AMSAN

MANUAL
AM-FPL9

FOUR POST LIFT
9,000 LB CAPACITY
ETL POWER UNIT

TOLL FREE: 888.970.0508
www.amsan.ca

PLEASE READ THE PRODUCT MANUAL ENTIRELY BEFORE INSTALLING OR OPERATING THE LIFT.

IMPORTANT INFORMATION

- The shipment should be thoroughly inspected as soon as it is received. Any freight damage or missing items must be noted on the freight bill before signing and reported to the freight carrier with a freight claim established. Buyer should claim the compensation from the freight carrier if any damage happens to the equipment during shipping. Please refer to our website for detailed shipping policies and procedures.
- Make sure you have additional help or heavy-duty lifting equipment when unloading and assembling the lift.
- Read and understand this installation and operation manual entirety before attempting to install or operate the lift. Keep this manual near the product for future references. Make sure all operators read this manual.
- The lift should only be operated by authorized personnel. Keep children and untrained personnel away from the lift.
- Do not make any modifications to the Lift; this voids the warranty and increases the chances of injury or property damage. •
- Do not use the lift while tired or under the influence of drugs, alcohol, or medication
- Manufacturer or distributor assumes no responsibility for loss or damage of any kind, expressed or implied, resulting from improper installation or use of this lift. Always use professional installation companies.
- All persons using the equipment must be responsible, qualified, and carefully follow the operation and safety guidelines contained in this manual.
- A level floor is required for proper lift installation and operation.
- DO NOT install this lift on any asphalt surface. Lift must be installed on concrete surface a minimum of 12” thick and 3,000 psi tensile strength with steel or fiber mesh. Reinforcement. New concrete must be adequately cured by at least 28 days minimum.
- DO NOT install this lift over concrete expansion joints or cracks. (Consult with your building engineer)
- DO NOT install this lift on an upper floor without written authorization from your building engineer. Should only be installed on a ground floor without a basement.
- DO NOT attempt to lift only part of a vehicle. This lift is intended to raise the entire body of a vehicle only. This will bend the arms and void the warranty.
- NEVER lift any persons or vehicles containing persons. This lift is designed to lift empty vehicles only.
- Any vehicle whose weight is above 9,000lb is not allowed to be raised on this machine.
- All wiring must be performed by a licensed, certified Electrician.
- Do not perform any maintenance until main electrical power has been disconnected from the lift and cannot be re-energized until all procedures are complete.
- Always lower lift to full locked position before getting underneath the lift. Failure to heed this caution can result in serious injury or death.
- INSPECT your lift daily. Never operate if it malfunctions or if it has broken or damaged parts. Repairs should be made with original equipment parts.
- Never start motor under a load, ensure lift is sitting on locks or on the ground before commencing to lift a vehicle. Failure to notice this caution can cause motor damage and void motor warranty.
- All information in this manual is believed to be correct at time of publication. The design, material and specifications are subject to change without notice.

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SAFETY INSTRUCTIONS AND CAUTIONS

CAUTION SIGNS

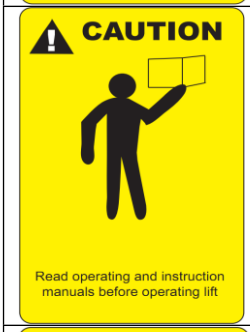
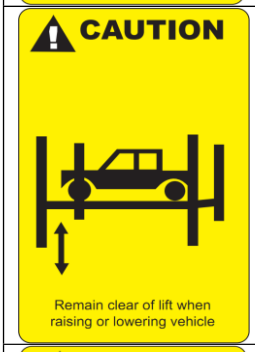
Pay special attention to this symbol as it means unsafe or hazards practices which can lead to severe personal injury or death or damage to the lift or property.

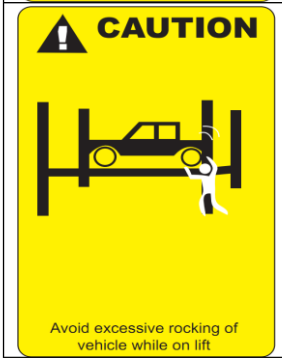
Read and follow the instructions next to this symbol to avoid big casualty and heavy damage to the lift.

The section besides this signal lists the notice points and security requirements during the process of normally using, maintenance and care of the lift.

SAFETY CAUTION SIGNALS

Please read Safety Signage carefully, understand and remember them.

	Routine maintenance and inspection are necessary for safe lift operation
	Read operating and instruction manuals before operating lift
	Remain clear of lift when raising or lowering vehicle
	Clear area if vehicle is in danger of falling
	Keep feet clear of lift while lowering vehicles

	Only authorized personnel in lift surrounding area
	Lift only to be used by trained personnel
	Do not operate damaged lift
	Do not exceed lifting capacity
	Avoid excessive shaking of vehicle while on lift

LIFTING CAPACITY

	Lifting Capacity
AM-FPL9	9,000 LB

SAFETY PROCEDURES

- Operating controls are designed to close when released. Do not block open or override them.
- **NEVER** overload your lift. Manufacturer's rated capacity is shown on name plate affixed to the lift. **ALWAYS** be clear of the gross weight of vehicle.
- **NEVER** use the lift to raise one end or one side of vehicle.
- **NEVER** raise vehicle with anyone inside it. No one should be in the lift area during operation.
- **ALWAYS** keep lift area free of obstructions, grease, oil, trash, and other debris. Before lowering lift, be sure tool trays, stands, etc. are removed from under vehicle. Release locking devices before attempting to lower lift.
- Adequate ventilation should be provided when working with internal combustion engines.
- Use only manufacturer's recommended attachments.
- **KEEP HANDS AND FEET CLEAR** from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
- **GUARD AGAINST ELECTRIC SHOCK.** This lift must have ground connection during using to protect the operator from electric shock. Never connect the green power cord wire to a live terminal. This is for ground only.

