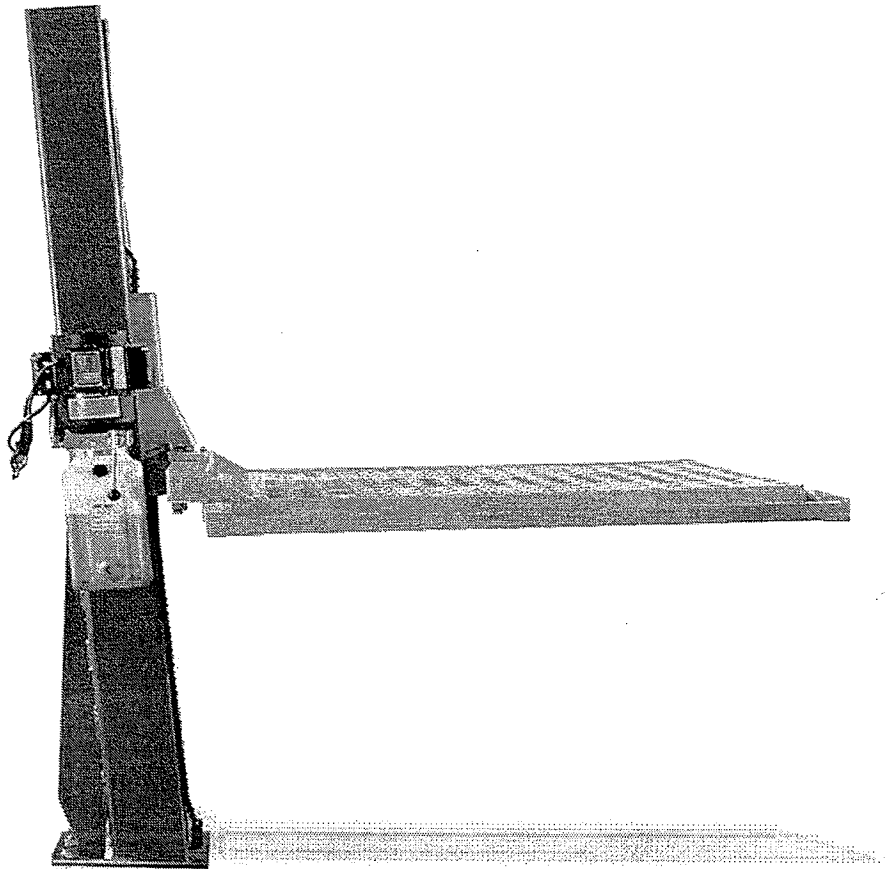


Lawn Mower Storage Lift

INSTALLATION MANUAL
&
OPERATING INSTRUCTIONS



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 lawn mower you intend to store. 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. Make sure to choose the side of your garage to install the lift in. Knowing where the lift will sit will help you to place the lift column, which is the first step in the assembly process, and will help to determine the location of the 110 volt receptacle that is required to operate this lift. The circuit requirement is 110 volt, single phase, 15 amp. Seek advice from a qualified electrician on receptacle and plug configurations, if necessary.

