

Aerial Work Platform



Operation And Maintenance Manual

Fronteq(Changzhou)Machinery Co.,Ltd

www.fronteqlift.com

607110000162

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Please contact us:

Website: www.fronteqlift.com

Mailbox: info.awp@fronteqlift.com.cn



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First , sincerely thank you for purchasing Eurocrane (Changzhou) products.

◆ In order to make full use of the performance of this machine, this manual carries out the correct use method and daily inspection and maintenance methods.

◆ In order to make the machine safe to use, the operator should have sufficient knowledge and necessary skills.

◆ Please fully understand the contents of the operation, checkpoint, and maintenance described in this manual before using this machine. And on this basis,

Implement "**safe operation, correct management**".

Please observe the safety precautions described in this manual. Slacking this precaution will result in injury or even death.

◆ Please keep this instruction manual at hand of operators or maintenance personnel so that you can read it at any time.

◆ When this manual is lost or damaged, please order it from a nearby dealer immediately.

◆ When this machine is transferred, please attach this manual to the next owner.

◆ Due to the improvement of the product, some details of the contents of this manual may be inconsistent with this machine. If unknown, Please consult your nearest dealer.

◆ When inquiring about the machine, please indicate the MODEL and manufacturing number of the machine (SER.NO.) .

1. Safety

In order to ensure the safety of operations during operation, inspection, maintenance, installation, movement, and transportation, this manual describes general precautions and safety precautions.

Please use this machine on the basis of fully understanding the contents of these precautions. In order to facilitate the understanding of the safety precautions indicated in this manual and the products, as well as the hazard levels of the effects of the body, use the "Danger", "Warning", "Attention" and other signs, and attach the attention to the following, the difference is as follows Show.

When you see these labels, follow the instructions to implement preventive measures and perform **“safe operation and proper mechanical management”**.

! Danger	Indicates an imminent danger of causing death or significant harm.
! Warning	Indicates a potential hazard that could result in death or major injury.
! Attention	Indicates a potential hazard that could result in minor or moderate injury and indicates damage to the item.
Importance	Indicates matters that should be known in advance about the maintenance and safety of this machine.
Knowledge	It shows the basic items that must be known when using this machine and performing work.

In addition, for the classification of injury / damage degree, please refer to the following content.

Δ Serious injury: blindness, injury, burns, electric shock, fractures, poisoning, etc. will leave sequential, as well as injuries that require hospitalization or long-term regular hospital treatment.

Δ Mild or moderate degree of injury: no need for hospitalization or long-term regular hospital injury.

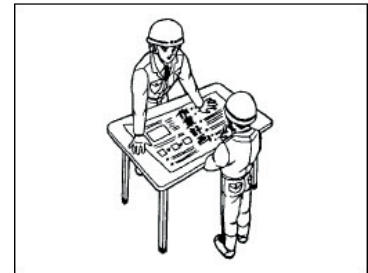
Please follow the instructions in this manual. In addition, this manual does not describe all matters related to safety. In addition to the items already documented,

please be careful that the operation or maintenance personnel themselves pay careful attention to safety.

1.1 Notes Before Operation

Important Prior consultation before the operation

- For safe work, please strictly observe the following items when planning your work plan.
- Develop an operation plan that is appropriate for the condition of the work site and the type and capability of the aerial work vehicle.
- Work according to the job plan.
- Clear work methods and operating procedures.
- Let the relevant operators know the work plan and work method.
- Designate the job commander and perform the job command according to the work plan.



● Danger Restricted use

- Use this unit between 0 and 40C ambient temperature.
- This machine is subject to regulations and is not allowed to walk on general roads.
- This unit is an indoor special machine. Do not use it outdoors.
- Do not use it in a place with strong winds even indoors. There is a possibility of a rollover.

Warning Read this manual thoroughly and follow its instructions and

warnings

- Before using this machine, please read this manual thoroughly and use it based on the full understanding of its contents. Please understand this manual and the safety signs and warnings posted on this machine for safe operation. Unintended use is the cause of personal or material damage.
- Keep this manual in a fixed location so that all personnel who operate the machine can confirm it at any time. In addition, please be sure to attach this manual when the machine is borrowed.
- Keep this manual and the security label in a state where you can read them at any time. When the damage cannot be read or lost, please order from the seller.



Important Preparation of safety equipment

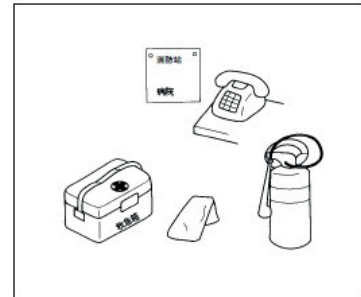
- Prepare for the occurrence of injuries, accidents, and fires.

- Prepare emergency teaching boxes and fire extinguishers, and formulate fire and accident handling methods.
- Please familiarize yourself with the operation and use of fire extinguishers.
- Determine the storage place of the emergency education box, check it regularly, and replenish its contents if necessary.
- Please write down the emergency contact number of the medical institution, fire station (emergency train).

Warning Safe operation quality assurance

●When performing the operation, inspection, and maintenance of this machine, please observe all the rules of beauty safety. Precautions. Operating procedures, etc.

- Please do not do it sharply. Rough operation.
- When any abnormality or danger occurs during the operation, stop the operation immediately. In addition, the judgment of the job suspension shall be determined by the judgment of the job leader.



●When you feel that there is an abnormality in the machine, immediately stop the operation to ensure safety, and the well is quickly contacted with the manager. When you restart your work, use the repairs and repair them.

Warning Safe wear of clothing and protective gear

●When working, wear a suitable fit and fit clothing, and wear a safety helmet (helmet) and safety boots.

● Seat belts are designed to prevent falling accidents. Please choose a suitable body and use a seat belt when working on the work platform.

● Fat clothing and necklaces and other decorations may be caught by the operating levers and protrusions, which may hinder the work. Please do not wear them.

● Wear safety glasses, protective gloves, dust masks, soundproofing appliances, and safety belts that are necessary for safety.

● Please confirm the function of various protective equipment before use. Do not use if there is any abnormality.

Also, please do not wear clothing with flaming oil or banana water.



Danger Confirmation of the workplace, prohibition

of the workplace

- At the job site, please pay attention to the general staff and operators and the surrounding conditions, and pay attention to ensure safety.● Please use the fence that is prohibited from entering, and the scope of work should be properly enclosed so that non-related personnel cannot enter. When someone approaches the work area, stop the work and issue a warning to respond.
- Please confirm the hazardous materials and obstacles in the working area and take safety measures.
- When other working vehicles are approaching during work, please be careful to avoid contact accidents. If necessary, please configure the guidance personnel to explore security measures such as guidance, attention, and notice.



Warning Precautions when working together

- When operating the machine, set a fixed signal in order to ensure reliable contact between the operator on the work platform and the operator when operating the work platform outside the work platform. And take necessary measures such as the designated person to send signals.
- When you work together or set up a guide person, please discuss the contents of the work beforehand, set a fixed signal, and work with the specified signal. Please specify the person who sent the signal as one person. Simultaneous signals from several people can cause confusion and cause accidents.
- To ensure safety, please do not use radios, headphones, etc. that interfere with signals and reports.

Warning Prohibition of fatigue and drinking operations

- Do not work when you are over-fatigued and drinking, or when taking hypnotic drugs.

Warning Check before working

- Before starting the job, be sure to check the machine before starting the job to confirm that there is no abnormality in the machine.
- Do not use the machine in the event of malfunction or damage. And repair immediately.

Attention Surrounding

- Scattered tools, garbage, parts, and attached oil, mud, snow, etc. may risk tripping or

slipping under the feet. Initiating an unexpected operational error that causes an incident. Please organize, rectify, and clean the work to keep it clean.

- When entering the work platform, please remove the mud and oil from the soles beforehand.

Warning Attention when going up and down

- When going up and down the work platform, please take the posture facing the machine.

Use the railings and pedals to support the body in three places (two hands and one foot or one hand and two feet).



- Please do not hold items up and down.
- Please do not jump or jump.
- After you have landed on the work platform, be sure to close and lock the door.

Warning Emergency stop action confirmation

- Please perform an emergency stop operation during walking and lift operation to confirm whether it can be stopped.

1.2 Precautions in the work

Attention Forbidden to use outdoors (indoor special machine)

- This machine is an indoor special machine. Please do not use it outdoors.
- Do not use it in a place with strong winds even indoors. A rollover may occur.

Danger Confirmation of surrounding conditions

- At the job site, please pay attention to the general personnel and operators and the surrounding conditions, and pay attention to ensure safety.
- When someone approaches the work area, please stop the work and issue a warning to respond.
- When other working vehicles are approaching during operation, please work cautiously to avoid contact accidents.
- If necessary, please configure the guide personnel to take safety measures such as guidance, caution, and warning.

Danger Pay attention to electric shock accident

- This unit is not insulated. Do not touch the wires or touch the wires.
- This unit cannot be connected as a grounding wire.
- When using this machine, keep a safe distance from the wires (see the table below for the specific distance).
- In the event of an electric shock, do not approach the mechanical



and electric shock personnel who have an electric shock.

To prevent secondary damage, check if the power has been turned off.

	Circuit voltage	Spacing distance
Low pressure	0~600V	1m or more
High pressure	600~7000V	1.2m Or more
UHV	7000~60000V	2m or more
	More than 60,000V	0.2m increase for each additional 10000V

Warning Do not remove the work platform railings

●Please do not carry out the work after removing the work platform railing, otherwise there is a danger of falling.

Note It is forbidden to push or pull with walking and lifting machines.

●Please do not use walking or lift operation, push or pull power lines or buildings, etc.

