | TW*40400 | BUSHING | 2 | 22 | TW*32566 | O-RING | 1 |
| 5 | TW*4101 | BREATHER KIT | 1 | 14 | TW*29017 | WASHER | 4 | 23 | TW*40410 | CAPSCREW | 2 |
| 6 | TW*40391 | COVER, MACH | 1 | 15 | TW*40518 | KEY | 4 | 24 | 17034 | MOTOR, HYDRAULIC | 1 |
| 7 | TW*23582 | SCREW-SET | 1 | 16 | TW*40618 | GEAR, SR | 1 | 25 | TW*4034 | KIT, BRAKE, OIL | 1 |
| 8 | TW*27240 | RETAINING RING | 1 | 17 | TW*40598 | WORM, SR | 1 | 26 | TW*40147 | GASKET | 1 |
| 9 | TW*40547 | O-RING | 1 | 18 | OMIT | | | 27 | TW*40940 | SPACER | 1 |



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WINCH, HYD 3360 W/ MOTOR

DRAWING NO. **32283-A**

DRWN BY: SJN

DATE: 10/4/96

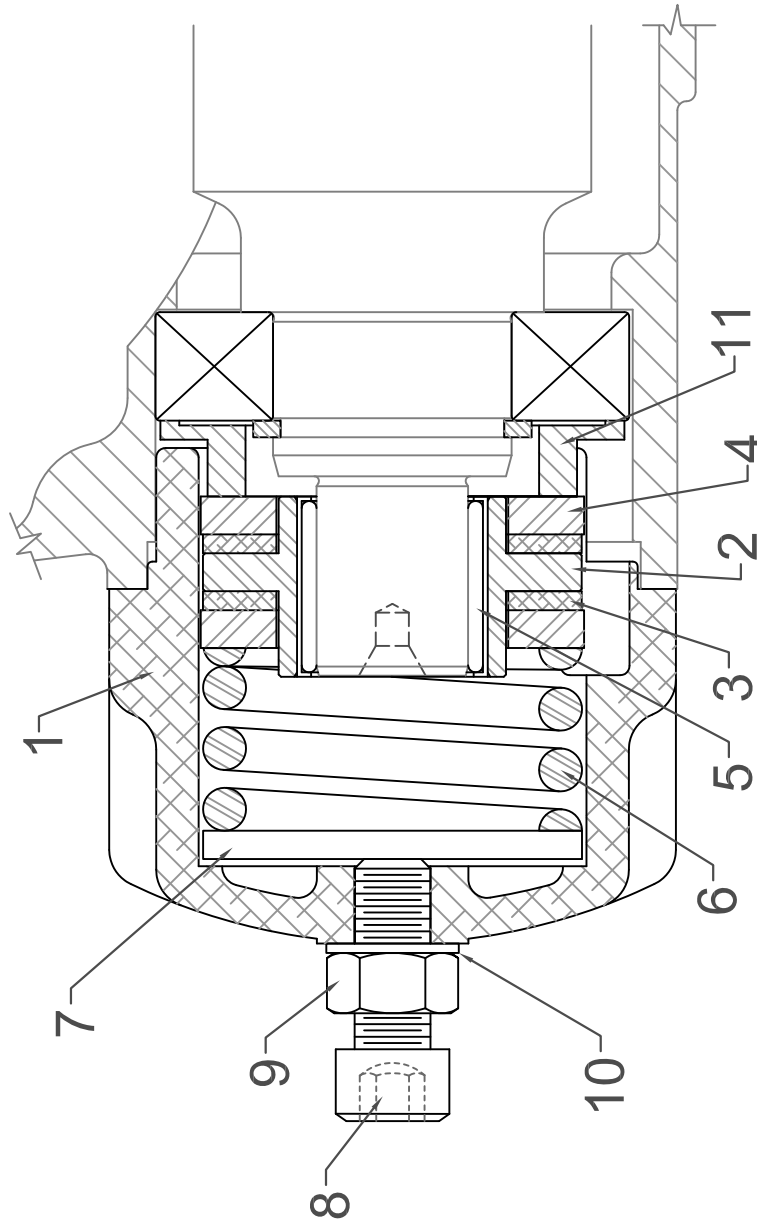
TO SET WINCH BRAKE:

