

Rough Terrain Scissor Lifts

User Manual



Please read this manual carefully before using the
product

First of all, welcome to join the ranks of aerial work platform users. We will serve you wholeheartedly. In order to fully utilize the performance of your product, please read and understand this manual carefully before using the product. Please keep this manual properly. After you receive the product, please carefully check the damage that may be caused during transportation. If there is any damage, please contact us.

The self-propelled scissor aerial work platform produced by our company is widely used in construction, industrial and mining, stations, docks, warehouses and other places. It is a good helper for your aerial work. Thank you for your trust in our company's products. You can give us valuable suggestions on our work so that we can better serve you in the future. Please follow the safety rules in the instructions during use. Only professionally trained and authorized people can operate the machine. Failure to use the operating instructions may result in death or serious injury.



Danger

Failure to follow the instructions and safety rules in this manual could result in death or serious injury.

Before performing the operation, please confirm the following:

You have learned and practiced the rules for safe machine operation in this operator's manual.

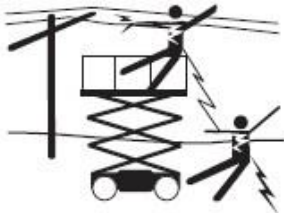
1. Avoid hazardous situations. Know and understand the safety rules before proceeding to the next step.
2. Always perform a pre-operation inspection.
3. Always perform a pre-use functional test.
4. Inspect the workplace.
5. Use the machine only as it is designed.
6. Read, understand and follow the manufacturer's instructions and safety rules - the safe operator's manual and the machine decals.
7. Read, understand and follow the user safety rules and work site regulations.
8. Read, understand and follow all applicable government laws and regulations.
9. You should be properly trained to operate the machine safely.

Designed for

This machine is intended for use only in lifting personnel, their tools and materials to elevated work areas.

⚠ Electric shock hazard

This machine is not insulated and does not provide protection against electric shock if in contact with or near electrical wires.



Maintain adequate safety distance from power lines and electrical equipment in accordance with applicable government laws and regulations and the table below.

Voltage	Required clearance
0~300V	No touching
300~50KV	3.05m
50KV~200KV	4.60m
200KV~350KV	6.10m
350KV~500KV	7.62m
500KV~750KV	10.67m
750KV~1000KV	13.72m

Consider the effects of strong winds or gusts on platform movement, wire swing and slack.

If the machine comes into contact with live wires, stay away from the machine. Do not allow people on the ground or on the platform to touch or operate the machine before power is turned off.

Do not operate the machine during lightning or high winds.

Do not use the machine as a ground wire when welding.

⚠ Tip-over hazard

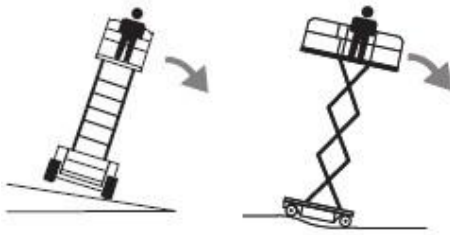
Personnel, equipment and materials on the platform shall not exceed the maximum carrying capacity of the platform and extended platform.

Maximum number of people (indoor)	3	Maximum number of people (outdoor)	2
Maximum load capacity of platform	400kg	Maximum load capacity of Extended platform	113kg

Work Area

The platform can only be raised on firm, flat and level ground. The driving speed after the platform is raised should not exceed 0.8 km/h.

Safety Rules



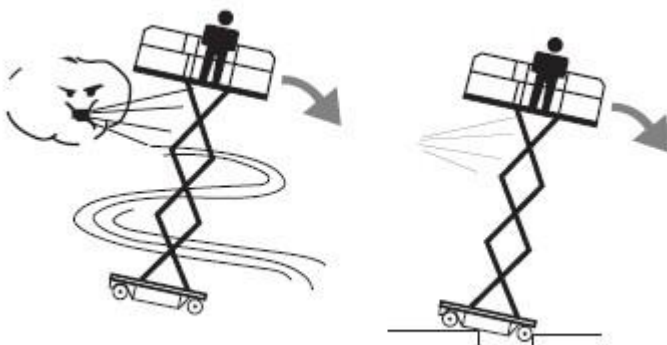
The tilt alarms on the chassis and platform will only sound when the machine is severely tilted.

If the tilt alarm sounds:

Lower the platform to its lowest position. Move the machine to firm, level ground. If the tilt alarm sounds while the platform is raised, lower the platform very carefully.

When using the machine outdoors, do not raise the platform when the wind speed may be greater than 12.5m/s. If the wind speed exceeds 12.5m/s after raising, lower the platform immediately and do not continue to operate the machine.

Do not operate the machine in strong or gusty winds. Do not increase the surface area of the platform or load. Increasing the area exposed to the wind will reduce the stability of the machine.