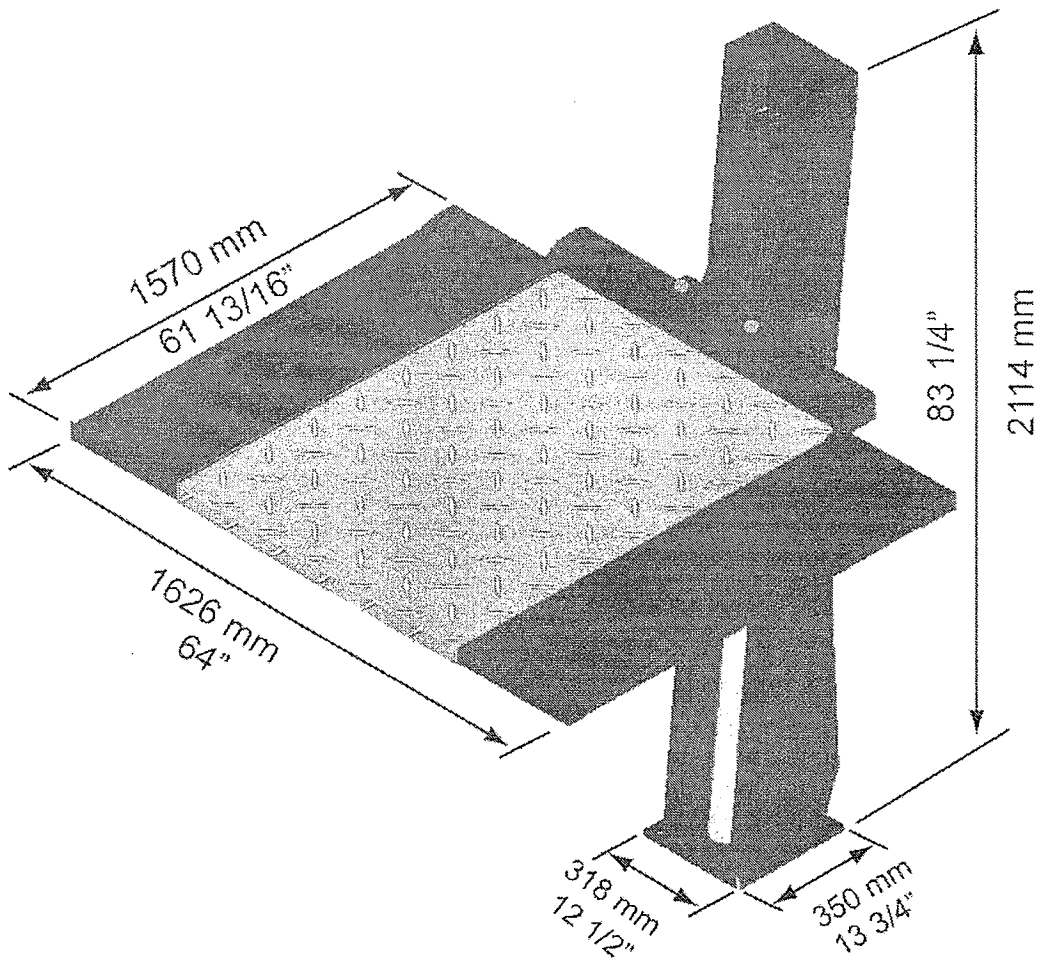


Fig. 1 Overall Lift Dimensions

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, 15Amp

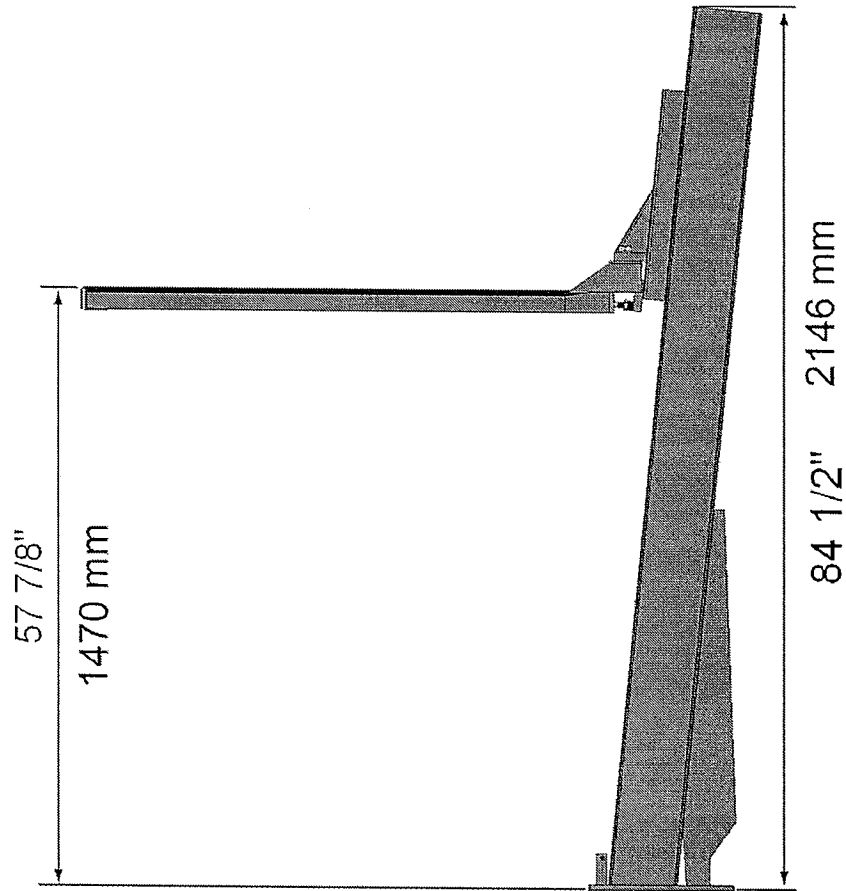


Fig.2 Height Dimensions

Make sure you have someone to help you. The pieces of this lift are large, heavy, and cumbersome. The lift column weighs about 332 pounds by itself. Lifting frame weighs a couple of hundred pounds also. It is possible for two people to install this lift if they have the appropriate lifting and handling equipment. As with any activities involving big heavy materials, safety must be uppermost in your mind. This lift is not difficult to install 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.