- **DANGER**! The power unit used on this lift contains high voltage.

- Always unplug equipment from electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.

- **MAINTAIN WITH CARE**. Keep lift clean for better and safe performance. Follow manual for proper lubrication and maintenance instructions. Keep control handles and/or buttons dry, clean, and free from grease and oil.

- **STAY ALERT**. Watch what you are doing. Use common sense. Be aware.

- **CHECK FOR DAMAGED PARTS**. Check the working condition of moving parts, breakage of parts or any condition that may affect its operation. Do not use lift if any component is broken or damage.

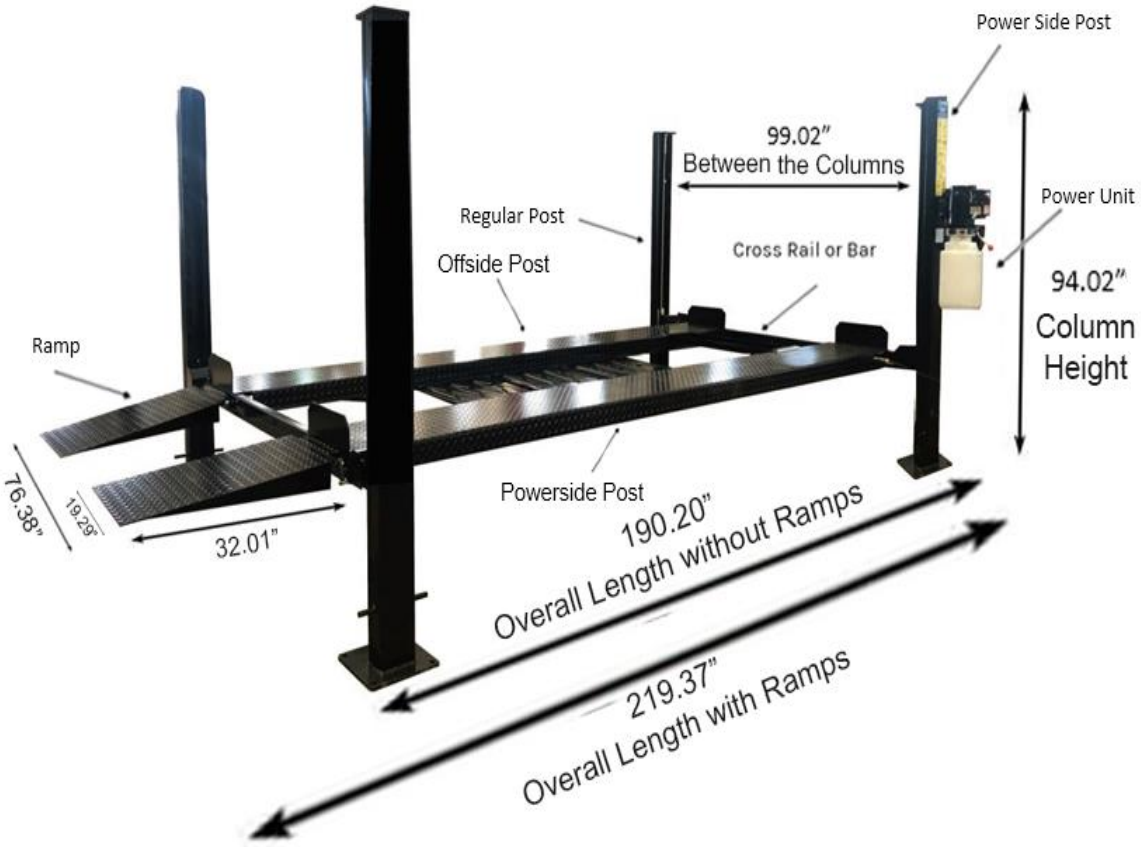
- **NEVER** remove safety related components from the lift. Do not use lift if safety related components are damaged or missing.

- **ALWAYS** wear safety glasses. Every day eyeglasses should have impact resistant lenses. They are not safety glasses.

