

**Model: LSS2P11CF**

**11,000 LB (5,000KG) TWO POST LIFT**

## **Installation / Operation & Service Parts Manual**

**READ the Manual Thoroughly Before Installing,  
Operating, Servicing, or Maintaining the Lift  
SAVE this MANUAL and ALL INSTRUCTIONS**

**TOTAL AUTOMOTIVE LIFTING SOLUTIONS INC.  
2300 Speers Road, Oakville, Ontario, Canada L6L 2X8  
Tel: 905-847-1198 Fax: 905-891-114**

**Part Number: M-LSS-211-COBRA  
Issue 001 Effective: May, 2013**

# **Lift Purchase Buyers Agreement**

## **Warranty**

Each product comes with a two (2) year parts warranty with five (5) years warranty on the structure. The parts warranty is limited to defects in workmanship and material. The warranty does not cover misuse, abuse, overloading, lack of maintenance, and inappropriate use or “normal wear and tear”. Warranty parts must be returned to manufacturer for inspection to qualify for warranty. Shipping costs are the owner’s responsibility.

## **Freight Damage**

Each lifting product is carefully inspected before being loaded by our shipping department. Any damage to the product must be noted on the shipping companies “bill of lading” and signed by the driver. It is the owner’s responsibility to advise manufacturer within **48 business hours**, of any shipping damage.

## **Installation**

At the purchase request, delivery and installation can be arranged by a professional contractor. It is the owner’s responsibility to approve the completion of the work done and that the product is working properly. If there is a dispute with the work being done the owner must advise our office within **24 business hours**.

## **Lift Maintenance**

Every lifting product will require ongoing adjustment and maintenance. It is normal that the lifting cables will require adjustment to ensure that the lift operates level. Periodic adjustments are the owner’s responsibility. If the owner requires the assistance of a lift technician, a service charge will be paid directly for a service call. The lift is manufactured with a baked on power coat finish. It is recommended to maintain this finish that scratches are periodically touched up with automotive style paint. All non-painted services should be kept clean and lubricated to prevent rust or corrosion.

## **Service Calls**

Onsite service of your lifting product can be arranged by a qualified lift service technician. The owner will be responsible for paying the contractor directly for this service at the time the work is completed. It is the owner’s responsibility to return any parts to manufacturer for warranty consideration.

Your new lift will provide years of dependable service if installed, operated and maintained properly. Read and follow all safety, installation, operation, and maintenance instructions in this manual before installing and operating the lift. In addition, read and follow all safety and other information included on and with the lift before operating the lift. **Keep this manual in a secure place for future reference, training and service part identification.**

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**IMPORTANT:** It is the shop owner's responsibility to provide a satisfactory installation area for the lift. Lifts should only be installed indoors on level concrete floors with a minimum of 4 inches (102mm) and 3000 psi (20.7MPa) concrete that has been aged a minimum of 30 days. Please consult a qualified individual if any doubt exists concerning proper installation and subsequent safe operation of the lift. Do not install the lift on asphalt or outdoors.

Prior to installation, it is the shop owner's responsibility to provide constant electrical power in the correct voltage, phase, etc., and all wiring for electrical hook-up of the lift. The shop owner must insure that the electrical installation conforms to local building and safety codes. Where required, the shop owner will provide an electrical isolation switch located in close proximity to the lift. This switch will have an emergency stop capability and isolate electrical power from the lift for servicing requirements.

Hydraulic oil cannot be shipped with the lift and will be supplied by either the shop owner or the installer. ISO 32 hydraulic oil (10W non detergent hydraulic oil) must be used to fill the reservoir tank before operating the lift.

**It is the shop owner's responsibility to train all operators in lift operation and safety.**

## **UNLOADING PROCEDURE and LIFT PACKAGE CONTENTS**

### **For your information:**

All lift components are grouped together in one package held at each end by steel frames.

### **Unpacking Procedure:**

When the lift arrives on site:

- ✓ If possible have the lift unloaded in the installation area.
- ✓ Check for freight damage and report immediately to the trucking company who delivered the lift.
- ✓ Check for missing parts and report immediately to the factory.

### **Main Components include:**

- ✓ Power Side Column and Carriage Assembly – 1 pc (c/w equalizing cable, cylinder assembly, lifting chain and roller all pre-installed)
- ✓ Opposite Side Column and Carriage Assembly – 1 pc (c/w equalizing cable, cylinder assembly, lifting chain and roller all pre-installed)
- ✓ Arms – 4 pc (c/w arm restraint gear assemblies)
- ✓ Powerpack Assembly – 1 pc
- ✓ Overhead Crossbeam, 2 Tower extensions, Padded Shutoff Bar, Electrical Limit Switch.

### **Accessory and Hardware Box includes:**

- ✓ Shims
- ✓ Anchor Bolt Assemblies - 10 pc
- ✓ Arm Pins – 4 pc
- ✓ Rubber Stack Pad Assembly – 4 pc
- ✓ Honda Adapters – 2 pc
- ✓ Stack Pad Adapter (3") – 4 pc
- ✓ Stack Pad Adapter (6") – 4 pc
- ✓ Steel Equalizing Cables – 2 pc
- ✓ Hydraulic Hose w/ Fittings – 2 pc (1 long and 1 short)
- ✓ Fittings Box (bolts, washers, nuts, screws, cable ties, etc.)
- ✓ Owner's Manual

# **IMPORTANT SAFETY INSTRUCTIONS**

When using your garage equipment, basic safety precautions should always be followed, including the following:

1. Read all instructions
2. Do not operate equipment with a damaged cord or if equipment has been dropped or damaged – until it has been examined by a qualified service person
3. Do not let a cord hang over the edge of the table, bench, or counter or come in contact with hot manifolds or moving fan blades
4. To reduce risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline)
5. Adequate ventilation should be provided when working on operating internal combustion engines
6. Keep hair, loose clothing, fingers, and all parts of body away from moving parts
7. To reduce the risk of electric shock, do not use in wet locations or expose to rain
8. Use only as directed in this manual. Use only manufacturer's recommended attachments
9. ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistant lenses, they are not safety glasses

Basic common sense safety precautions should always be followed when installing, operating and maintaining the lift as a risk of fire, electric shock, or injury may be present.

## **In addition:**

1. Only trained and authorized personnel should position a vehicle and operate the lift. Do not allow customers or bystanders to operate the lift or be in the lift area.
2. Inspect the lift daily. Do not operate if potential problems have been identified or lift malfunctions. Do not operate if lift has damaged or broken components. Never walk or work under the lift unless all safety locks are completely engaged.
3. Never overload the lift. The rated capacity decal is located on the powerpack column. The hydraulic system on this lift is not designed to be a load holding devise. Mechanical safety locks must be engaged before proceeding under the lift, with vehicle servicing, or system maintenance. Never override operating controls. This is unsafe and will void the warranty.
4. Before driving a vehicle between the columns, position all arms to insure unobstructed entry. Do not hit or run over arms as this could damage the lift and/or vehicle.
5. Use all 4 arms to raise a vehicle. Position all lift pads to contact vehicle manufacturer's recommended lifting points. Raise lift slowly until all pads contact the vehicle. Check all pads for complete and secure contact with the vehicle. Check all arm restraints to insure they are engaged properly. Check that vehicle is stable on the lift. Only after confirming these procedures, raise the lift to desired working height.
6. Special care must be used when lifting pick-up trucks. Optional truck adapters may be required to reach manufacturer recommended lifting points. Always use these lifting points. Running boards and other installed accessories may also require optional adapters. Insure contents of the cargo box will not affect vehicle balance while on the lift.

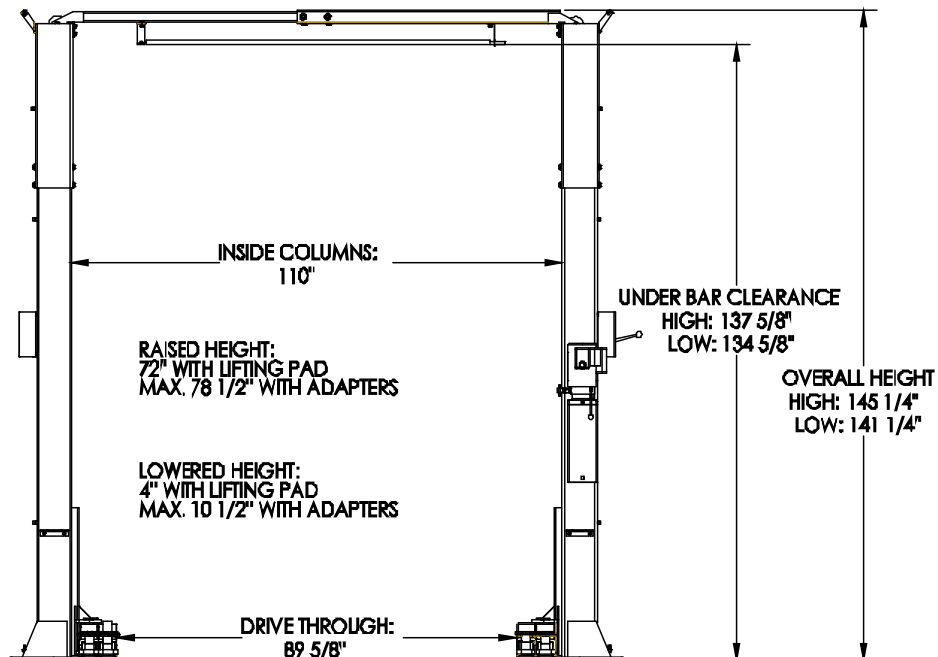
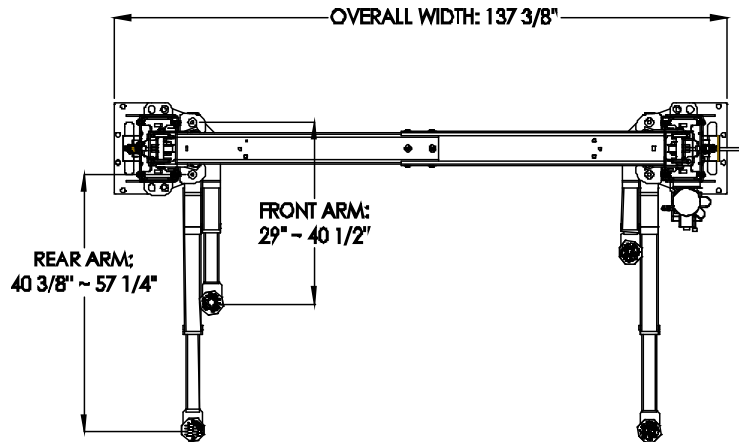
7. **Important:** Removal or installation of heavier parts can change the vehicle's center of gravity on the lift resulting in a critical load shift. The vehicle may then be unstable. Plan ahead for this possibility to insure continued safety and refer to the vehicle manufacturer's service manual for recommended procedures.
8. Always keep the lift area free of obstructions and debris. Clean up grease and oil spills immediately.
9. Never raise a vehicle with passengers inside. Before lowering a vehicle, check the lift and lift area and remove all obstructions. Before removing vehicle from the lift or lift area, position arms to the drive through position and confirm an unobstructed exit.
10. Do not perform any maintenance or installation of any components without first ensuring that electrical power has been disconnected at the source or panel and cannot be re-energized until all maintenance and/or installation procedures are completed (ANSI 244.1)

