



**LIFT KING**

# **Single Column Motorcycle Packing Lift**

**Model 167261ADTLK**

**INSTALLATION & OPERATING INSTRUCTIONS**

**(1<sup>st</sup> EDITION)**



May, 2015

## **Important!**

**Be sure to read the operating instructions before operating your lift!**

### **Getting Ready**

Make sure you have made all necessary measurements to assure that your lift will fit in your garage and accommodate the motorcycle you intend to lift with it. Make sure you have enough clearance at the top, and enough width to allow walking around. It is useful to chalk the outlines of the lift on your garage floor, using the manufacturer's dimensions, to see how the lift will fit. Knowing where the lift will sit will help place the column, which is the first step in the assembly process, and will help determine the location of the 110 volt receptacle that is required to operate this lift. Enlist the services of a qualified electrician to provide appropriate electrical service to the garage / shop and make sure he knows what the circuit requirements are (110 volt, single phase, 20 amp). Seek his advice on receptacle and plug configurations that will work, because there are several combinations,

### **Description**

Lifting Capacity:	2000lbs	(900Kg)
Min. height:	4"	(100mm)
Max. Lifting Height:	57.9"	(1470mm)
Column Height:	85.2"	(2164mm)
Power Supply:	110V, Single phase, 16Amp	

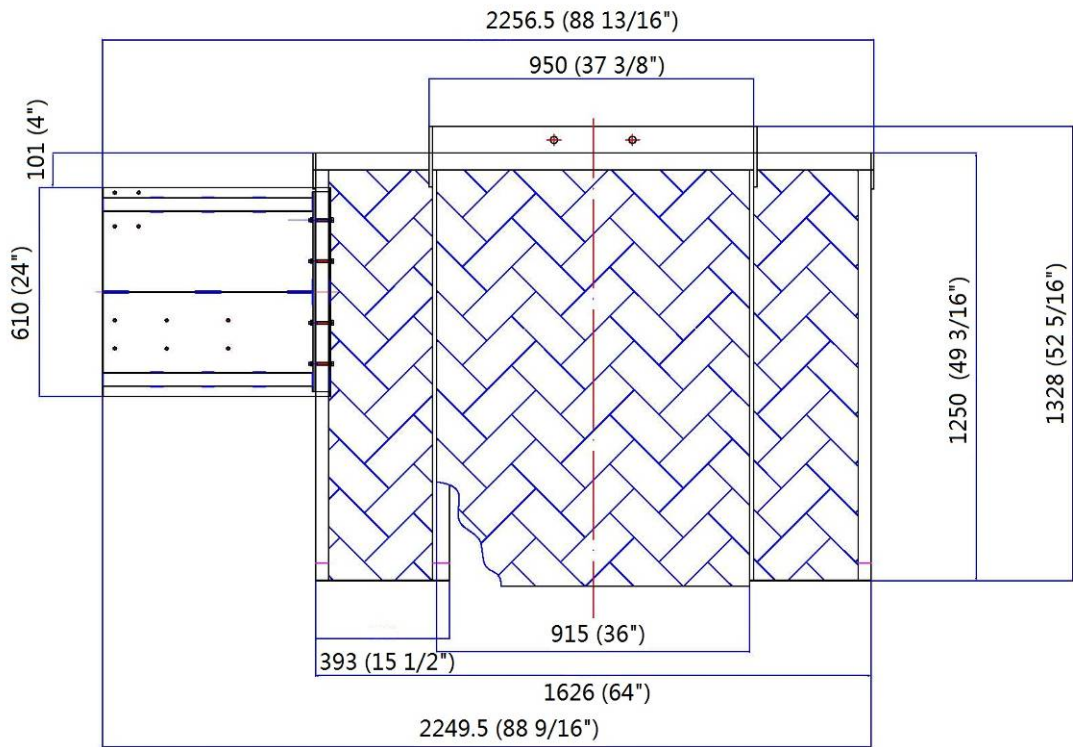
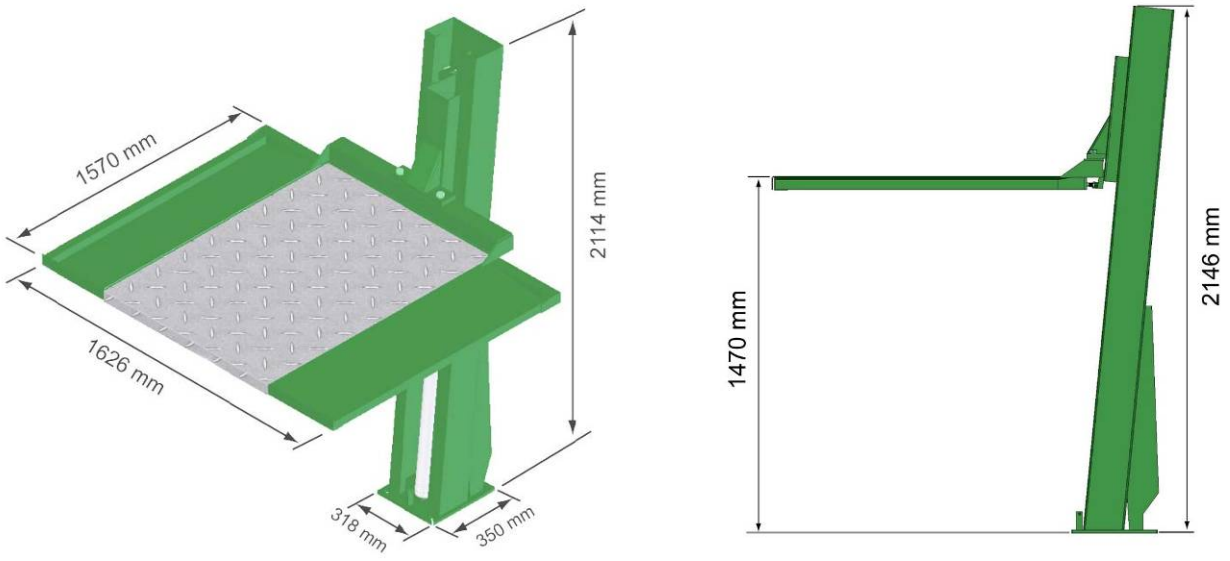