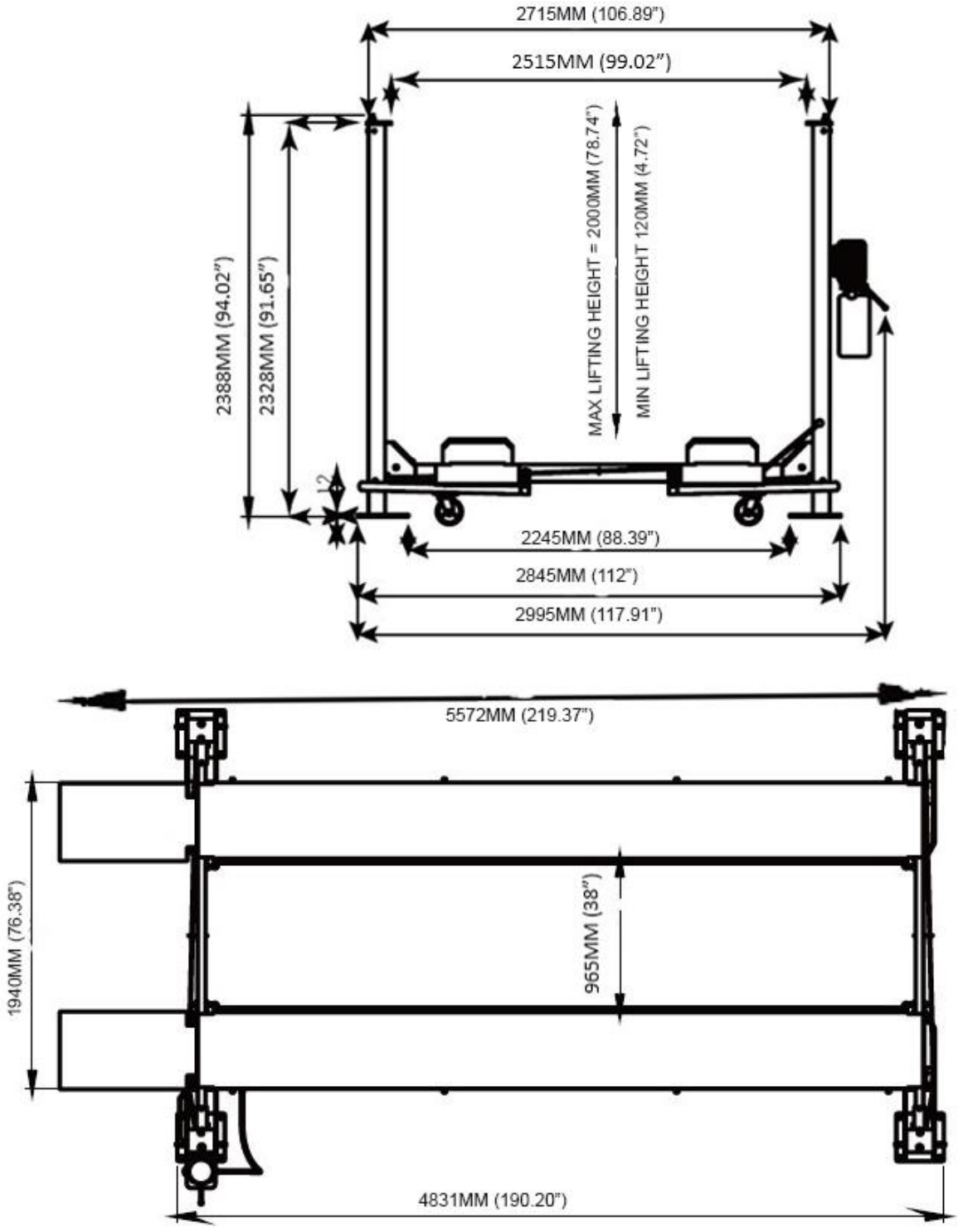
READ AND UNDERSTAND ALL SAFETY WARNINGS & PROCEDURES BEFORE OPERATING LIFT. POST THESE SAFETY TIPS WHERE THEY WILL BE A CONSTANT REMINDER TO YOUR LIFT OPERATOR. FOR SPECIFIC INFORMATION OF THE LIFT, ALWAYS REFER TO THE LIFT MANUFACTURER'S MANUAL.

Improper installation can cause accelerated wear, resulting in catastrophic failure such as property damage and body injury. Manufacturer will assume no liability for loss or damage of any kind, caused by not following the operation manual. Read this installation manual thoroughly before attempting to install or operate the lift.

LIFT COMPONENTS



LIFT DIMENSIONS



TECHNICAL SPECIFICATIONS

Overall Height	2388MM (94.02")
Time to Full Rise/Drop	50 seconds
Maximum Lifting Height	2000MM (78.74")
Minimum Height	120MM (4.72")
Overall Length (No Ramp)	4831MM (190.20")
Overall Length (With Ramp)	5572MM (219.37")
Power Unit	110 VAC / 1PH / 60HZ
Noise Level	≤70dB(A)
Drive Through Clearance	2245MM (88.39")
Overall Width	2995MM (117.91")
Width Between Runways	965MM (38")

INSTALLATION

SPACE REQUIREMENTS

- You must consult the architectural plans for the desired location. Make sure there are no contradictions between how you want to build and how the plans indicate.
- The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical wires and so on. Also make there is enough clearance around the lift for driving vehicles getting on or off the lift.

FOUNDATION REQUIREMENTS

- Visually inspect the site where the lift is to be installed and check for cracked or defective concrete
- DO NOT install or use this lift on expansion seams or on cracked or defective concrete.
- DO NOT install or use this lift on any asphalt surface or any surface other than concrete.
- Lift is designed for INDOOR INSTALLATION ONLY.
- This lift must be installed on a solid level concrete floor with no more than 3-degrees of slope.
- Lift buyers are responsible for any special regional structural and/or seismic anchoring requirements specified by any other agencies and/or codes such as the Uniform Building Code (UBC) and/or International Building Code (IBC).
- All models MUST be installed on 3000 PSI concrete and have

a minimum of 12” thickness with steel or fiber mesh. New concrete must be adequately cured by at least 30 days minimum.

ANCHORING GUIDELINES

- Please carefully remove all the parts from the package.
- Use a concrete rotary hammer drill with 3/4” drill bit. Do not use excessively worn or incorrectly sharpened drill bits.
- Keep the drill in a vertical position when drilling. Do not apply excessive pressure and let the drill do the work. Try to lift the drill up sporadically and clean residue in the hole. Power blow dust from the hole for better holding.
- Drill the holes 1.25" deeper than the length of the anchor bolts. Try to drill through the concrete so that when you move the lift to a new location, you may hammer down the anchor bolts instead of cutting them off.
- Assemble the washers and nuts onto the anchor bolts. Thread the nuts onto the anchor bolts where the tops of the nuts are just above the top of the bolts, as shown in figure below. Using a hammer, carefully tap the anchor bolts into the concrete until the washer rests against the baseplate. Do not damage the nuts or threads. Try not to use an impact wrench to tighten the nut. Tighten the nut two or three turns after the concrete is cured (30-day minimum cure). In case where the concrete is very hard, tighten only one or two turns.