**SAVE THIS INSTRUCTION**

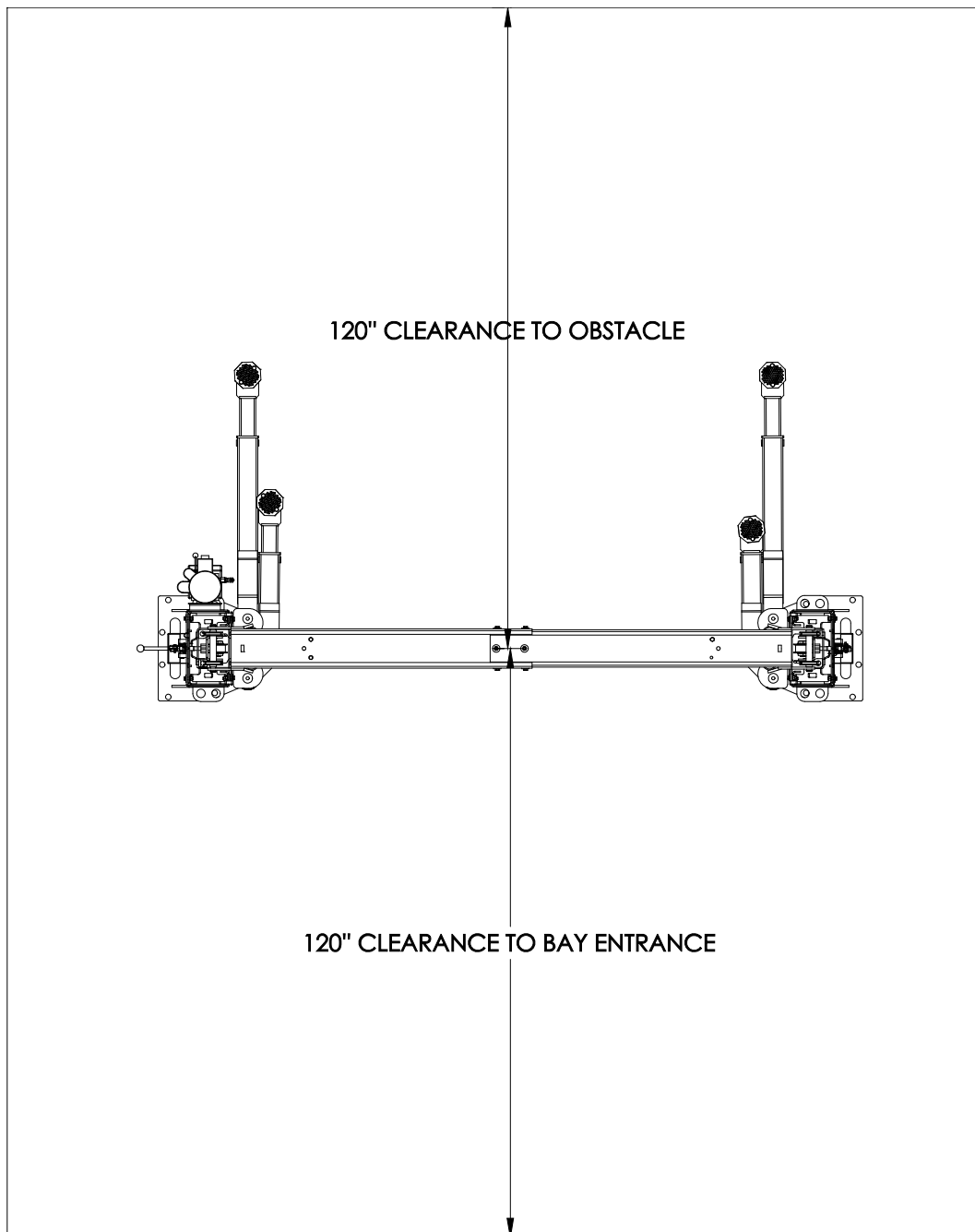
## **GENERAL REQUIREMENTS and LIFT SPECIFICATIONS**

### **11,000 lb. Capacity** (2,750 lb. per lift pad)

Lowered Height - Standard Lift Pad:	4"
Raised Height - Standard Lift Pad:	72"
Raised Height with adapters:	78"
Lifting Time:	50 sec
Shipping Weight:	2,150 lb
Concrete:	4 inches, 3000psi (20.7MPa), aged 30 days.
Electrical:	230V-1ph-60Hz-20A



## **SUGGESTED BAY DIMENSION REQUIREMENT**



EACH BASEPLATE MUST MAINTAIN A MIN. DISTANCE OF 6 INCHES FROM ANY FLOOR SEAM

## **TOOLS REQUIRED and PRE INSTALLATION PROCEDURES**

**Tools Required:** Gather all the tools listed below.

- ☑ 4" x 4" Wooden Blocks (for unpacking)
- ☑ 16ft. Measuring Tape
- ☑ Chalk Line and Chalk
- ☑ Side Cutters
- ☑ Crow Bar
- ☑ Metric Wrenches and Ratchet Set
- ☑ SAE Wrenches and Ratchet Set
- ☑ Metric and SAE Allen Key Sets
- ☑ Hammer
- ☑ Screwdrivers
- ☑ Step Ladder
- ☑ 4 ft. Level
- ☑ Rotary Hammer Drill with 3/4" diameter Masonry Drill Bit

### **Pre Installation Procedures**

Before proceeding with installation, read the installation manual and insure all instructions are fully understood and all component parts are accounted for.

1. In the installation area, identify the center line of the bay and mark the floor. Also mark the center of bay entrance door. Connect these two points with a short chalk line in the area where lift will be located. Draw a second chalk line at 90° to locate the positions of both lift columns. Insure each lift column is equal distance from bay centerline and **each baseplate maintains a minimum distance of 6 inches from any floor seam**. Do not install if floor has cracks or deterioration that could affect lift stability. The shop owner is responsible for confirming there are no obstructions in the installation area like floor drains, under floor piping or electrical conduit that could be damaged or prevent safe lift installation and secure lift anchoring. Check ceiling for beams or heating ducts and walls for protruding structures, etc. Confirm that the overall height you intend to install will fit in the bay. Insure the lift can be safely installed in the position you have marked out on the bay floor.
2. Place the lift on wooden blocks so that the steel shipping frames can be removed.
3. Remove protective wrapping. Clear installation area of all packaging materials.
4. Unbolt steel shipping frames and remove from installation area.
5. Carefully remove top column and lay on the floor (carriage side up).
6. Carefully remove arms and hardware box from the lower column.
7. Identify powerpack column. Move (carriage side up) to appropriate location placing the baseplate end on your floor marks. Similarly, move the second column to the opposite location.

## **INSTALLATION PROCEDURE**

See the Installation and Parts Reference section of this manual for diagrams and parts lists that will assist you during the installation process. Use these diagrams and parts lists together with the following written instructions.

1. Assemble the tower extensions on each column (Diagram #2). Use upper holes on column extension for lower height column profile.
2. Raise the power side column and the other column (with their extensions installed) facing each other. Make sure the outside baseplates distance is 137 3/8".
3. Using a 3/4" concrete drill, drill the anchor holes in the main side column, installing anchors (do not tighten). Use a block of wood or rubber mallet to drive anchor bolts in. Drill to a minimum depth of 4" to insure maximum holding power. Drilling thru concrete (recommended) will allow the anchor to be driven thru the bottom if the threads are damaged.
4. Using a level, check column for side-to-side plumb and front-to-back plumb. Use 3/4" washers or shim stock, placing shims as close as possible to the hole locations. This will prevent bending the column bottom plates. Tighten 3/4" anchor bolts to 150-lbs.
5. Install overhead crossbeam as Diagram 13, slight adjust non-power side column if necessary.
6. Using a tape measure, measure from back corner of the base on main side column to the opposite back corner of the offside column to insure legs are square.
7. Drill holes and install anchor bolts at non-power side column.
8. Installing the equalizing cables: refer to Diagram 5 for general cable arrangement for the lift (higher tower profile). Set carriages on the first safety latch engagement. Be sure each carriage is at the same height by measuring from the top of the base to the bottom of the carriage (double check the latches before working under the carriages). This dimension should be within 1/4". Run first cable. Tighten nut on one cable stud so that the end of stud passes the nylon on the nut. Pull the other end of cable and run nut on it. Tighten both nuts. Repeat above for second cable. For lower tower profile, use lower cable mounting holes on top of carriage (below the mounting bracket as shown in Diagram 5).
9. Connecting the hydraulic hoses, as shown on Diagram 11.
10. Run safety lock release wire as Diagram 9 and Diagram 10.
11. Mount the power unit on lift as Diagram 1.
12. Install the swing arms on the carriages using the included 1 1/2" diameter pins. Check for proper engagement of the arm lock- the rack on the lock should fully engage the gear on the arm.
13. Adjust the carriage cables tension. Adjust each cable to approximately 1/2" side-to-side play.
14. Remove the vent plug from the power unit and fill the reservoir. Use ISO 32 hydraulic oil (10W non detergent hydraulic oil). Put the black plastic cap at the top of the tank.
15. Attach micro switch to overhead safety bar bracket (diagram 13, item 21) on power pack side of overhead cross-member. Connect the switch to power unit by referring diagram 14.
16. Make the electrical hookup to the power unit. 220V Single Phase. It is recommended that a 220 Volt, 30 Amp twist lock plug be installed in the power line just ahead of the power unit. Size wire for 30-amp circuit. **Warning: the wiring must comply with local**

**code. Have a certified electrician make the electrical hook-up to the power unit. Protect each circuit with time delay fuse or circuit breaker 208v.230v single Phase. 60 Hz 30 Amps. Motor can not run on 50hz with out a physical change to motor.**

17. Do not place any vehicle on the lift at this time. Cycle the lift up and down several times to insure safety lock click together and all air is removed from the hydraulic system. If latches click out of sync, adjust equalizing cable correspondingly. To lower the lift, keep the safety release lever pulled manually and push down handle at the power unit.

**Insure this manual along with all operation, inspection and maintenance instructions are delivered to the owner/user/employer**

### **Final Checkout Procedure of Assembled Lift**

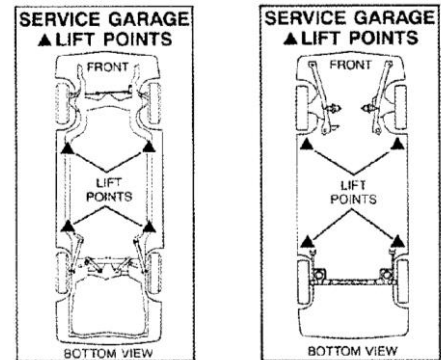
- ✓ Check hydraulic oil level in reservoir. Confirm hydraulic connections are tight with no leaks. Confirm black breather cap is installed in fill hole.
- ✓ Confirm that both columns are level and properly shimmed with all anchor bolts torqued to 150 ft.-lbs. (204Nm). Confirm lift stability
- ✓ Confirm that all electrical components have been wired properly and are operational
- ✓ Confirm that all cables are adjusted properly
- ✓ Confirm safety locks and arm restraints are functioning properly
- ✓ Lubricate all lubrication points (refer to pg. 15)

## **OPERATING INSTRUCTIONS and LIFT MAINTENANCE**

**LIFT OPERATION:** Before lifting a vehicle, insure all operators are qualified, have been trained and are following all safety instructions.

**Insure the vehicle is securely positioned on the lift using manufacturer's recommended lifting points. Insure all arm restraints are totally engaged. Never allow anyone under the lift when raising or lowering it with or without a vehicle. Always confirm safety locks on both sides of the lift are completely engaged before proceeding under a vehicle.**

Lift electrical operating controls are located on the power pack (one "up" button for raising the lift and one "down" lever for lowering the lift). Before lowering, slightly raise the lifting and then pull the release cables under each carriage. Make certain the safety locks do not accidentally re-engage while lift is being lowered. Customers and bystanders should not be in the lift area.