Fig. 1 & 2 Dimensions

Make sure you have someone to help you. The pieces to this lift are big, heavy, and cumbersome. The lift column weighs about 750 pounds by itself. It is possible for one or two people to install this lift if they have the appropriate lifting and handling equipment, but it is definitely easier and faster if there are several people available to help manhandle the pieces into place. Whichever way you choose to go: several people with a little equipment, or a few people with a lot of equipment, remember to take your time, be careful, and think through the steps carefully. As with any activities involving big heavy materials, safety must be uppermost in your mind. This lift is no more difficult to install than some of our other units because of its one-post design, but this very design makes it extremely effective for residential garage use. With proper preparation and installation, you will be very pleased with this lift.

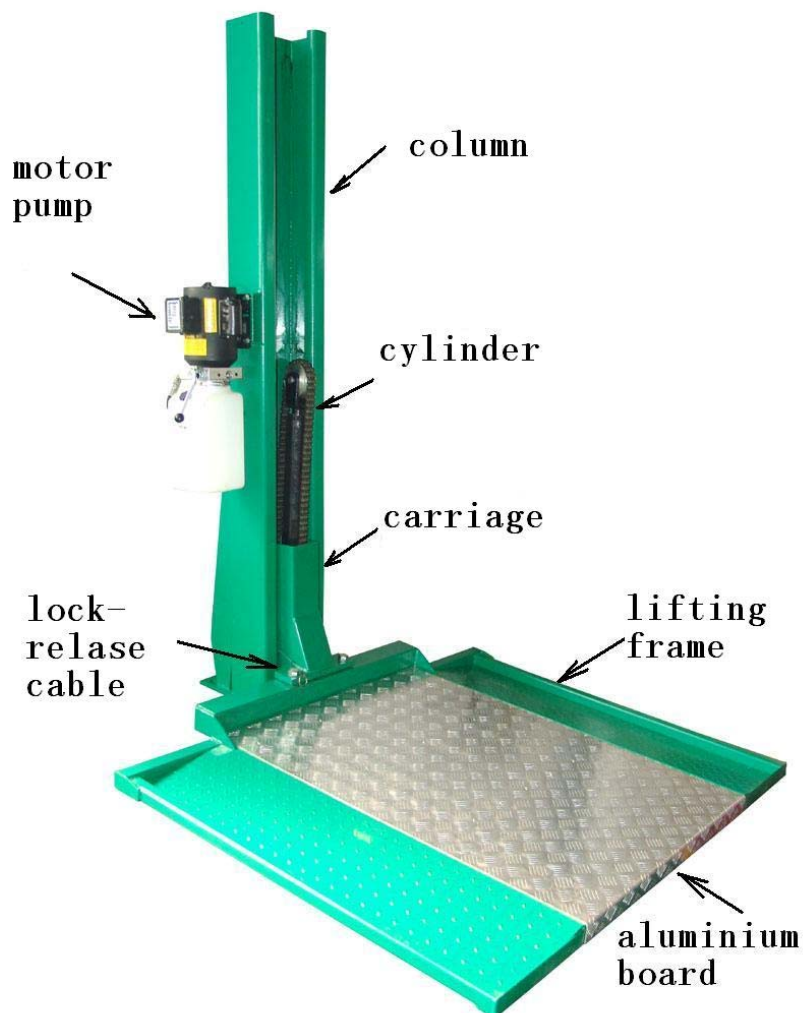


Fig. 3 Major Lift Components

## **Required Tools**

- 1 Fork Lift to unload lift on delivery
- 2 Fork Lift and/or engine hoist for moving pieces and positioning lift leg. You will also need a ten-foot length of 3/8" chain
- 3 1 and 5/16" wrench and socket with ratchet
- 4 1 and 1/8" socket and extension
- 5 1/2" wrench
- 6 11/16" wrench
- 7 Adjustable wrench
- 8 Small crowbar or large screwdriver for aligning bolt holes
- 9 Concrete hammer drill with a new 3/4" concrete bit
- 10 Pliers
- 11 Flat blade screwdriver

## **Receiving and Handling**

When you receive your lift, it will come banded to one or two pieces, and you will need a forklift to unload it. You can rent a forklift from most tool rental companies, and have it delivered to your home, but make sure it has the capacity to lift approximately 2300 pounds. Also, if you are going to use the forklift to erect your lift, make sure it will fit through your garage door. Many common lifts have a mast that is about 7 feet 4 inches high, and most residential garage door openings are 7 feet high. Smaller forklifts with adequate lifting capacity do exist, but you may have to look around to find the right one to rent. An alternative is to rent a standard forklift to unload the lift and move the parts to the garage, and do the actual assembly inside the garage with a rented engine hoist. Your lift will travel from the manufacturer via a flatbed tractor trailer to a trucking center in or near your city, and then be transferred to a box (enclosed) truck for final transport to your home. You will be contacted by the trucking firm prior to delivery. Make sure they know the lift is being delivered to a residential area that will accommodate the delivery truck, and try to arrange for the lift to be loaded cross-wise on the back of the truck so it will be easy to unload with the forklift. If the lift is loaded length-wise in the truck, it will be more difficult to unload. Alternatively, you can ask the trucking company

to deliver the lift on an open truck. When you get the packages lifted off the truck floor, simply have the driver drive his truck away from you, rather than try to remove the whole assembly from the truck.

## **Installation**

You will need common hand tools that most homeowners have, like a hammer, screwdrivers and pliers, but in addition, you will need some tools that are not common. Each installation is somewhat different, and depends on how much room you have to work around the lift. Here is a chronological sequence of installation steps, with the associated tools.