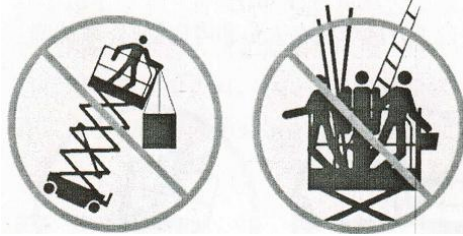
When in the folded state, be very careful and reduce speed when driving on uneven terrain, gravel, unstable or slippery surfaces, near cave entrances and steep slopes.

When in the raised state, it is strictly forbidden to drive on uneven terrain, unstable or other dangerous conditions.

Do not push or pull any objects outside the platform range.



Do not use the machine as a crane. Do not place, tie down or hang loads on any part of the machine. Do not use the platform to push the machine or other objects. Do not operate the machine with the chassis tray open. Do not lean the platform against adjacent structures. Do not change or disable limit switches. Do not tie the platform to adjacent structures. Do not place loads outside the platform guardrails.



Do not modify or alter the aerial work platform without the manufacturer's written permission. Installing attachments on the platform, skirtings or guardrails for tools or other materials will increase the weight and surface area of the platform or increase the load. Do not change or damage any parts that may affect the safety and stability of the machine.

Critical parts that affect the stability of the machine cannot be replaced with parts of different weight or specifications.

Ladders or scaffolding must not be placed in the platform or against any part of the machine.

Only transport tools and materials whose weight is evenly distributed and can be moved safely by someone on the platform.

Do not use the machine on moving or dynamic surfaces or vehicles. Make sure all tires are in good condition and that the nuts are properly tightened.

Crushing hazard

Keep hands and arms away from shear and crush hazards.

When folding rails, keep hands away from pinching hazards.

Always hold the rails when removing the rail locking pins to prevent the platform rails from falling.

When operating the machine from the ground using controls, use good judgment and planning. Maintain a safe distance between the operator, the machine, and fixed objects.

Dangers of operating on slopes

The maximum gradeability allowed by the machine is 30% (17°). Do not drive the machine on a slope that exceeds the maximum gradeability of the machine. The maximum gradeability of the machine applies to the machine in the retracted state.

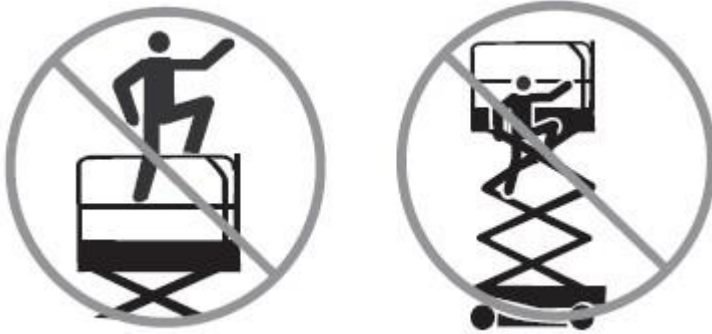
Note: The maximum gradeability is limited by ground conditions and traction.

Fall Hazard

During operation, personnel on the platform must wear full body safety gear and fasten the safety belt hooks to approved rope fixing points. Only one hook can be tied to each rope fixing point.



Do not climb or sit on the platform guardrail. Always stand firmly on the platform floor.



Do not climb down from the platform when it is raised.

Keep the platform floor free of debris.

Close the access door before operating.

Do not operate the machine without properly installed guardrails or if the access door does not allow for safe operation.

Do not enter or exit the platform unless the machine is in the stowed position.

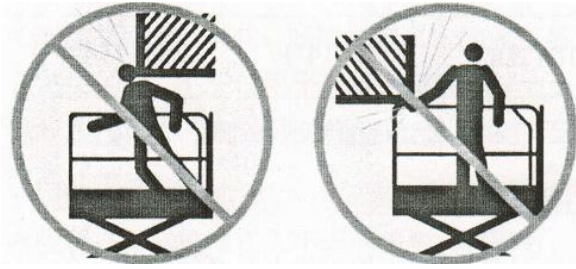
Collision hazard



When moving or operating the machine, be aware of your field of vision and blind spots.

When moving the machine, be aware of the position of the extension platform.

Check the work area for overhead obstructions or other possible hazards.



The user must follow the rules of the employer, workplace and government laws and regulations regarding the use of personal protective equipment.

Observe and use the directional arrows for travel and steering functions on the platform controls and platform decals.

Do not operate the machine in the path of any crane or mobile overhead machinery unless the crane controls are locked or precautions are taken to prevent any potential collision.

Do not drive recklessly or playfully while operating the machine.

Lower the platform only when the area below the platform is clear of people and obstacles.



Limit travel speed based on ground conditions, congestion, grade, location of occupants, and any other factors that could cause a collision.

Hazard of component damage

Do not use any battery charger greater than **48V** to charge the battery. Do not use the machine as a ground when welding.

Explosion and Fire Hazard

Do not use or charge the machine in any place where flammable or explosive gases or dust may be present.

Risk of machine damage

Do not use a damaged or faulty machine.

