

MSC-6K

6000 lb Capacity Mobile Single Column Lift

INSTALLATION & OPERATION MANUAL



**6,000 LB.
MOBILE
SINGLE COLUMN LIFT**

MSC-6K
Mobile
Single column
lift

A 6,000 lb. capacity mobile single column style lift featuring fully adjustable arms, a thick 13" x 10" column, 846 leaf chain, a 3" x 36" cylinder and a full 72" lifting height.



Features:

- ◆ Mobile lift uses "pallet jack" style hydraulics to raise lift onto wheels
- ◆ Rolls right under vehicle or use the unique drive over design to easily position lifting points
- ◆ Thick 13" x 10" column
- ◆ Chain over design uses a 3"x 36" cylinder and 846 leaf chain
- ◆ Single point lock release
- ◆ Powder coat paint finish

SPECIFICATIONS

	MSC-6K
Capacity	6,000 lbs.
Width overall	59"
Height overall	102"
Lifting height	72"
Lowered height	3 ½"
Distance between lifting pads, column side to offside	60" max. - 54" min.
Distance between lifting pads, offside	81" max. - 54" min.
Power unit	110 vac

TUXEDO DISTRIBUTORS LIMITED WARRANTY

Structural Warranty:

The following parts and structural components carry a five year warranty:

Columns	Top Rail Beam	Uprights	Arms Swivel Pins
Legs	Carriages	Tracks Overhead Beam	Cross Rails

Limited One-Year Warranty:

Tuxedo Distributors, LLC ("Tuxedo") offers a limited one-year warranty to the original purchaser of Tuxedo lifts and Wheel Service in the United States and Canada. Tuxedo will replace, without charge, any part found defective in materials or workmanship under normal use, for a period of one year after purchase. The purchaser is responsible for all shipping charges. This warranty does not apply to equipment that has been improperly installed or altered or that has not been operated or maintained according to specifications.

Other Limitations:

This warranty does not cover:

1. Parts needed for normal maintenance
2. Wear parts, including but not limited to cables, slider blocks, chains, rubber pads and pulleys
3. Replacement of lift and tire changer cylinders after the first 30 days. A seal kit and installation instructions will be sent for repairs thereafter.
4. On-site labor

Upon receipt, the customer must visually inspect the equipment for any potential freight damage before signing clear on the shipping receipt. Freight damage is not considered a warranty issue and therefore must be noted for any potential recovery with the shipping company.

The customer is required to notify Tuxedo of any missing parts within 72 hours. Timely notification must be received to be covered under warranty.

Tuxedo will replace any defective part under warranty at no charge as soon as such parts become available from the manufacturer. No guarantee is given as to the immediate availability of replacement parts.

Tuxedo reserves the right to make improvements and/or design changes to its lifts without any obligation to previously sold, assembled or fabricated equipment.

There is no other express warranty on the Tuxedo lifts and this warranty is exclusive of and in lieu of all other warranties, expressed or implied, including all warranties of merchantability and fitness for a particular purpose.

To the fullest extent allowed by law, Tuxedo shall not be liable for loss of use, cost of cover, lost profits, inconvenience, lost time, commercial loss or other incidental or consequential damages.

This Limited Warranty is granted to the original purchaser only and is not transferable or assignable.

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

Make sure you have someone to help you. The pieces to this lift are big, heavy, and cumbersome. The lift column weighs about 320 pounds by itself. Base plate and arms all weigh a couple of hundred pounds apiece. It is possible for 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. As with any activities involving big heavy materials, safety must be uppermost in your mind. This lift is 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 shop and residential garage use. With proper preparation and installation, you will be very pleased with this lift.