Warning Precautions when setting.

● This machine is not allowed to walk on the general road according to the regulations.

●Please use it on a flat and sturdy ground.

●When working and walking on uneven ground or weak ground, there will be the danger of rollover.

●It will be extremely unstable when lifting the working platform, so please confirm the flatness and no height Work or walk after the step.

●The ground where the machine is used is inclined, weak, uneven, and sloped. etc. Please avoid using it. There is a danger of accidents such as rollovers.

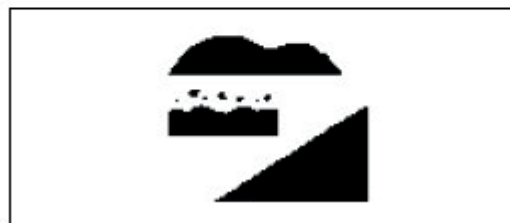
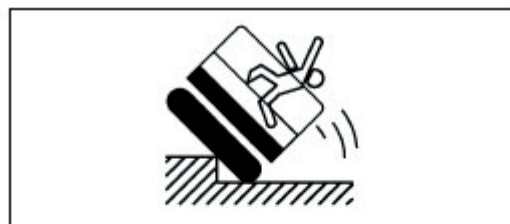
●This unit is forbidden to be used near steps, inclined surfaces, and openings. May cause Falling into the steps, slopes, and openings caused the machine to roll over. If it must be above

When using it in an occasion, please configure the monitor.

●When crossing the steps, please use the slope. The angle of the slope should be controlled below 7°.

●This machine can ensure that the inclination of safe walking is 7° or less, and it may cause the machine to roll over when walking above this inclination.

●When walking on a slope of more than 7 degrees, remove the upper control panel and connect it to the machine via the control line to remotely control the unit.



Warning It is forbidden to board outside the work platform and transfer

from the work platform.

- When carrying out work, please do not take the part other than the work platform.
 - Please do not take the railing to the work platform, do not transfer from the work platform to other places, and extend the body to work in an unreasonable position.
 - Never remove the railings.
 - Do not use foot pads or ladders in the work platform
- Put the railing door down during work.

Warning No overload

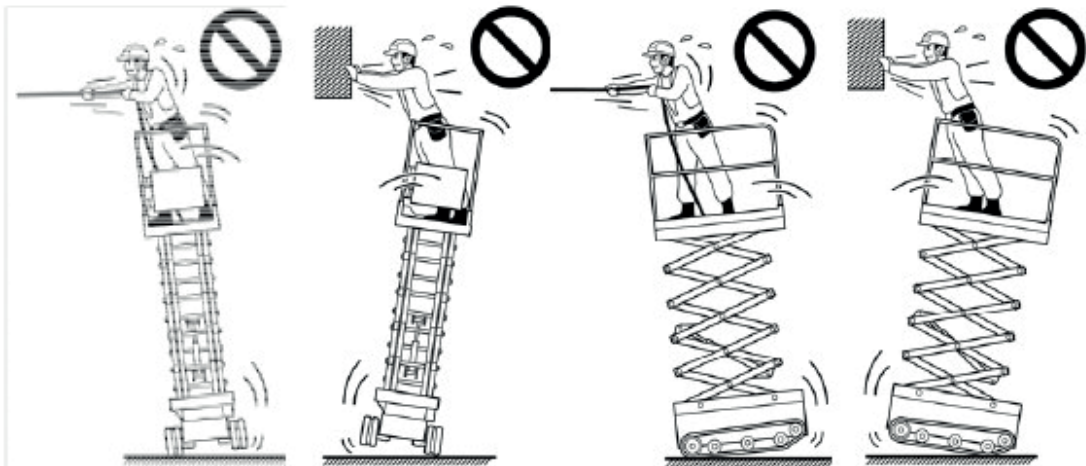
- Do not use beyond the load weight, performance and capability, and use beyond the main purpose, as this may cause an accident or mechanical failure.

Note Pay attention to the protrusion of the carrier

- Place the object in the center of the work platform, taking care not to protrude from the work platform.

Danger Overturning attention (no horizontal overload load)

- Do not apply lateral heavy loads during work. There is a danger of rollover. When the machine presses or pulls in the horizontal direction, it may cause the machine to sway greatly, causing the machine to roll over.
- The machine is shaken due to the lateral load, and the machine has the possibility of Rollover when the alarm sounds. Please stop the job at this time.



Note Confirmation around walking before walking

- Check the surroundings before walking. Please check the surrounding directions (front, back, left and right, head) and operate.

Warning Attention when walking

- When the machine is walking, in order to prevent the machine from rolling over, please lower the machine platform to the bottom of the operation.
- When the working platform slides in the extended state of the table, when walking with the direction is changed, the extension of the table will occur more than expected, and there is a risk of accidents due to collision with surrounding equipment or houses.
- When starting the machine, please walk at low speed and adjust the walking speed according to the road surface condition. Do not start urgently, stop suddenly, or make sharp turns. Do not start urgently, stop suddenly, or make sharp turns.

Warning Attention when walking on a sloping ground

- When the machine is walking, in order to prevent the machine from rolling over, please lower the machine platform to the bottom of one person operation.
- When walking on an inclined floor, in order to prevent rollover, do not extend the extension platform and walk in the forward direction.
- When walking on a sloping ground (downhill), make sure that the parking brake is valid and must travel at a low speed.
- Do not carry cargo when walking on an inclined floor. It may cause the goods to move, or may lose balance and cause unexpected accidents.
- The unit may be tilted sharply when entering the inclined floor. When driving into a sloping ground, please walk at a low speed.
- Be sure to use a wheel stop when parking on a sloping road.
- Do not enter the inclined floor when the operating platform is raised. When the operating platform is raised, it is no longer possible to walk on tilt ground and the machine will stop automatically.
- When crossing the steps, please set the slope. Please control the angle of the slope below 7 degrees.
- When the inclined road surface is V-grooved or concave-convex, the crawler will float and there is a danger of halving the brake effect. Please do not walk.
- If you go straight downhill from the uphill slope, the unit may be tilted sharply. Please drive into the flat ground first, and bring the fuselage to a stable speed and then enter the slope at low speed. In this case, make sure that the length of the flat ground exceeds the total length of the unit (1390m).
- When walking on a slope of more than 7 degrees, remove the upper operation panel and connect it to the machine through the control line to remotely control the unit.

Warning Attention when lifting

- Before lifting the machine, check if there are any obstacles on the top of the head and make sure that the machine can stop in time.
- In order to prevent the ceiling from coming up during the ascent operation, stop the rise early.
- When the machine operating platform rises, it is absolutely not allowed to enter the bottom of the operating platform. Also, do not place objects under the scissor bar.

- After the operating platform rises, do not move between the operating platform and The building. There may be a sharp change in the center of gravity that causes the machine to roll over.
- After the operating platform rises, do not lift or unload items from the platform, which may cause the machine to roll over.
- When the operating platform is lowered, please confirm if anyone is below.
- When the operating platform descend, please make sure that there are any obstacles below.

Note Pay attention to the falling objects falling from the work platform

- Please do not drop the tools and materials on the work platform during work. Keep the storage condition when you move it up and down, and use a hanging net or a sling. Also, do not load longer items that will protrude from the work platform.

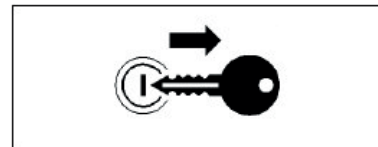
Warning Pay attention to the walking under the extended platform of

the working platform

- Please pay attention to this type of working, please prepare a monitor or guide if necessary. When walking with the slide table of the work platform, when the direction is changed, the extension of the table surface may occur more than expected, and there is a risk of accidents due to collision with surrounding equipment or houses.

Note When leaving the equipment

- When the work is temporarily interrupted, leave the Work platform back to the storage position. Remove the power key from the switch. And, confirm that the brake is effective and advance Line stop.



- The above measures should also be taken when the machine is temporarily stored due to abnormality, and the contents of the "Failure, Prohibition of Use" are known to the responsible person and the user. Please indicate the abnormal content, the responsible person, the contact number, and the retention period.

Note About sorting, rectification, cleaning and management of items

- Scattered tools, garbage, parts, and attached oil, mud, snow, etc., may cause the risk of tripping or slipping under the feet. Accidents caused by mistakes in operation and operation. In particular, it is necessary to organize, rectify, and clean the work platform and pedals. Please keep the machinery and work site clean and tidy.

Warning Use in winter/cold areas

- Please pay attention to the following items during winter when the outdoor climate is low or when freezing.
 - Please do not work on the frozen road. There is a danger of rollover. Or the risk of accidents caused by a collision with other work vehicles.

- Because it is slippery, please pay attention when going up and down the platform.
- When freezing or mechanically attaching ice, etc., do not remove it by hot water. Resin pouring hot water such as operation parts and instruments may be deformed, which may cause malfunction of the instrument.
- When the operation is finished, to prevent freezing, take measures such as covering the operation unit and instruments.

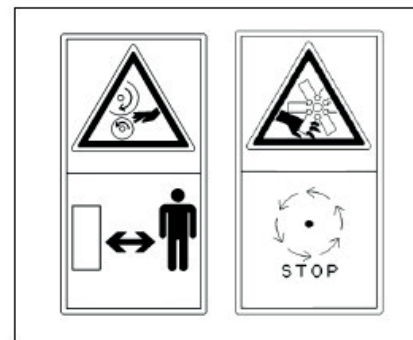
Note Smoking and flames prohibited

- This machine has a risk of ignition when it is close to fireworks, which is the cause of personal accidents or fires.
- No smoking near hydraulic fuel tanks and batteries. Sparks or other pyrotechnics are prohibited. Close.
- When performing sparking work such as sanding and welding, please avoid items that may be ignited to the distance.
- When combustibles (wild grass, fallen leaves, paper, cloth, etc.) are deposited on or near the machine, please remove before use.