Typical Label Drawings  
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### **LIFT OPERATIONAL TEST WITH A TYPICAL VEHICLE:**

#### **To Raise Vehicle:**

1. Lower carriages to the floor position.
2. Retract lifting arms to minimum length.
3. Swing arms away from the path of the vehicle.
4. During loading or spotting, center the vehicle between the columns as shown in figure above.
5. Swing arms under the vehicle. Position the vehicle support pads at the VEHICLE MANUFACTURES RECOMMENDED LIFTING POINTS. Beginning with some 1994 year models, auto makers will identify recommended lift points by placing a label on the vertical lock face plate of the front passenger side door. (ANSI/SAE J2184-OCT92)
6. Clear area around the lift.
7. Raise the vehicle until the vehicle support pads are in full contact, approximately 12 inches off floor. Check to see that vehicle is stable on the lift by moderately rocking the bumper. Recheck the position of the pads for any movement.
8. Raise the vehicle to the desired working elevation and release control button.
9. Lower lifting carriages until they completely contact the mechanical safety locks. The vehicle is now ready for service.

**To Lower Vehicle:**

1. Clear area around and under the lift of obstructions and warn personnel to stand clear.
2. Raise vehicle by at least 3 inches.
3. Pull the release lever.
4. No one must be under the vehicle when lowering as the safety locks are not engaged.
5. While keep release lever pulled, push lower lever on the power unit to lower the lift.
6. Lower the lift until arms have bottomed and are clear of the lifting points.
7. Swing the lifting arms from beneath the vehicle and fully retract the arms.
8. Remove the vehicle.

## **LIFT MAINTENANCE:**

Before maintaining, servicing or repairing the lift, insure that an acceptable "lock out/tag out device is activated.

The following minimum maintenance schedule must be performed by the owner and/or lift operator:

### **DAILY:**

- Raise and lower the lift (with no vehicle) at the beginning of each shift to verify it is operating properly and carriages are level. Confirm all arm restraints engage and disengage smoothly and totally and telescoping arms have no excessive movement.
- Check all hydraulic fittings and lines for damage or leaks. Check electrical wiring for damage. Check all moving parts for uneven or excessive wear. Repair or replace all damaged, worn, or broken components immediately.
- Remove oil/grease on all lift pads.

### **WEEKLY:**

- Check hydraulic fluid in power pack reservoir. (confirm no leaks before topping up )
- Check equalizing cable adjustment. Check safety lock release cable adjustment.

### **MONTHLY:**

- Check that all anchor bolts are torqued to 150 ft-lbs (204Nm).
- Clean and lubricate arm restraints. (confirm all components are in good condition)
- Lubricate safety locks in both columns.
- Check that overhead safety shutoff is operating properly.

### **EVERY TWO MONTHS:**

- Remove and grease arm pins – reinstall insuring secure fit.
- Clean and re-grease slide block channel in both columns.
- Clean and lubricate all cable pulleys.

### **EVERY YEAR:**

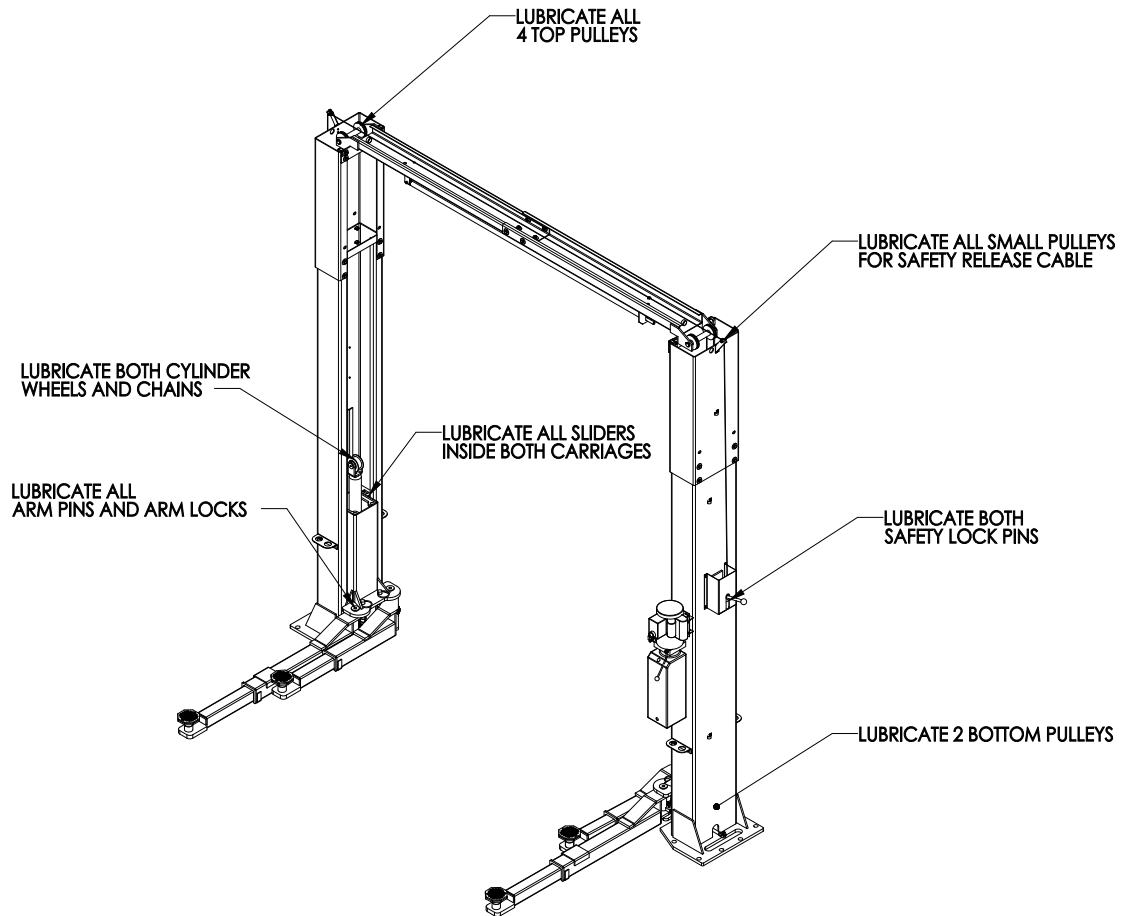
- Arrange for a Trained Lift Service Person to inspect and certify all aspects of the lift. Confirm that both equalizing cables meet the standard.

### **HYDRAULIC OIL:**

- Change and replace hydraulic oil in every minimum two years.

## **LUBRICATION SPECIFICATIONS:**

The following picture shows locations that are required to be lubricated. (where grease is required use a multi-purpose lithium grease, where lubricating oil is required use WD-40 or a SAE 30 oil)

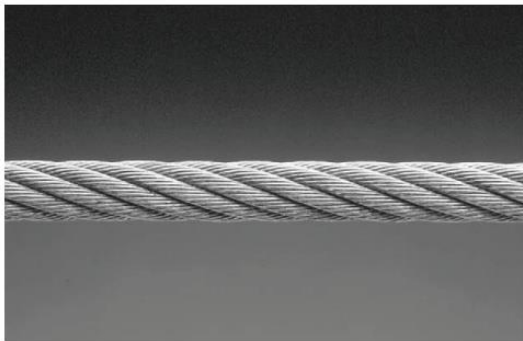


**The following criteria will determine when a lifting cable is no longer acceptable for service:**

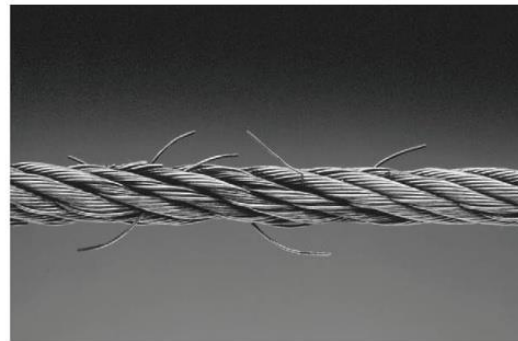
- 12 randomly distributed broken wires in one lay or four broken wires in one strand in one lay in running ropes
- one outer wire broken at the contact point with the core of the rope, which has worked its way out of the rope structure and protrudes or loops out from the rope structure
- wear of one-third the original diameter of outside individual wires
- kinking, crushing, birdcaging, or any other damage resulting in distortion of the rope structure
- evidence of heat damage from any cause-reduction from nominal diameter greater than those listed in the following table:

<b>Rope Diam.</b>	$OD \leq 5/16''$	$5/16'' \leq OD \leq 1/2''$	$OD \geq 1/2''$
<b>Max. reduction</b>	$1/64''$	$1/32''$	$3/64''$

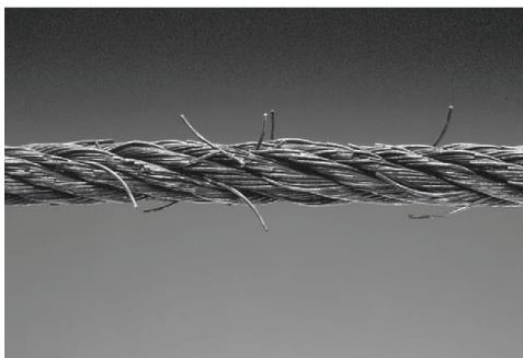
**If any of the cable is as shown in the following pictures, do not use.**



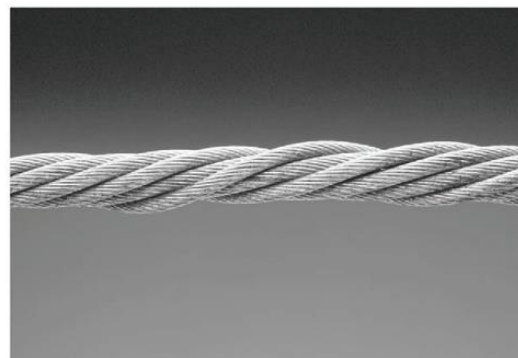
Typical Good Cable



Cable With Broken Wires



Cable With Severe Corrosion



Cable With Necking

**Note:** Attention shall be given to end connections. Upon development of two broken wires adjacent to socket end connections, the rope shall be resocketed or replaced. Resocketing shall not be attempted if the resulting rope length will be insufficient for proper operation.

## **LIFT PROBLEM TROUBLESHOOTING GUIDE**

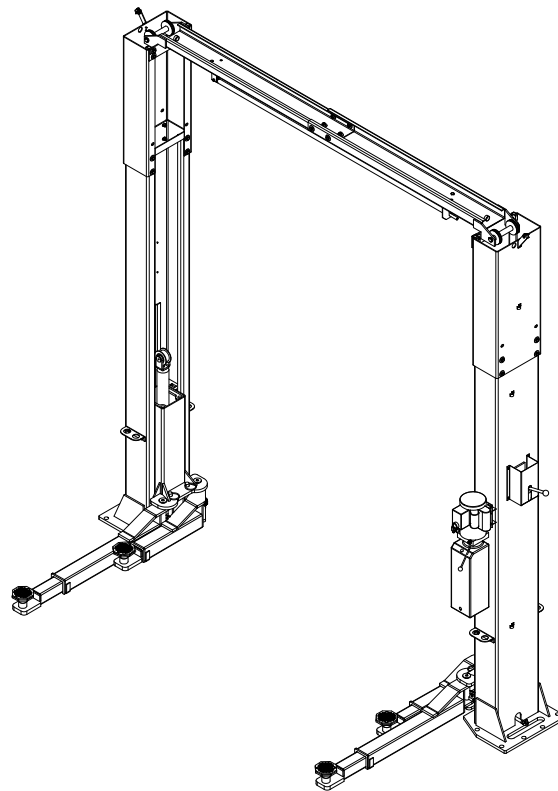
The following are some suggestions to consider if problems are encountered with the lift. Please call a Trained Lift Service Person for further clarification and information.