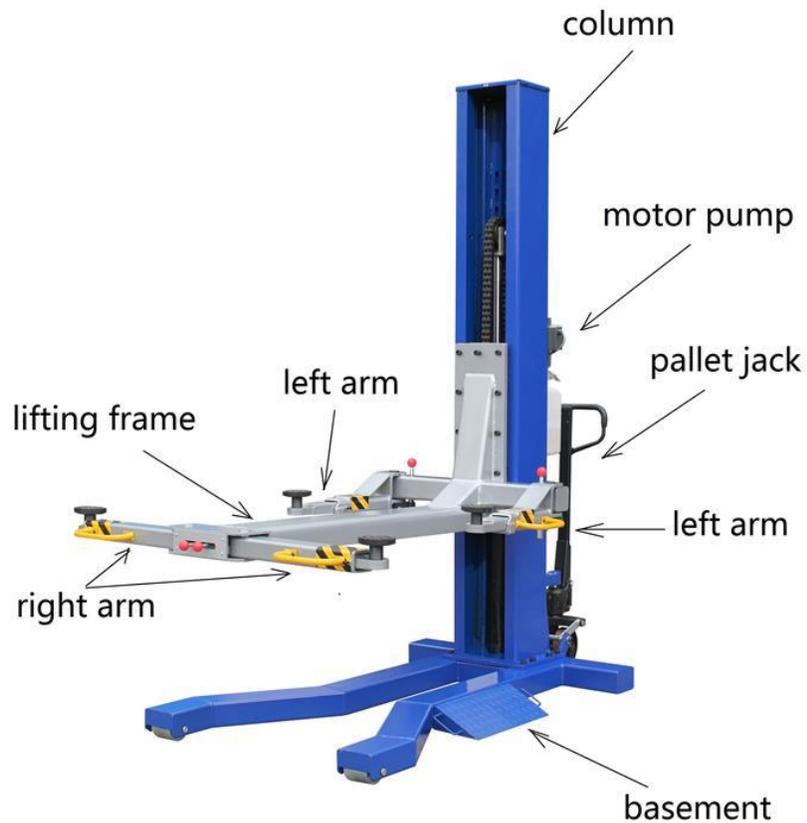


Fig.2

Required Tools

1. Fork lift to unload lift on delivery
2. Fork lift and/or engine hoist for moving pieces and positioning lift column. 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. Pliers
10. Flat blade screwdriver

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.

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.

STEP 1

The first step is to take off the board and bracket for shipping. Please take out every piece. Put the base plate on the ground. (Fig. 3)

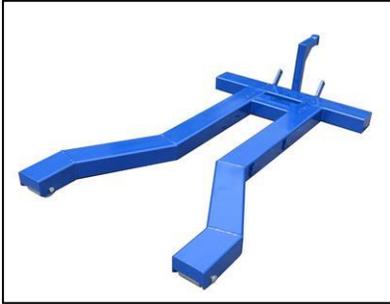


Fig. 3

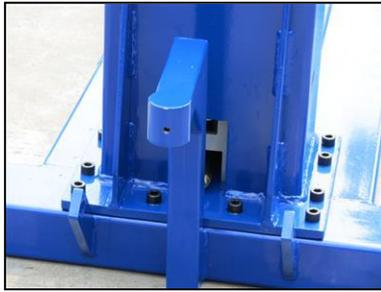


Fig. 5



Fig. 4

STEP 2

Upright the column and then fix it on the base plate with bolts (Fig.4 & 5)

STEP3

Put the lifting frame in front of the base plate. Then fix the frame on the carriage with bolts. (Fig. 6 & 7)



Fig. 6



Fig. 7



Fig. 8

STEP4

Mount the hydraulic motor pump on the column with bolts and nuts. (Fig. 8)

Connect the hose fitting and the hose from pump to cylinder. (Fig. 9—14)

There is an O-ring between the hose and the connector of the cylinder. (Fig. 12)

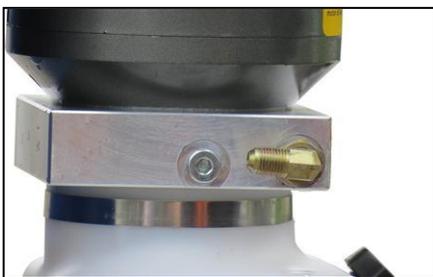


Fig. 9



Fig. 10



Fig.11

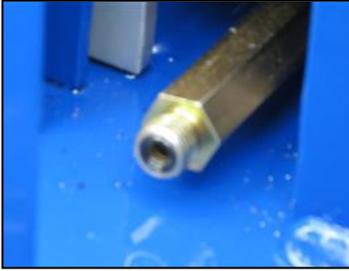


Fig.12 (O-ring)