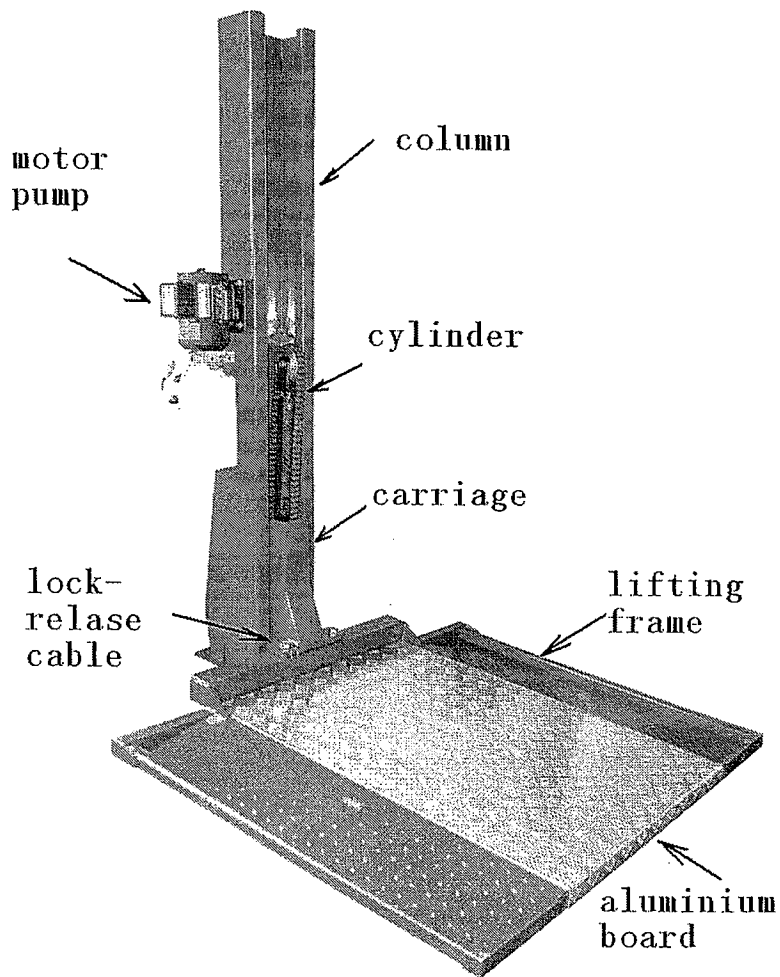


Fig. 3 Major Lift Components

Required Tools

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

Receiving and Handling

When you receive your lift, it will come two packages, and you may need a forklift to unload it.

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.

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.

The first step is to take off the board and bracket for shipping. There is one board bolted to the bottom of the column (Fig. 4,5,6) and another bracket bolted to the column.(Fig.7,8,9)