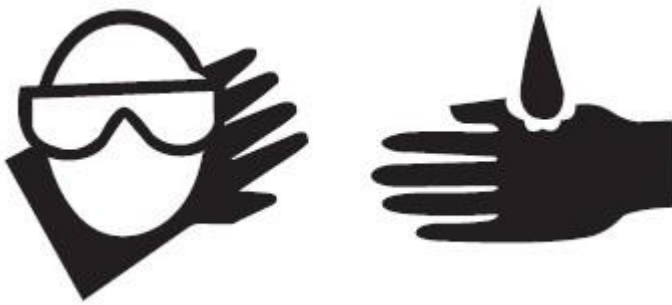
Before each use, a thorough pre-operation inspection of the machine should be performed and all functions tested. Damaged or malfunctioning machines should be immediately marked and removed from operation.

Ensure that all maintenance operations are performed as specified in this manual.

Ensure that all decals are in place and easily identifiable.

Battery safety

Burn Hazard



Batteries contain acid. Wear protective clothing and goggles when working with batteries.

Avoid spilling or contact with battery acid. Neutralize spilled battery acid with baking soda and water.

Explosion Hazard



Keep sparks, flames and lighted cigarettes away from the battery. The battery can emit explosive gases.

The battery tray should remain open during the entire charging period.

Do not touch the battery terminals or cable clamps with tools that could cause sparks.

Electric shock /Burn hazard



Connect the charger only to a grounded AC three-pin outlet.

Check cords, cables and connections daily for damage. Replace damaged parts before operation.

Avoid electrical shock from contact with battery terminals. Remove all rings, watches and other conductive jewelry.

Tip-over hazard

Do not use a battery that is lighter than the original battery. The battery not only acts as a counterweight in the chassis, but is also essential to maintaining the stability of the machine.

Lock after each use

1. Choose a safe parking location on solid level ground, free of obstacles and away from busy transport areas.
2. Lower the platform to the lowest position.
3. Turn the key switch to the middle position and remove the key to prevent unauthorized use.
4. Cushion the wheels with wedges.
5. Charge the battery if necessary.

Main power switch of the equipment



Pull out the switch with force to turn on the power of the whole machine. Press the switch to turn off the power of the whole machine. When the equipment is parked for a long time, this switch should be turned off.

Charger plug and indicator light



When charging the device, please connect the charger to the correct power source as indicated. The charging indicator light shows the current charging status.

When the charger is connected to the correct power source, the battery will be charged and the device will not be able to operate at this time.

Ground Controls



1,Fuse.

2,Key switch. When the key switch is turned to the platform position, the machine can only be operated using the platform controls. When the key switch is turned to the center position, the machine is inhibited from operating. When the key switch is turned to the chassis position, the machine can only be operated using the ground controls.

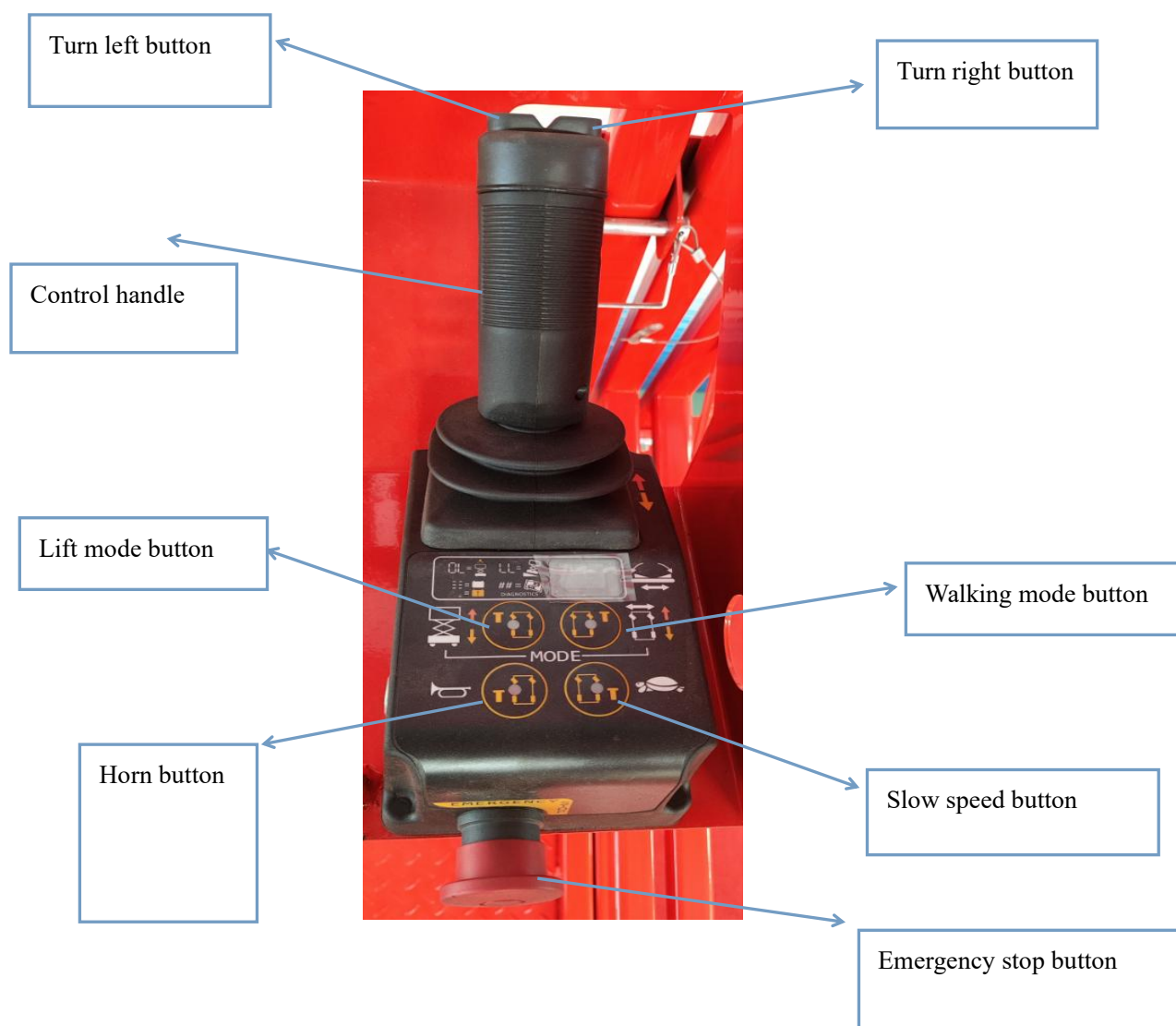
3,Emergency stop button. Push the red emergency stop button inward to the "off" position, and all machine functions will be disabled. After the red emergency stop button is turned out in the direction of the arrow, the machine operation function can be restored.