Fig. 13



Fig. 14

STEP5

Take out the lock pin on the pallet jack (Fig. 15). Put the steel ball on the top of the jack ram (Fig.16)



Fig. 15



Fig. 16

Insert the ram into the hole of the base plate (Fig. 17). Lock the ram by threaded pin (Fig.18). Adjust the length of the ram (Fig. 19 & 20).



Fig. 17



Fig. 18



Fig.19



Fig. 20



Fig. 21



Fig. 22

Put the slot of the bearing into the bracket (Fig. 21) then lock it by bolt (Fig. 22 & 23). Then the base plate with pallet jack is ready



Fig. 23



Fig. 24

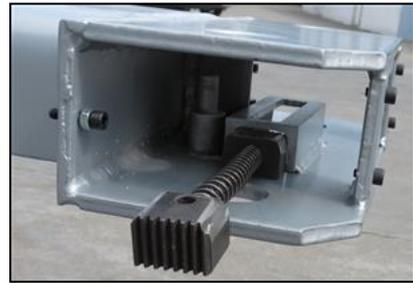


Fig. 25

STEP 6

Gather the right arm lock parts (Fig. 24). Assemble them in the frame end. (Fig. 25-28)

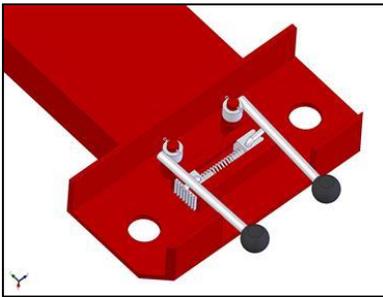


Fig. 26



Fig.27



Fig. 28

STEP 7

Assemble the right arms to the frame. (Fig 29—30)



Fig. 29



Fig. 30

STEP 8

Assemble the left arm locks and arms to the frame. (Fig 31—33)



Fig. 31



Fig. 32



Fig. 33

STEP 9

Now you need to get the correct connection for the cable from motor to power supply. Your lift comes with a cord attached to the motor pump. Because it is short, you may need a long extension cord. But because there are so many receptacle variations, you will need to install the proper plug on the end of the cord to fit the power port. 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.

Now the lift is ready for operation.

OPERATING INSTRUCTIONS

The lift is very simple to operate. Push the power switch button on the motor pump and hold while it turns the electric motor on. 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 lift 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 be safe, it is required to release the hydraulic pressure inside the cylinder. To do this, just press down on the release handle on the motor pump. Then the lifting frame and carriage will sit on the safety lock inside the column.

To lower the lift, depress the power switch button to raise the lift approximately 2". Then pull the safety lock release cable to open the safety latch (Fig. 34). After that press down the release handle and hold. The weight of the vehicle will cause the lift to lower by gravity. No power is required to apply to the motor pump in lowering, but the safety latch must be disengaged to allow the lift to lower past the stops.



Fig. 34

After the installation is complete, raise the lift about two feet high and then lower it down. 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 vehicle onto the ramps until it is centered. Set the parking brake. Adjust the arms under the support position of the vehicle frame. Depress the “up” button to raise the vehicle a little. Check all the arms to make sure everything is making proper contact. Then lift up the vehicle to desired height.