HOLD SCREW 8
 LOOSEN LOCKNUT, 9
 TURN SCREW 8 CW 1/4 TURN
 CHECK FOR DRIFT

IF BRAKE DOES NOT HOLD, TURN
 SCREW 8 CW IN 1/4 TURN
 INCREMENTS UNTIL IT HOLDS

TIGHTEN JAMNUT, 9, WHEN FINISHED

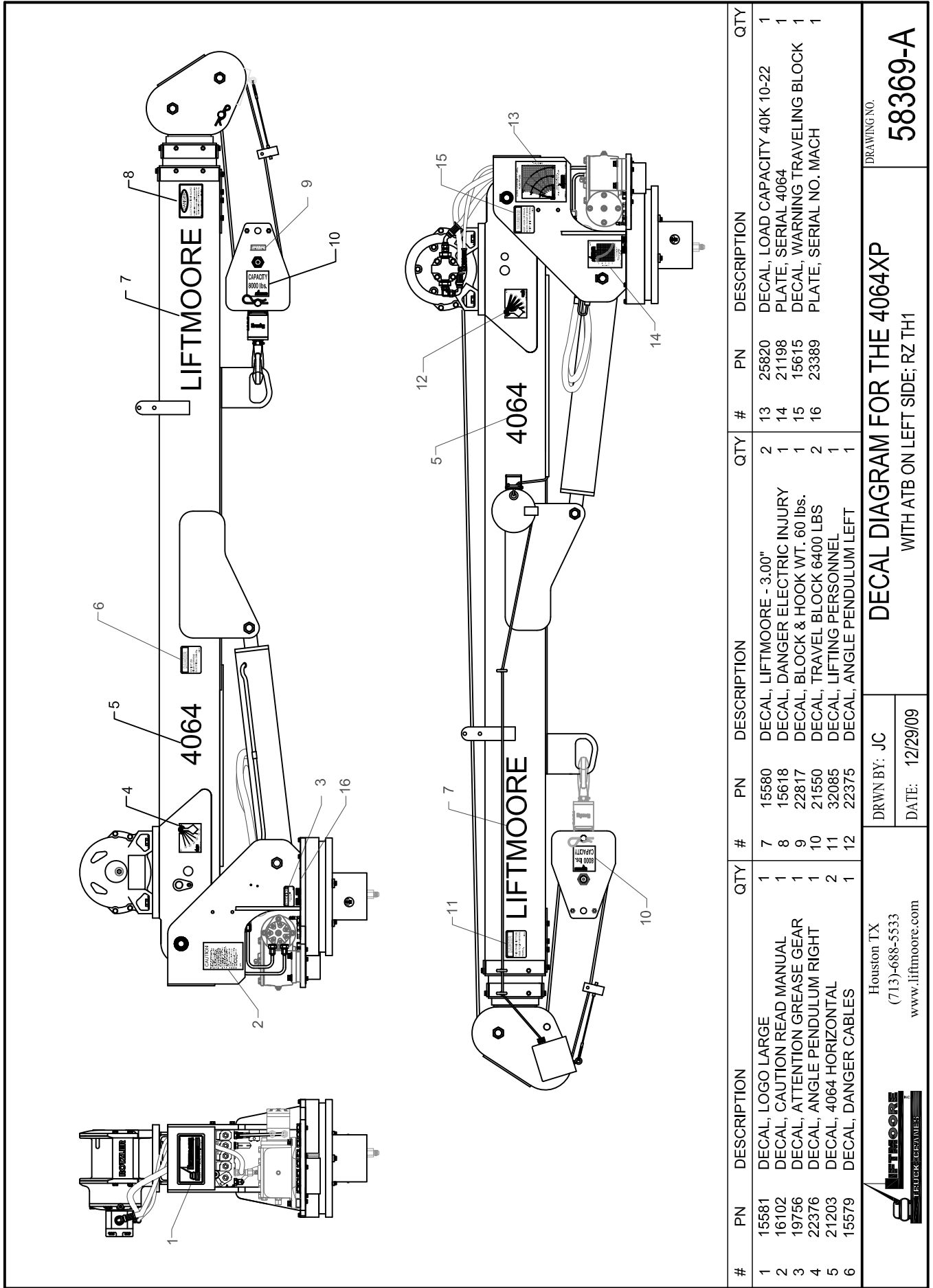
DO NOT TIGHTEN MORE THAN
 NECESSARY. OVER TIGHTNING
 WILL CAUSE OVER HEATING AND
 PREMATURE WEAR IN THE BRAKE



ITEM 12 NOT SHOWN

| # | PN | DESCRIPTION | QTY | # | PN | DESCRIPTION | QTY | # | PN | DESCRIPTION | QTY |
|---|----------|----------------|-----|---|----------|--------------|-----|----|----------|-------------|-----|
| 1 | TW*40069 | HOUSING | 1 | 5 | TW*40113 | CAM CLUTCH | 1 | 9 | TW*40774 | NUT | 1 |
| 2 | TW*40617 | HUB | 1 | 6 | TW*40077 | SPRING | 1 | 10 | TW*29044 | WASHER | 1 |
| 3 | TW*40075 | FRICITION DISC | 2 | 7 | TW*40078 | TRUST WASHER | 1 | 11 | TW*40599 | SPACER | 1 |
| 4 | TW*40076 | STATOR PLATE | 2 | 8 | TW*40775 | SET SCREW | 1 | 12 | TW*40546 | CAPSCREW | 2 |