Warning Being sucked in and caught

- When working near the rotating part, be careful not to get involved, and don't let the item is near the circumference of the rotating part.
- Please do not place the body or part of the body in the gap and running part of the machine.



1.3 Precautions when renting

Attention to long-term rental, rental attention

- The leasing industry should implement the following measures when renting this machine.
- Check the machine in advance, and make repairs and other necessary preparations when abnormalities are found.
- Please also lend this manual to the institution that rented the machine.
- Please rent out on the basis of the qualifications of the business unit that has rented the machine.
- Please implement the following measures when renting this machine from the rental company.
- Please use it based on the contents of this manual borrowed from the rental company.
- Please rent this machine to confirm the following items and give notice to the person who operates the machine.
- Operate the machine to qualify for the necessary driving operations.

1.4 Precautions when moving

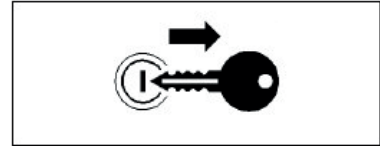
Note **Attention when loading and unloading**

- When transporting this machine, please load and unload the truck in a flat and sturdy place. When using springboards, fills, and temporary cabinets, make sure that they are full length, width, strength, and proper slope.

1.5 Precautions after homework

Note **Safety confirmation after operation**

- When leaving the machine after the end of the work, please return the work platform to the storage position, and unplug the power key from the switch. Also, confirm that the brake is valid and fix the wheel.



1.6 Precautions during check and maintenance

Important **Regular check implementation**

- Regarding the implementation essentials of inspection, inspection and maintenance, labor safety and hygiene rules have been stipulated. In addition, the specific self-inspection must be carried out by the holder of the qualifications prescribed by the Ministry of labor or by the registered inspection company.

Warning **Check and maintain in a flat place**

- Please check on a solid horizontal, no-load operation, and storage position.

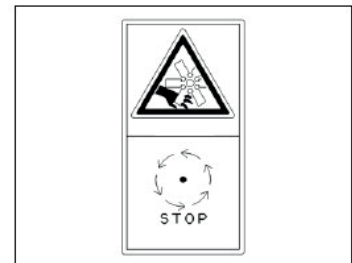
Warning **Display in check maintenance**

- At the time of inspection or maintenance, there is a danger of causing a major personal injury if someone besides the operator touch the operation switch or the joystick. Therefore, please let the person in charge and the user know about it and make it clear.



Warning **Safety measures during check operations**

- When checking and maintaining, turn off the main power.
- Check and maintenance are performed by two or more people. Please keep in touch with each other while the power can be off at any moment.
- Do not place your body or part of your body in the gaps and running parts of this machine due to the risk of serious personal accidents.
- In the repair and inspection, when the work platform is raised and raised, in order to



prevent the work platform from accidentally falling, please use the safety pillar and the safety block. When repairing, please specify the operation commander to monitor the use of safety pillars and safety blocks, etc. while determining the operating procedures and command operations.

- When working near the rotating part, be careful not to get caught, and do not let the item near the rotating part.
- When the defect is found by the inspection site, please report it to the mechanical unit or the responsible person promptly and apply to the company for processing. Since personal judgment may cause a major accident or malfunction, please consult the company if you cannot judge the severity of the defect.

Danger Pay attention to the electric shock accident during the check

- When the unit is in the startup state, do not touch the internal electronic components of the machine with your hands. When it is necessary to check and repair, you need to use insulated gloves to cut off the power.

Note Unplug the battery cable during maintenance of the electrical system

- When the battery cable ("-" connector) is removed and the electrical system is inspected and maintained, the short circuit may cause burns or damage to the electrical and electronic equipment. Please unplug the battery cable on the side of the "—" connector.

Warning Pay attention to high oil temperature and high oil pressure

- When performing inspection and maintenance of hydraulic equipment, piping, and filters, check that the hydraulic fluid has cooled sufficiently before operating. High temperature hydraulic oil can scald on your body.
- When high-pressure hydraulic oil enters the skin or eyes, there is a danger of serious injury to the human body. When checking the oil leakage of hydraulic equipment, piping, etc., wear protective glasses and protective gloves. Do not use light to confirm. Use thick paper.
- When removing hydraulic equipment, piping, filters, etc., the internal pressure must be released and the work is performed.
- When high pressure oil enters your skin or eyes, receive medical attention immediately.

Warning Use the right tools

- Please use the right tools correctly. Please do not use tools that are deformed or

damaged, and use other than the original purpose.

Note Use genuine parts

- Failure to use genuine parts can pose a safety and functional barrier. When you need to replace parts, you must use the manufacturer's designated genuine parts.

Note Prohibition of transformation

- Do not modify this machine without the written commitment of the company. Retrofitting can have a negative impact on strength and safety and undermine safety.
- The company is not responsible for personal accidents and malfunctions caused by unauthorized modifications.

Note Pay attention to the use of liquids and fire

● There is a danger of fire when the fire is close to the oil. In addition, the battery generates hydrogen gas, and the battery solution contains dilute sulfuric acid. Incorrect use can cause a personal accident to cause a fire. Please strictly observe the following items.

- Do not smoke near the hydraulic tank and battery, and be close to sparks or other fires.
- When replenishing the oil and the battery replenishing solution, please do so in a place where there is no fire and turn off the main power. In addition, do not mistake the type and capacity when replenishing. Incorrect supply can cause malfunction or damage.
- Oil or battery solution may cause inflammation when it enters the eyes and contacts the skin. Use protective goggles or protective gloves when using. In addition, you must not drink it by mistake. Please wash away immediately when entering the eyes or touching the skin. Please consult a doctor if you accidentally drink or burn.
- Please cover the lid after replenishment and wipe it clean when spilled.
- When using lighting equipment for inspection, maintenance, and replenishment, use explosion-proof specifications and keep them away from the machine.
- When using a sander or welding that may cause sparks, keep objects that may catch fire to a distance.
- When combustibles (wild grass, fallen leaves, paper, cloth, etc.) are deposited on or near the machine, please remove them before use.
- Do not weld or cut the hose or piping. In particular, there is internal pressure in the Hydraulic circuit, please be careful. When checking and maintaining hoses and piping, please release the internal pressure beforehand.
- In order to prevent short circuit of the electrical system and leakage of the piping, check the wiring and piping before use.
- Store the oil in a well-ventilated, fixed place that is not accessible to non-related personnel.



- When discharging the waste liquid from this machine, please put it in the container, and never let it flow to the ground or discard it in rivers, lakes, oceans, etc. Industrial waste disposal operators should be requested when disposing.

Warning Attention when charging the battery

- When charging, unplug the charger cable (the same reel and extension cable) to prevent the charging cable from overheating.
- When using the reel and extension cable, please confirm the allowable capacity of the cable beforehand to avoid overcurrent. In the worst case, it may cause a fire.
- Please charge in a well ventilated area.
- Do not charge near an open flame.
- Check the battery capacity before charging. When the liquid level is lower than LOWER, please replenish the battery liquid.
- Charging in the absence of battery fluid can cause toxic gases to cause poisoning or corrode metals in the vicinity of the battery. If this happens, stop charging immediately.
- When charging, switch the power switch to “Off”.

Note Battery use note

- When checking or replacing the battery, you need to switch the power switch to “OFF” to cut off the power circuit. The battery terminal must be removed from the ground side (“-” connector side), and the installation must start from the “+” connector side.
- Battery fluid (dilute sulfuric acid) poses a risk of blindness or burns. Use protective glasses, protective gloves, and long-sleeved clothes when using the battery.
- Hydrogen gas is generated in the battery. If the operation is wrong, it will cause a fire and explosion, so please do not get close to the open flame.

Note Do not wash

- After the electrical system is flooded, it may cause malfunction due to malfunction or malfunction. For operating panels, solenoid valves, sensors, etc., do not perform steam cleaning or water washing. If it is necessary to wash the water, please turn off the main power, fully dry and then turn on the power.

1.7 Safety warning nameplate

1.7.1 Safety warning nameplate list

The following nameplate is posted on the machine.

Please clean these nameplates frequently and keep them clean. If it is damaged or peeled off, please immediately place it by ordering it at the nearest dealer's or service center with the part number at the bottom right of the nameplate.

NOTICE

KEEP THE OPERATION AND SAFETY MANUAL WITH THE MACHINE

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⚠ DANGER



Crushing Hazard


Death or serious injury can result from contact with moving scissor arms.



Don't engage safety arm unless unload platform.

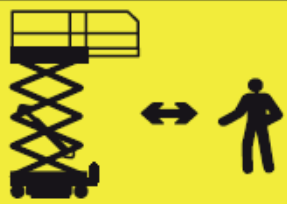
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⚠ DANGER



Crushing Hazard

Contact with moving parts will result in death or serious injury.



- Do not stand under or around platform during operation.
- Keep away from moving parts.

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Refer to the Operator's Manual for use.

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DANGER

Failure to read, understand and obey the operator's manual and the following safety rules will result in death or serious injury.

Improper Use Hazard

- Avoid hazardous situations.
- Always perform a pre-operation inspection.
- Always perform function tests prior to use.
- Inspect work place.
- Only use the machine as it was intended.

Do not operate unless you are properly trained to safely operate this machine or you read, understand and obey:

- Manufacturer's instructions and safety rules.
- Operator's manuals and decals.
- Employer's safety rules.
- Applicable governmental regulations.