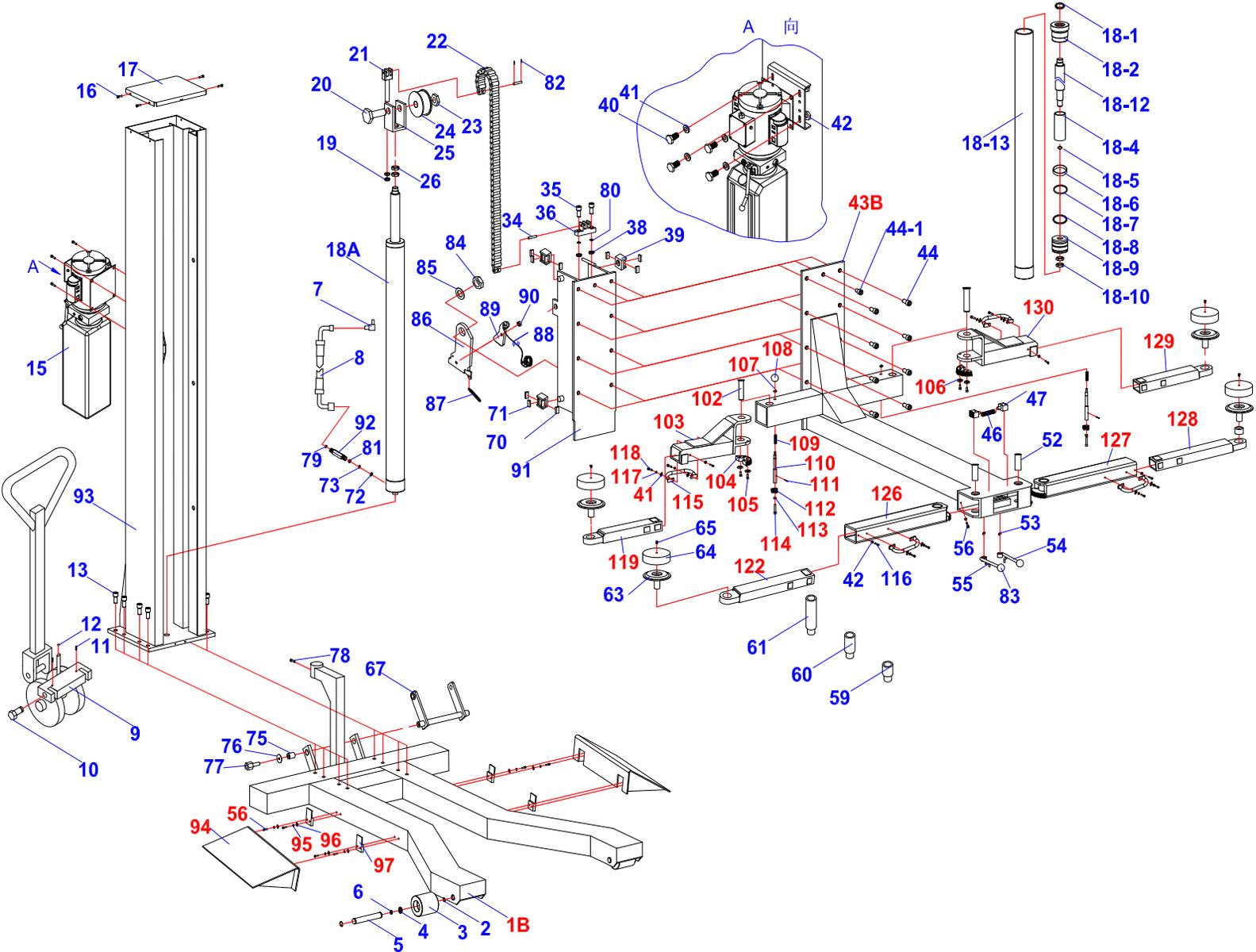
BE CAREFUL NOT TO RAISE THE VEHICLE SO HIGH THAT IT STRIKES THE CEILING! MAKE SURE ANTENNAS ARE REMOVED, IF NECESSARY, AND BE AWARE OF ANYTHING THAT PROTRUDES FROM THE CEILING, LIKE LIGHTBULBS, GARAGE DOOR OPENERS OR DOOR TRACKS.

MISCELLANEOUS

The hydraulic oil should be replaced every two years, and the inside corners of the lift arms should be re-greased with a general-purpose axle grease every year, or as needed.

