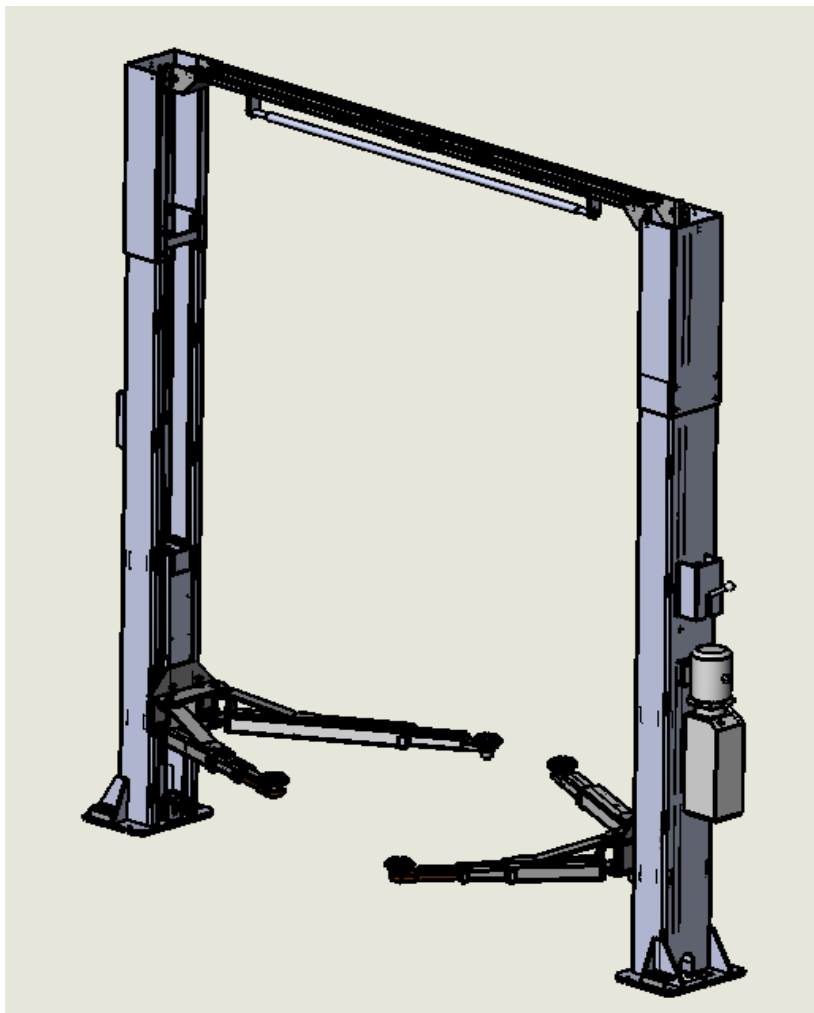


**9,000 POUND
TWO-COLUMN AUTOMOTIVE LIFT**

Model: NW-2-9KACD

MANUAL



9,000 POUND CAPACITY MODEL: NW-2-9KACD TWO-COLUMN AUTOMOTIVE LIFT

READ THIS ENTIRE MANUAL BEFORE OPERATION BEGINS

RECORD BELOW THE FOLLOWING INFORMATION WHICH IS LOCATED ON THE SERIAL NUMBER DATA PLATE

Serial No. _____
Model No. _____
Date of Install _____

RECORD BELOW THE FOLLOWING CUSTOMER INFORMATION

Company Name _____
Contact Person* _____
Street Address _____
City _____
State _____
Phone _____
Fax _____
Email * _____

*Optional Fields

NOTE: To validate warranty, this information must be copied and either faxed or mailed to:

**Nationwide
42660 Rio Nedo
Temecula, CA 92590**

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WARRANTY

The structural components on your new automotive lift are under warranty for five years on equipment. Operating components are under warranty for one year to the original purchaser, to be free of defects in material and workmanship.

The manufacturer shall repair or replace, at their option for this period, those parts returned to the factory freight prepaid which prove after inspection to be defective.

This warranty only applies to the original purchaser of the equipment. This warranty does not extend to defects caused by ordinary wear, abuse, misuse, shipping damage, or damage as the result of improper maintenance.

This warranty is exclusive and in lieu of all other warranties expressed or implied.

In no event shall the manufacturer be liable for special, consequential or incidental damages for the breach or delay in performance of the warranty.

The manufacturer reserves the right to make design changes or add improvements to its product line without incurring any obligation to make such changes on product sold previously.

This warranty shall be governed under the laws of the state of California and shall be subject to the exclusive jurisdiction of the Court in the state of California in the county of Riverside.

NW-2-9KACD Definition

This lift is a 9,000 lb. capacity, two-column lift. The safety system in this lift is attached to the back of the carriage to provide a single point release which saves time when operating.

NW-2-9KACD Important Notes

Please read the Safety Procedures and operation instructions in this manual before operating the lift. Proper installation is very important. To minimize the chance of making an error in installation, please read this manual through carefully before beginning installation. Check with building owner and/or architect's building plans when applicable. The lift should be located on a relatively level floor with 4" thick, 3000 psi sufficiently cured concrete.

This is a vehicle lift installation / operation manual and no attempt is made or implied herein to instruct the user in lifting methods particular to an individual application. Rather, the contents of this manual are intended as a basis for operation and maintenance of the unit as it stands alone or as it is intended and anticipated to be used in conjunction with other equipment.