Electrocution Hazards



This machine is not electrically insulated and will not provide protection from contact with or proximity to electrical current.

Voltage Phase to phase	Minimum Safe Approach Distance	Meters
0 to 300 V	Avoid Contact	
300 V to 64 KV		3.05 m
69 KV to 208 KV		4.60 m
230 KV to 289 KV		6.10 m
350 KV to 500 KV		7.62 m
500 KV to 750 KV		10.67 m
750 KV to 1000 KV		13.72 m

Tip-over Hazards

- Do not exceed rated load capacity.
- Do not raise platform unless machine is on a firm surface.
- Avoid drop-offs, holes and unstable or slippery surfaces.



- Do not raise platform unless machine is on a level surface.
- Do not drive machine on a slope that exceeds the maximum slope or side rating for the machine.



- Do not drive the machine on or near uneven terrain, unstable surfaces or other hazardous conditions with the platform raised.



- Do not push off or pull toward any object out side of the platform.
- Do not place or attach overhanging loads to any part of this machine.

- Use extreme care and slow speeds while driving the machine in crowded position across uneven terrain, debris, unstable or slippery surfaces and over holes and drop-offs.

- Do not alter or disable machine components that in any way affect safety and stability.
 - Do not place ladders or scaffolds in platform or against any part of this machine.
 - Do not use machine on a moving or mobile surface or vehicle.
 - Be sure all tires are in good condition, castle nuts are properly tightened and cotter pins are properly installed.
- For outdoor use machine
- Do not raise platform when wind speeds may exceed 12 mph.
 - Do not operate machine in strong or gusty winds.
 - Do not increase surface area of platform or load. Increasing area exposed to wind will decrease machine stability.

Fall Protection

- Manufacturer recommends that all persons in the platform wear a full body harness with a lanyard attached to an authorized lanyard anchorage point while operating this machine.



ALL PPE must comply with applicable government regulations and must be inspected and used in accordance with the manufacturer's instructions.

Fall Hazards



- Prior to operation, ensure all gates and rails are fastened and secured in their proper position.
- Do not sit, stand or climb on the platform guard rails.
- Maintain a firm footing on the platform floor at all times.
- Do not climb down from the platform when raised.

Crushing Hazards

- Keep hands and limbs out of sections. Use common sense and planning when operating machine with controller from ground.
- Maintain safe distances between operator, machine and fixed objects.

Collision Hazards



- Be aware of limited sight distance and blind spots when driving or operating.
- Check work area for overhead obstructions or other possible hazards.
- Be aware of crushing hazard when grasping platform guard rail.

- Cleanse and use direction arrows on the platform controls for drive and steer functions.

Damaged Machine Hazards

- Do not use a damaged or malfunctioning machine.
- Be sure all maintenance has been performed as specified in the appropriate operator's manual.
- Be sure all decals are in place and legible.
- Be sure safety. Operator's manual is complete, legible and in the storage container located on the platform.

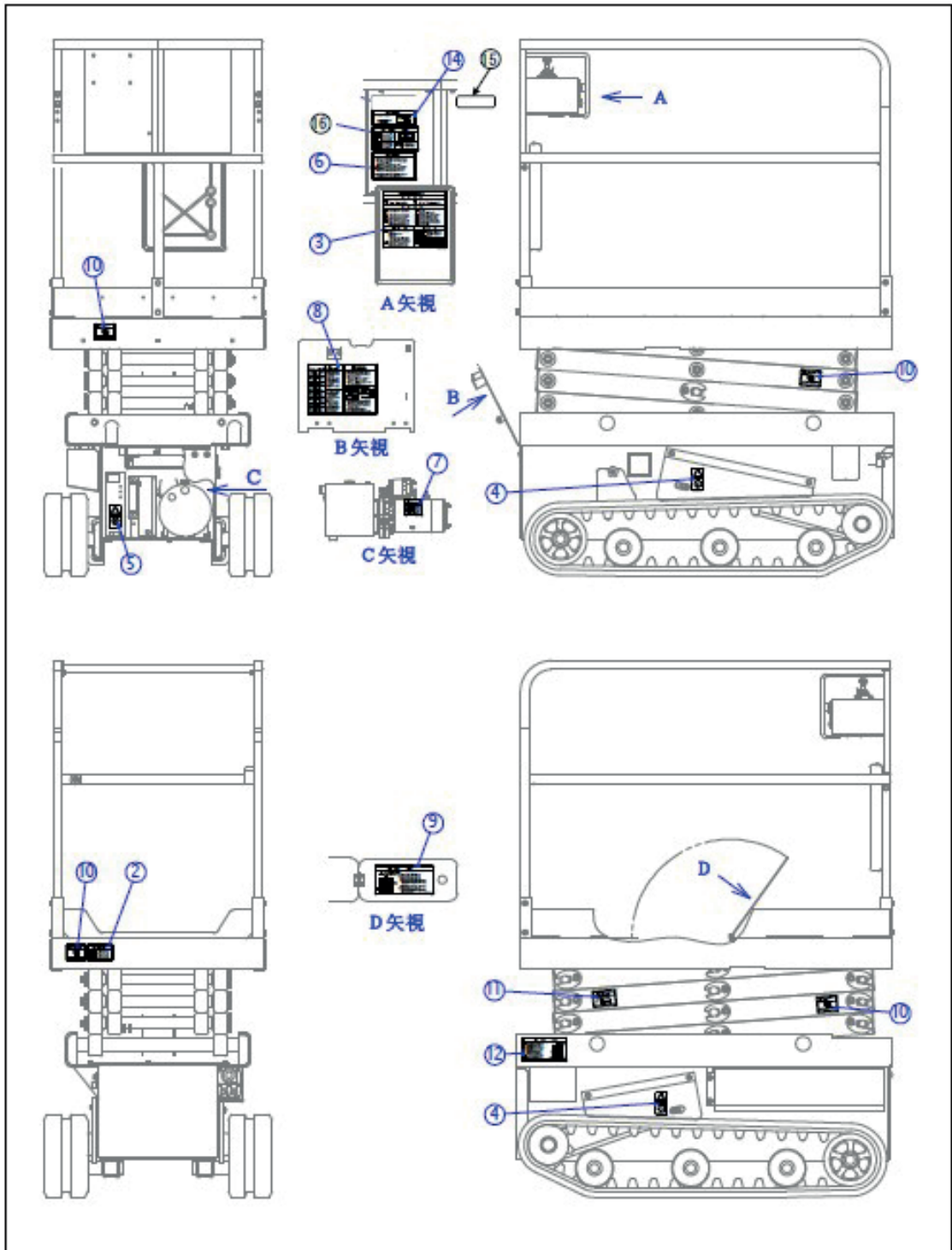
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1.7.2 Posting position of nameplate.



FS0507T

PN 60711000162

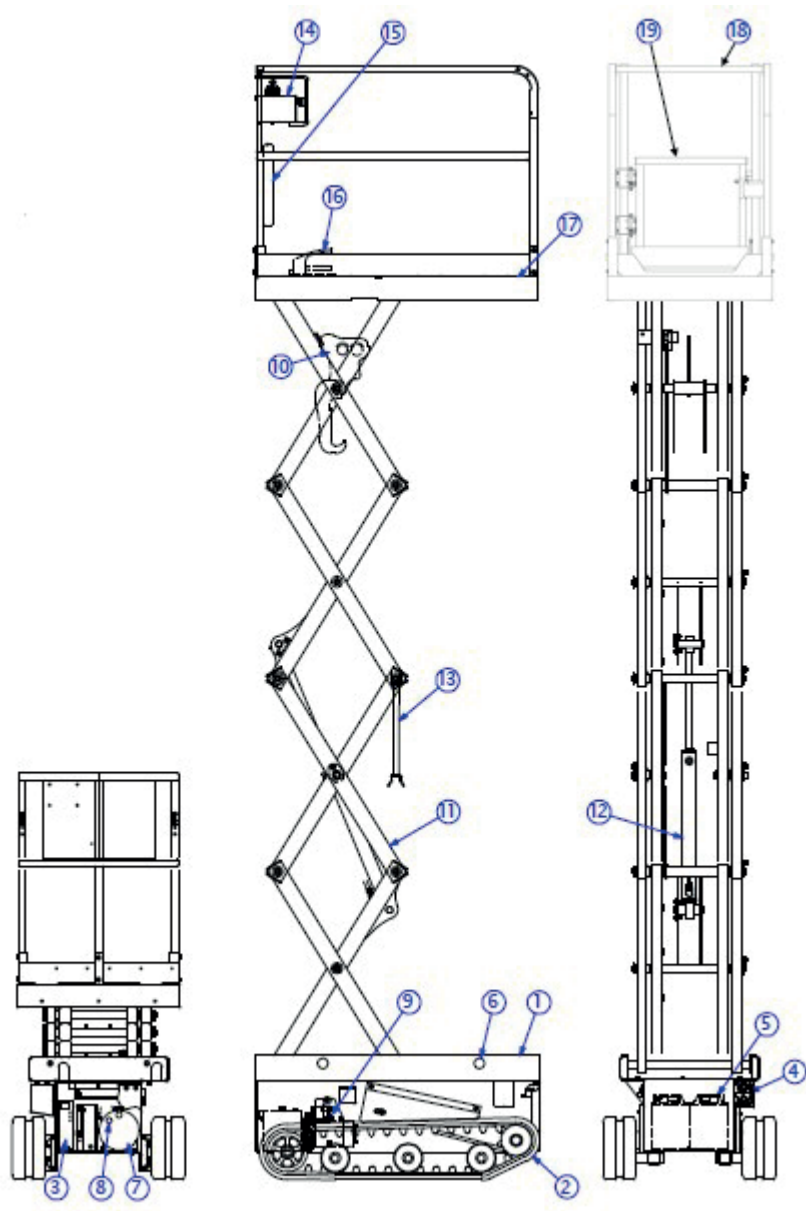


2. Names of each part



FS0507T

PN 60711000162



Serial number	Name	Serial number	Name
①	Chassis		
②	Walking device	⑪	Lifting and declining arm
③	Charger	⑫	Lifting cylinder
④	Lower operating panel	⑬	Safety arm
⑤	4 batteries	⑭	PCU