MSC-6K Parts List

KERNEL EDITION 1.1



Spare Parts List

ITEM	CODE	DESCRIPTION	QTY
1B	167251A*01-001B	Base plate	1
2	167251A*01-002	Elastic washer	4
3	167251A*01-003	Pulley	2
4	167251A*01-004	Bearing	4
5	167251A*01-005	Spindle	2
6	167251A*01-006	Bushing	4
7	167251A*01-007	Direct fitting	1
8	167251A*01-008	Hose	1
9	167251A*01-009	Dolly	1
10	167251A*01-010	Pin	2
11	167251A*01-011	Elastic pin	2
12	167251A*01-012	Ball bearing	1
13	167251A*01-013	Bolt	8
15	167251A*01-015	Power Unit	1
16	167251A*01-016	Bolt	4
17	167251A*01-017	Cover	1
18A	167251A*01-018A	Hydraulic cylinder ass'y	1
18-1	167251A*01-018-1	Dust ring	1
18-2	167251A*01-018-2	Guide ring	1

ITEM	CODE	DESCRIPTION	QTY
18-4	167251A*01-018-4	Sheath	1
18-5	167251A*01-018-5	O ring	1
18-6	167251A*01-018-6	Guide ring	1
18-7	167251A*01-018-7	O ring	1
18-8	167251A*01-018-8	U ring	1
18-9	167251A*01-018-9	Piston	1
18-10	167251A*01-018-10	Nut	2
18-12	167251A*01-018-12	Piston rod	1
18-13	167251A*01-018-13	Cylinder	1
19	167251A*01-019	Nut	2
20	167251A*01-020	Spindle	1
21	167251A*01-021	Position bar	1
22	167251A*01-022	Chain ass'y	1
23	167251A*01-023	Nut	1
24	167251A*01-024	Wheel	1
25	167251A*01-025	Wheel basement	1
26	167251A*01-026	Nut	2
34	167251A*01-034	Chain spindle	2
35	167251A*01-035	Bolt	2

ITEM	CODE	DESCRIPTION	QTY
36	167251A*01-036	Position bar	1
38	167251A*01-038	Nut	2
39	167251A*01-039	robber support	4
40	167251A*01-040	Bolt	4
41	167251A*01-041	Flat washer	24
42	167251A*01-042	Nut	8
43B	167251A*01-043B	Hoist ass'y	1
44	167251A*01-044	Bolt	8
44-1	167251A*01-044-1	Bolt	1
46	167251A*01-046	Spring	1
47	167251A*01-047	Cog-wheel	2
52	167251A*01-052	Pin	2
53	167251A*01-053	Circlips	2
54	167251A*01-054	Handle(Right)	1
55	167251A*01-055	Handle	1
56	167251A*01-056	Bolt	10
59	167251A*01-059	height adaptor(1)	4
60	167251A*01-060	height adaptor(2)	4
61	167251A*01-061	height adaptor(3)	4

* Easily Worn Parts



Spare Parts List

ITEM	CODE	DESCRIPTION	QTY
63	167251A*01-063	lifting pad	4
64	167251A*01-064	Rubber washer	4
65	167251A*01-065	Screw	4
67	167251A*01-067	Support	1
70	167251A*01-070	Slide Block	8
71	167251A*01-071	Slide Block	4
72	167251A*01-072	Elastic washer	1
73	167251A*01-073	Washer	1
75	167251A*01-075	Bushing	2
76	167251A*01-076	Flat washer	2
77	167251A*01-077	Bolt	2
78	167251A*01-078	Bolt	1
79	167251A*01-079	O ring	1
80	167251A*01-080	spring washer	2
81	167251A*01-081	copper washer	1
82	167251A*01-082	split pin	4
83	167251A*01-083	ball	2
84	167251A*01-084	selflock nut	1
85	167251A*01-085	flat washer	1