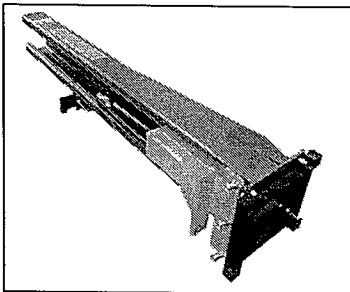


Fig.4

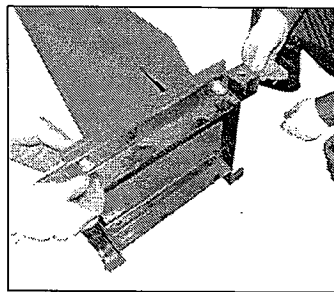


Fig.5

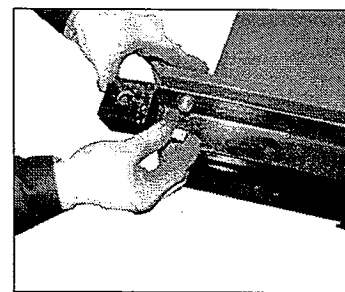


Fig. 6

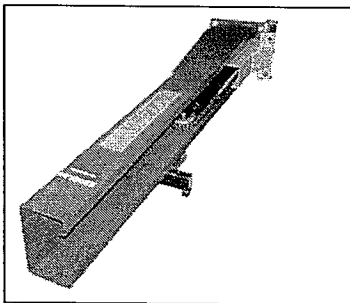


Fig.7

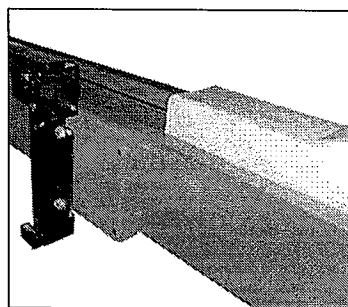


Fig. 8

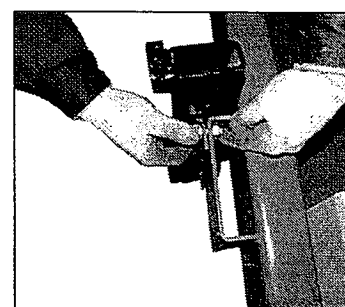


Fig.9

NOTICE:

If the end of the cylinder is not in the hole of the bottom plate, please put it into the hole before you lift the column upright. (Fig.10,11)

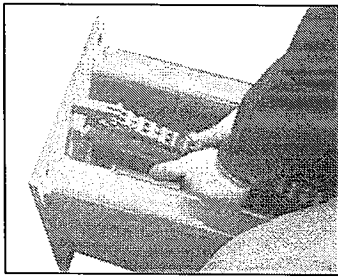


Fig.10

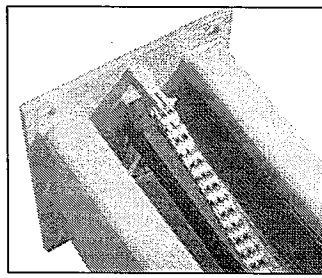


Fig. 11



Fig.12

Then slide the carriage to the bottom of the post by pulling the lock-release cable at the same time(Fig. 12, 13) . After that , up-right the column and move it to the position you choosed for it (Fig. 14, 15)

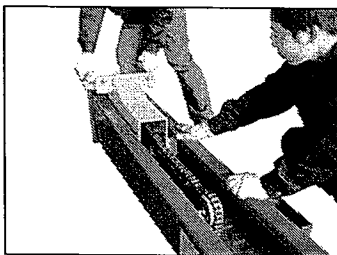


Fig.13

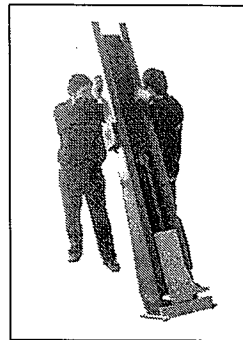


Fig. 14



Fig. 15

After you've lifted the column into position, you'll anchor it to the ground with anchor bolts. You'll need a hammer drill and a wrench to do this,

Before you drill the anchor holes, you shall mark them through the large holes in baseplate of the column (Fig. 16). Then move the column apart, use a hammer drill with a new $\frac{3}{4}$ " concrete bit to drill down into the garage floor (Fig.17, 18). The holes should be at least $5 \frac{1}{2}$ " deep, and it won't hurt if the holes go all the way through the floor. The anchor bolts are long enough to protrude into the extensions and accept the washers and nuts that secure them to the concrete. After that , move back the column to its position with holes lined, tap the anchor bolts through the big holes on the baseplate into the holes in the floor , with a "drift" or similar metal tool to set them, and when the nuts and washers go on the other end, they will draw up the anchors till they wedge in the holes and lock the whole assembly down. You'll need a $1 \frac{1}{8}$ " socket, ratchet (uses a $\frac{1}{2}$ " drive), socket extension and torque wrench to tighten the nuts to 90 foot-pounds.