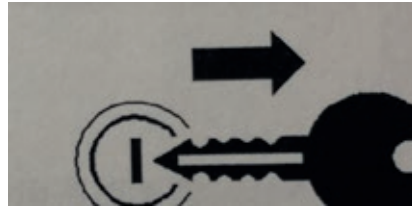
⑥	Lifting hole	⑮	Instruction manual storage box
⑦	Power unit		
⑧	Hydraulic oil level gauge	⑰	Extended platform
⑨	Hydraulic emergency lowering valve	⑱	Handrail
		⑲	Handrail door

3. Handling

3.1 Precautions when handling

Note

- When transporting the machine, please recycle and lock the extension table, lower the work platform to the lowest position, and put the power key off the switch.
- Do not place objects in the operating platform when transporting.
- When loading and unloading the unit, perform it on a level, solid floor.
- In order to avoid damage to the inside of the machine, please avoid stray movements and vibrations during transportation and try to work as smoothly as possible.



Important

- When transporting this machine, use a crane, forklift, and truck that is commensurate with the weight and size of the machine.

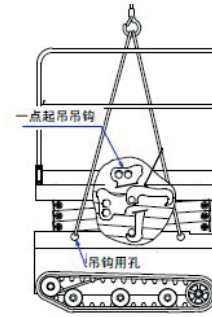
(Please refer to the table below for the weight of the machine)

Platform Model	Stable	Extended
FS0507T	900kg	950kg

- When lifting a machine with a crane or the like, it must be qualified as well as the lifting load.
- When transporting this machine with a forklift, it must be trained.

3.2 Lift and Hang down

- Please lift the lifter after lower the platform to the lowest point and collapse the extended platform.
- The hook (one) at the center of the platform can only be used for loading and unloading from trucks. For other lifting works, please use the special holes (four) on the frame. It could very dangerous that using the unspecified holes for lifting, and the lifer could be dropped or damaged.
- When lifting with only one hole, be sure to insert the anti-drop buckle.
- Please use cloth to protect the parts that cable contact with the railing or platform.
- Please Lift the center of the vehicle.



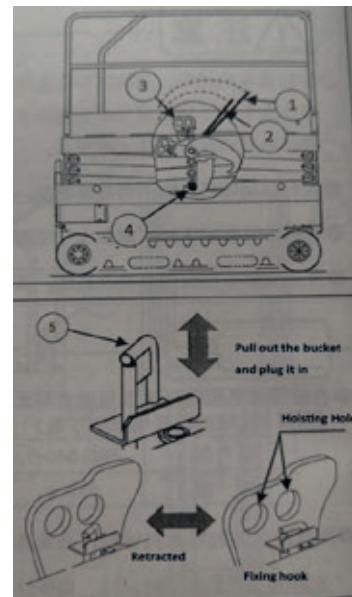
Dangerous

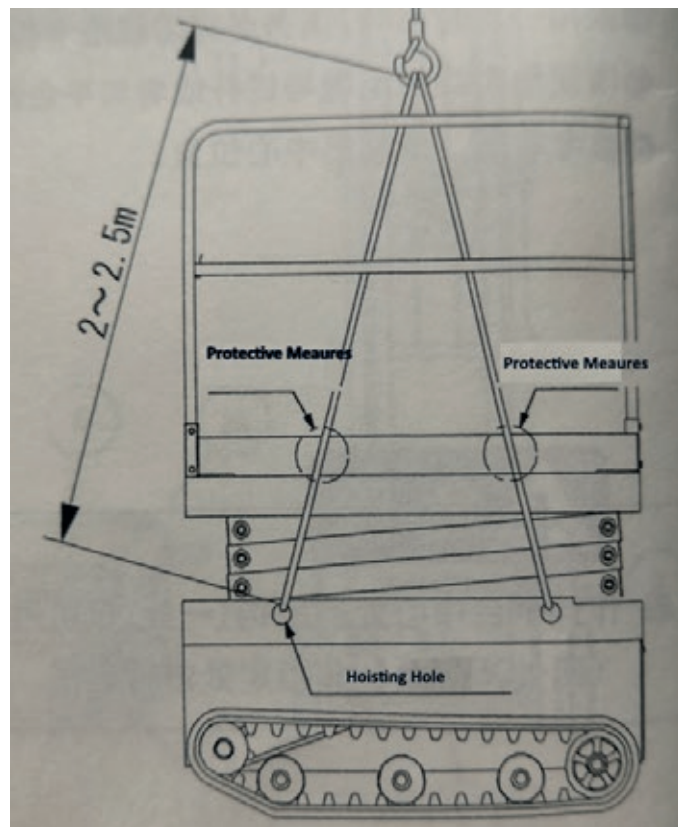
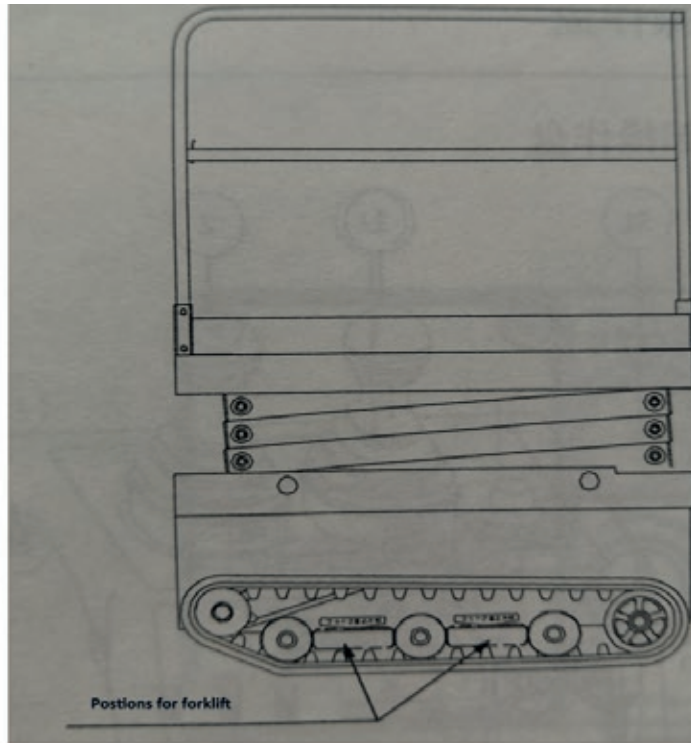
- The hook (one) at the center of the platform can only be used for loading and unloading from trucks. For other lifting works, please use the special holes (four) on the frame. It could very dangerous that using the unspecified holes for lifting, and the lifer could be dropped or damage. And may cause accidents

3.2.1 Methods of one-point lifting

Please follow the instructions below when lifting.

- 1) Lower the platform to the lowest point, collapse the extended platform and lock it.
- 2) Open the cover ② (sliding work platform only) at the center of the platform and the inner cover ③ .
- 3) Pull up the hook ④ , which is stored inside. At this moment, it must be confirmed that the hook 3 does hook the handle ④ .
- 4) After confirming that the hook is hooked on the handle, remove the anti-off buckle ⑤ and insert it into the hole on the side of the operating platform and fix it. When the machine is hoisted, the hook ③ is not fixed, which may cause the hook ③ to fall off and the machine to fall.
- 5) When lifting, use the two lifting holes at the hook ③ .
- 6) For storage, take out the anti-drop buckle ⑤ from the side of the operation platform and insert the hook. The hook ③ must be returned to the horizontal position where it can be locked, and then the outer cover ② and the inner cover ③ are closed. Vehicle may be damaged when hook ③ is not horizontal.





Dangerous

- When the hook is not fastened, the hook may be fall off and the machine may be damaged or the machine may fall.
- Be sure to fix the anti-off buckle firmly, otherwise it may cause the hook to fall off.

3.2.2Lifting with four holes

- Please follow the instructions below when lifting with four holes.
 - 1) Lower the platform to the lowest point, collapse the extended platform and lock it.
 - 2) Hooking the spreader into the four special holes on the base frame.
 - 3) Using cloth to protect the parts that cable contact with the railing or platform.。
 - 4) Lift the center of the vehicle.

3.3 Transporting with forklift

- When forking from the side of the machine, inserting the fork and lift it according to the width and height of the fork insertion opening on the inside of the track.
- When forking from the front or the back of the machine, please adjust the width and height to insert the fork into the square tube. If the forks are under the square tube, the machine may fall off.

Attention

Without using the designated places for transport, there could be major accident such as falling off, turning over and so on.

3.4 Fixing on the cargo platform of the transport vehicle

- Lower the platform to the lowest point, collapse the extended platform and lock it.
- Please make sure that the machine is correctly loaded at the right place of the transport vehicle.
- In order to prevent the machine from moving due to the vibration during the transportation, etc., please fix the machine with cargo packing.
- Please use the hook hole to fix the machine.

Dangerous

- When the truck platform or the loading plate is tilted left and right, there is a possibility of rollover, which is very dangerous.
- When using the loading plate, do not change the direction of travel, and there is a possibility of rollover, which is very dangerous.
- When the loading plate is wet, it may slip and cause a rollover.
- When loading the car, please arrange special person guidance, pay attention to safe operation.