4,Ground control buttons. After turning the key switch to the chassis position, press and hold the "" and "" buttons at the same time, Can make the device rise.

Press and hold the "" and "" buttons at the same time to make the device descend.

Note: When operating the equipment to be lifted or lowered, the outriggers should be supported firmly, all of them should be on the ground, and the equipment should be in a level state.

Platform Controller



Instructions:

1. Turn the key switch of the ground controller to the platform position and you can use the platform controller to operate the machine.
2. Press the outrigger mode button to manually operate the outriggers. The four buttons correspond to the four outriggers. The lift button corresponds to the left front outrigger, the walk button corresponds to the right front outrigger, the horn button corresponds to the left rear outrigger, and the turtle button corresponds to the right rear outrigger. When operating manually, press and hold the button and then push the handle, and the corresponding outrigger will rise and fall. Push forward to rise, and push backward to fall. If you do not press any button and push the handle, push forward, and the four outriggers will shrink at the same time. Push backward, and the outriggers that have not touched the ground will extend first, until all four outriggers are on the ground, and the four outriggers will automatically adjust according to the horizontal position of the platform until the device is level. At this time, the horn will sound and the digital tube will display LE, indicating that the automatic leveling is successful and the device is in a horizontal position. LE will only be displayed when all the outriggers are on the ground and the device is level. Press the outrigger mode button again to make the button pop up, and then exit the outrigger operation mode.
3. Safety protection. The outriggers can only be operated when the platform is at the lower limit position. Walking operation is not possible when any outrigger is on the ground. When the equipment is tilted, it cannot rise above the lower limit position.
4. After exiting the outrigger operation mode, press the lift mode button, the button indicator light will light up, and the device will enter the lift mode. At this time, press the enable button on the control handle and push the handle forward, the device will rise, the greater the push, the faster the rise. Release the handle and return it to the middle position, the device will stop. Push the handle backward and the device will descend.
5. After lowering the device to the lowest position and retracting all the outriggers, you can operate the device to walk. Exit the outrigger operation mode, press the walk mode button, the button indicator light will light up, and the device will enter the walk mode. At this time, press the enable button on the control handle and push the handle forward. The device will move forward. The greater the push, the faster the walking speed. Release the handle and return it to the middle position. At this time, the device stops. Push the handle backward and the device will move backward. The greater the push, the faster the walking speed. The steering button on the top of the handle can control the left and right turns of the device.
6. In walking mode, press the turtle button and the button indicator light will light up, then the vehicle will enter the low-speed walking state. Press the turtle button again and the button indicator light will go out, then the vehicle will resume the normal walking speed state.

Check the entire machine:

- ☐ Check for cracks in welds or structural components.
- ☐ Check if the machine is dented or damaged.
- ☐ Ensure that all structural members and other critical components are intact, and all related fasteners and pins are in place and tightened.
- ☐ Guardrails are installed, guardrail pins are in place, and bolts are properly tightened.
- ☐ Ensure that the chassis battery tray and fuel pump tray are closed and locked, and the battery is connected correctly.