### **1. Unloading the lift**

You'll need a forklift that can handle about 2000 to 2300 pounds and operate on a smooth surface. They can be rented by the day from many tool rental companies for a fee that varies by distance.

### **2. Un-banding the lift**

The steel bands which secure the lift parts to the pallets are heavy duty. You'll need a pair of metal shears or tin snips to cut the bands. Be very careful when doing this because the bands will tend to fly apart when they are cut, and the heavy lift parts may shift when freed from the bands. Stand to the side of the bands when you cut them, and use gloves when removing the cut bands because they have sharp edges.

### **3. Moving pieces**

You can move the pieces to the garage with the forklift. Some of the smaller pieces can be moved by two or more people carrying them. If you have several people helping, some of the larger pieces can be moved manually. A piece of 3/8" chain about 10 feet long will be useful for moving heavy pieces by wrapping around the pieces and the forks of the forklift or the engine hoist hook, if that's what you're using.

## **STEPS**

The major piece is the lift column. It will have the carriage unit, the hydraulic piston and chain assembly, the hydraulic hose and safety latch cable already assembled in it. It will also have a bracket with four small holes on the side which will be used for installing the power unit later. The hydraulic cylinder in the column will appear to be loose, and "wobble" around. This is normal. As soon as a load is placed on the lift, the cylinder will right itself and remain righted. The objective of this step is to pick the

column up from a horizontal position, lift it vertically high enough to set it on the ground .

This can be accomplished with the forklift or with an engine hoist. Wrap your lifting chain around the column between the bracket of the power unit, and loop the other end of the chain (bolted together) over the forks of the forklift, or the lift hook of the engine hoist. If using the forklift, use a heavy “C” clamp on the fork after the chained is looped on, to keep the chain from sliding off the fork during the lift. Begin to lift the column slowly, and observe how the column is moving as it rises off the floor. It may be necessary to reposition the lift chain a few times till you find the optimum point that will allow the top to move high enough and the column to come into a nearly vertical position. Be careful if moving the column with an engine hoist, that sudden weight shifts do not cause the hoist to tip over. Set the column on the ground and maneuver it around to line up with the position. The column is easier to maneuver when it is vertical on the ground. If possible, do not remove the lift chain from the column until you have got the anchor bolts started into the ground.

STEP 1 To take off the board and bracket for shipping. (Fig. 4)



Fig.4

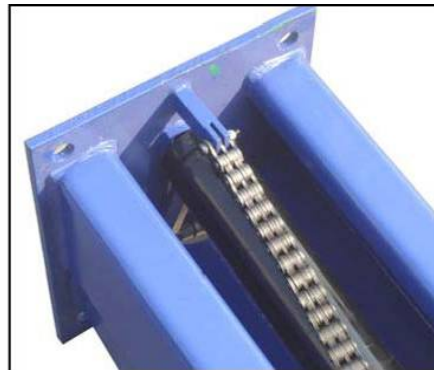


Fig. 5

STEP 2 To put the end of cylinder into the hole on the bottom hole.(Fig. 5)

STEP 3 To up-right the column (Fig. 6)

STEP 4 To anchor the column to ground. (Fig. 7)

Note: use the bottom plate as the guide of the hole position while drilling.



Fig. 6

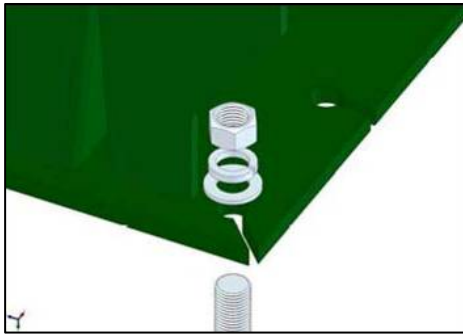


Fig. 7



Fig. 8

STEP 5 To bolt on the lifting frame (Fig. 8)

STEP 6 To adjust the leveling of the lifting frame by the bolts. (Fig. 9)