4. Operation

4.1 Operation Handle

1) Upper operation Handle



Photo 1

2) Lower operating panel



Photo 2



Photo 3



Photo 4

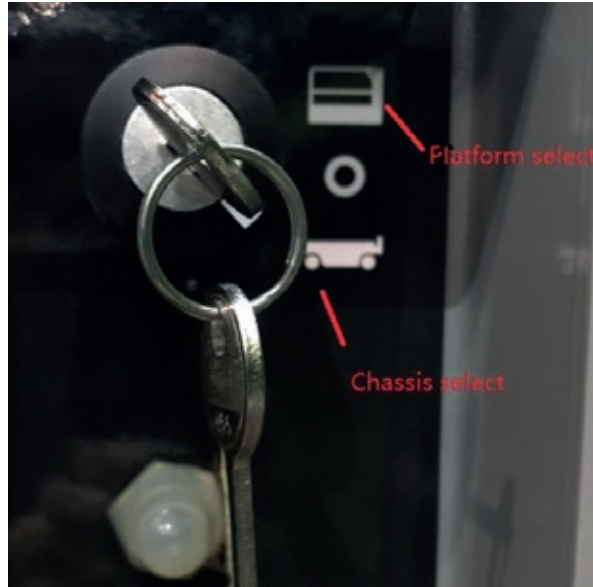


Photo 5

4.1.1 Basic operation

The platform control unit (PCU) is shown in Photo 1, 2, 3 and 4.

Key switch and chassis operation are shown in Photo 5.

4.1.2 Main power and safety

- a) The key switch provides power to emergency stop and chassis selection or platform operation. When the power is turned off in the middle position, moving the key to any of the three positions will keep the device in the selected operating mode.
- b) The emergency stop button is located on the chassis and platform controls. They are connected in series, so they must be pulled out for normal operation. Pressing the chassis or any emergency stop on the platform will shut down the power. Safety is built on a complete loop, and pressing any emergency stop will open the loop.
- c) The enable switch on the handle must be pressed to operate the walking, steering, lifting or lowering functions.

4.1.3 Lifting and lifting safety

- a) The platform will not rise to a specific height unless it reaches the upper limit switch.
- b) The measured load must not exceed the rated load of the machine.
- c) The raised or lowered platform can be operated from two positions: on the chassis or on the platform. It depends on control position of the key switch.
 - i. At the chassis position, it could only control the platform to rise and down.
 - ii. The platform position allows the operator on the platform to select the lift mode. The direction and speed are controlled by the moving handle, moving up the platform and lowering the platform backwards.
- d) Electronic control on the chassis (the ECU will sound an alarm and disable operation if the platform is overloaded and selected to be set in the weight limit machine mode.
- e) There is a mode to stop the platform during the descent, which is to reduce the

safety after the pause. This is the choice to set the delay in the machine mode.

f) A fault in lifting or lowering will report an error code on the display LED of the PCU and ECU.

4.1.4 Driving and driving safety

a) Driving can only be controlled by the handle on the PCU, and the key switch should be in the platform position. See Photo 3.

b) The driving mode must be selected and the enable switch on the handle must be pressed.

i. Moving the handle could control the direction and speed forward and backward.

ii. When the platform is down, “High Speed” or “Low Speed” can be selected, but when the platform is raised (and pothole protection is lowered), the machine can only operate at “Rise Speed”.

iii. If the load exceeds the rated value, the action is forbidden.

iv. If the motor controller overheats inside, it will slow down.

v. The brake will turn off when there is no walking.

4.1.5 Steering and steering safety

a) The key switch must be selected at the platform position. See Photo 3.

b) For differential steering models, steering is controlled by the handle on the PCU. For hydraulic steering models, the steering can only be controlled by the buttons on the top of the handle on the PCU.

c) The walking mode must be selected and the enable switch is pressed.

4.1.6 Operation Indicator

a) When lifting or walking, the chronograph on the chassis will go.

b) The two LED on the PCU display the battery status, error code and setting data.




4.1.7 Low battery operation



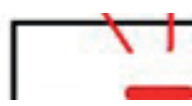
a) The Battery status is set by the operator and the battery strip is displayed on the PCU.

b) Two or more battery strips allow normal driving.

c) The walking speed is decelerated when there is only one battery strip. (As shown below)

After appropriate setting, the battery power would be shown on the PCU, representative 10, 20, 30, 40, 50, 70 and 90 percent. When it reaches 10%, it would twinkling one per second.

Display on platform	Battery power (%)	Description
	90-100	The battery is full
	70	Battery status
	50	Battery status

	30	Battery status
	20	Charged immediately
	10	Power is low, machine automatically enters low speed mode

4.2 Safety device

4.2.1 Safety valve to prevent damage to hydraulic circuit.

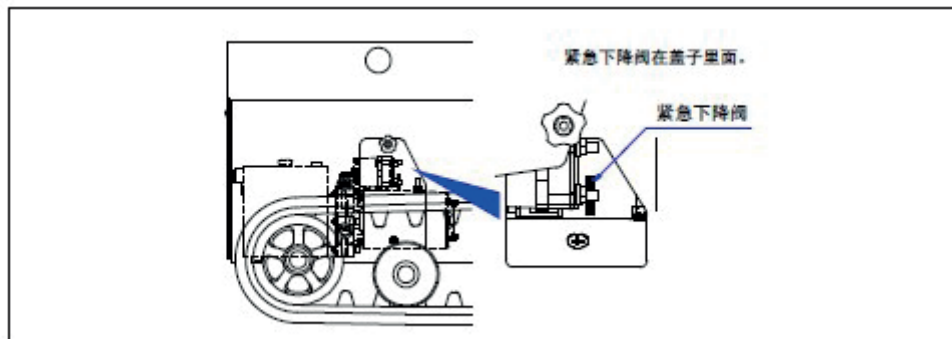
It releases oil pressure in case oil parts are damaged when the oil in the circuit rising too much.

4.2.2 Balanced valve.

Preventing lift cylinder shrinking as the hydraulic tube is broken so that the platform falls freely.

4.2.3 Emergency falling valve.

Due to the failure of the supply pressure device, the device cannot be operated, so that when the operator cannot get down, the valve can be used to lower the platform. The platform can be lowered by opening the emergency lowering valve (turning counterclockwise). This operation is only used in emergency situations, and it remains closed under normal conditions (tightened clockwise).



4.2.4 Emergency stop button.

In the event of a dangerous situation, use this switch to stop all movements of the machine. Pressing the switch will cut off all power to the machine. After solving the problem, pull up the emergency stop button, and then you can release the emergency stop. However, if the emergency stop button is released while the foot switch is depressed, it will not work. You should temporarily release the foot switch and then depress it again.

4.2.5 Tilt alarm

When the machine is installed in an inclined place and there is a danger of overturning, this device can prevent overturning. Under the following conditions, the tilt alarm

device will emit an alarm (intermittent sound of the buzzer) and light the alarm lamp at the same time. At this time, the Ascent operations will not be possible. You can walk when the work platform is at the lowest position.

4.2.6 Load-limiting device

When the load on the working platform exceeds the maximum load, the ascent speed will slow down or cannot rise. In this case, please unload the cargo below the maximum load.

4.2.7 Walking restriction device Standard setting

- In order to prevent a rollover accident, the operating platform can walk at a low speed within 2m from the ground, and the machine cannot walk when it exceeds 2m. Limit settings

- To prevent a rollover accident, the machine will not be able to walk as long as the operating platform is raised slightly. Please lower the operation platform when you need to walk lowest.

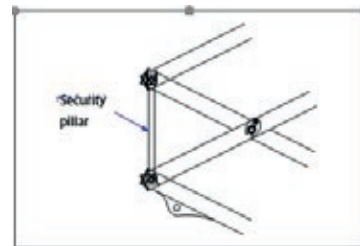
※ If you need more restrictions, please contact the agent.

4.2.8 DC Motor Overload Protection Device for Travel

Do not allow the machine to walk for more than 30 minutes. Control the number of turns and turns to less than 3 consecutive times. Excessive continuous operation can be a cause of failure. When such continuous operation is performed, the protection function operates, automatically reducing the power input of the motor, and performing work with energy suppressed. If it is still used, the power input to the motor will be stopped. This status is not a malfunction. When the temperature drops, it returns to full power. However, the workability will decrease, so in such cases, it is recommended to temporarily stop the operation and reduce the temperature of the motor and controller.