Pre-operation inspection

- ☐ Ensure the manual is complete and legible.
- ☐ Ensure all labels are legible, legible and in place.
- ☐ Check for hydraulic fluid leaks and proper oil level and add oil as needed. Refer to the Maintenance section.
- ☐ Check for battery fluid leaks and proper fluid level. Add distilled water as needed.
- ☐ Electrical components, wiring and cables are intact.
- ☐ Hydraulic hoses, connectors, hydraulic cylinders and hydraulic valve blocks are intact.
- ☐ Battery packs and connections are normal.
- ☐ Drive motors/motors
- ☐ Wear-resistant sliders and pads
- ☐ Tires and wheels
- ☐ Limit switches, alarms and horns
- ☐ Nuts, bolts and other fasteners
- ☐ Platform entry door
- ☐ Indicator lights and alarms
- ☐ Extension platform
- ☐ Scissor arm pins and fasteners
- ☐ Platform control handles
- ☐ Brake manual release components

NOTE: If the platform must be raised to inspect the machine, make sure the service supports are used properly.



Workplace inspection

Be aware of and avoid the following dangerous situations:

- Steep slopes or holes
- Protrusions, ground obstacles or debris
- Sloped surfaces
- Unstable or slippery surfaces
- Overhead obstacles and high-voltage wires
- Hazardous locations
- Surface supports that are insufficient to withstand the full load forces imposed by the machine
- Lightning and high wind weather conditions
- The presence of unauthorized personnel
- Other possible unsafe conditions

The operation cannot be performed unless:

You have learned and practiced the rules for safe machine operation in this operator's manual.

- 1 Avoid hazardous situations.
- 2 Always perform a pre-operation inspection.
- 3 Inspect the workplace.
- 4 Always perform a pre-use function test.
- 5 Use the machine only for its intended purpose.

Basic principles

Function tests are used to detect faults before starting to use the machine.

The operator must test all functions of the machine according to the step-by-step instructions.

It is forbidden to use a machine that has a fault. If a fault is found, the machine must be tagged and removed from service.

Only qualified service technicians may repair the machine in accordance with the manufacturer's regulations.

After the repairs, the operator must once again carry out the pre-operation inspection and function tests before starting to use the machine.

Test the limited walking speed

When the platform is raised, make sure that the pit flaps on both sides are fully opened and the lower limit travel switch is completely disengaged. At this time, the travel speed of the equipment will be limited.

Qualified result: The maximum travel speed when the platform is raised should not exceed 20cm/s.

Unqualified result: If the maximum travel speed when the platform is raised exceeds 20cm/s, please mark the machine immediately and stop running.

Testing the Tilt Alarm

NOTE: Perform this test from the ground using the ground controls, not standing in the platform.

Stop the equipment forward on a slope with a slope of more than 3°, lift the platform, and the lower limit travel switch is completely disengaged. At this time, the equipment will have a tilt alarm.

Qualified result: The platform should stop lifting, the "LL" alarm will be displayed on the ECU panel, and the alarm will sound.

Extending and retracting platforms

1. Press the positioning pedal on the extension platform.
2. Push the extension platform guardrail to extend the platform to the appropriate position.

Note: Do not stand on the extension platform when operating it.

Fault Codes

01	System initialization failure	02	System communication failure	03	Invalid Mode
0A	platform overweight alarm	12	Move the toggle switch before powering on	18	Pothole protection failure
31	Pressure sensor 01 fault	32	Angle sensor 01 fault	33	Level sensor failure
34	Pressure sensor 02 fault	35	Angle sensor 02 fault	36	Battery liquid level alarm
37	Charging power failure alarm	38	Internal battery failure alarm	39	Charging current fault alarm
40	battery temperature alarm	42	Turn left before power on and follow the prompt	43	Turn right before power on and follow the prompt
46	The handle has been pressed before power on	47	The handle has been pushed before power on	52	Forward valve short circuit fault
53	Reverse valve short circuit fault	54	Rising valve short circuit fault	55	Downward valve short circuit fault
56	Right turn valve short circuit fault	57	Left turn valve short circuit fault	58	Brake valve short circuit fault
59	Forward valve open circuit fault	5A	Reverse valve open circuit fault	5B	Rising valve open circuit fault
5C	Downward valve open circuit fault	5D	Right turn valve open circuit fault	5E	Left turn valve open circuit fault
5F	Brake valve open circuit fault	60	Motor enable fault	61	Alarm valve failure
62	Speaker failure	63	High speed valve failure	64	Motor enable 2 fault
65	Oil pump failure	66	Strobe fault	68	Low voltage fault
80	Weight 80% alarm	90	Weight 90% alarm	99	Weight 99% alarm
A1	Exceeding the height limit	A2	Sloped potholes with limited walking	LL	Tilt fault
C1	segmented descent	D1	rises to the top		