<b>Problem</b>	<b>Possible Causes</b>	<b>Solutions</b>
Lift Will Not Raise or Lower	<ol style="list-style-type: none"> <li>1. Blown fuse or circuit breaker</li> <li>2. Incorrect voltage to motor</li> <li>3. Bad wiring connections</li> <li>4. "UP" switch burned out</li> <li>5. Motor windings burned out</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace fuse or reset/replace circuit breaker</li> <li>2. Supply correct voltage to motor</li> <li>3. Repair and insulate all connections</li> <li>4. Replace switch</li> <li>5. Replace motor</li> </ol>
Lift Will Not Raise	<ol style="list-style-type: none"> <li>1. Air in oil or low oil level</li> <li>2. Lowering Valve leaks</li> <li>3. Motor runs backward</li> <li>4. Pump damaged</li> <li>5. Pump will not prime</li> <li>6. Relief Valve leaks</li> <li>7. Voltage to motor incorrect</li> <li>8. Lift overloaded</li> </ol>	<ol style="list-style-type: none"> <li>1. Check fluid level, oil seal, bleed system</li> <li>2. Clean valve or replace</li> <li>3. Check for correct wiring</li> <li>4. Repair or replace pump</li> <li>5. Check fluid level and pick-up tube; replace pump</li> <li>6. Clean Relief Valve (replace if necessary)</li> <li>7. Supply correct voltage to motor</li> <li>8. Verify that loaded vehicle weight does not exceed rated lift capacity</li> </ol>
Lift Will Not Lower	<ol style="list-style-type: none"> <li>1. Mechanical locks are engaged</li> <li>2. Obstruction under lift or in glide block tracks</li> <li>3. Faulty lowering solenoid valve</li> </ol>	<ol style="list-style-type: none"> <li>1. Raise unit slightly and disengage mechanical locks</li> <li>2. Carefully remove obstruction - clean glide block tracks</li> <li>3. Replace valve</li> </ol>
Lift Will Not Hold Pressure	<ol style="list-style-type: none"> <li>1. Contamination in system</li> <li>2. Internal Cylinder leaks</li> <li>3. Lowering Valve leaks</li> <li>4. Check Valve leaks</li> <li>5. External leaks</li> </ol>	<ol style="list-style-type: none"> <li>1. Check oil level, bleed cylinders, remove Contamination, replace oil seal</li> <li>2. Check fitting, replace cylinder</li> <li>3. Contaminated fluid, handle binds, clean valves</li> <li>4. Clean check valve (replace if necessary)</li> <li>5. Check all fittings and repair leaks</li> </ol>
Lift Will Not Raise A Vehicle	<ol style="list-style-type: none"> <li>1. Low hydraulic fluid</li> <li>2. Malfunction of pressure relief valve</li> <li>3. Insufficient electrical voltage</li> <li>4. Lift overload</li> <li>5. Motor is running backwards</li> <li>6. Air in hydraulic oil</li> <li>7. Pump will not prime</li> <li>8. Pump is damaged</li> <li>9. Faulty lowering valve</li> </ol>	<ol style="list-style-type: none"> <li>1. Lower lift. Using ISO grade 32 hydraulic oil, fill the powerpack reservoir to 1" below the top</li> <li>2. Clean pressure relief valve. if problem continues, call a service technician</li> <li>3. Confirm a 208/230 volt power supply to the lift</li> <li>4. Check that vehicle weight is evenly distributed And does not exceed rated capacity.</li> <li>5. Confirm proper motor rotation - rewire if required</li> <li>6. Check oil seal and bleed hydraulic system</li> <li>7. Check hydraulic oil level and pick-up tube. Replace pump if required</li> <li>8. Repair or replace pump</li> <li>9. Clean or replace valve</li> </ol>

<b>Problem</b>	<b>Possible Causes</b>	<b>Solutions</b>
Slow Drift Down	1. Mechanical safety locks not engaged 2. Powerpack lowering valve contamination 3. Hydraulic system leaks	1. Raise lift to engage all safety locks then lower lift and confirm all safety locks are engaged 2. Back flush powerpack by opening manual over-right valve. Engage "up" switch and down lever at the same time and run approximately 10 seconds 3. Check cylinder and all fittings for any hydraulic oil leak
Lift Going Up Out of Level	1. Cable(s) out of adjustment	1. re-adjust cables - Call service technician if problem persists
Anchors Will Not Stay Tight	1. Holes drilled oversize 2. Concrete floor thickness or holding strength not sufficient	1. Relocate lift using the correct bit to drill holes 2. Break out old concrete and re-pour new foundation per lift installation instruction

**Replace all worn or broken parts and components only with manufacturer approved/supplied parts and components**

**Replacement parts may be purchased from your local lift supplier or the manufacturer at 1 - 877 - 799 - LIFT (5438) or (905) 847 - 1198**



**Model: LSS2P11CF**

**11,000 LB (5,000KG) TWO POST LIFT**

# Lift Illustrations & Parts Lists

**For installation & service part reference  
SAVE this MANUAL and ALL INSTRUCTIONS**

**TOTAL AUTOMOTIVE LIFTING SOLUTIONS INC.**

**2300 Speers Road  
Oakville, Ontario, Canada L6L 2X8  
Tel: 905-847-1198 Fax: 905-891-114**

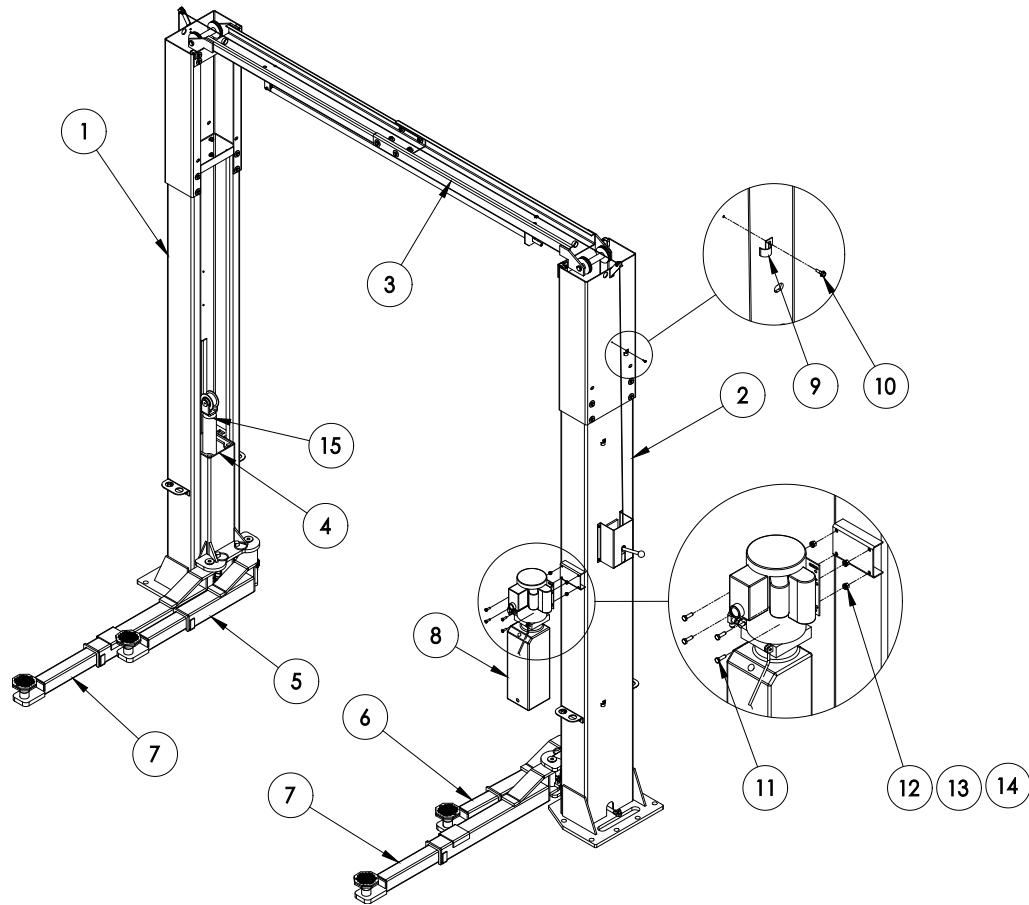
**Part Number: M-LSS-211-COBRA  
Issue 001 Effective: May, 2013**

## **LIFT ILLUSTRATIONS and PARTS LISTS**

The diagrams below identify the main components and the order in which they are to be installed. Numbers correspond to installation diagrams found in the chart below and on following pages. Page numbers for each diagram is also found in the chart below. These diagrams, along with related parts lists, will assist you when installing and servicing this lift. Please insure these lift diagrams and parts lists are kept in a secure place for quick reference.

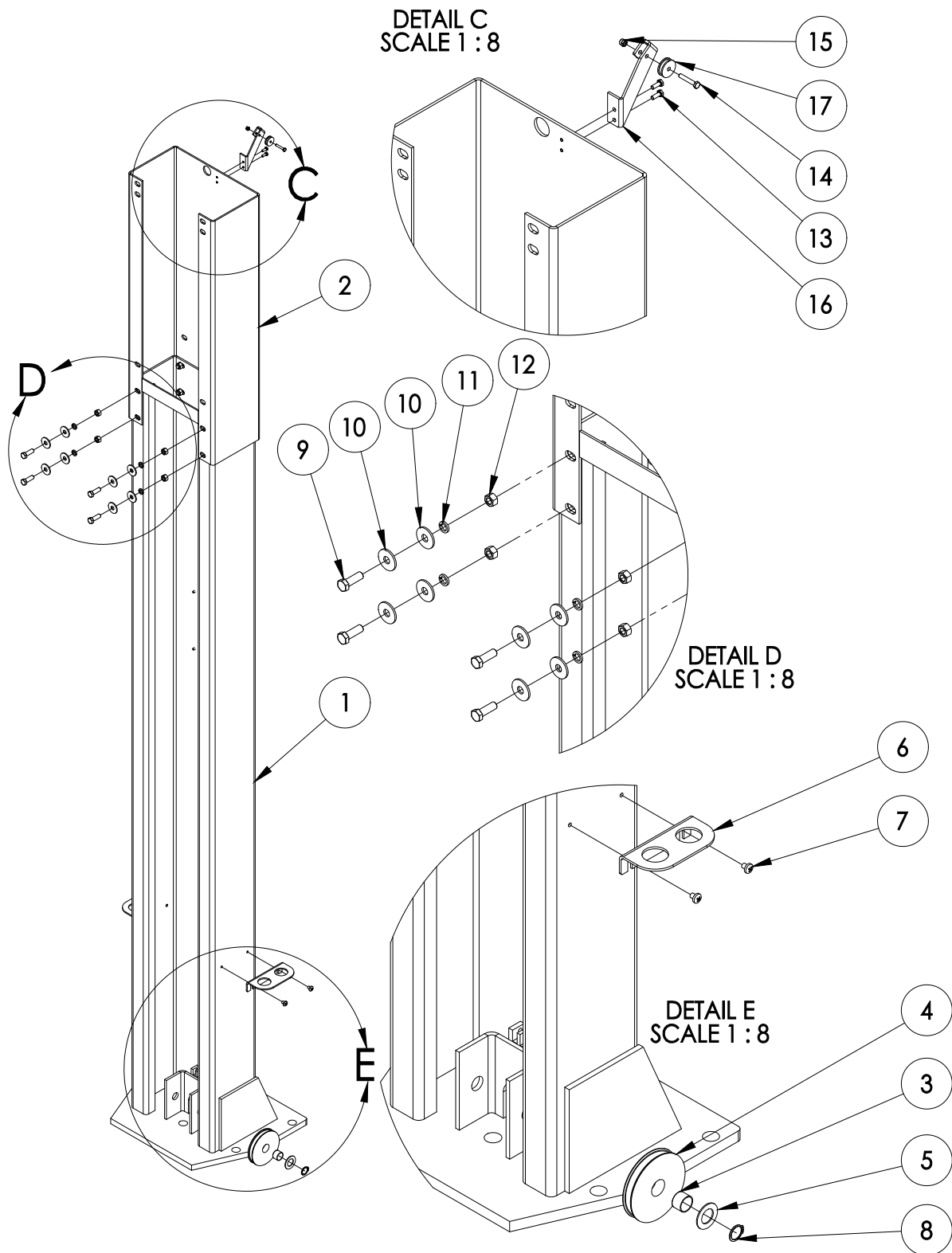
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## **Diagram #1: LIFT ASSEMBLY**