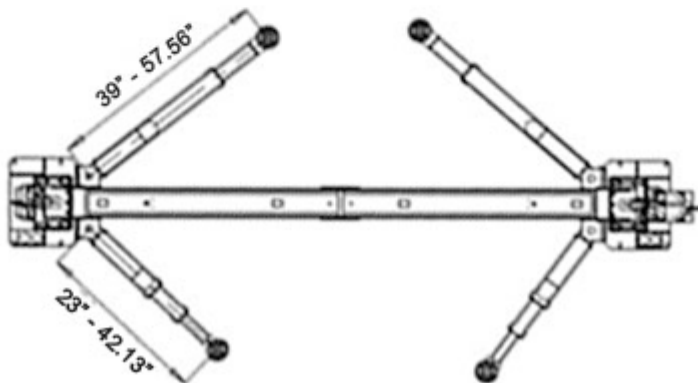
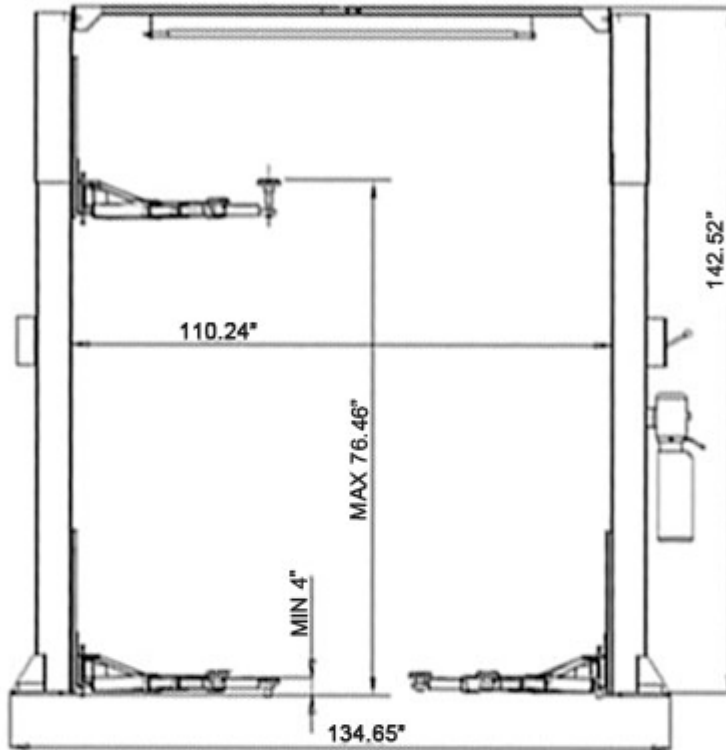
Proper application of the equipment described herein is limited to the parameters detailed in the specifications and the uses set forth in the descriptive passages. Any other proposed application of this equipment should be documented and submitted in writing to the factory for examination. The user assumes full responsibility for any equipment damage or personal injury that occurs as the result of alteration of the equipment described in this manual or any subsequent damages.

NW-2-9KACD BASIC SPECIFICATIONS

Capacity	9,000 lbs.
Lifting Time	50 Seconds
Overall Height	142-1/2"
Overall Width w/ hydraulic power-unit	140"
Between Columns	110-1/4"
Drive Through	98"
Height Shut-Off	134-1/2"

NW-2-9KACD 9000lb TWO POST LIFT

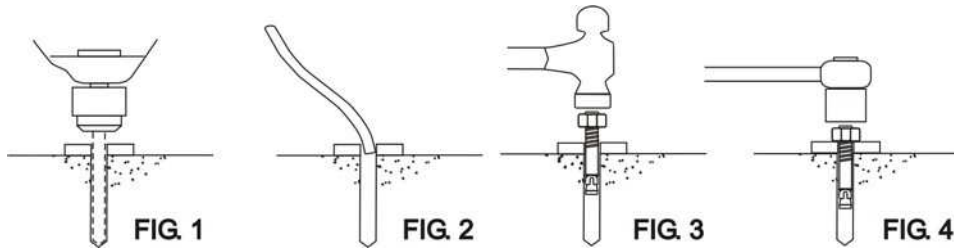
Set-up Dimensions



IMPORTANT FOUNDATION AND ANCHORING INFORMATION

- 1. Concrete shall have compression strength of at least 3,000 PSI and a minimum thickness of 4" (with steel reinforcement) in order to achieve a minimum anchor embedment of 3 ¼". When using the standard supplied ¾" x 5 ½" long anchors; if the top of the anchor exceeds 2 ¼" above the floor grade, you DO NOT have enough embedment.**
- 2. Use the existing holes in column base plate as a guide for drilling the ¾" diameter holes into the concrete. Maintain a 6" minimum distance from any slab edge or seam. Hole to hole spacing should be a minimum 6 ½" in any direction. Concrete thickness or hole depth should be a minimum of 4".**
- 3. CAUTION: DO NOT install on asphalt or another similar unstable surface. Columns are supported only by anchoring in floor.**
- 4. Using the horseshoe shims provided, shim each column base as required until each column is plumb. If one column has to be elevated to match the plane of the other column, full size base shim plates should be used (Reference Shim Kit). Torque anchors to 120 ft-lbs. Shim thickness MUST NOT exceed ½" when using the 5 ½" long anchors provided with the lift. Adjust the column extensions plumb.**
- 5. If anchors do not tighten to 120 ft-lbs. Installation torque, replace the concrete under each column base with a 4' x 4' x 12" thick 3,000 PSI (with STEEL reinforcement) minimum concrete pad keyed under and flush with the top of existing floor. Allow concrete cure before installing lifts and anchors.**

ANCHORING TIP SHEET



1. Anchors must be at least 6" from the edge of the slab or any seam.
2. Use a concrete hammer drill with a carbide tip, solid drill bit the same diameter as the anchor, 3/4". (.775 to .787 inches diameter). Do not use excessively worn bits.
3. Keep the drill in a perpendicular line while drilling.
4. Let the drill do the work. Do not apply excessive pressure. Lift the drill up and down occasionally to remove residue to reduce binding.
5. Drill the hole to depth greater than the length of anchor.
6. For better holding power blow dust from the hole.
7. Place a flat washer and hex nut over threaded end of anchor, leaving approximately 2 threads exposed carefully tap anchor. Do not damage threads. Tap anchor into the concrete until nut and flat washer are against base plate. Do not use an impact wrench to tighten. Tighten the nut, two or three turns on average concrete (28-day cure). If the concrete is very hard only one or two turns may be required. Check each anchor bolt with torque wrench set to 120-foot pounds.

PREPARATION

The installation of this lift is relatively simple and can be accomplished by two men in a few hours. The following tools and equipment are needed:

- Appropriate lifting equipment
- AW 32, 46 or other good grade Non-Detergent Hydraulic Oil SAE-10 (20 quarts)
- Chalk line and 12' Tape Measure
- Rotary hammer drill with 3/4" drill bit. Core drill rebar cutter recommended
- Transit and a 4' Level
- Sockets and Open Wrench set, 1/2" thru 1-1/2" (1-1/8" for 3/4" Anchors) Locking Pliers, 8mm Socket Head Wrench

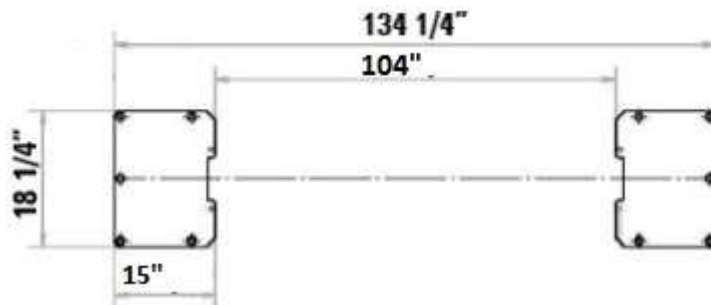
GENERAL INFORMATION

1. Any freight damage must be noted on the freight bill before signing and reported to the freight carrier with a freight claim established. Identify the components and check for shortages. If shortages are discovered, contact Best Buy Auto Equipment, Inc. immediately.
2. Consult building owner and / or architect's plans when applicable to establish the best lift location. The lift should be located on a relatively level floor with 4" minimum thickness, 3000 psi concrete slab that has been properly cured. **There can be no cracks in the slab within 36" of the base plate location, and no seams in the foundation within 6" of its location!** Remember: any structure is only as strong as the foundation on which it is located!