ITEM	CODE	DESCRIPTION	QTY
86	167251A*01-086	locking board	1
87	167251A*01-087	spring	1
88	167251A*01-088	return spring	1
89	167251A*01-089	lock tune	1
90	167251A*01-090	thin nut	1
91	167251A*01-091	Sliding support	1
92	167251A*01-092	Connection hose	1
93	167251A*01-093	Column	1
94	167251A*01-094	ramp	2
95	167251A*01-095	spring washer	8
96	167251A*01-096	flat washer	8
97	167251A*01-097	fixing hook	4
102	167251A*01-102	shaft	2
103	167251A*01-103	left-front arm	1
104	167251A*01-104	big cone gear	2
105	167251A*01-105	nut	4
106	167251A*01-106	flat washer	4
107	167251A*01-107	Circlips	2
108	167251A*01-108	hand ball	2

ITEM	CODE	DESCRIPTION	QTY
109	167251A*01-109	spring	2
110	167251A*01-110	gear shaft	2
111	167251A*01-111	cottor	2
112	167251A*01-112	small cone gear	2
113	167251A*01-113	nut	2
114	167251A*01-114	socket screw	2
115	167251A*01-115	bar	4
116	167251A*01-116	socket screw	8
117	167251A*01-117	spring wahser	16
118	167251A*01-118	socket screw	8
119	167251A*01-119	left-front extention	1
122	167251A*01-121	left-rear extention	1
126	167251A*01-125	left-rear arm	1
127	167251A*01-126	right-rear arm	1
128	167251A*01-127	right -rear extention	1
129	167251A*01-128	right-front extention	1
130	167251A*01-129	right-front arm	1

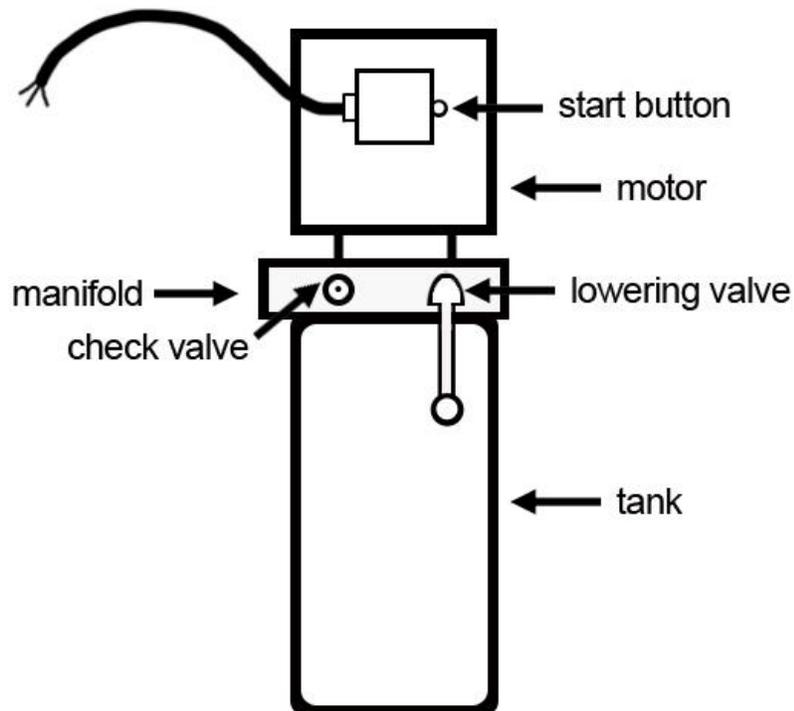
* Easily Worn Parts

IMPORTANT

POWER UNIT PRIMING PROCEDURE

THE PROBLEM: Power unit runs fine but will not pump any fluid.

Step 1 – Locate the check valve, the flush plug to the left of the lowering valve.
(See drawing below.)



Step 2 – Using an Allen wrench and shop towel – with shop towel in place to catch fluid – loosen the check valve plug $2\frac{1}{2}$ turns to allow it to leak.

Step 3 – Push the START button for one second, then release for three seconds.
Repeat these steps until unit starts pumping fluid.

Step 4 – Tighten the check valve plug.

YOUR POWER UNIT SHOULD BE PRIMED