Common troubleshooting methods

NO.	Fault content	Possible reasons	Repair method
1	Both the upper and lower platforms display 02 Communication failure	1) The upper and lower table connection wires and the DTM 6-pin plug are in poor contact or the leads are damaged.	Reconnect or replace
		2) Check if the 36-pin plug has poor contact or is damaged, especially 1B, 1C, 2C, and 3B.	
		3) Check whether the plug pins of the upper and lower stage connection cables are consistent with those of the upper stage controller.	Reconnect the cable
		4) Improper or bad controller settings.	Reset or replace device
2	18 pothole alarm	1) The lower position switch has poor contact or is damaged.	Reconnect or replace
		2) Is the pothole protection deployed and the pothole switch not touched or damaged.	
		3) Improper or bad controller settings.	Reset or replace device
3	LL level alarm	1) Check if the switch plug is in poor contact or damaged.	Reconnect or replace
		2) The ground is not level	Reset or replace the device.
		3) The horizontal switch plug has poor contact or is damaged	Reconnect or replace
		4) When the horizontal switch is not installed, the horizontal angle is inaccurate	Reset
		5) Improper or bad controller settings.	Reset or replace device
4	There is a display when going on stage, but no display when leaving stage	1) The lead wire of the emergency stop control relay is in poor contact or damaged.	Reconnect or replace
		2) Check whether the 36-pin plug has poor contact or is damaged.	
		3) Improper or bad controller settings.	Reset or replace device
5	No display on the upper or lower stage	1) The key switch or the emergency stop switch for the upper and lower platforms is not turned on.	Re turn on.
		2) Check whether the insurance on the vehicle is disconnected or damaged.	Re-replace

		3) The battery is too low.	Charge
		4) The controller is defective.	Replace
6	XX opens the way	The corresponding XX component plug is not properly plugged in or is disconnected or defective.	Reconnect or replace
		Improper or bad controller settings.	Reset or replace device
7	XX short circuit	The corresponding XX component plug is not properly plugged in or is defective.	Reconnect or replace
		Improper or bad controller settings.	Replace
8	The machine stops intermittently during travel	1) Insufficient power	Charge
		2) Level is not calibrated	Recalibrate
9	Angle, pressure, sensor failure	1) The sensor plug and lead wire are in poor contact or inserted incorrectly.	Reconnect or replace
		2) The sensor is defective.	
		3) Improper or bad controller settings.	
10	12 The toggle switch moves before power is turned on	Check whether the wiring harness and torsion switch of the chassis torsion switch are stuck.	



Comply and obey:

When lifting the machine with a crane, use good judgment and planning to control the machine's movements. Only personnel qualified for overhead lifting operations may load and unload the machine. The transport vehicle must be parked on level ground. The transport vehicle must be secured to prevent movement when loading the machine. Make sure the vehicle capacity, loading surface, chains, or straps are adequate to support the weight of the machine. Refer to the nameplate for machine weight. The machine must be on a level surface or securely secured before releasing the brakes. Prevent guardrails from falling when removing the latches. Always hold guardrails firmly when folding them. Do not drive the machine on a slope that exceeds the maximum gradeability rating. If the slope of the transport vehicle exceeds the maximum gradeability rating, you must use a winch to load and unload the machine as described in the brake release operation.

Brake release operation

For hydraulically driven products

1. Chock the wheels with wedges to prevent the machine from moving.
2. Make sure the winch rope is properly secured to the chassis tie-down points and that there are no obstructions in the path.
3. Push in the black brake release knob to open the brake valve.
4. Press the red brake release pump knob until the brake releases.

Ensure transportation safety

Always lock the machine wheels when preparing for transport. Retract and secure the extended platform. Before transporting, turn the key switch to the "off" position and remove the key. Inspect the machine thoroughly for loose or unsecured parts. Secure the machine to the transport surface using the tie-downs on the chassis. Use a minimum of four chains or straps. Make sure the chains or straps used are of sufficient load strength.

If the guardrails are folded, secure them with straps before transporting.

Check the hydraulic oil level



Having the hydraulic oil level at the proper level is critical to operating the machine. If the hydraulic oil is not at the proper level, it may damage the hydraulic components. Through daily inspections, the inspector can determine changes in the hydraulic oil level, which can indicate problems with the hydraulic system.

 **Perform this procedure with the platform in the stowed position.**

1. Visually check the fluid level on the side of the hydraulic oil tank.
Acceptable result: The hydraulic oil level should be at the mark on the tank.
2. Add oil as needed, do not add excessive oil.

Hydraulic oil specifications: Summer L-HV46 Winter L-HV32

Maintenance time table

There are four types of maintenance inspections that must be performed according to the schedule: daily, quarterly, semi-annual, and annual. The product maintenance plan is divided into three sub-items: ABC. The steps for each inspection are shown in the table below.

Inspection cycle	Inspection items
Daily or every 8 hours	A
Every quarter or every 250 hours	A+B
Every six months or every 500 hours	A+B
Every year or every 1000 hours	A+B+C

Inspection items A			
A-1	Check the manual and decals	A-3	Functional testing
A-2	Pre-operation inspection	A-4	Lubricate the steering knuckle

Inspection items B			
B-1	Check the battery	B-8	Test drive speed - lifting state
B-2	Check the wires	B-9	Test drive speed - slow
B-3	Check tires and wheels	B-10	Conduct hydraulic oil analysis
B-4	Checking the emergency stop function	B-11	Check the hydraulic tank cap ventilation system
B-5	Testing the Key Switch	B-12	Check chassis tray lock components
B-6	Test drive brake function	B-13	Check the lower limit switch and pothole protection switch
B-7	Test drive speed - retracted state	B-14	Check upper limit switch

Inspection items C			
C-1	Check the wear-resistant slider of the scissor arm	C-2	Replace the hydraulic oil tank return filter assembly

Inspection items A

A-1 Check the manual and labels

Maintaining the manual in good condition is key to safe operation.