Check for ceiling clearance first to see how high the lift can be set up in your bay.

Bay layout:

Determine where you want to install the lift & which side will become the power side. (typically, the power-side is the passenger side of the lift) using a chalk line make a reference line on the floor for either the front or back of the columns.



STEP 1: After unloading the lift, place it near the intended installation location.

STEP 2: Remove the shipping bands and packing materials from the lift. The power unit will be strapped on top of the lift.

STEP 3: Unwrap both columns and carefully remove the parts from inside. Unbolt the column from the shipping brackets. Be sure to support the upper column. Slide the column extensions off of the columns, turn them around, and assemble it to the column using the ten bolts, nuts and washers. Attach lock release pulley brackets and hose support brackets as shown in Fig #1

STEP 4: Install the long hose in the column which does not have the power-unit bracket. You may need to slide the carriage up or down to allow better access. Route it through the hose guide channels and connect it to the fitting which is pre-installed on the hydraulic cylinder. Be sure to not over tighten it. Coil the excess hose into the top of the post.

NOTE do not use Teflon Tape on the hydraulic fittings

Install the short hose in the post which has the power-unit bracket and connect it to the fitting on the hydraulic cylinder.

Make sure both cylinders are seated in the locating holes in the bottom of each post. Slide the carriages to the bottom of the post before up righting them.

STEP 5: Assemble the overhead beam assembly. This cross beam has two pieces, to be connected by six (5) bolts in the center of the beam. Be sure to bolt them together by installing the bolts from inside the cross beam out. This is to avoid interference with the cable when operating the lift (Fig #1). Install the overhead limit switch bracket as well as the padded bar with support bracket to the underside of the beam (Fig #2).

STEP 6: Upright the columns. Position the columns facing each other 134 1/4" outside base plate to base plate. Use the chalk line to keep the columns in line with each other This is ONLY for the purpose of bay layout and overhead beam installation.

STEP 7: Install the overhead cross beam and tighten mounting bolts. Route cables, Hydraulic hose, and limit switch cable.

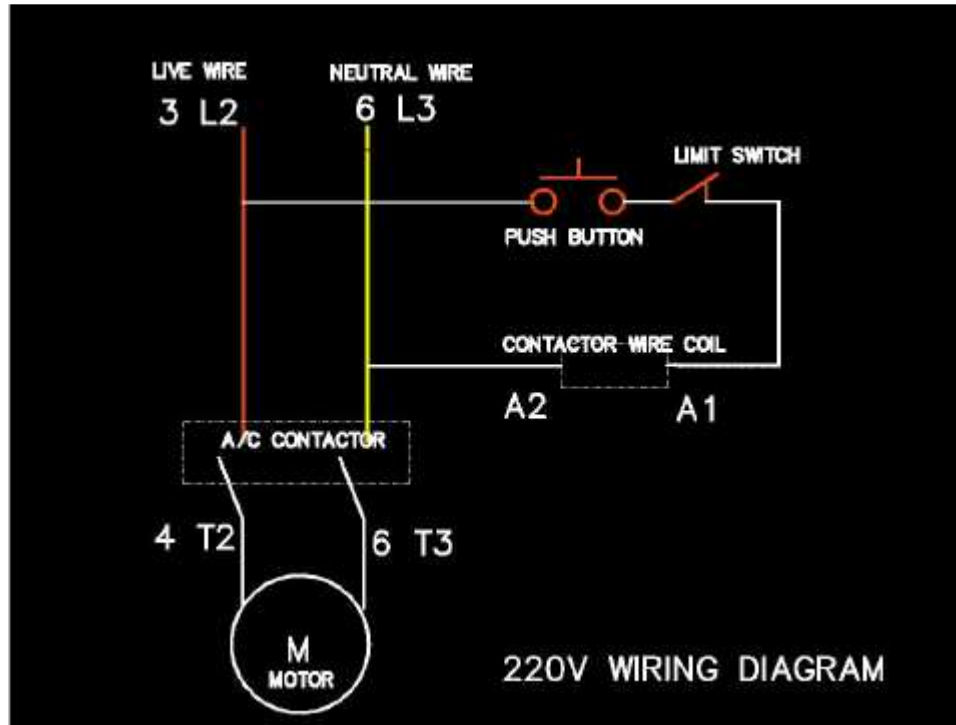
STEP 8: Using a 3/4" diameter concrete drill, drill the anchor holes in the main side column installing anchors as you go. Use a block of wood or rubber mallet to drive anchor bolts in. Drilling through concrete (recommended) will allow the anchor to be driven through the bottom if the threads are damaged.

- STEP 9:** Using a level, check column for side-to-side plumb and front-to-back plumb. If needed, use horseshoe shims provided by placing shims underneath the base plate and around the anchor bolt. This will prevent bending the column bottom plates (Shim thickness should not exceed 1/2"). Tighten 3/4" anchor bolts to 120 ft-lbs. of torque.
- STEP 10:** Using a level on the inside face of the offside column, move the base in or out keeping it on the chalk line until the column is level. Once the column is level checking it left to right ONLY anchor it to the floor. Once anchored to the floor, check the front to back level use the horseshoe shims as needed to achieve level. Tighten the anchors.
- STEP 11:** Connect the long and short hydraulic hose with the T fitting. The remaining port on the T fitting is installed through the column held tight by a nut on the outside (Fig #5).
- STEP 12:** Route the limit switch cable with the hose and out through the access port located next to the locking mechanism.
- STEP 13:** Install the safety latch on both side columns as shown on Fig. 3. Lift the carriages to the first locking position. Rest them on this position. Connect the equalizing cables (Fig #4) as shown in Fig #8. **Do not tighten** at this stage of assembly.
- STEP 14:** Connect the safety release cable (Fig #3 & #4) between two latches. Confirm the tension of the cable is tight. Pull the single point release handle several times and check the tension again by making sure both latches release at the same time when the handle is pulled.

NOTE!!!

The cable stud which connects to the front right corner of the carriage should be connected first by pulling the stud through the carriage hole and up where it is easy to be held by locking pliers. (Figure #4B) Pull the stud back into place after threading at least 1/2" of the stud past the locknut. Connect the other ends to the center of the carriage with at least 1/4" of thread showing past the lock nut (cables run on the inside of the carriage). Make sure the carriage is set in the LOCK position.