TOOLS RECOMMENDED

Chalk Line		4 Foot Level
Set of Metric Wrenches/Sockets		Flat Screwdriver
Adjustable Wrench		Hex-Key / Allen Wrench Set
Locking Pliers		Needle Nose Pliers
Tape Measure		Rotary Hammer Drill
Step Ladder		3/4" Masonry Bit
Hammer		3 Gallons of Hydraulic Oil*
Crow Bar		Forklift

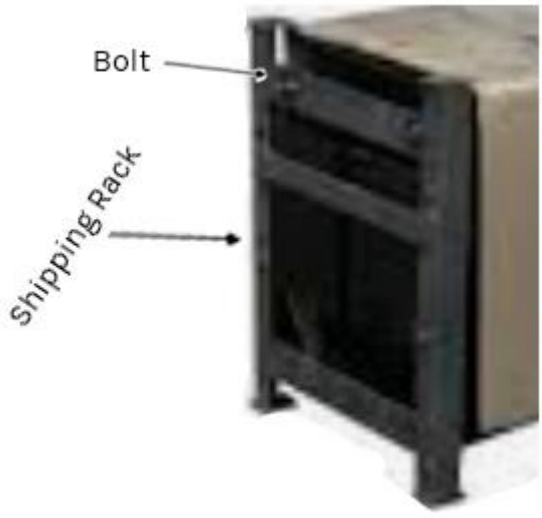
*Recommended Oil: ISO 32, ISO 46 Hydraulic Oil or Dexron III ATF

INSTALLATION INSTRUCTIONS

ONLY TRAINED INSTALLERS SHOULD PERFORM LIFT INSTALLATION WORK.

Step 1.

- Please remove all the packaging and then remove the power unit from the top. Cross Rail or Bar
- Remove shipping racks from both sides by removing the bolts. Please see the picture below.



- After removing the shipping racks holding the two runways together, remove top runway out of the skid and place it on the side.
- Remove 4 posts, two cross rails, two ramps and all the other parts off the bottom runway.
- Contact us if there are any parts missing.
- Please make sure you read the space, foundation and installation requirements and anchoring guidelines thoroughly in previous pages. The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical wires and so on. Also make there is enough clearance around the lift for driving vehicles getting on or off the lift.
- By using a chalk, draw an outline of the base plate on the installation ground and establish the position for all the four posts
- Double check all dimensions and make sure that the layout is square.

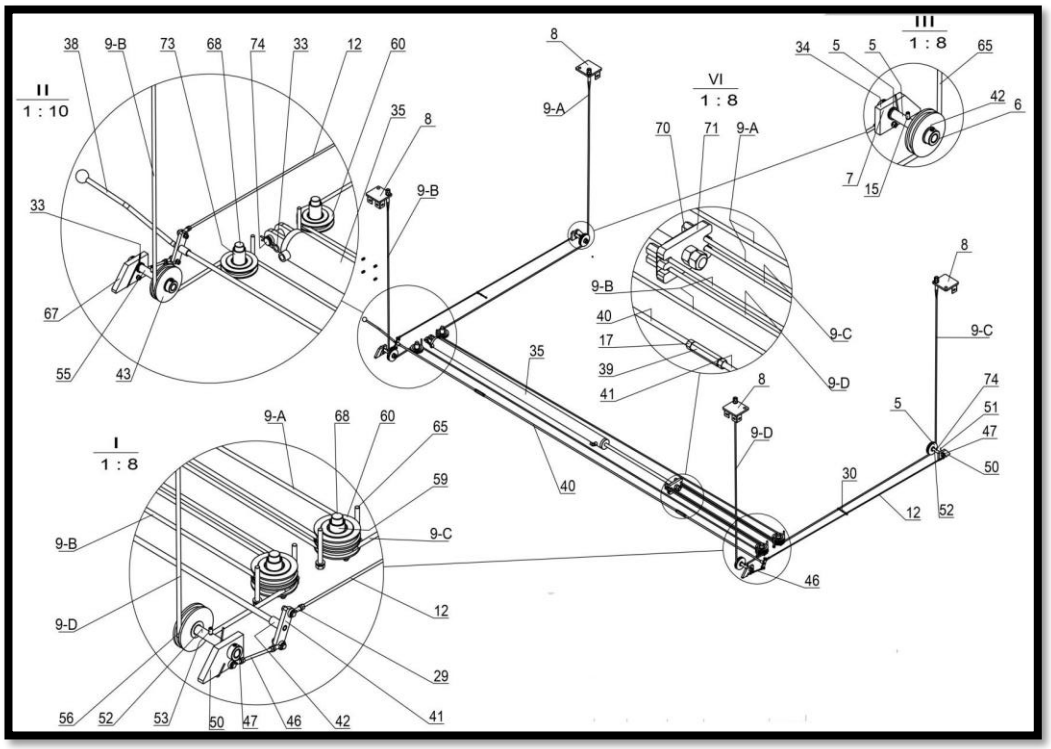
Step 2.