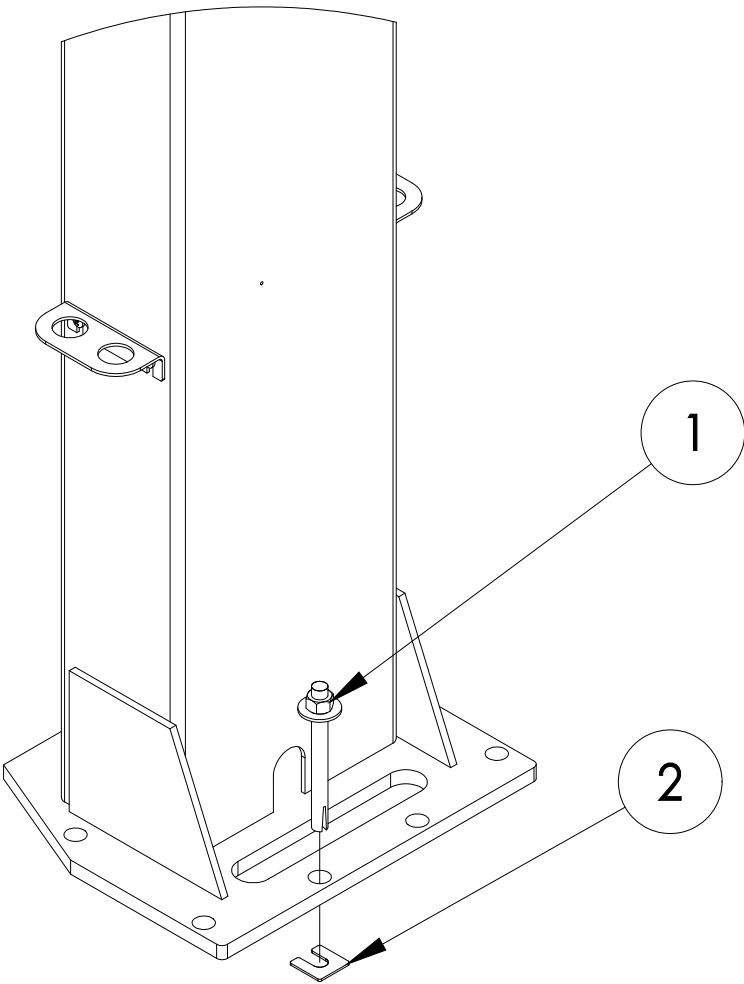
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	42110001	DRIVER SIDE TOWER ASSEMBLY	1
2	42110002	PASSENGER SIDE TOWER ASSEMBLY	1
3	42110003	CROSS BEAM ASSEMBLY	1
4	42110004	CARRIAGE ASSEMBLY	1
5	32115018	BEND ARM (DRIVER SIDE)	1
6	32115019	BEND ARM (PASSENGER SIDE)	1
7	32115023	STRAIGHT ARM	2
8	32110002	POWER UNIT	1
9	32110003	HYDRAULIC HOSE CLIP	6
10	3C000601	SCREW	6
11	3C000612	M8 BOLT	4
12	3C000613	8MM WASHER	4
13	3C000614	8MM LOCK WASHER	4
14	3C000615	M8 NUT	4

## **Diagram #2: TOWER ASSEMBLY**



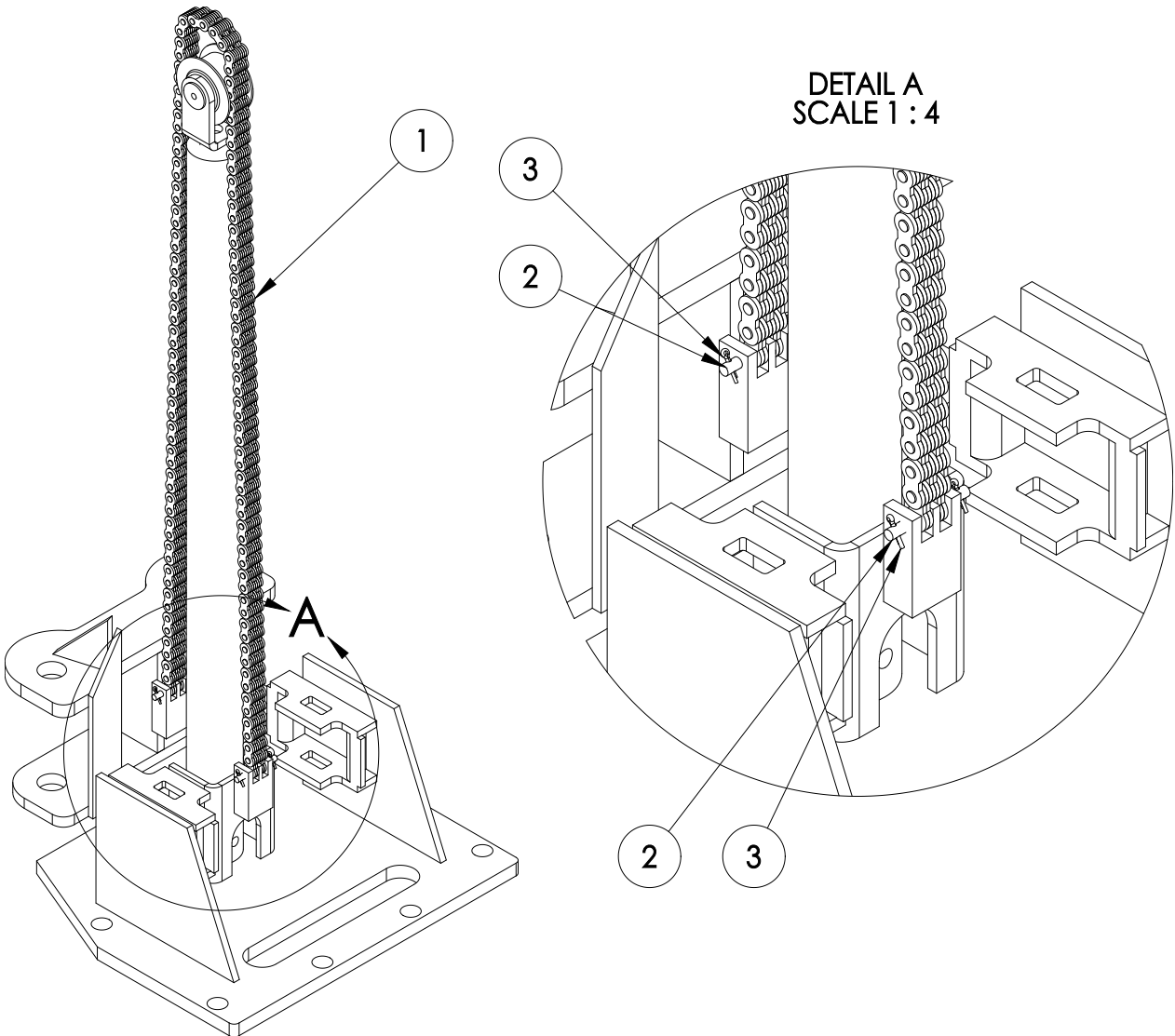
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	12110001	COLUMN	2
2	12110000	TOWER EXTENSION	2
3	32110004	PULLEY BUSHING	6
4	12110002	BOTTOM PULLEY	2
5	3C110616	25MM WASHER	2
6	12110003	ADAPTER BRACKET	4
7	3C000617	M8 SCREW	8
8	3C000618	25MM SNAP RING	6
9	3C000619	M12 BOLT	16
10	3C000620	12MM FLAT WASHER	32
11	3C000621	12MM LOCK WASHER	16
12	3C000622	M12 NUT	16
13	3C000623	M6 SCREW	6
14	3C000624	M6 BOLT	3
15	3C000625	M6 JAM NUT	3
16	12110004	PULLEY BRACKET	2
17	12110005	SMALL PULLEY	3

**Diagram #3: COLUMN SHIMING & ANCHOR BOLTS**



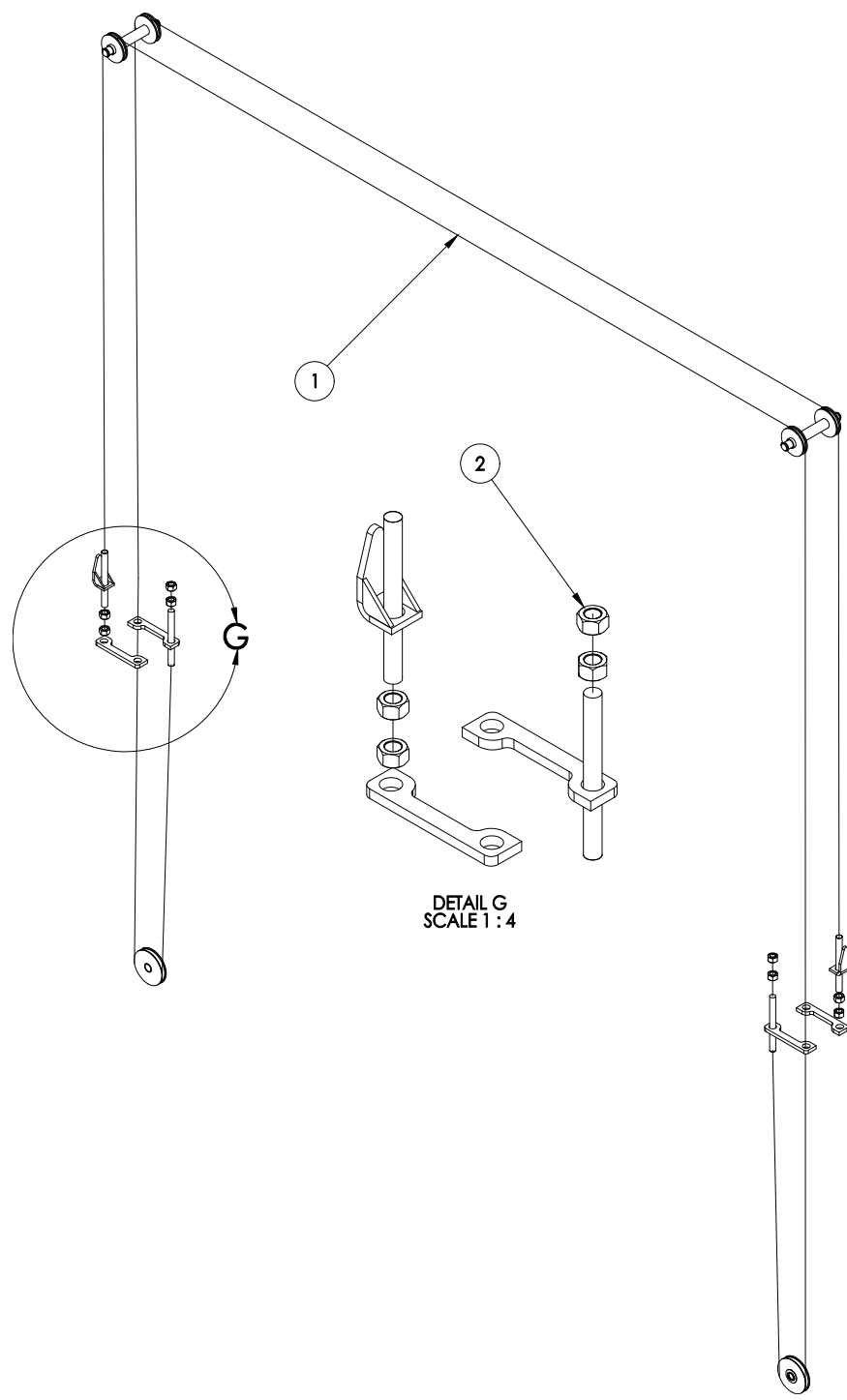
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	32115100	ANCHOR BOLT ASSEMBLY	12
2	32115101	SHIM	12