Make any final position adjustments to the lift with the help of friends, and fasten the base plate to the floor with the provided anchor bolts, nuts and washers.(Fig. 19, 20,21)

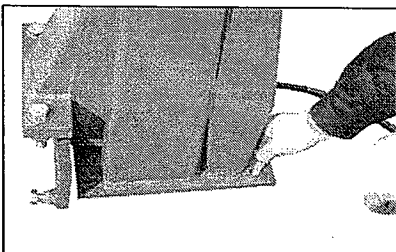


Fig. 16

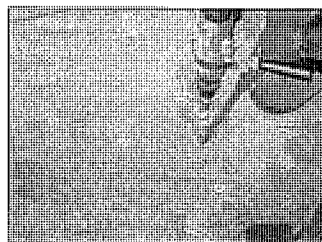


Fig. 17

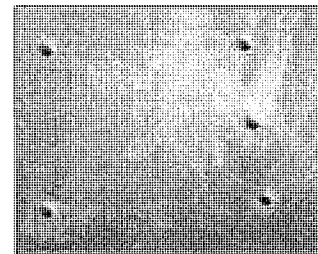


Fig. 18

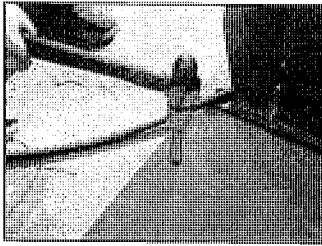


Fig. 19

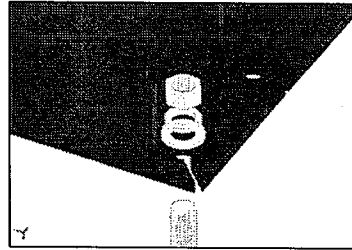


Fig. 20

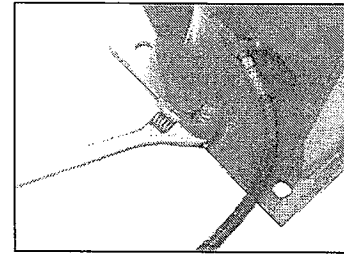


Fig. 21

The next task is to position the lift frame and bolt it to the carriage (at the bottom of the lift column) with two bolts supplied. Move the lifting frame to the carriage then bolt it to the carriage.(Fig. 22,23,24,25)

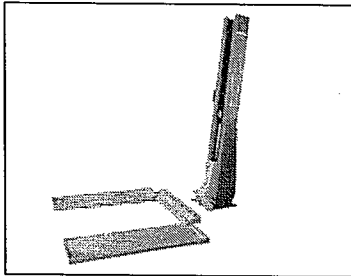


Fig. 22

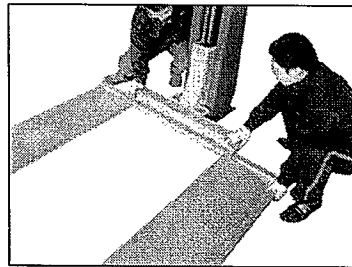


Fig. 23

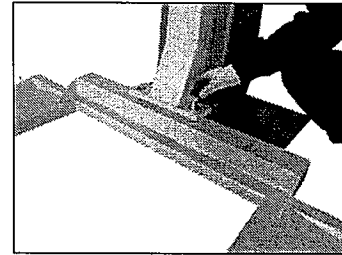


Fig. 24

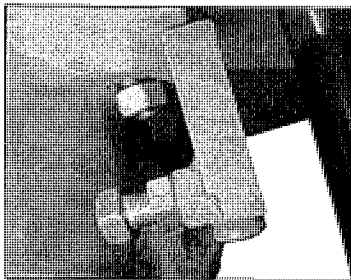


Fig. 25

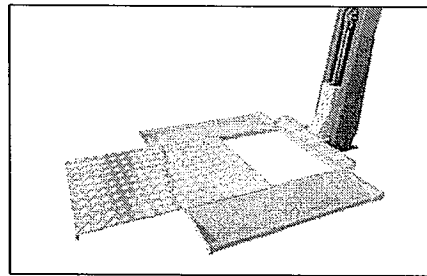


Fig. 26

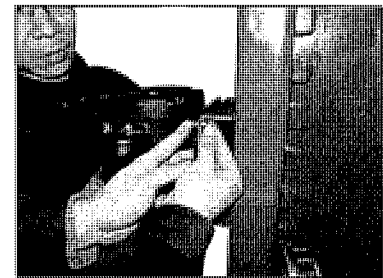


Fig. 27

Put the aluminium board on the frame.(Fig. 26)

Using the screws supplied to mount the motor pump on the side of the column(Fig. 27). Take off the red plug of the pump, screw in the elbow oil connector(Fig. 28,29). Then connect one end of the oil hose to the elbow connector.(Fig. 30,31) Connect another end to the cylinder on the column bottom at the back(Fig. 32,33). Make sure these fittings are tight.