- STEP 15:** Install all four swing arms. Readjust the arm locks already preinstalled to make sure the gear rack is engaging the moon gear on the arm properly.
- STEP:16** Adjust the carriage cable tension. This is accomplished by tightening the carriage adjustment nut on top of each carriage. The left post carriage nut adjusts the right column carriage and the right column carriage nut adjusts the left column carriage. Adjust each cable to approximately 1/2" side-to-side play. Check the latch releases to ensure the carriage is still engaged in the appropriate latch.
- STEP 17:** Mount the power unit on the main side leg to the power unit bracket using the four 5/16" bolts and nuts. Connect the power unit to the fitting installed on the back of the main leg by using a short hose supplied (Fig #5).
- STEP 18:** Remove the vent plug from the power unit and fill the reservoir. Use a ten weight (SAE-10) non-foaming, non-detergent hydraulic fluid (Texaco HD46 or equal). The unit will hold approximately 20 quarts of fluid (5 Gallons).
- STEP 19:** Connect the limit switch to the motor contactor. Replace the wire connecting the push button switch to the terminal A1 with the Blue & Brown wires supplied for the limit switch. Ground the green/yellow wire to the motor. Once the lift is connected to electrical be sure to check the limit switch. When the padded bar (Fig #2) is lifted it should shut the power-unit off.
- STEP 20:** Make the electrical hookup to the power unit; 220V Single Phase. It is recommended a 220 Volt, 30 Amp twist lock plug be installed in the power line just ahead of the power unit. Use wire capable of supporting a 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 amp.

STEP 21: BLEEDING THE HYDRAULIC SYSTEM

To bleed the hydraulic system: run the pump to fill the system until the carriages lift 2" once this has been achieved. Pull the lock release lever and depress the lowering valve handle on the pump until the carriages are just below the 1st lock. Release both handles. Using a wrench crack open the bleeder one at a time, allowing any air to escape. It is common for the lift to lower a bit during this process. Once the first bleed has been done lower the lift fully to the ground. Top off the hydraulic tank (this is only done when the lift is fully on the ground). Cycle the lift up and down several times making sure the safety latches are engaging fully on both sides. Bleed the lift until all air is gone and the lift travels smoothly.

USING THE LIFT

RAISE LIFT

- I. Press button on power unit.
The safety latch mechanism will 'trip over' when the lift raises and drop into each latch stop. To lock the lift, you must press the lower lever to relieve the hydraulic pressure and let the latch set tight in a lock position.

Note: It is normal for an empty lift to lower slowly - it may be necessary to add weight.

LOWER LIFT

1. Raise the lift until the latches clear the safety racks in both sides.
2. Pull down and hold the safety release handle.

WARNING!!!

Always make sure latches on both sides clear the rack at same time when pulling down the release handle by adjusting the cable.

3. Press the lowering lever at the power unit to lower the lift.

ATTENTION!!!

**ALWAYS LOCK THE LIFT BEFORE GOING UNDER THE VEHICLE.
NEVER ALLOW ANYONE TO GO UNDER THE LIFT WHEN
RAISING OR LOWERING.**

SAFETY PROCEDURES

- Never allow unauthorized persons to operate lift. Thoroughly train new employees in the use and care of lift.
- Caution - the power unit operates at high pressure.
- Remove passengers before raising vehicle.
- Prohibit unauthorized persons from being in shop area while lift is in use.
- Total lift capacity is 9,000-lbs. with 2,250-lbs. per swivel pad. Do not exceed this capacity.
- Prior to lifting vehicle, walk around the lift and check for any objects which

might interfere with the operation of lift and safety latches; tools, air hoses, shop equipment.

- **When approaching the lift with a vehicle, center the vehicle between the columns so that the tires will clear the swing arms easily. Slowly drive the vehicle up between the posts. Have someone outside the vehicle guide the driver.**
- **Always lift vehicle using all four pads. Using less than all four can result in damage and will void the warranty.**
- **Never use lift to raise one end or one side of vehicle.**
- **Raise vehicles about 3” and check stability by rocking.**
- **Prior to lowering vehicle, walk around the lift and check for any objects that might interfere with the operation of lift and safety latches; tools, air hoses, shop equipment. Swing the arms out and slowly drive the vehicle out. Have someone outside the vehicle guide the driver.**

MAINTENANCE SCHEDULE

The following periodic maintenance is the suggested minimum requirements and minimum intervals; accumulated hours or monthly period, whichever comes sooner. If you hear a noise not associated with normal lift operation, or, if there is any indication of impending lift failure - **CEASE OPERATION IMMEDIATELY!** - inspect, correct and/or replace parts as required.

WARNING!!!

OSHA AND ANSI REQUIRE USERS TO INSPECT LIFTING EQUIPMENT AT THE START OF EVERY SHIFT. THESE AND OTHER PERIODIC INSPECTIONS ARE THE RESPONSIBILITY OF THE USER.

DAILY PRE-OPERATION CHECK (8 HOURS)

The user should perform daily check.

ATTENTION! Daily check of safety latch system is very important - the discovery of a potential device failure could prevent expensive property damage, lost production time, serious personal injury, and even death.

- Check safety lock audibly and visually while in operation.
- Check safety latches for free movement and ***full engagement with rack.***
- Check hydraulic connections and hoses for leakage.
- Check cables connections- bends, cracks, and looseness.
- Check for frayed cables in both raised and lowered position.
- Check snap rings at all rollers and sheaves.
- Check bolts, nuts, and screws and tighten if needed.
- Check wiring and switches for damage.
- Check floor for stress cracks near anchor bolts.
- Check swing arm restraints.

WEEKLY MAINTENANCE (40 HOURS)

- Check anchor bolts torque to 120 ft-lbs. for the ¾" anchor bolts.
Do not use impact wrench.
- Check floor for stress cracks near anchor bolts.
- Check hydraulic oil level.
- Check and tighten bolts, nuts, and screws.
- Check cylinder for leaks.
- Check cable pulley for free movement and excessive wear.
- Lubricate cable pulleys with oil.

YEARLY MAINTENANCE

- Grease rub blocks and column surface contacting rub blocks.
- Change the hydraulic fluid. Good maintenance procedure makes it mandatory to keep hydraulic fluid clean. No hard-fast rules can be established; - operating temperature, type of service, contamination levels, filtration, and chemical composition of fluid should be considered. If operating in dusty environment shorter interval may be required.

The following items should only be performed by a trained maintenance expert.

- Replace hydraulic hoses.
- Replace chains and rollers.
- Replace cables and sheaves.
- Replace or rebuild air and hydraulic cylinders as required.
- Replace or rebuild pumps / motors as required.
- Check hydraulic cylinder rod and rod end (threads) for deformation or damage.

Relocating or changing components may cause problems. Each component in the system must be compatible; an undersized or restricted line will cause a drop-in pressure. All valve, pump, and hose connections should be sealed and/or capped until just prior to use. Air hoses can be used to clean fittings and other components. However, the air supply must be filtered and dry to prevent contamination. Most importantly cleanliness. Contamination is the most frequent cause of malfunction or failure of hydraulic equipment.