- Ascertain the side where the power unit post will be located. Please remember this is the post where your main electrical power supply will be connected.
- Double check all dimensions and make sure that the layout is square and aligned with the chalk line.
- Lay down rear posts on the ground and remove the top plates form top of the posts and install the Cross rail in the posts by sliding the plastic guide blocks into the column channel. The safety latch must be positioned in the same level from the ground and make safety latch facing towards the outside of the lift when you stand the columns back up. Manually hold

the lock lever down on each side of the cross rail and slide the cross rail down until it rests on the safety lock position closest to the floor. Repeat the procedure for the front posts to install the cross rails. Stand the assembled posts up in positions indicated on the floor plan.

- Start with installing runway that has cylinder already installed in it. This runway will be placed on the cross rail with the hose Connection facing out toward the power side post. With an assistant, pick up and place one end of the runway on the cross rail, and then pick up and place the other end on the opposite cross rail (if you have three assistants, place both ends at the same time). Use a large screwdriver or aligning punch to align the mounting holes in the cross rails with the mounting holes of the runway. Do not leave the tracks unbolted – install the mounting bolts immediately! Install M12X100 mounting bolts and M12 washers thru the ramp brackets and wheel stops. Make sure the bolt head is on the flat side of the bracket. Install the two ramp brackets and two wheels stop with bolts and washers as you secure the main runway to the cross rail. Secure the bolts with M12 washers and nuts placed hand tight. Now, install the offside runway and again secure with ramp brackets, wheel stops with M12X100 bolts and nuts. After both runways are installed, tighten all bolts M12X100 bolts.

- Install the cylinder connecting metal plate as shown in below figure. Reference this diagram for installing cables.



- Find the post plates (4 each), M12x170 bolts (4 each), M12x30 bolts (4 each), M12 nuts (8 each) and M12 flat washers (16 each), holes for cable face towards the center of the lift. Secure all 4 post caps with M12x30 bolts. Place the bolts with washers in through channel and secure with washers and nuts on the outside of the post cap. Install the M12x170 bolts through the post and top cap. Install from outside of the post and secure with a nut on the inside of the post. Tighten the M12x30 and M12x170 bolts.

- Pass the bolt end of the cable through the opening of the offside runway, then run cable 90 degrees around the pulley of the cross rail. Secure the threaded ends into the hole in the top of the post caps and secure them with washer and nut.

- Safety Latch Linkage Installation: Locate and identify the components needed to install the safety latch linkage rods. Install the spacers from on the straight threaded end of the M12X1270 bent rod and the threaded end of the M12X3200 straight safety latch linkage rod.

- Install the M12X1270 bent safety latch linkage rod into the power side runway adjacent to back end of the cylinder

(opposite the cylinder rod). Safety latch linkage rod should pass through guide tubes on underside of runway.

- Install the M12X3200 straight safety latch linkage rod into the power side runway from the opposite end. The rod should pass through two guides on the underside of the power side runway.

- Install the 90 fitting w/O-Ring in the base of power unit pump next to the lever operated release valve. IT IS NOT NECESSARY TO USE TEFLON TAPE ON O-RING FITTINGS.

- Connect the 1800MM hose to the fitting on the power unit. Attach the other end of the 1800MM hose to outside fitting in power side runway.

- Place a funnel into vent cap hole and fill hydraulic oil in the power unit reservoir about 10 liters. Recommended Oil: ISO 32, ISO 46 Hydraulic Oil or Dexron III ATF

- 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 before use. All parts should be supplied from manufacture.

- Air hoses can be used to clean fittings and other components. However, the air supply must be filtered and dry to prevent contamination. Most important -cleanliness - contamination is the most frequent cause of malfunction or failure of hydraulic equipment.

- Check Pulley Cover and Lock Ladder: Before proceeding, double check to make sure the locking ladder for the cross-rail cable pulleys are tight and secure. Check the pulley cover (2-RIGHT and 2 LEFT) over the shaft located on the pulley side of each cross-rail. CHECK the pulley and cover are firm against the locking ladder already in place. Check the additional lock ladder on the outside of the shaft is tight and secure. To prevent personal injury or death, cross-rail lock

ladder must be tight. If they are ever removed -always make sure the locking ladders are tight and secure.

- **Check the cross-rail locking assembly before use. Make sure all bolts and ladders are tight and secure. The assembly is pre-installed from the factory, but parts may come loose during shipping.**
- **After installation is completed and before start up, be sure to inspect and tighten all bolts.**
- **Start Up:** Make sure power unit reservoir is full with 10L of ISO 32, ISO 46 Hydraulic Oil or Dexron III ATF oil and lubricate inside the posts for slide blocks run smoothly.
- **Initial Operation:** Press the UP SWITCH on the power unit. Raise the lift slowly until all the slack in the cables are taken out. Raise the lift until the safety latch closest to the power unit comes within 25MM to the bottom of the lowest lock position. Tighten the cable by adjusting nut on top of each post cap until all remaining safety latches come within 25MM to the bottom of the lowest lock position. If cables are adjusted evenly the lift should be raising equally and all four safety latches engage simultaneously.
- **IF LIFT DOES NOT RISE:** Check hose connections. Fluid should be pumping through the hose. Check fluid level.
- **NOTE:** There will be some initial stretching of the cables in the beginning. It will be necessary to readjust the cables a week or so after first use. Run the lift up and down a few times to make sure that the safety latches are engaging consistently, and that the safety latch release is functioning properly. Re-adjust if necessary.
- When lowering the lift **PAY CAREFUL ATTENTION. ALWAYS** make sure that all **FOUR SAFETY LATCHES** are disengaged. If one of the latches locks on descent, **STOP** immediately and raise until it is clear of the stop.
- Install the approach ramps on the entry side of the lift. Drive a vehicle onto the lift tracks then install the rear wheel chocks. Run the lift up and down a few times to ensure that the latches

are engaging uniformly, and that the safety latch release is functioning properly. Re-adjust if necessary.