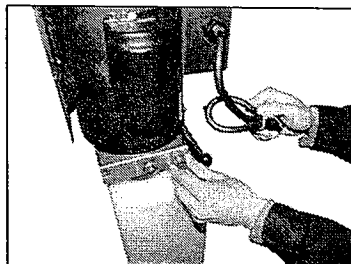


Fig. 28

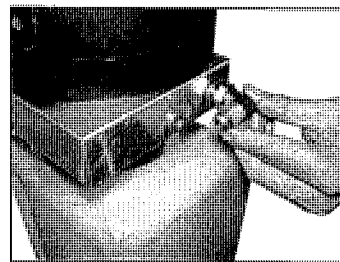


Fig. 29

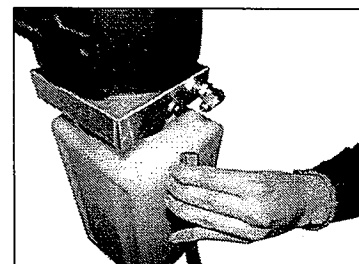


Fig. 30

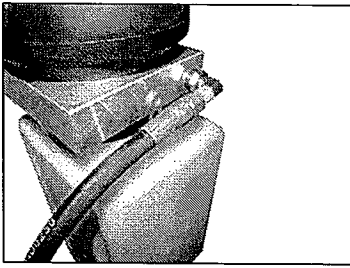


Fig. 31

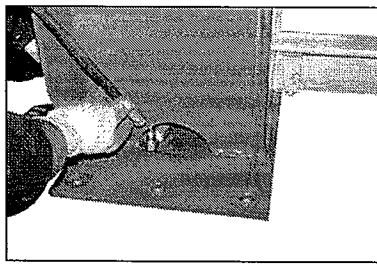


Fig. 32

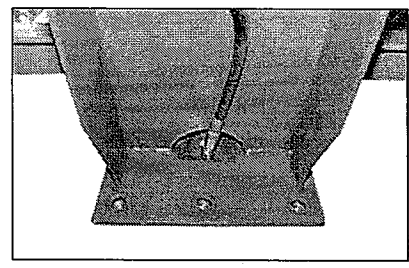


Fig. 33

Now you need to get the correct plug installed on the power cord. Your lift will come with a cord attached to the control unit, but because there are so many receptacle variations, you will need to install the proper plug on the end of the cord. If you are not sure which plug to use, consult your electrician

Remove the rubber cap from the top of the reservoir. Fill the reservoir with 32 AWS hydraulic oil to near the top in using a smaller container. This can be time consuming and messy. You will need about 5 gallons to fill the reservoir completely.

Recheck all bolts for tightness and the installation is complete. (Fig. 34)

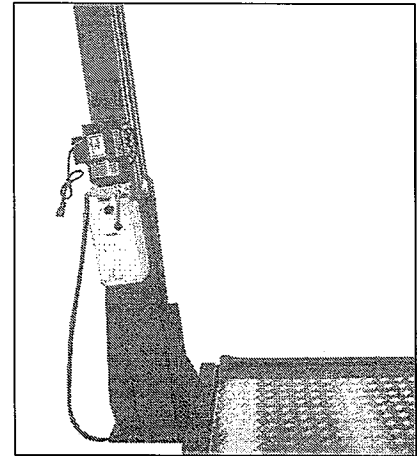


Fig. 34

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. 35) 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 the safety latch cable (Fig. 36). 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.

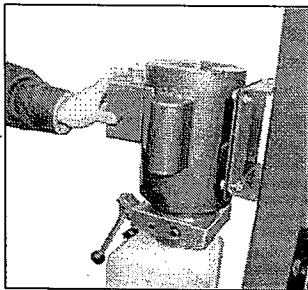


Fig. 35

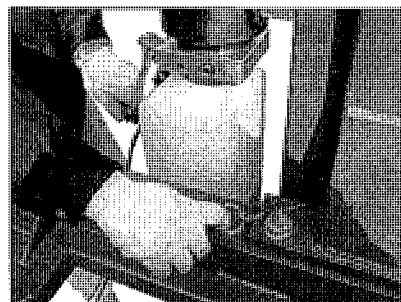


Fig. 36

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. 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.

RAISING A VEHICLE

Drive the lawn mower 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! 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 vehicle 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.

MISCELLANEOUS

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. 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.