TROUBLESHOOTING

1. **Motor does not operate**
 - A. **Breaker or fuse blown.**
 - B. **Motor thermal overload tripped. Wait for overload to cool.**
 - C. **Faulty wiring connections; call electrician.**
 - D. **Defective up button call electrician for checking.**

2. **Motor functions but lift will not rise**
 - A. **A piece of trash is under check valve. Push handle down and push the up button at the same time. Hold for 10-15 seconds. This should flush the system.**
 - B. **Check the clearance between the plunger valve of the lowering handle. There should be 1/16".**
 - C. **Remove the check valve cover and clean ball and seat.**
 - D. **Oil level to low. Oil level should be just under the vent cap port when the lift is down!!!**

3. **Oil blows out breather of power unit**
 - A. **Oil reservoir overfilled.**
 - B. **Lift lowered too quickly while under a heavy load.**

4. **Motor hums and will not run**
 - A. **Impeller fan cover is dented. Remove cover and straighten.**
 - B. **Faulty wiring..... call electrician**
 - C. **Bad capacitor..... call electrician**
 - D. **Low voltage..... call electrician**
 - E. **Lift overloaded..... remove excessive weight from lift**

5. **Lift jerks going up and down**

Air in hydraulic system. Raise lift all the way to top and return to floor. Repeat 4-6 times. Do not let this overheat power unit.

6. **Oil leaks**
 - A. **Power unit: if the power unit leaks hydraulic oil around the tank-mounting flange check the oil level in the tank. The level should be two inches below the flange of the tank. A screwdriver can be used as a "dipstick".**
 - B. **Rod end of the cylinder: the rod seal of the cylinder is out. Rebuild or replace the cylinder.**
 - C. **Breather end of the cylinder: the piston seal of the cylinder is out. Rebuild or replace the cylinder.**

7. **Lift makes excessive noise**
 - A. **Leg of the lift is dry and requires grease.**

OWNER / EMPLOYER RESPONSIBILITIES

The Owner / Employer:

Shall have established procedures to periodically maintain, inspect and care for the lift in accordance with the manufactures recommended procedures to ensure its' continued safe operations.

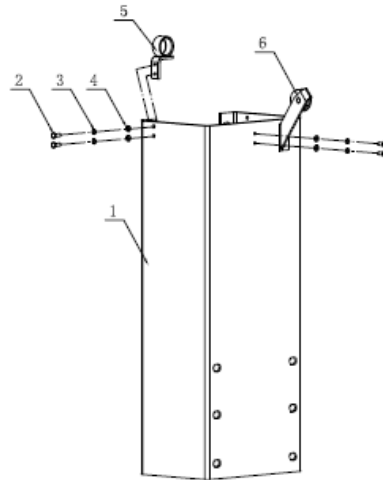
Shall provide necessary lockout / tag outs of energy sources per ANSI Z244.1 – 1982 before beginning any lift repairs.

Shall not modify the lift in any manner without prior written consent of the manufacturer.

Shall ensure lift operators are instructed in the proper and safe use and operation of the lift.