Fig. 9

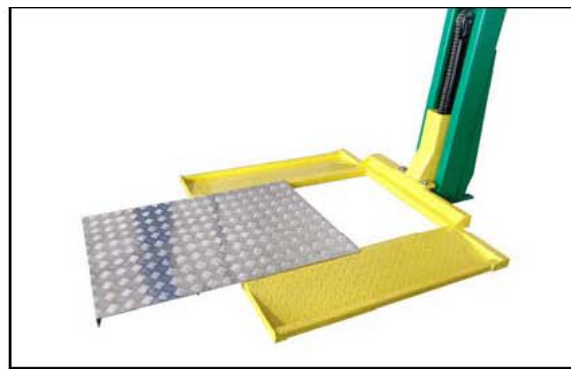


Fig. 10

STEP 7 Put the aluminum board on the frame. (Fig. 10)

STEP 8 To mount on the motorcycle adaptor ( Fig. 11)

STEP 9 To mount on the motor pump with bolts and nuts supplied. (Fig. 12)

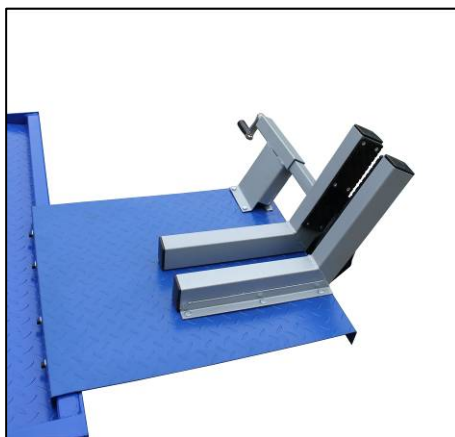


Fig. 11



Fig. 12



STEP 10 To connect the pump to cylinder with hose and fitting. (Fig. 13 & 14)



Fig. 13



Fig. 14

STEP 11 To fill the pump reservoir with hydraulic oil.  
Note: the hydraulic oil shall be 32 AWS, about 2 gallons.

STEP 12 To connect the power supply ( 110V, 60Hz, single phase, 16A)



## OPERATING INSTRUCTIONS

The lift is very simple to operate. The button on the control unit is pushed in and held to activate the switch which turns the electric motor on (Fig. 16). The motor operates an internal pump that forces hydraulic oil into the lift piston, which extends the roller chain and raises the lift. As the lift rises, an internal safety latch will pass over the steel stops (rectangular blocks which protrude from the back, inside of the column), and you will hear “clanks” as it does so. This sound is normal, and indicates that the safety latch is passing over the stops properly. The lift is raised to the desired height by holding the button in while it is rising, and releasing the button when the lift has reached its desired position. To lower the lift, you must hold down the lever to depress the release valve, at the same time as you pull out and hold the safety latch cable (Fig. 17). The weight of the lift will cause the lift to lower by gravity. No power is required to lower the lift, but the safety latch must be disengaged to allow the lift to lower past the stops. Occasionally the lift may be resting on a stop, which prevents the safety latch from being disengaged. When this happens, simply press the “up” button momentarily, to “bump” the lift upwards slightly, which takes the weight off of the safety latch. Now you can pull the release cable, and again depress the release valve handle to lower the lift. The safety stops do not engage at lower levels, so you do not have to pull the safety latch cable to lower the lift when it is close to the floor. After the installation is complete, raise the lift about two feet and then lower it. Repeat this process two or three times, and then top off the hydraulic oil reservoir again, if necessary. This assures that hydraulic oil is distributed everywhere in the system that it needs to be.

**NOTE: Only top off the reservoir with the lift in the “down” position. If you fill the reservoir in the “up” position and then lower the lift, there will be too much hydraulic oil in the system, and it will squirt out of the top of the control unit.**



Fig. 16



Fig. 17

## **RAISING A VEHICLE**

Drive the vehicle onto the ramps until it is about centered. Set the parking brake. Depress the “up” button and the vehicle will rise. Raise the vehicle until it is near the ceiling of the garage.