Fig. 37

LAWN MOWER STORAGE LIFT 167261 PARTS DRAWING
Column and power unit

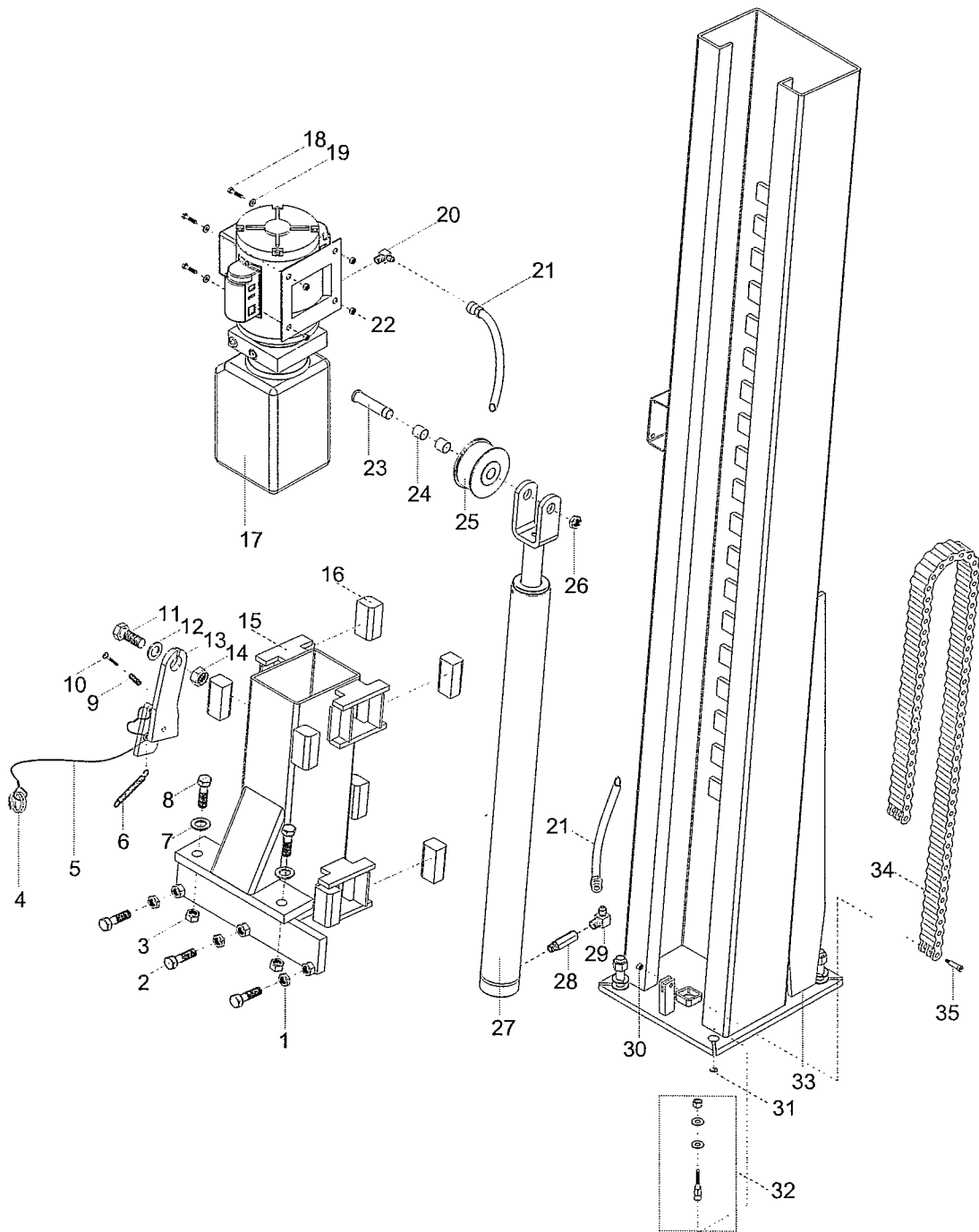


Fig. 1

Lifting frame and platform

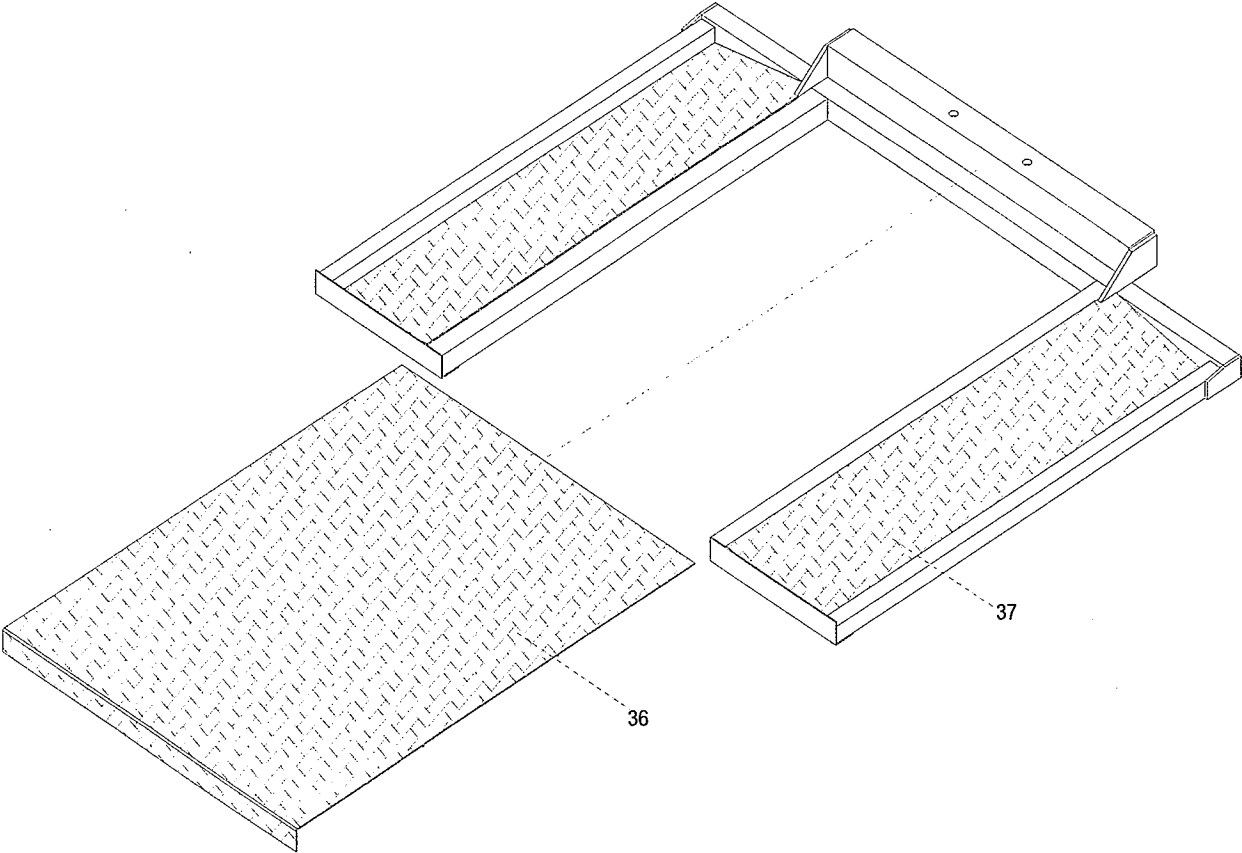


Fig. 2

PARTS CODE LIST

ITEM	CODE	DESCRIPTION	QTY
1	1672610001	Nut	3
2	1672610002	Bolt	3
3	1672610003	Nut	2
4	1672610004	Pull ring	1
5	1672610005	Lock-release cable	1
6	1672610006	Spring	1
7	1672610007	Washer	2
8	1672610008	Bolt	2
9	1672610009	Spring	1
10	1672610010	Screw	1
11	1672610011	Bolt	1
12	1672610012	Washer	1
13	1672610013	Safety latch	1
14	1672610014	Nut	1
15	1672610015	Carriage	1
16	1672610016	Rubber block	8
17	1672610017	Power unit	1
18	1672610018	Bolt	16
19	1672610019	Washer	20
20	1672610020	Elbow fitting	1
21	1672610021	Oil hose	1
22	1672610022	Nut	20
23	1672610023	Pin	1
24	1672610024	Bearing	2
25	1672610025	Chain sheave	1
26	1672610026	Nut	1
27	1672610027	Hydraulic cylinder	1
28	1672610028	Restrictor	1
29	1672610029	Elbow fitting	1
30	1672610030	Nut	2
31	1672610031	Adjust washer	5
32	1672610032	Anchor	5
33	1672610033	Column	1
34	1672610034	Chain	1
35	1672610035	Pin	2
36	1672610036	Platform	1
37	1672610037	Lifting frame	1