- Run the lift up and down at least three times, before putting a vehicle on it for the first time. This is to bleed the air out of the cylinder and power unit.

3.2 OPERATION

To raise the lift

- Position the vehicle at the center of the platform. Check to make sure that the vehicleis secured.
- Press GREEN button to raise the vehicle
- To rest the lift in standing position at the desired height by releasing GREEN button.
- Always ensure that the lift rests on the safety locks before any attempt is made to work under or near the vehicle.

To lower the lift

- Be sure the safety area is free of people and objects.
- Raise the lift a little bit by pushing GREEN button to clear off the safety lock.
- Press the release handle and at the same time also press unloading handle on the power unit to lower the lift.
- Lower the lift completely

1 CHECK POINTS BEFORE USING LIFT

DETAIL	CAUSE	SOLUTION
Lifting has abnormal sound	Visual Listen	Lubricating, Cleaning, Replacement
Check the chain, the steel cable is normal no damage	Visual	New replacement
Check if the connection is loose bolts parts	Visual	Re-strengthening and fixed
Check the chain, the steel cable wheel if their rotation are normal	Operation and visual	Oiling Lubricating, cleaning, new replacement
Check up and down movement of two landslide is normal, comfortable, and non-jitter	Operation	Foreign body cleaning oiling cleaning
Check power unit is working properly without abnormal noise	Operation	Repair new replacement
Inspect tanks, oil hoses and connecting joints is normal no leakage	Operation	Repair new replacement

2 SHIPPING

Please refer to our website (www.amsan.ca) for our SHIPPING POLICIES.

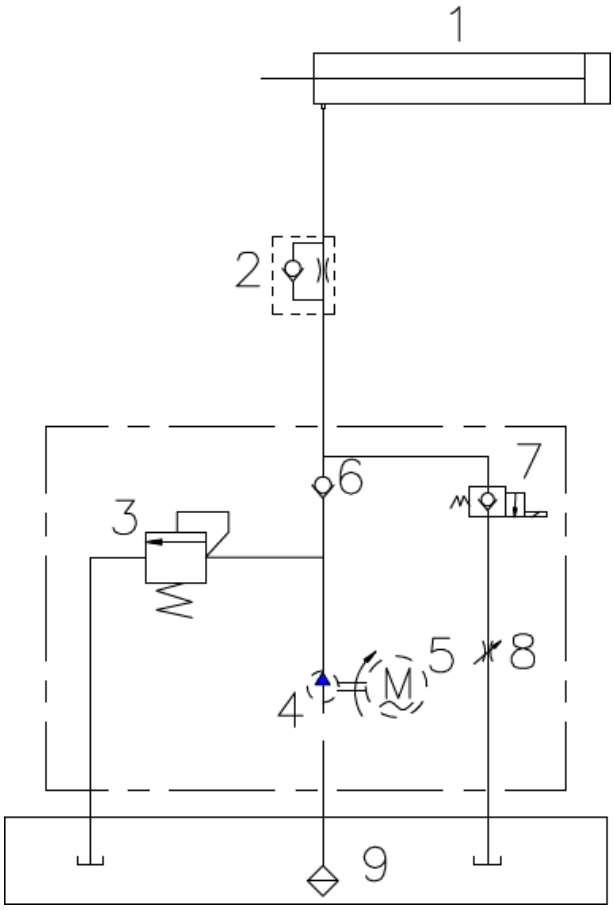
You are responsible for unloading the lift from the truck. The truck driver does not unload it for you. Lift Gate delivery service is not available for car lifts. You cannot unload an auto lift from the truck by hand. You must have machinery that can lift the full weight on your car lift for unloading from the truck. Forklift, Bobcat, Tractor, Tow Truck are all good options. If you cannot unload from a truck, we can ship to our carrier's nearest freight terminal for you to pick up with a trailer or moving van.
You are responsible for calling the freight company to make a delivery appointment. We don't know your schedule so we can't do this for you. After your lift shipped, we will email you the carrier information and tracking number. Freight shipping is slower than small package shipping and can take 3-14 days depending on your