## **Diagram #4: LIFTING CHAIN ASSEMBLY**



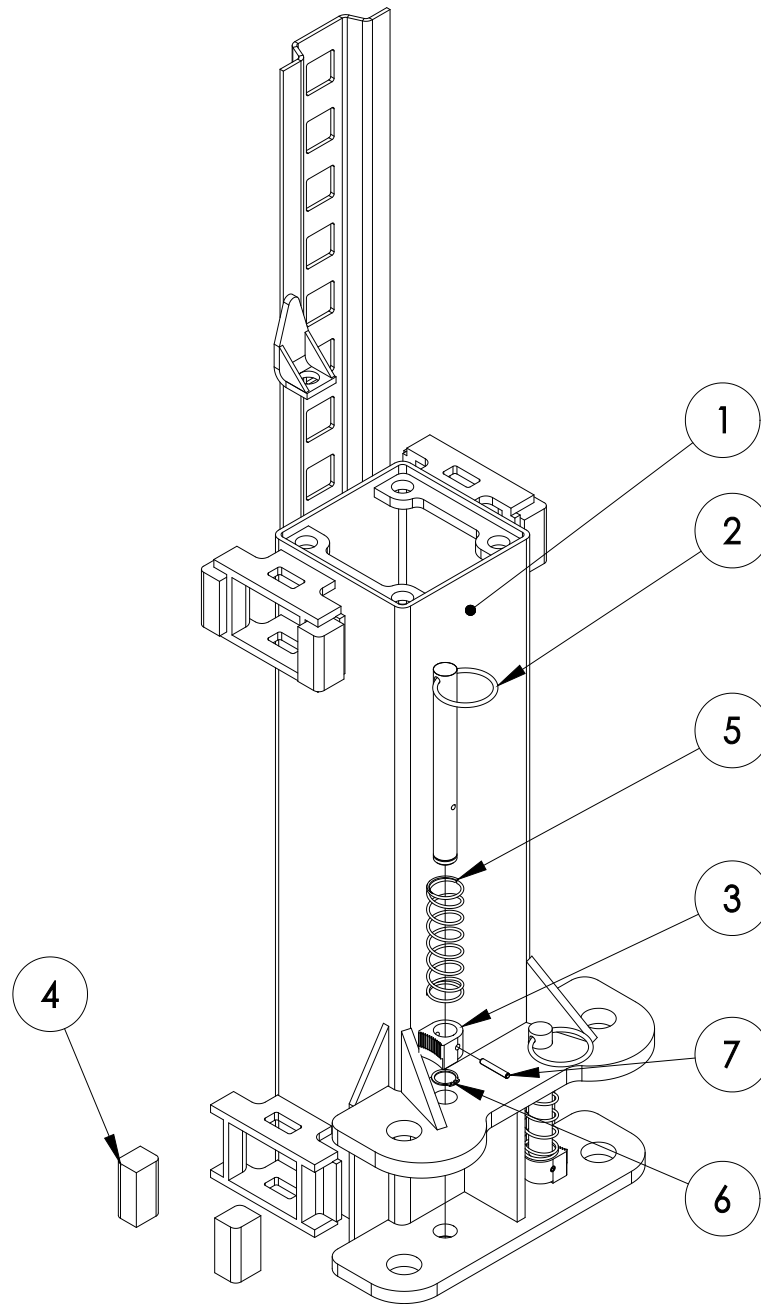
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	32110005	CHAIN	2
2	12110006	PIN	4
3	3C000626	SPLIT PIN	8

**Diagram #5: EQUALIZING CABLES**



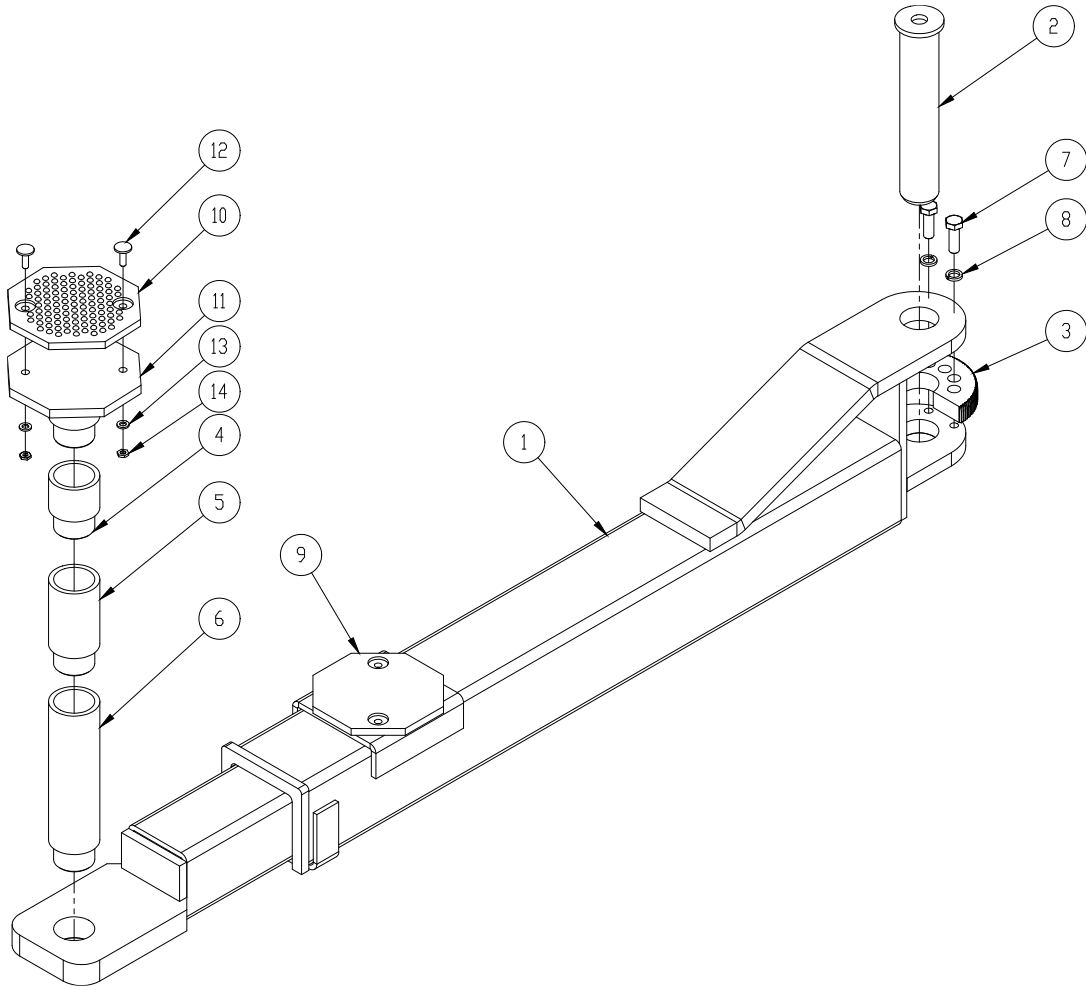
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	32115022	CABLE	2
2	3C000627	NUT 3/4 UNF	8

## **Diagram #6: CARRIAGE ASSEMBLY**



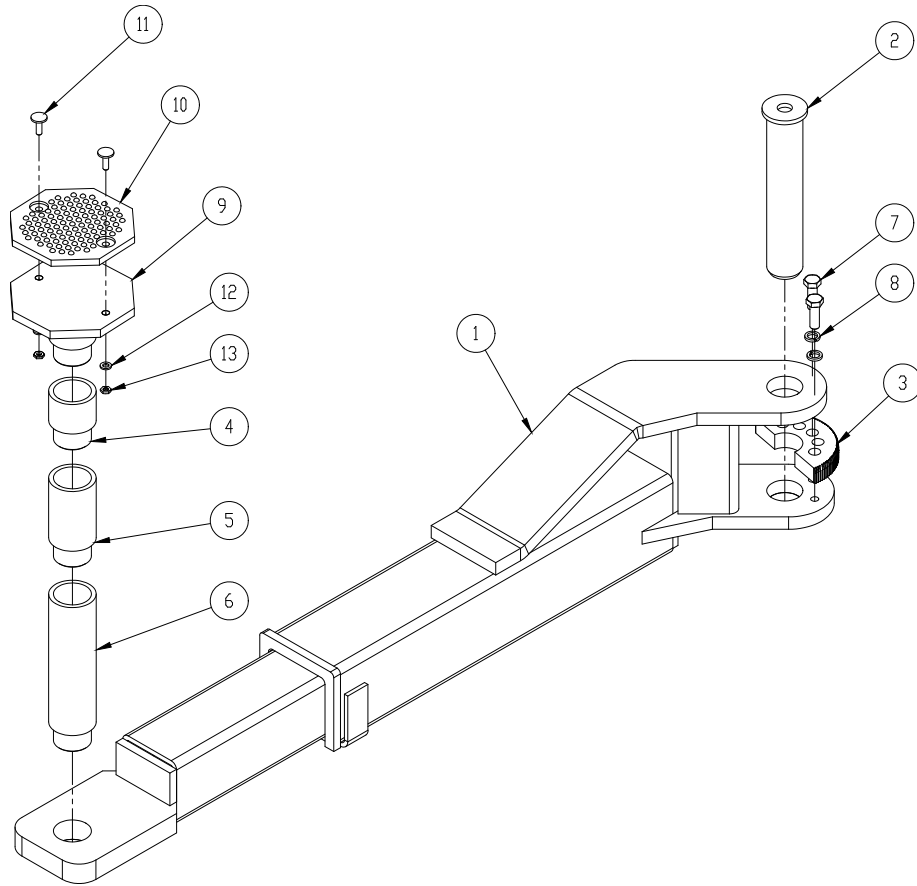
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	22110001	CARRIAGE WELDMENT	2
2	42110005	GEAR LOCK PIN	4
3	32115021	INNER GEAR	4
4	32115028	SLIDER	16
5	32110009	SPRING	4
6	3C000628	25MM SNAP RING	4
7	3C000629	SPRING ROLLER PIN	4