Figure 1

Long Column Welded Group Assembling



Beam Group Assembling

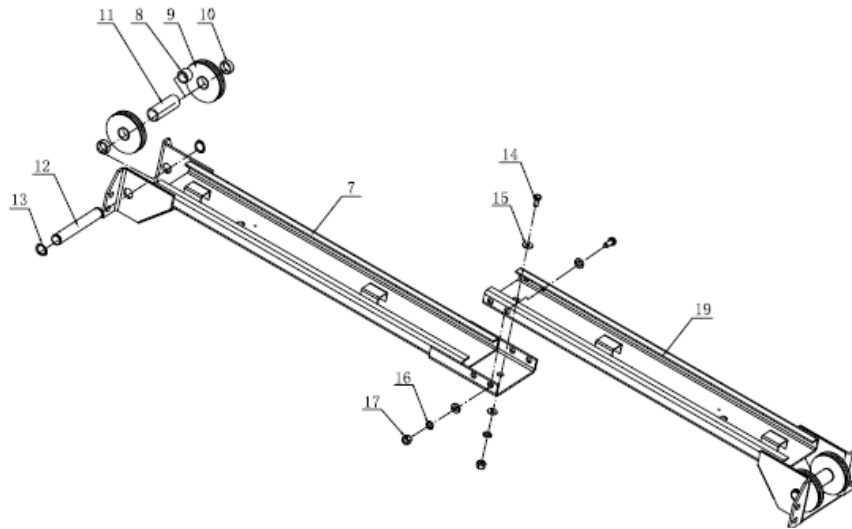


Figure 2

ILLUSTRATED PARTS BREAKDOWN

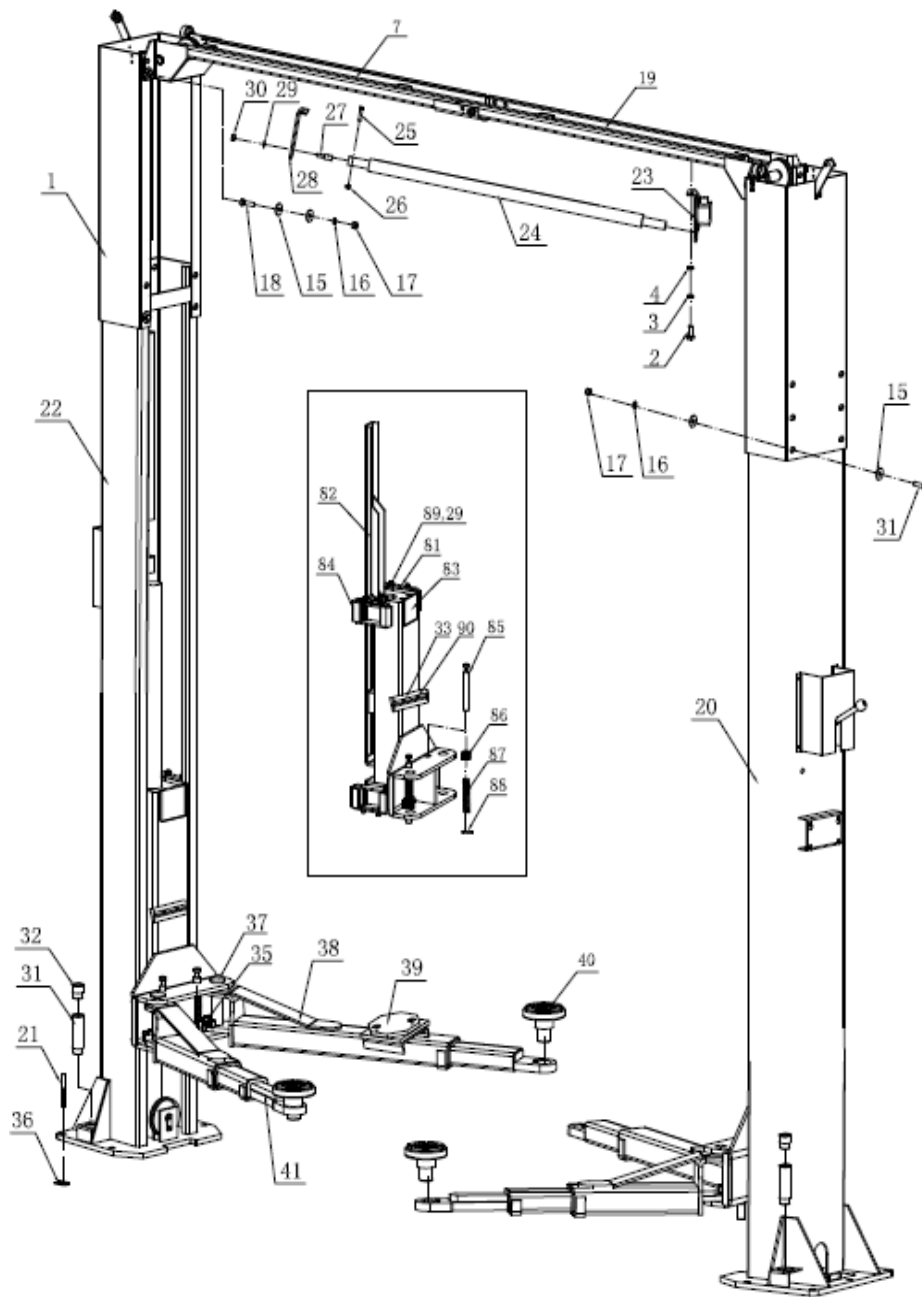
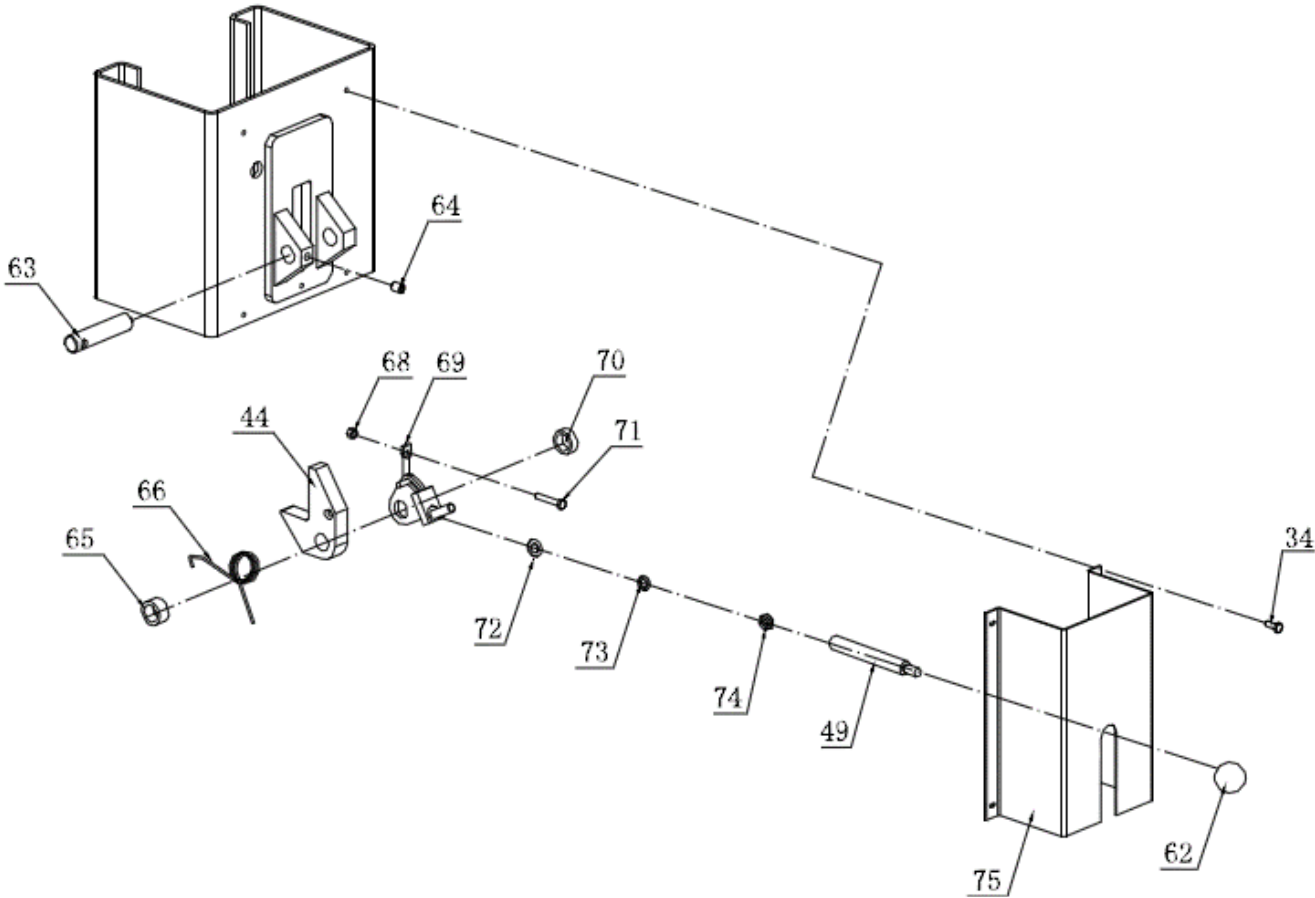