**BE CAREFUL NOT TO RAISE THE VEHICLE SO HIGH THAT IT STRIKES THE CEILING! MAKE SURE ANTENNAS ARE REMOVED, IF NECESSARY, AND BE AWARE OF ANYTHING THAT PROTRUDES FROM THE CEILING, LIKE LIGHTBULBS, GARAGE DOOR OPENERS OR DOOR TRACKS. IT IS VERY HELPFUL**

**IF YOU HAVE A “SPOTTER” ON A LADDER TO TELL YOU WHEN YOU ARE NEAR THE CEILING FOR THE FIRST LIFT!** When the vehicle is in the correct position, it is useful to mark the position of the carriage relative to the column with two pieces of electrical tape or a felt tip marker. When you make future lifts, all you have to do is operate the lift till the reference marks line up, and you will know that the car is in the right position. If you alternate vehicles that you will lift, you will need a separate set of reference marks for each. The higher you lift the “raised” vehicle, the more headroom you will have to enter and exit the one you park underneath.



Fig. 18



## **MISCELLANEOUS**

Depending on the size of your garage, and the size of vehicles, you should take care when moving around the lift until you get used to it being there. It is useful to spray paint the ends of the ramps and the ends of the lift arms a bright fluorescent color to help catch your eye and avoid head bumps. You may also wish to repaint dings and scrapes in the lift paint that occurred during shipping and installation. The hydraulic oil should be replaced every two years, and the inside corners of the lift leg should be re-greased with a general-purpose axle grease every year, or so, as it becomes obvious that it needs it.