## **Diagram #7: REAR ARMS**



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	32115023	REAR ARM ASSEMBLY	1/1
2	12110013	ARM PIN	4
3	32115020	LOCKING GEAR	4
4	32115024	1 1/2" ADAPTER	4
5	32115025	3" ADAPTER	4
6	32115026	6" ADAPTER	4
7	3C000630	M10 BOLT	8
8	3C000631	10MM LOCK WASHER	8
9	32115013	HONDA ADAPTER	4
10	32115015	RUBBER PAD c/w LIFTING PAD	4
11	32115015	LIFING PAD c/w RUBBER PAD	8
12	3C000632	M6 BOLT	8
13	3C000633	6MM LOCKING WASHER	
14	3C000634	M6 NUT	8

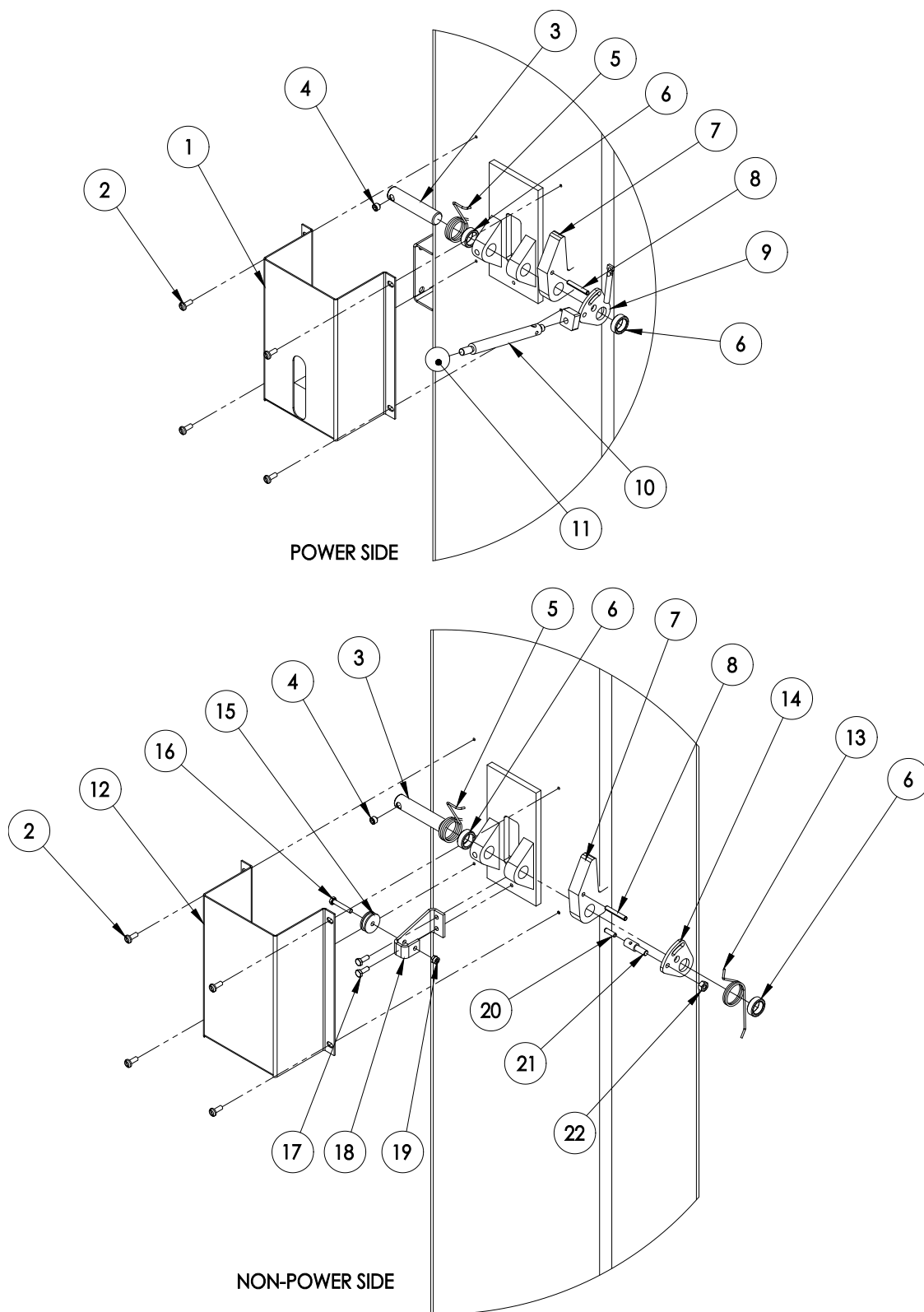
## **Diagram #8: FRONT ARMS**



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1*	32110018/32110019	DRIVER SIDE FRONT ARM/REAR SIDE FRONT ARM	1/1
2	12110013	ARM PIN	4
3	32115020	LOCKING GEAR	4
4	32115024	1 1/2" ADAPTER	4
5	32115025	3" ADAPTER	4
6	32115026	6" ADAPTER	4
7	3C000635	M10 BOLT	8
8	3C000636	10MM LOCK WASHER	8
9	32115015	LIFTING PAD c/w RUBBER PAD	4
10	32115015	RUBBER PAD c/w LIFTING PAD	4
11	3C000637	M6 BOLT	8
12	3C000638	6MM LOCK WASHER	8
13	3C000639	M6 NUT	8

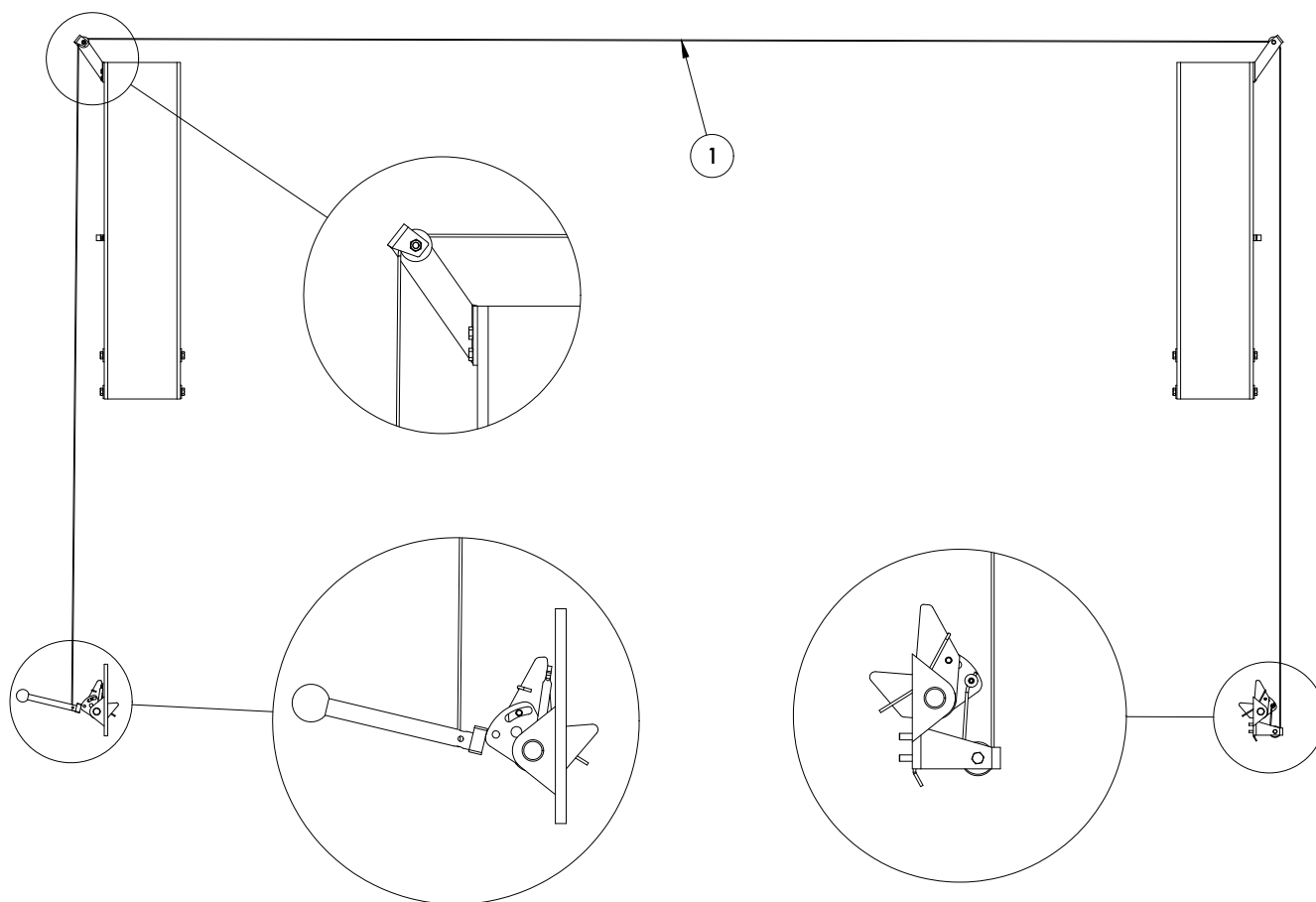
\* Lift has two different bend arms, one is at driver's side and the other is at passenger's side.

## **Diagram #9: SAFETY LOCK ASSEMBLY**



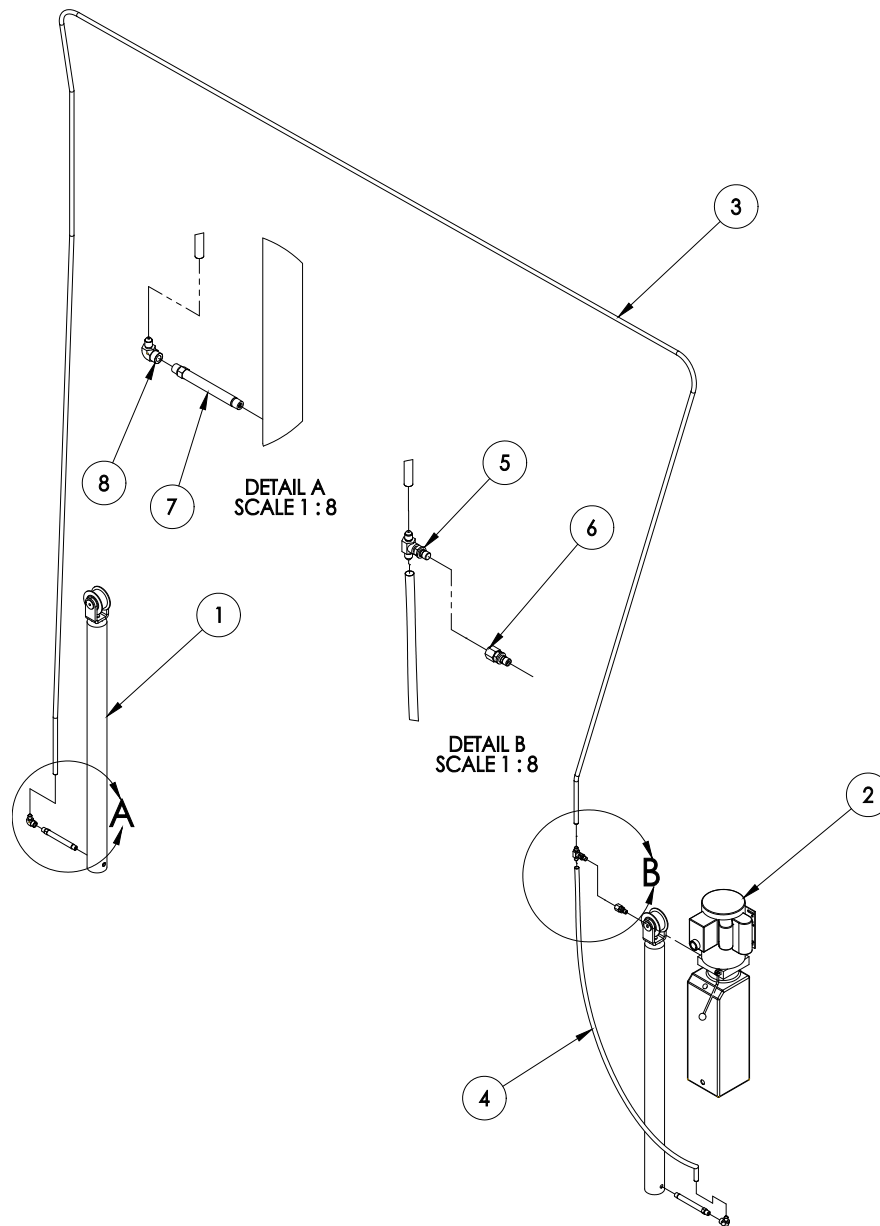
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	12110010	COVER (POWER SIDE)	1
2	3C000640	M6 SCREW	8
3	12110011	LOCK PIN	2
4	3C000641	M8 SET SCREW	2
5	32110014	TORSION SPRING A	2
6	12110012	SPACER	4
7	12110013	SAFETY LOCK	2
8	3C000642	ROLLER PIN	2
9	22110002	LINKAGE BOARD A (WELDMENT)	1
10	12110014	LEVER	1
11	32110015	PLASTIC BALL	1
12	12110015	COVER (NON POWER SIDE)	1
13	32110016	TORSION SPRING B	1
14	22110003	LINKAGE BOARD B	1
15	12110005	SMALL PULLEY	3
16	3C000643	M6 BOLT	3
17	3C000644	M6 SCREW	6
18	3C000645	BOTTOM SMALL PULLEY BRACKET	1
19	3C000646	M6 JAM NUT	3
20	3C000647	M6 SET SCREW	1
21	3C000648	SCREW	1
22	3C000649	M8 NUT	1