3 TROUBLE SHOOTING

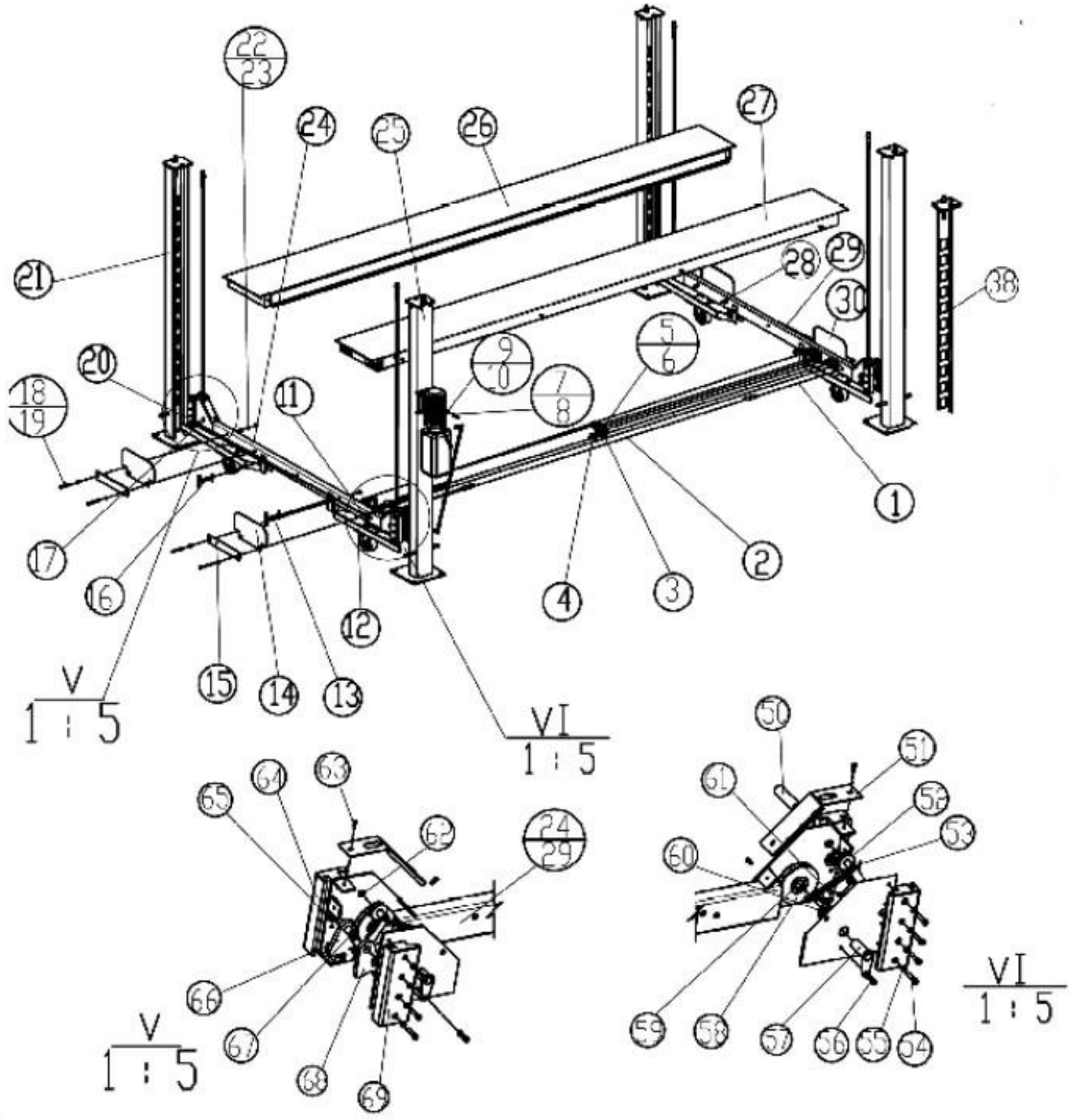
FAULT	REASON	SOLUTION
Power Unit Does not work	The power source or power equipment is malfunctioning.	Check up the power fuse, the contact in the junction box of motor, micro switch, and the condition of up button, change the damaged part.
Power Unit roars and does not work	a. The top of vane wheel is deformed	a. straightening
	b. Capacitor is damaged.	b. replace for new parts
	c. The voltage is too low.	c. check up by electric technicians
	The equipment is used overload.	
When the lift is rising, it creeps.	Air has entered the hydraulic system, and the oil box lack oil.	Rise repeatedly to remove the air and add oil to oil box.
Noise is too loud when the lift is working.	The sliding and rotational part lack lubrication and or change the pin roll.	Add lubrication, change the pin roll.
The lift can't rise.	a. There is something wrong with the power unit.	a. Maintain or change for new parts.
	b. the button on the power unit is damaged.	b. Maintain or change for new parts.
	c. Leakage of oil pipeline	c. Clean, tighten and change for new parts.
When lift is rising the speed is slow and heavy.	a. The security block is not open.	a. Rise first then drop or maintain
	b. Magnets are damaged heavily.	b. Change for new parts.