# MOBILE SINGLE COLUMN PARKING LIFT167261

## PARTS DRAWING

### 1. Column and power unit

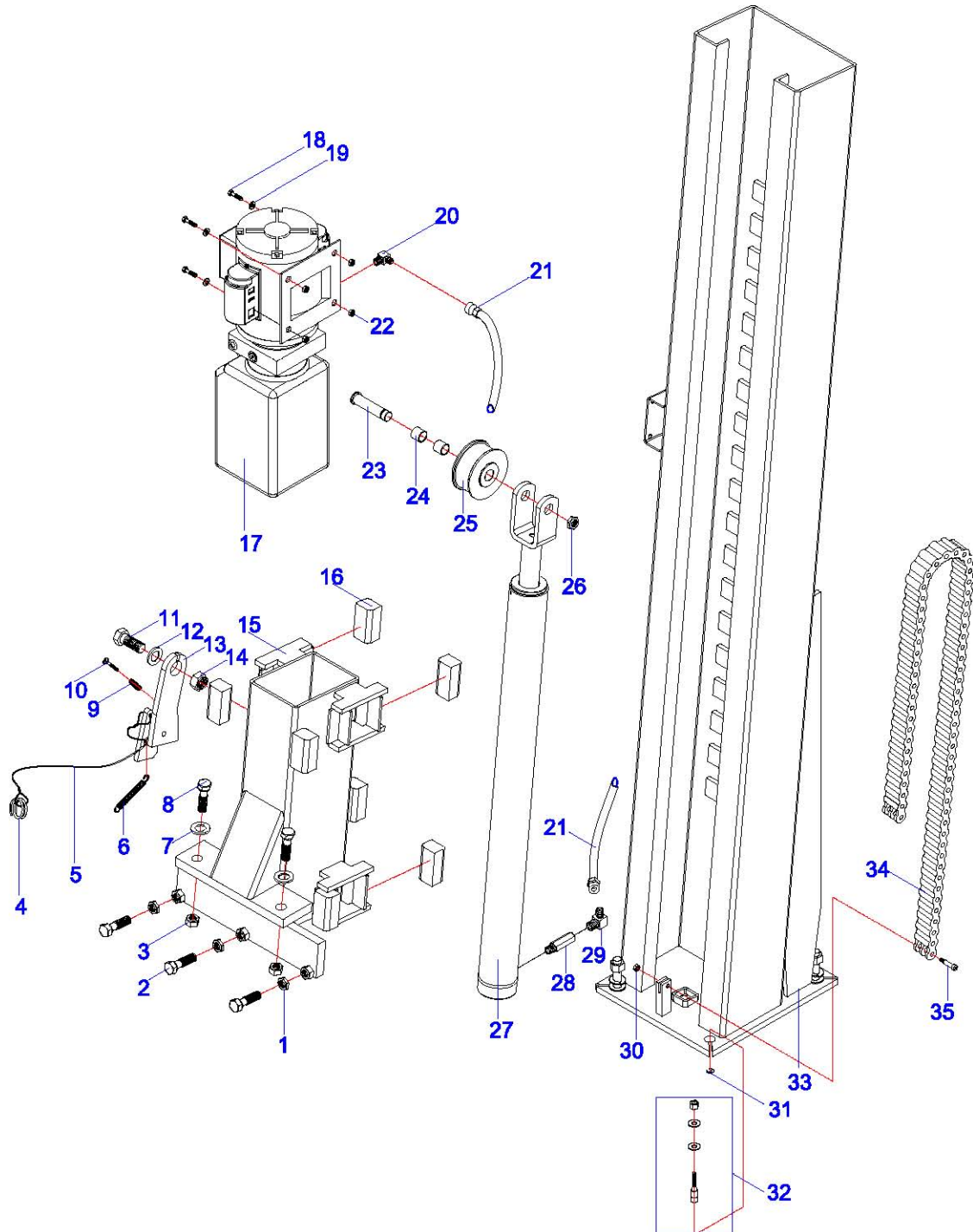


Fig. 19



## 2. Lifting frame and platform

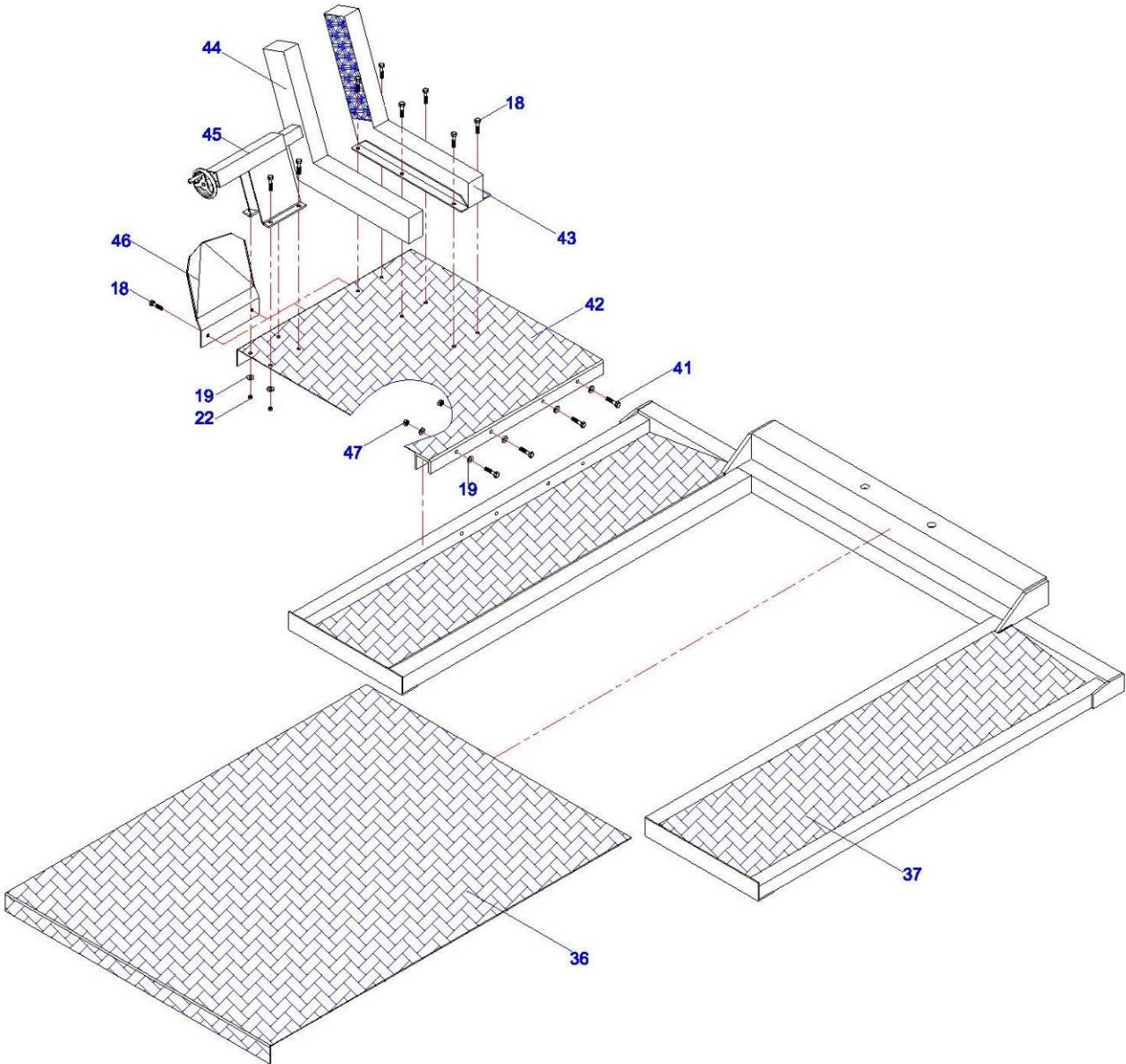


Fig. 20

## PARTS CODE LIST

ITEM	CODE	DESCRIPTION	QTY
1	167261ADT*1-001	Nut	3
2	167261ADT*1-002	Bolt	3
3	167261ADT*1-003	Nut	2
4	167261ADT*1-004	ring	1
5	167261ADT*1-005	release cable	1
6	167261ADT*1-006	Spring	1
7	167261ADT*1-007	Washer	2
8	167261ADT*1-008	Bolt	2
9	167261ADT*1-009	Spring	1
10	167261ADT*1-010	threaded pin	1