| | | | |
|---|--|---------------------------------|--|
| | | DRAWN BY: SSC DATE: 11/14/94 | |
| Houston TX (713)-688-5533 www.liftmoore.com | | WINCH BRAKE PARTS TW*4034 | |
| | | DRAWING NO. 50231-B | |



| # | PN | DESCRIPTION | QTY | # | PN | DESCRIPTION | QTY | # | PN | DESCRIPTION | QTY |
|---|-------|------------------------------|-----|----|-------|---------------------------------|-----|----|-------|--------------------------------|-----|
| 1 | 15581 | DECAL, LOGO LARGE | 1 | 7 | 15580 | DECAL, LIFTMOORE - 3.00" | 2 | 13 | 25820 | DECAL, LOAD CAPACITY 40K 10-22 | 1 |
| 2 | 16102 | DECAL, CAUTION READ MANUAL | 1 | 8 | 15618 | DECAL, DANGER ELECTRIC INJURY | 1 | 14 | 21198 | PLATE, SERIAL 4064 | 1 |
| 3 | 19756 | DECAL, ATTENTION GREASE GEAR | 1 | 9 | 22817 | DECAL, BLOCK & HOOK WT. 60 lbs. | 1 | 15 | 15615 | DECAL, WARNING TRAVELING BLOCK | 1 |
| 4 | 22376 | DECAL, ANGLE PENDULUM RIGHT | 1 | 10 | 21550 | DECAL, TRAVEL BLOCK 6400 LBS | 2 | 16 | 23389 | PLATE, SERIAL NO. MACH | 1 |
| 5 | 21203 | DECAL, 4064 HORIZONTAL | 2 | 11 | 32085 | DECAL, LIFTING PERSONNEL | 1 | | | | |
| 6 | 15579 | DECAL, DANGER CABLES | 1 | 12 | 22375 | DECAL, ANGLE PENDULUM LEFT | 1 | | | | |

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DECAL DIAGRAM FOR THE 4064XP
 WITH ATB ON LEFT SIDE; RZ TH1

DRWN BY: JC
 DATE: 12/29/09

DRAWING NO.
58369-A

LIFTMOORE LIMITED WARRANTY

Parts and Structural

Liftmoore, Inc. warrants each LIFTMOORE crane to be free from defects in materials and workmanship for twelve (12) months from the date of delivery to the original customer. Under the terms of this warranty the crane structural components manufactured by LIFTMOORE, Inc. are warranted for thirty-six (36) months from the date of delivery to the original customer. LIFTMOORE, Inc. will repair or replace, as its sole discretion, any equipment or part that is returned f.o.b. to LIFTMOORE, Inc.'s plant at 7810 Pinemont Drive, Houston, Texas 77040, or to one of its authorized dealers, and is found by LIFTMOORE, Inc. or its authorized dealer to have been defective at the time of original delivery.

The foregoing warranty is the exclusive warranty made by LIFTMOORE, Inc. with respect to its cranes and is in lieu of all other warranties. ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS OF ANY CRANE FOR A PARTICULAR PURPOSE OR OPERATION, ARE HERBY EXPRESSLY DISCLAIMED.

The foregoing warranty applies only to LIFTMOORE cranes under normal use and service and does not apply in the event of damage caused by repair or alteration or damage during shipment, accident, negligence, overloading, or misuse, including operator's failure to follow any of the instructions issued with the crane.

This warranty is limited to the original purchaser and is not assignable. In order to submit a claim, the original purchaser must provide a copy of the original invoice for the crane in question within twelve (12) months following the delivery date and within 30 days from the date of repair.

The warranty applies only when the LIFTMOORE crane is used for commercial purposes and does not cover any purchase for use for personal, family or household purposes.

LIMITATION OF LIABILITY: LIFTMOORE, Inc.'s liability for any losses or damages resulting from any cause whatsoever, including LIFTMOORE, Inc.'s NEGLIGENCE or from a defective crane irrespective of whether such defects are discoverable or latent, shall in no event exceed the purchase price of the crane to which losses or damages are claimed, or at the election of LIFTMOORE, Inc., the repair or replacement of the defective crane.

In no event shall LIFTMOORE, Inc. be liable for any special, incidental, or consequential damages, including commercial losses or costs of any kind sustained by purchaser or any other person or for any damages for which purchaser may be liable to other persons by reason of any defect in any LIFTMOORE crane or any part thereof.

LIFTMOORE, Inc. reserves the right to make changes in design or construction of its cranes at any time without obligating itself to make such changes on cranes previously manufactured.

No agent, employee, or representative of LIFTMOORE, Inc. has authority to amend or modify the foregoing warranty or to bind LIFTMOORE, Inc. by any other warranty, guaranty, or assumption of liability.

In the event any provision of this warranty is for any reason held ineffective, the remaining provisions shall remain in full force and effect.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other legal rights that vary from state to state.