Also, be sure to keep all safety labels in good condition. Labels alert operators to safety hazards when using the machine. They also provide users with operating and maintenance information. Blurred labels will not serve as a warning and may result in a dangerous operating environment.

Tip: If you need to replace the manual or labels, please contact us or your dealer.

A-2 Pre-operation inspection

Completing the pre-operation inspection is essential for the safe operation of the machine. The pre-operation inspection is completed by visual inspection before the machine is operated. This inspection is used to detect obvious problems with the machine before functional testing, and can also be used to determine whether routine maintenance is required.

The complete inspection procedure can be found in the "Pre-operation Inspection" section of this manual.

A-3 Perform functional testing

Completing the functional testing is essential for the safe operation of the machine. Functional testing is used to detect whether the machine has any functional defects before the machine is operated. Defective machines cannot be used. If a functional defect is found, the machine should be marked and removed from service immediately.

The complete inspection procedure can be found in the "Function Testing" section of this manual.

A-4 Lubricate the steering knuckle



This operation should be performed every 100 hours.

Regular lubrication of the steering knuckle is essential for machine performance and service life. Long-term use of a steering knuckle that is not effectively lubricated will cause damage to the parts.

1. At the top of the steering knuckle, find the hole for filling grease.
2. Fill the knuckle with enough grease until the grease covers the bearing.
3. Repeat the above process for the other knuckle.

Grease specification:

3# general purpose lithium grease

Inspection items B

B-1 Check the battery



This inspection should be performed every 250 hours or quarterly, whichever comes first.

Good battery condition is essential to the performance and safe operation of the machine. Incorrect electrolyte level and damaged cables or connectors can cause damage to machine parts and hazardous conditions.

Electric shock hazard

Working with live electricity may cause serious personal injury or death. Remove all rings, watches and other jewelry when working.

Risk of bodily injury

Battery electrolyte is corrosive. Avoid contact with hands or other parts of the body with spilled electrolyte to avoid injury. Neutralize the spilled electrolyte with baking soda water.

1. Wear protective clothing and goggles.
2. Loosen the door lock of the battery tray on the side of the chassis and open the side door of the chassis.
3. Make sure the battery cable connector is not corroded.
4. Make sure the battery and cable are firmly fixed.
5. Check whether the batteries in each battery pack are connected correctly.
6. Check whether the battery charger plug and wire insulation are excessively worn and damaged. If so, please replace them in time.

B-2 Check the wires



This inspection should be performed every 250 hours or quarterly, whichever comes first.

Maintaining electrical wiring in good condition is essential to safe operation and good machine performance. Failure to detect and replace burned, chafed, corroded or bent electrical wiring will result in an unsafe operating environment and may cause damage to the machine.

Electric shock /Explosion Hazard

Contact with hot or electrical conductors could result in serious injury or death. Do not wear rings, watches, or other jewelry.

1. Check if the ground wire under the chassis is missing
2. Check if there are any burned, scratched, corroded, bent or loose wires in the following areas:

- Ground controller wiring
 - Hydraulic valve assembly wires in the oil pump tray
 - Battery area wires in the battery tray
 - Inside the platform controller box
7. Check if there are any burned, scratched, corroded, bent or loose wires in the chassis and scissor area
8. Check if there are any burned, scratched, corroded, bent or loose wires in the following areas:
- Scissor arm wires
 - ECU to platform
 - Wiring harness connector connected to the platform

B-3 Check tires and wheels



This inspection is performed every 250 hours or one quarter, whichever comes first.

Keeping the tires and wheels in good condition is essential for safe operation and good performance. Failure of tires and wheels may cause the machine to tip over. If not discovered and repaired in time, it may also cause machine damage.

1. Check the tire tread and side for scratches, cracks, punctures and other abnormal wear.
2. Check the wheel for damage, bending and cracking.

B-4 Check the emergency stop function

This inspection is performed every 250 hours or one quarter, whichever comes first.

Proper emergency stop function is essential for safe operation of the machine. An abnormal red emergency stop button will not cut off the power and stop all functions of the machine, resulting in a dangerous situation.

B-5 Test the key switch

This inspection is performed every 250 hours or one quarter, whichever comes first.

Proper key switch action and response are essential for safe operation of the equipment. The machine can be operated by ground controls or platform controls and switched by key switches. Failed switches may cause dangerous operation.

This step requires the use of the platform controls on the ground, so do not stand in the platform.

1. Pull out the red emergency stop button on the ground and platform controls.
2. Turn the key switch to platform controls.
3. Check the up and down functions in the ground controls.

Pass result: The machine does not move.

4. Turn the key switch to ground controls.
5. Check the up and down functions in the platform controls.

Pass result: The machine does not move.

6. Turn the key switch to the off position.

Pass result: The machine does not move.