Figure 3
Locking assembly



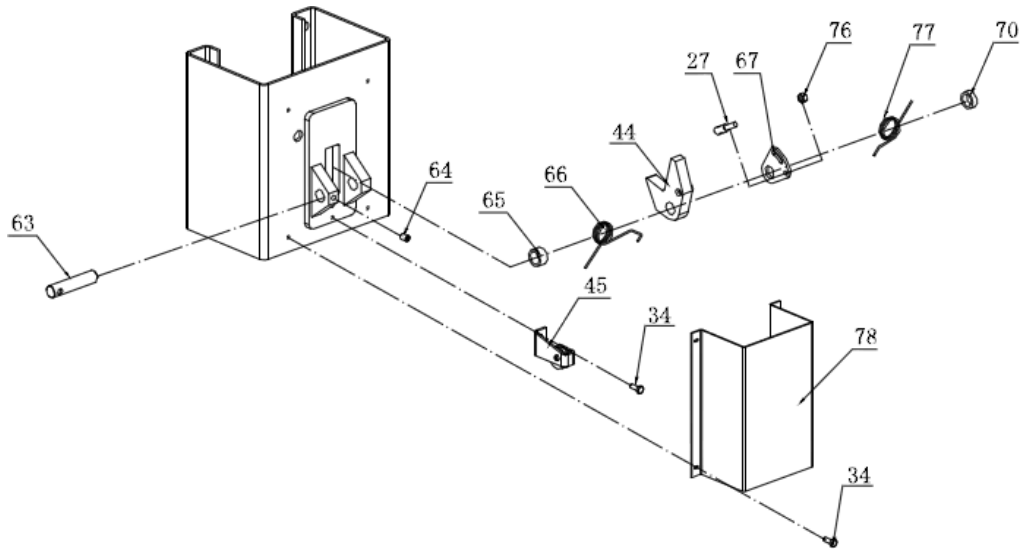


Figure 4

Cable routing

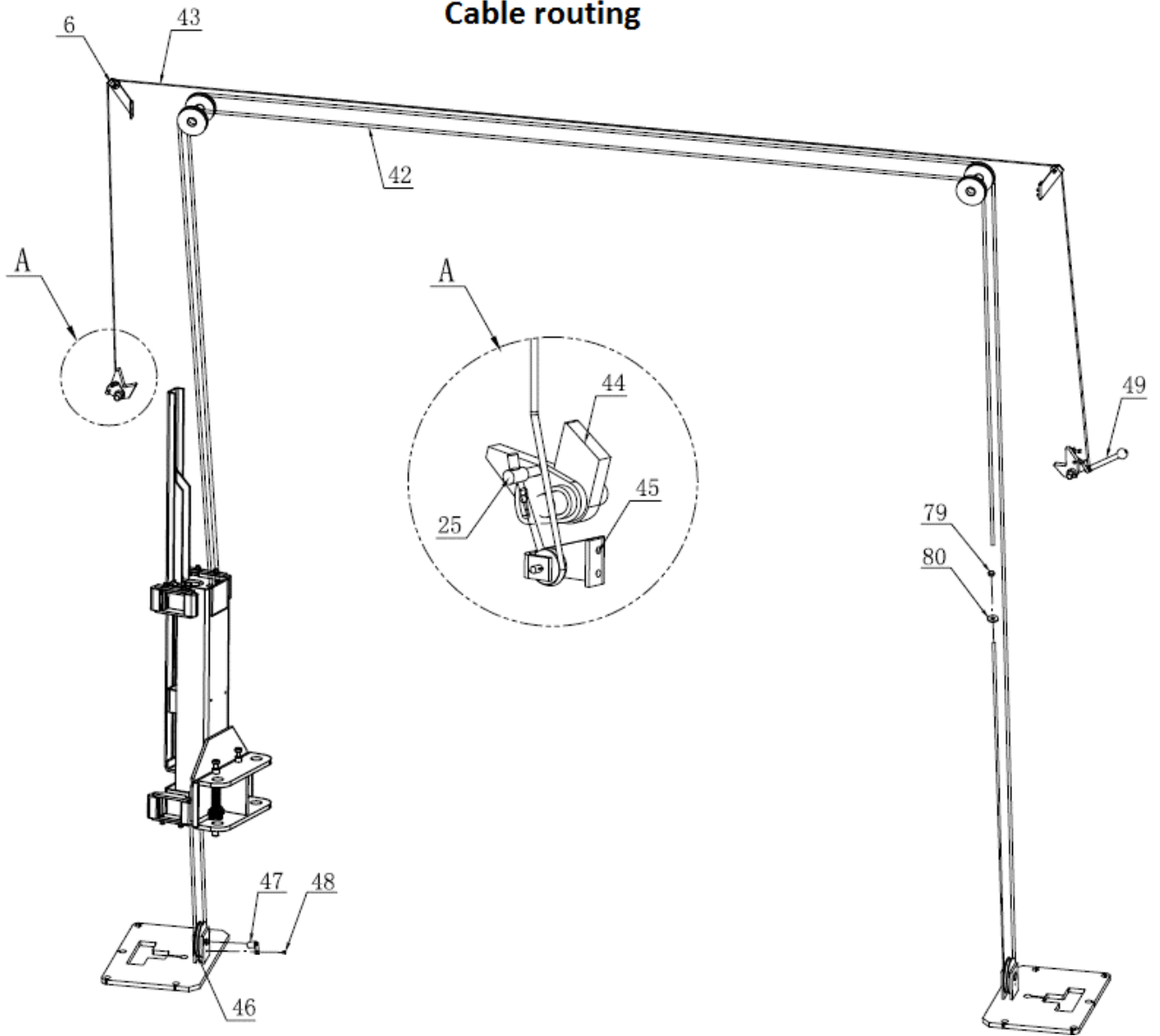


FIGURE 4B

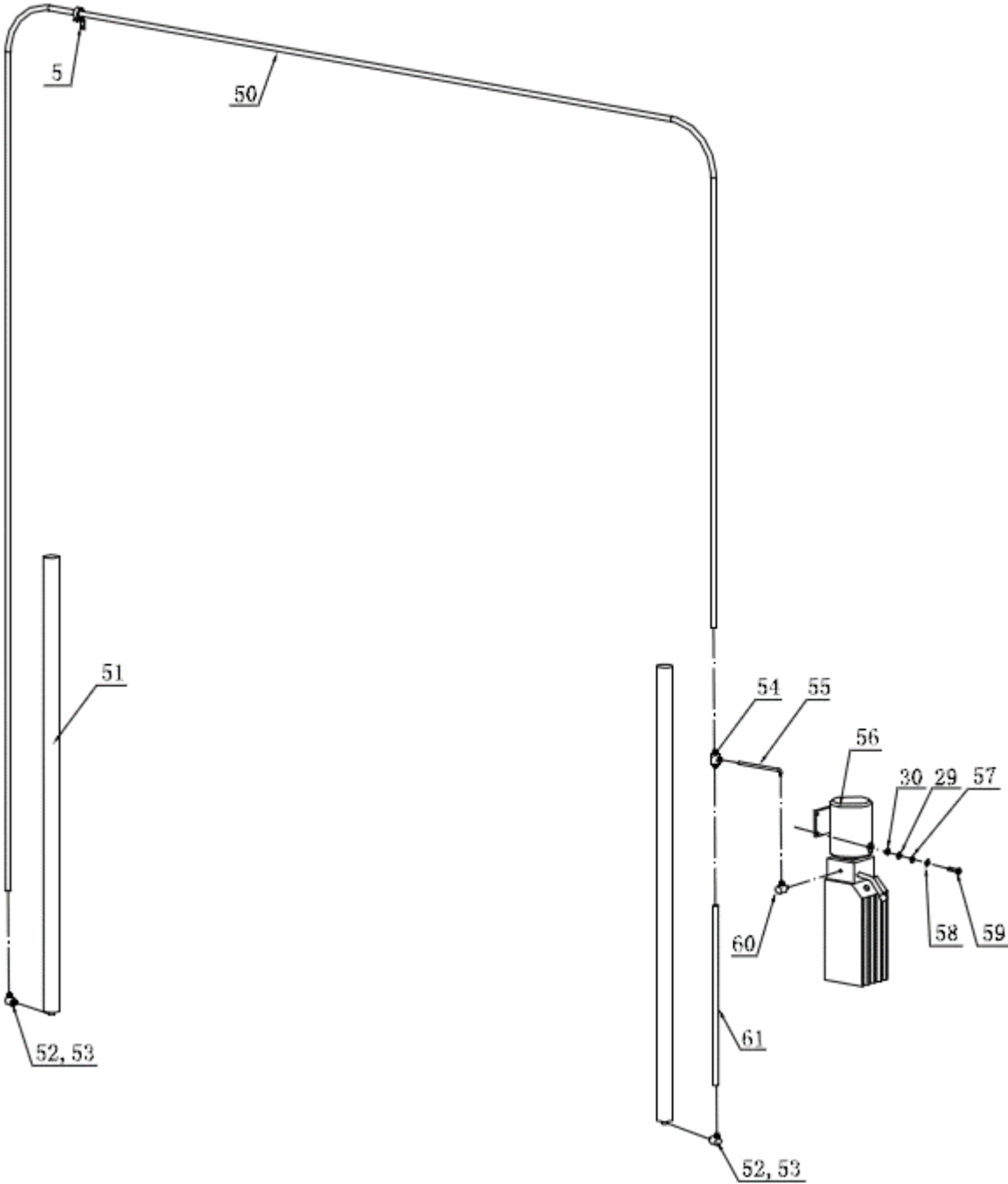


FIGURE 4C



Figure 5

Hose routing









NW-2-9KACD Parts List

ITEM	DRAWING	DESCRIPTION	DTY
1	9DUS-3000	Heightening pillar	2
2	GB818-M6*16	Cross recessed pan head screw	12
3	GB93-87-φ6	Spring washer 6	12
4	GB97.1-85-φ6	Flat washer 6	12
5	HPRO-3003G	Hose shelf, left side	2
6	30500-8000-2	Roller shelf A	2
7	9DA-4110	Extea column A	1
8	52004A	Thick cable wheel bushing	4
9	OH-4104	4 inch pulley	4
10	OH-4102	Thick pulley sleeve	4
11	OH-4103	Long sleeve	2
12	9DA-4101	Pulley shaft	2
13	GB894.1-86-φ25	Axial elastic rings25	4
14	GB5782-86-M12*25	Hexagonal bolt	5
15	GB97.1-85-φ12	Flat washer 12	58
16	GB93-87-φ12	Spring washer 12	29
17	GB6170-86-M12	Hexagon nuts M12	29
18	GB5782-86-M12*40	Hexagonal bolt	24
19	9DA-4210	Extea column B	1
20	9KACD-1100A	Active column welded group	1
21	PZ-3/4"*5.5	Core type expansion bolt	10
22	9KACD-1100B	Driven column welded group	1
23	OH-4400	Limited switch shelf	1
24	HPRO-5003	Bushing for Limited rod	1
25	GB5782-86-M6*30	Hexagonal bolt	1
26	HB8029-M6	The nylon lock nutM6	1
27	HPRO-5004G	Step shaft	2
28	HPRO-5001	Angle iron	1
29	GB93-87-φ8	Spring washer 8	5
30	GB6170-86-M8	The nylon lock nutM8	5
31	9KACD-ZG-65	Short joint	4
32	LS-ZG-130	Long joint	4
33	OH-5500	The rubber door blocked	2
34	GB818-M6*8	Cross recessed pan head screw	10
35	52042C	Gear	1
36	30400-1025	Plastic spacer	10
37	NTPF-5005	Bolt welding group	4
38	9KACD-6000	Striaight arm of welding group	2
39	OH-6200	Side the tray	2
40	9KACD-6005	The tray assembly	4