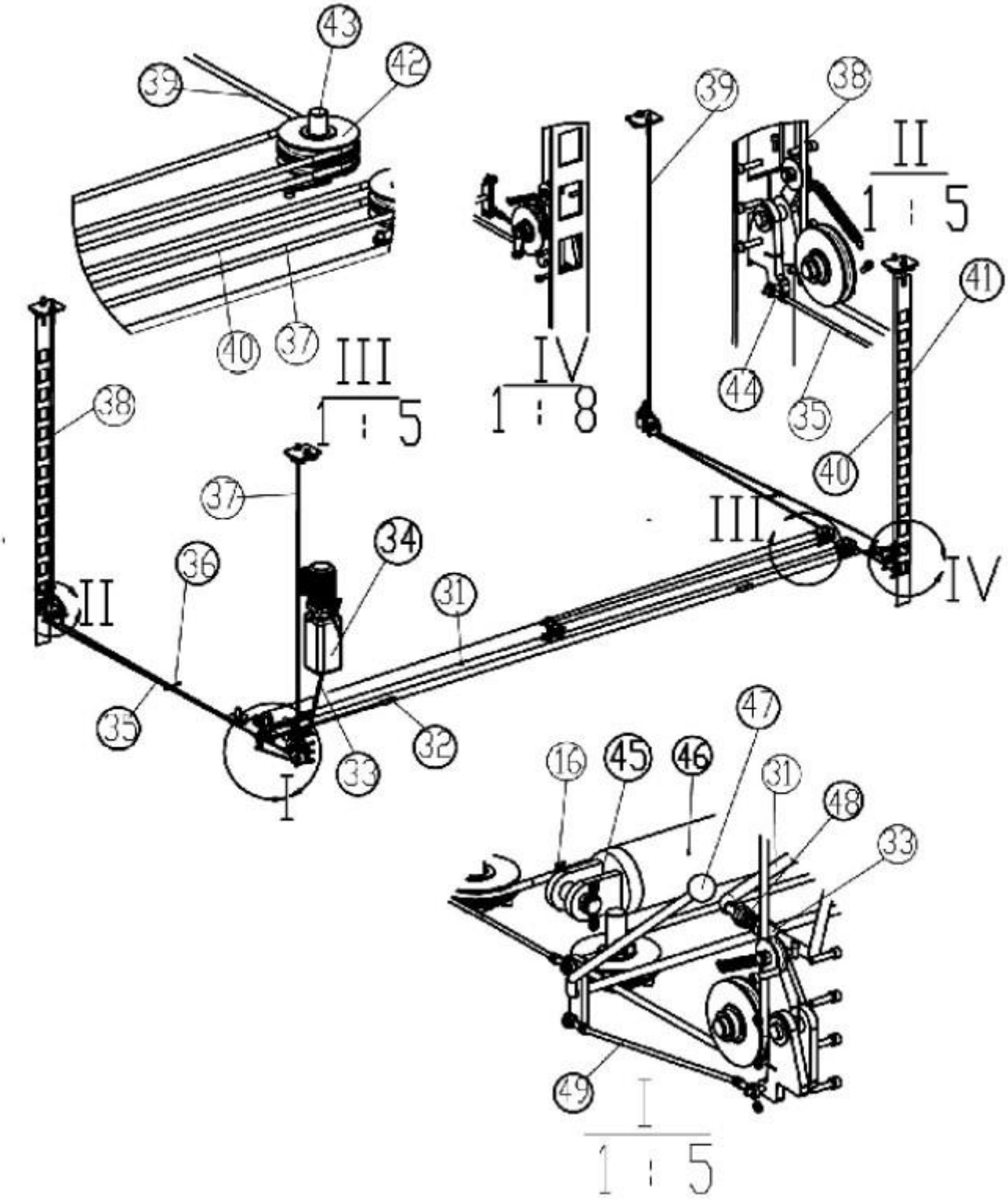
4 HYDRAULIC DIAGRAM

Item	Name	Item	Name	Item	Name
1	Cylinder	4	Gear pump	7	Release valve
2	Explosion-proof throttle Valve	5	Motor	8	Speed control valve
3		6	One way valve	9	Filte



5 EXPLODED DRAWING

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NO.	NAME	QTY	NO.	NAME	QTY
1	short insurance joystick	1 PCS	36	safety pull rod screw	2 PCS
2	long insurance joystick	1 PCS	37	steel cable 1	1 PCS
3	cable frame	1 PCS	38	steel cable 2	1 PCS
4	rightangle connector	1 PCS	39	steel cable 4	1 PCS
5	M24*2 GB6176 hexagon thick nut	2 PCS	40	steel cable 3	1 PCS
6	M24*2.0 GB6173 hexagon thin nut	1 PCS	41	insurance batten	4 PCS
7	d10 GB95 washer	4 PCS	42	cable pulley for runway	6 PCS
8	M10*25 GB5781 hexagon bolt	4 PCS	43	main rope pulley axle	4 PCS
9	M10 GB43 hexagonal nut	4 PCS	44	safety pull rod	8 PCS
10	d10 GB93 spring washer	4 PCS	45	cylinder axis	1 PCS
11	M6*30-GB5781 hexagonal bolt	4 PCS	46	cylinder	1 PCS
12	moveable frame	4 PCS	47	handle shank for joystick	1 PCS
13	moveable frame axis	4 PCS	48	long straight fitting	1 PCS
14	parking baffle	2 PCS	49	screw for short insurance pull rod	2 PCS
15	ramp board	2 PCS	50	insurance axis	2 PCS
16	B spring pave	6 PCS	51	cover	2 PCS
17	M6 GB41 hexagonal nut	14 PCS	52	cable pulley	2 PCS
18	d12 GB45 washer	16 PCS	53	torsional spring for right insurance	1 PCS
19	M12*100 GB5780 hexagon bolt	4 PCS	54	M8&35 GB70.1 hexagon bolt	16 PCS
20	M6 GB8891 hexagon locknut	8 PCS	55	d8 DB93 spring washer	18 PCS
21	vice column	3 PCS	56	M8&16 GB70.1 hexagon bolt	2 PCS
22	M12 GB41 hexagonal nut	12 PCS	57	rope pulley axis	2 PCS
23	d12 GB93 spring washer	8 PCS	58	cable pulley	2 PCS
24	main crossbeam	1 PCS	59	oilless bearing	2 PCS
25	main column	1 PCS	60	locating bush	4 PCS
26	vice runway	1 PCS	61	torsional spring for rope insurance	2 PCS
27	main runway	1 PCS	62	circlip for shaft	2 PCS
28	M12*80-GB5780 hexagonal bolt	4 PCS	63	M8&16 GB70.1 hexagon bolt	4 PCS
29	vice beam	1 PCS	64	sliding block 1	2 PCS
30	plate baffle	2 PCS	65	d20 GB95 washer	4 PCS
31	hydraulic hose	1 PCS	66	left and right insurance hook	2 PCS
32	insurance joystick screw	2 PCS	67	torsional spring for left insurance	1 PCS
33	hydraulic pipe	1 PCS	68	insurance for rope	2 PCS
34	hydraulic pump	1 PCS	69	sliding block 2	2 PCS
35	screw for long insurance pull rod	2 PCS	70		

MAINTENANCE LOG

EQUIPMENT MAINTENANCE LOG

EQUIPMENT DESCRIPTION:_____

SERIAL#_____ MODEL#_____

DATE	DETAILS	INITIALS