11	167261ADT*1-011	Bolt	1
12	167261ADT*1-012	flat washer	1
13	167261ADT*1-013	Safety latch	1
14	167261ADT*1-014	lock nut	1
15	167261ADT*1-015	Carriage	1
16	167261ADT*1-016	Rubber block	8
17	167261ADT*1-017	motor pump	1
18	167261ADT*1-018	Bolt	4
19	167261ADT*1-019	flat washer	4
20	167261ADT*1-020	Elbow fitting	1
21	167261ADT*1-021	Oil hose	1
22	167261ADT*1-022	lock nut	4
23	167261ADT*1-023	Pin	1
24	167261ADT*1-024	Bearing	2
25	167261ADT*1-025	chain wheel	1
26	167261ADT*1-026	Nut	1
27	167261ADT*1-027	Hydraulic cylinder	1
28	167261ADT*1-028	Restrictor	1
29	167261ADT*1-029	Elbow fitting	1
30	167261ADT*1-030	Nut	2
31	167261ADT*1-031	shim	5
32	167261ADT*1-032	anchor	5
33	167261ADT*1-033	Column	1
34	167261ADT*1-034	Chain	1
35	167261ADT*1-035	chain pin	2

<b>ITEM</b>	<b>CODE</b>	<b>DESCRIPTION</b>	<b>QTY</b>
18	167261ADT*01-018	bolt	12
19	167261ADT*01-019	flat washer	20
22	167261ADT*01-022	lock nut	12
41	167261ADT*01-041	bolt	4
42	167261ADT*01-042	small platform	1
43	167261ADT*01-043	fixed vice	1
44	167261ADT*01-044	moving vice	1
45	167261ADT*01-045	turning	1
46	167261ADT*01-046	front stop	1
47	167261ADT*01-047	nut	4