41	9KACD-5000	Three Sections arm of welding group	2
42	HPRO-9000	Steel wire rope	2
43	HPRO-9001	Fine steel wire rope	1
44	HPRO-1010	Lock piece of welding	2
45	30500-8000-3	Turning rolls B	1

NW-2-9KACD Parts List

46	BP-2002	Rope wheel	2
47	HPR0-1007	Cabel shaft	2
48	GB818-M6*12	Cross recessed pan head screw	2
49	30500-5001(B)-12	Hand shank	1
50	1WB-14	Pipeline	1
51	N3155-9100	Oil cylinder	2
52	HPR0-9802-1	Oil cylinder joint	2
53	HPR0-9802-2	Oil cylinder joint	2
54	HPR0-Y002	The nipple	1
55	1WB-13JC	Pipeline	1
56		Power nut	1
57	GB97.1-85-φ8	Flat washer 8	4
58	30400-1999	Damping washer	4
59	GB5782-86-M8*20	Hexagonal bolt	4
60	305720	Right outside the joint	1
61	1WB-22	Pipeline	1
62	M10*Sφ35	Bakelite ball	1
63	30500-5001(B)-09	Axle	2
64	GB78-M10*16	Six pyramid end screw set	2
65	30500-5001(B)-07	sleeve	2
66	30500-5001(B)-10	Sping	2
67	30500-5001(B)-26D	Rotating plate	1
68	GB6170-86-M6	Hex nut	1
69	30500-5001(B)-26G1	Rotating plate	1
70	30500-5001(B)-24	sleeve	2
71	GB818-M6*35	Cross recessed pan head screw	1
72	GB96.1-φ10	More flat mat	1
73	GB93-87-φ10	Sping washer 10	1
74	GB6170-86-M10	The nylon lock nutM10	1
75	30500-8000-1B	HousingB	1
76	30500-5001(B)-27	The steps nut	1
77	30500-5001(B)-25G1	Sping	1
78	30500-8000-1A	HousingA	1
79	HB8029-3/4"-16UNF	The nylon lock nut3/4"-16UNF	4
80	GB93-87-φ20	Flat washer 20	4
81	30400-5003-1-2	Dam-board	8
82	9KACD-2100	Slipway	2
83	HPR0-2008A	Plastic seal plate	2
84	30400-5024	Nylon slider	16
85	9KACD-2001	Pull rod	4
86	30400-5014C	Cluster gear	4
87	9KACD-2002	Sping	4
88	GB91-φ5*40	Spring-type straight	4
89	GB70.1-M8*20	Hexadon socket cap screws	16
90	GB818-M6*20	Cross recessed pan head screw	4