## **Diagram #10: SAFETY RELEASE CABLE ROUTING**



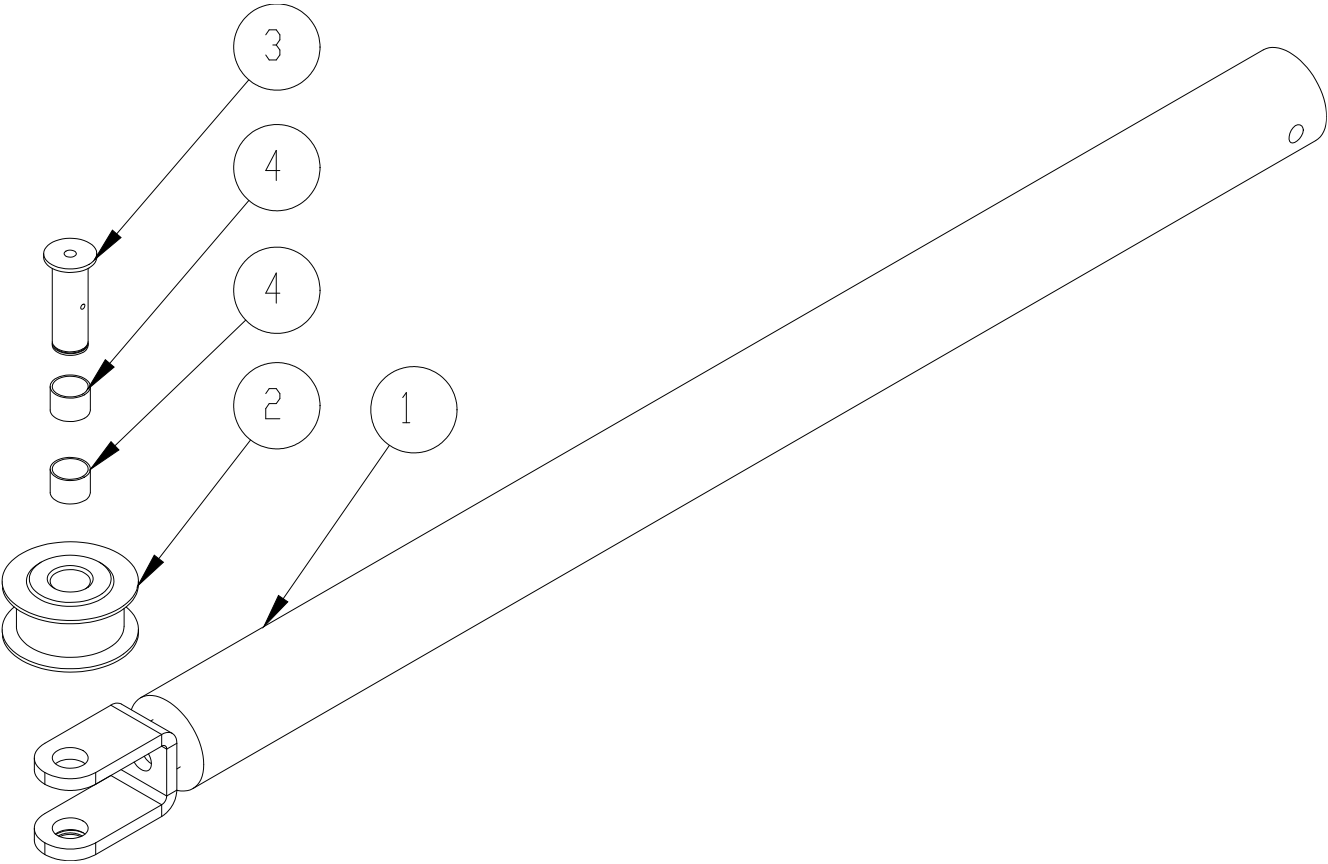
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	32115027	RELEASE STEEL WIRE	1

## **Diagram #11: HYDRAULIC SYSTEM**



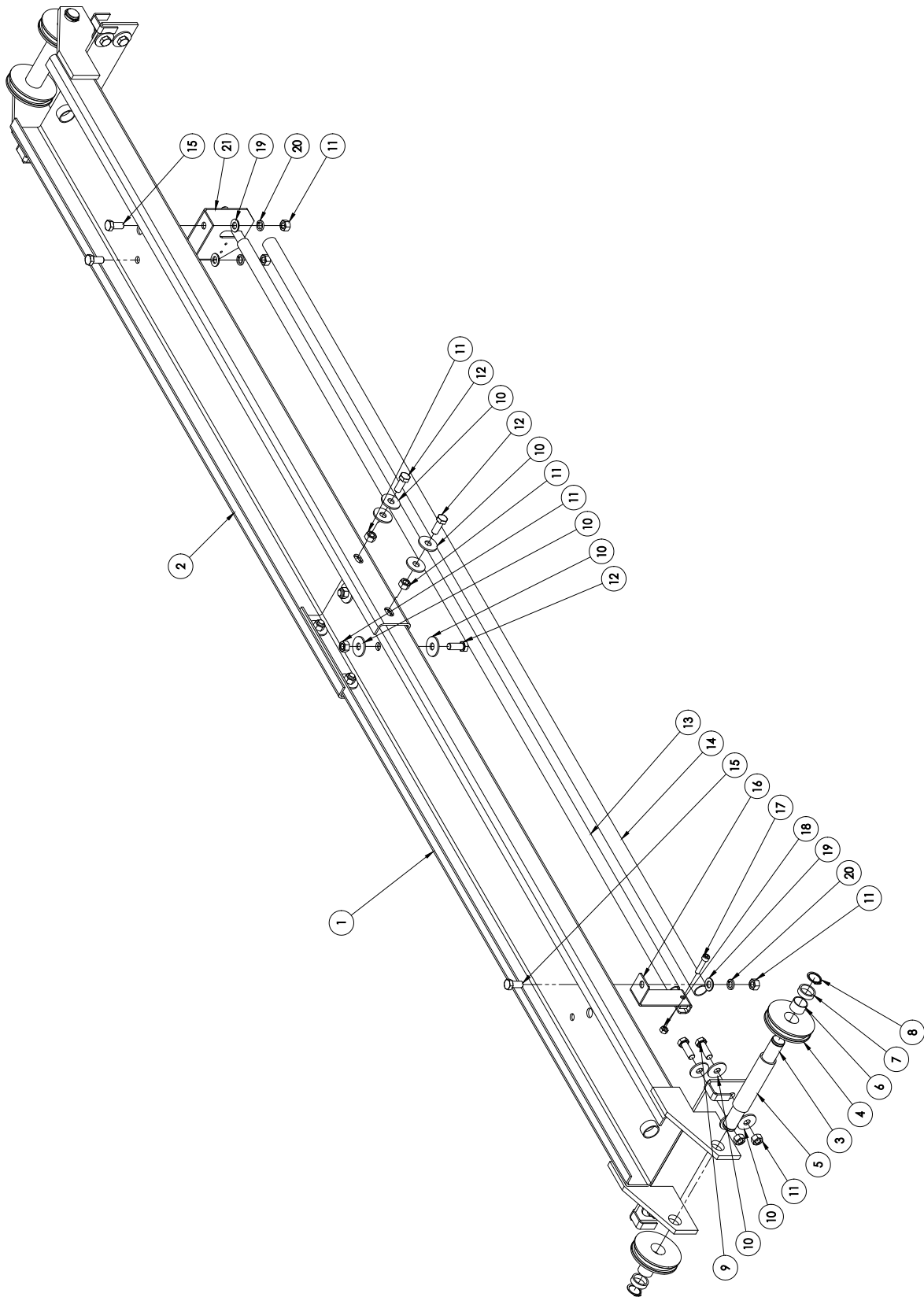
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	32110001	HYDRAULIC CYLINDER	1
2	32110002	POWER UNIT	2
3	32110006	HYDRAULIC HOSE (LONG)	1
4	32110007	HYDRAULIC HOSE (SHORT)	1
5	32110008	T FITTING	1
6	32110009	PUMP FITTING	2
7	32110010	FLOW CONTROL FITTING (STRAIGHT)	1
8	32110011	CYLINDER FITTING (ELBOW)	1

**iagram#12: CYLINDER ASSEMBLY**



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	32110001	CYLINDER ASSEMBLY	2
2	12110007	WHEEL	2
3	12110008	WHEEL PIN (WITH SNAP RING)	2
4	32110012	BUSHING	4

**Diagram#13: CROSS BEAM ASSEMBLY**



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	22110004	INNER CROSSBEAM WELDMENT	1
2	22110005	OUTER CROSSBEAM WELDMENT	1
3	12110016	TOP PULLEY SHAFT	2
4	12110017	TOP PULLEY	4
5	12110018	SPACER (LONG)	2
6	32110017	PULLEY BUSHING	6
7	12110019	SPACER (SHORT)	4
8	3C000650	25MM SNAP RING	6
9	3C000651	M12 BOLT	8
10	3C000652	12MM FLAT WASHER	28
11	3C000653	M12 NUT	14
12	3C000654	M12 BOLT	4
13	22110006	LIMIT BAR	1
14	32110018	FOAM	1
15	3C000655	M12 BOLT	3
16	12110020	LIMIT BAR HINGE	1
17	3C000656	M8 BOLT	1
18	3C000657	M8 NUT	1
19	3C000658	12MM FLAT WASHER	1
20	3C000659	12MM LOCK WASHER	1
21	12110021	LIMIT BAR BRACKET	1

## **Diagram#14: WIRING DIAGRAM**