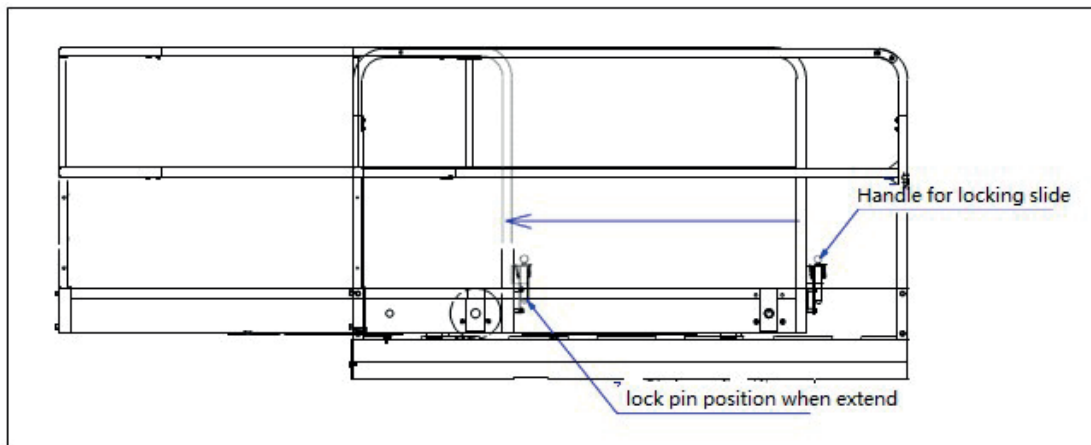
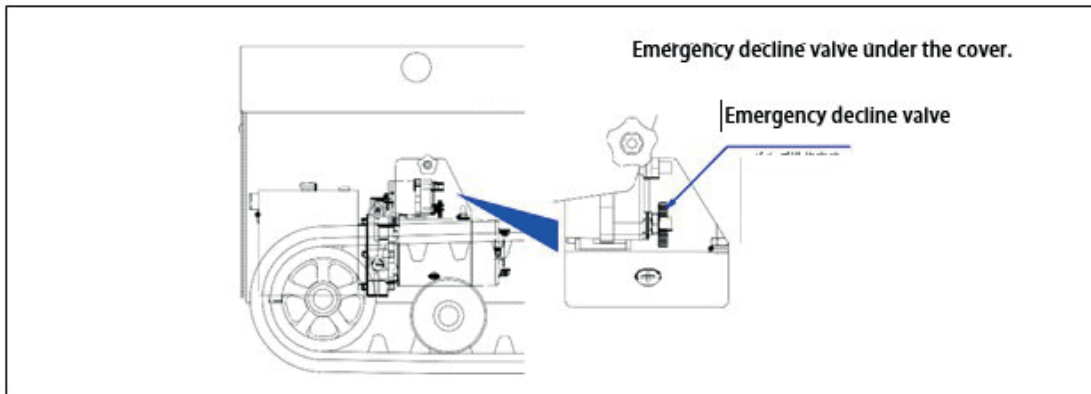
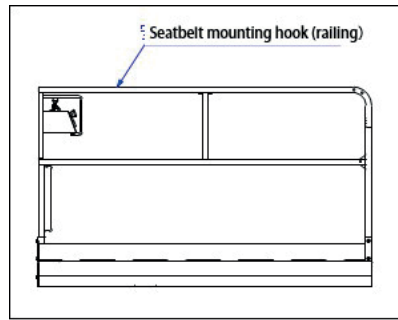
4.2.9 Security pillars to prevent the platform from falling

When the work platform is raised for inspection or repair, please use the safety pillars equipped with the machine, and make sure that the work platform will not lower before starting work.



4.2.10 Mounting hooks for seat belts

To prevent a fall accident to the occupants of the working platform, the railing itself is designed as a structure capable of installing a hook loop for a seat belt.



5. Regular inspection and maintenance

5.1 Relevant checkpoints and inspections

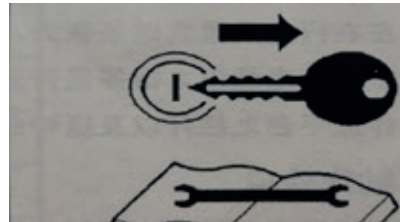
For the safe and safe use of this machine, please perform the following checkpoints or inspections.

- Please check the per-checkpoints before the start of the work on the day. The contents of the checkpoint are recorded in [5.2 daily checkpoints]
- As a regular self-inspection, please check regularly on a monthly or yearly basis. The annual inspection is designated as a specific self-inspection.

- Please keep the checklist or record form for regular inspection and specific self-inspection for 3 years.
- When performing daily operations or checkpoint maintenance, pay attention to and observe the following items. If there is an abnormality, determine the cause and perform maintenance immediately. If the cause is unknown or the parts are not listed in this manual or if the parts are faulty, please consult your nearest dealer or service center.
 - 1) Whether the operating device, instrument and others are normal.
 - 2) Whether there were abnormal state such as appearance, abnormal sound, or heat.
 - 3) Whether the mounting bolt nut loose.
 - 4) Whether there any damage or wear of the structure and parts.

Whether the movement of each part is normal.

- Please prepare the operation log in advance, and each part is periodically checked and recorded, so that the abnormality of the machine can be detected early and the accident can be prevented. It is convenient to record the temperature and voltage in the log and record the operation time and maintenance items at the same time.



Warning

- Please unplug the power key from the switch before the checkpoint and mark the “maintenance” sign in a conspicuous place.

During the period, please check the person holding the key.

- Use appropriate tools for performing maintenance work. If an inappropriate tool is used, the work tool will fall off and become the cause of an accidental injury.

Important

- For inspection, inspection, and maintenance, please follow the relevant laws and regulations on labor safety and health.

5.2 Daily checkpoint

Important

- Checkpoints before the start of the work should be carried out by the operator before the start of the work.
- Check the machine to determine whether it is necessary to perform the specified maintenance and confirm whether there is any abnormality.
- If you find any damage or abnormality through the checkpoint, stop using it.

5.2.1 Visual inspection

- Confirm that the operating instructions related to the safety and responsibility of the operator are complete, whether the text is in a readable state, and whether it is placed in the storage place of the work platform.

- Check all the labels, whether the text is readable and attached to the specified location.
- Check if the battery is in the storage state and if the cable is connected. Check that the battery is leak-free and that the amount of the solution is appropriate. If the capacity is insufficient, replenish the distilled water.
- Check the amount of hydraulic oil when the work platform is in the lowered state. If the oil quantity is insufficient, please add it.
- Check if the electrical wiring and hydraulic hose are not damaged, if the connection is not loose, and if there is no oil leakage in all parts of the hydraulic system.
- Confirm that there are no cracks in the welded parts of the car body, whether the mechanical parts are not sunken or damaged, and whether the parts are not slack.
- Check if the left and right tracks are not damaged.
- Check the tension of the left and right tracks.
- Check the chain tension of the left and right walking devices.
- Check if the chain of the left and right running gear is not damaged.
- Confirm that the railing of the work platform and the extension table (option) are fixed at the specified position.

5.2.2 Operation check

- While pulling the operating power switch of the lower operation panel to the chassis position, operate the lifting switch to confirm whether the rising and falling actions are correct.
- Press the emergency stop switch on the operation panel to confirm that all the operations are disabled.
- After boarding the work platform and properly fastening the seat belt, operate the lift switch of the upper operation panel to confirm whether the ascending and descending actions are correct.
- Operate the travel joystick to confirm that the forward, reverse, and left and right travel directions are correct.
- Press the emergency stop switch of the upper operation panel to confirm whether the power has been cut off and all operations are impossible.

5.3 Replace parts regularly

Please replace the parts regularly according to the required replacement cycle. This machine uses a wide range of components, and some components will slowly deteriorate and wear after prolonged use. When the following parts are used, even if the appearance is not confirmed to be abnormal, the parts may deteriorate or wear out during prolonged use. Failure to replace them in time may cause a major safety accident.

In order to prevent problems beforehand, please replace the parts regularly as required.

The exchange time is approximately the time, please handle it according to the use environment and usage conditions. In addition, there is no guarantee that parts in the

exchange period will not cause problems. If an abnormality occurs before the replacement date is set, replace the parts in time.

Regular replaced parts list

Items	Replacing part name	Replacement period
Grease	Hydraulic oil	1 year
	Hydraulic oil filter	3 years
Hydraulic component	Cylinder seal	5 years
	Oil pressure pipe	2 years
Electronic components	Toggle Switches	4 years
	Emergency stop switch	4 years
	Start switch	4 years
	Contactora (for power packaging)	3 years
	Main contactor	4 years
	Operating platform height detecting device	5 years
	Walking joystick	5 years
	Surge absorber (within charger)	3 years

When replacing a part, please refer to the part sample to confirm the part number and order it from the dealer.

5.4 Grease

For the purpose of preventing damage and extending the life of the machine, please refuel or replace it regularly according to the following table and pictures.