B-6 Test the drive brake function



This inspection should be performed every 250 hours or once a quarter, whichever comes first.

Correct braking action is essential to safe operation. Braking should be smooth, without delay, jerking or unusual noise.

The hydraulic release brake system should also function normally.

To complete the brake function test, the machine must be on a firm, level and unobstructed surface, with the machine in the stowed position and the extended platform fully retracted.

Maximum braking distance: $100\text{cm} \pm 30\text{cm}$

B-7 Test drive speed – retracted state



This inspection is performed every 250 hours or once a quarter, whichever comes first.

Normal drive function is essential for operational safety. The drive function should respond to the operator quickly and smoothly. There should be no delays, bumps and abnormal noises during normal operation.

The drive speed test must be completed on a firm, level and obstacle-free ground.

Qualified result: The fast travel speed in the retracted state is not less than 4.5km/h

B-8 Test drive speed - lifting state



This inspection is performed every 250 hours or once a quarter, whichever comes first.

Normal drive function is essential for operational safety. The drive function should respond to the operator quickly and smoothly. There should be no delays, bumps and abnormal noises during normal operation. The drive speed test must be completed on a solid, level and obstacle-free ground.

Qualified result: The travel speed in the lifting state does not exceed 0.8km/h.

B-9 Test Drive Speed - Slow



This inspection is performed every 250 hours or once a quarter, whichever comes first.

Normal drive function is essential for operational safety. The drive function should respond to the operator quickly and smoothly. There should be no delays, bumps and abnormal noises during normal operation.

The drive speed test must be completed on a solid, level and obstacle-free ground.

Qualified result: The slow travel speed in the retracted state is not less than 2.5km/h.

B-10 Perform hydraulic oil analysis



This inspection is performed every 250 hours or once a quarter, whichever comes first.

Replacing or testing the hydraulic oil is critical to the performance and service life of the equipment. Contaminated hydraulic oil may affect the performance of the equipment, and continued use will cause damage to the equipment. Harsh working environments should be checked more frequently.

Before replacing the hydraulic oil, you can use an oil separator to test whether it is necessary.

If the hydraulic oil has not been replaced for more than half a year, it should be tested once a quarter. If it fails the test, the hydraulic oil should be replaced.

B-11 Check the hydraulic oil tank cap ventilation system



This inspection should be performed every 250 hours or once a quarter, whichever comes first.

A well-vented hydraulic tank cap is essential to good machine performance and service life. A dirty or clogged exhaust cap may cause the machine to perform poorly. Check more often in harsh working environments.

1. Remove the exhaust cap from the hydraulic tank.
2. Ventilation inspection.

Acceptable result: Air can pass through the exhaust cap.

Unacceptable result: Air cannot pass through the exhaust cap. Clean or replace the exhaust cap. Proceed to step 3.

Note: When checking the tank cap ventilation, air should be able to pass freely.

3. Clean the tank exhaust cap carefully with a mild solvent and dry with low-pressure compressed air. Repeat step 2.
4. Install the hydraulic tank exhaust cap.

B-12 Check chassis tray lock components



This inspection is performed every 250 hours or once a quarter, whichever comes first.

Keeping the chassis tray lock components in good condition is critical to the performance and service life of the equipment. Damaged chassis tray lock components may cause the tray to open accidentally, posing a safety hazard.

B-13 Check the lower limit



This inspection should be performed every 250 hours or quarterly, whichever comes first.

A good limit switch is essential to the performance and safe operation of the machine. Operating a machine with a defective limit switch will reduce machine performance and create a potentially unsafe working environment.

To complete this inspection, the machine must be on a firm, level surface free of obstructions.

B-14 Check the upper limit switch



This inspection should be performed every 250 hours or quarterly, whichever comes first.

A good limit switch is essential to the performance and safe operation of the machine. Operating a machine with a defective limit switch will reduce machine performance and result in a potentially unsafe working environment.

The machine must be on a firm, level surface free of obstructions to complete this functional inspection.

Inspection items C**C-1 Check the wear-resistant slider of the scissor arm**

Perform this step every 1000 hours or once a year, whichever comes first.

The quality of the scissor arm wear slider is critical to the safe operation of the machine. Using a worn wear slider may cause component damage and unsafe working hazards.

The wear pads should be inspected with the platform retracted.

1. Measure the distance from the scissor arm sleeve to the top plane of the platform slide rail.

Acceptable result: The measurement result is greater than or equal to 73 mm.

Unacceptable result: The measurement result is less than 73 mm. Replace the wear slider.

2. Apply lubricant between the slide rail and the wear slider.

C-2 Replace the hydraulic oil tank return filter assembly

Perform this step every 1000 hours or once a year, whichever comes first.

Replacing the return oil filter is essential for good performance and life of the machine. A dirty or clogged filter may affect machine performance and continued use will cause parts damage. Filters should be replaced more frequently in harsh working conditions.

**Burn hazard**

Be careful with hot oil. Contact with hot oil may cause severe burns.

**Hydraulic oil tank return**

The filter is installed in the middle area between the functional valve block and the oil tank.