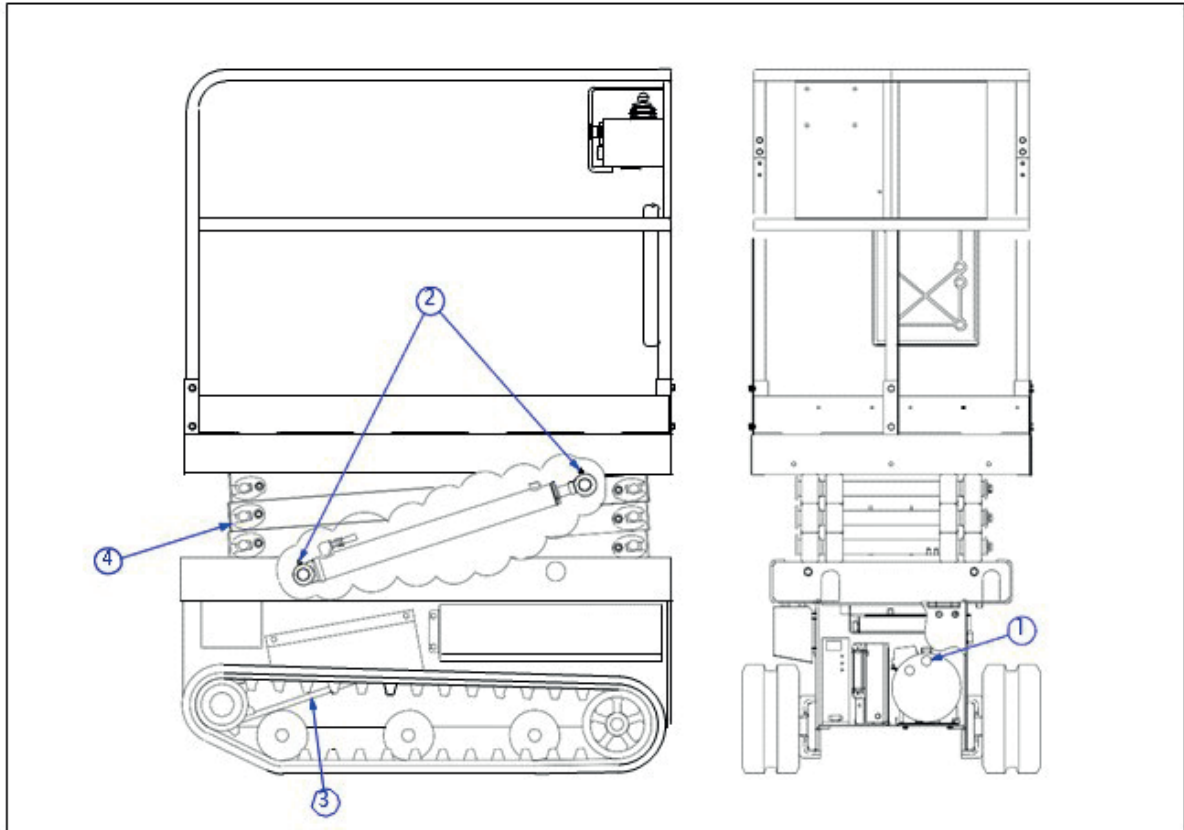
●Grease list

Refueling part	Grease name	Designated grease	Replacement period			Changed oil quantity
			60 hours or 1 week	600 hours or 6 months	200 hours or 12 months	
① Hydraulic tank	Hydraulic oil	ES22			☉	3.0
② Lifting cylinder Intersection	grease	EP-2	☉			Moderate amount
③ Walking chain	gear compound	No.2		☉		Moderate amount
④ Lifting arm pin	Lubricant	---	☉			Moderate amount
☉ Add grease						

◎ Regular replacement

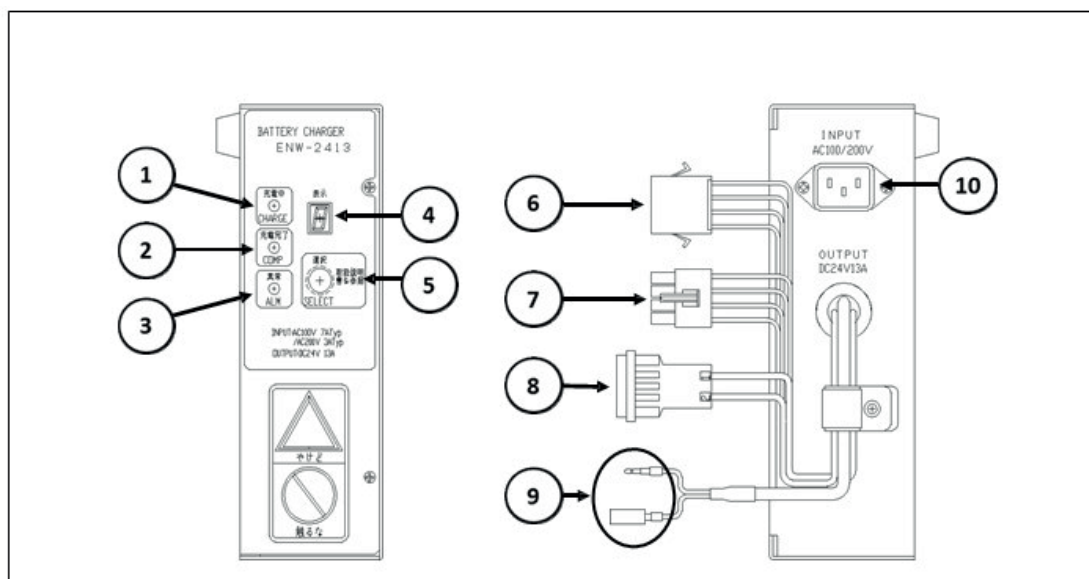
※ Please use JX Highland Word 15 level when using it extremely cold.

※ The amount of hydraulic oil should be kept within the range of $1/4 \sim 3/4$ when the oil level is at the bottom of the working platform.



5.5 Battery charging method

5.5.1 Names and functions of each part of the charger



No.	Name	Function
1	Charging indicator (green)	The charging status is displayed by lighting and flashing.
2	Charging end indicator (yellow)	The charging end status is displayed by lighting and blinking.
3	Abnormal indicator (red)	Lights up and flashes when an error occurs.
4	Show window	Lights up and flashes when an error occurs.
5	Switch	Lights up and flashes when an error occurs.
6	Spare interface	Unused
7	Output display interface	The lower operation panel has a charging status display function and is connected to the machine's mains wire.
8	Output Interface	Connect the wires to the machine body.
9	Chain interface	Connected to the machine body. The machine cannot be turned on when not connected.
10	Chain interface	Connected to the input line (AC) via an interlocking line.

5.5.2 Charger Specifications: ENW-2413

Charger model	ENW-2413	
Input voltage	Sing phase 100V-220V(50/60Hz)	
Input voltage	0V(50/60Hz)MA X7A	
Input voltage	DC24V	
Input voltage	MAX13A	MAX12A
Battery weight	EB100	BPC12-120

5.5.3 Battery charging method

- 1) Connect the power plug of the charger to a 220V power supply. "Charging", "Charging completed", and "Abnormal" indicator lights will turn off after turning on.
- 2) When charging starts, "Charging" (green) lights up.
- 3) When charging is completed, "Charging End" (red) lights up. Unplug the power cord after charging

5.5.4 Tips of battery charging

The proper input voltage of the charger is 85 ~ 132V AC or 170 ~ 264V AC. The charger automatically switches single-phase 100V • 220V.

Display	Indicator light status			Input voltage status
Display mode				The value in () is the voltage value when the input voltage is AC220V
	Abnormal light	Red	On	Charging cannot start when AC80V or lower and AC280V or higher.
	Abnormal light	Red	Flash	Charging cannot be started when AC140V or higher and AC160V or lower.
	Abnormal light	Red	Flash	The charging will stop automatically when the input voltage is lower than AC80 (160) V during charging.
	Charging light	Green	Flash	Charging starts again when the input voltage is higher than AC85 (170) V.
	Abnormal light	Red	Flash	The charging will stop automatically when the input voltage is higher than AC140 (280) V during charging.
	Charging light	Green	On	Charging starts again when the input voltage is lower than AC132 (264) V.

5.5.5 Tips for battery charging

- 1) The machine is deadlocked during charging, the power cannot be turned on, and the machine cannot be used. When charging is started with the power of this unit turned

on, the power is automatically turned off.

2) Please keep charging time above 8 hours.

The maximum charging time is 12 hours. When the battery cannot be fully charged within 12 hours, the charging end indicator (yellow) flashes.

3) When the battery power is insufficient, the output power may decrease. Please charge as early as possible. When the power of this unit is turned on, the power meter in the red area indicates that it needs to be charged.

4) Please confirm whether the battery fluid is sufficient. If it is insufficient, please add distilled water or battery fluid in time. The battery fluid should be between MIN-MAX marked on the side of the battery.

The BPC-12-120 battery does not require battery fluid replenishment.

Warning

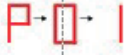
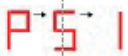
- When charging, please unplug the cable of the charger (the reel and extension cable are the same) to prevent the charging cable from overheating. . When using the reel and extension cable, please confirm the allowable capacity of the cable in advance to avoid overcurrent. . Worst case scenario could cause fire
- Please charge in a place with good ventilation conditions.
- Do not charge near open flames.
- Charging when the battery fluid is low may cause toxic gas, which may cause harm to people or surrounding metal materials. Stop charging immediately.

5.5.6 Charging mode

Ability to choose to change the charging mode.

1) Charging mode display

After the charger is turned on, the charging mode is displayed 4 times in a row on the display.

Display Display model	Charger type	Detailed charging mode
	Openness	Implement the charging mode recommended by the manufacturer of the open battery EB100.
	Tightness	Implement the charging mode recommended by the manufacturer of the sealed battery BPC12-120.

Tip

- If the charging mode (open type / closed type) is set incorrectly, the battery life may be reduced.
- When changing the battery, make sure that the settings are correct.


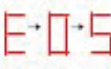
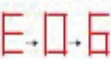
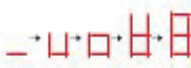
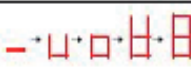
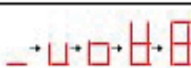
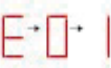
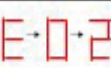
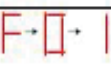
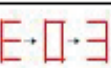
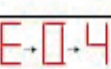
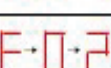
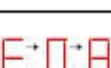
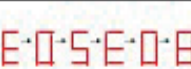
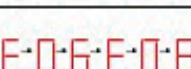

2) How to select the charging mode

- ① Turn on the charger switch while pressing the selection button. Enter the charging mode selection interface.
- ② The display and all indicators are on.

- ③ The current charging mode is repeatedly displayed (example: P → 0 → 1).
- ④ Release the selection button.
- ⑤ Press the selection button again, and keep pressing the selection button until you jump to the display mode you want to set.
- ⑥ After the selection is completed, press and hold the selection button.
When the display and all indicators are on, release the selection button. The setting is completed.
- ⑦ After turning off the charger switch and turning it on again, check the charging mode.

5.5.7 Charger status description

Use the following table to determine the status of the charger.

LCD screen	Light situation	Charger situation	State description and disposal method
Display mode			
	Green, Yellow, and Red light on	Indicator self-test	When the charger is powered on, the LCD screen and charging (green), charging end (yellow), and abnormal (red) indicators light up. In order to confirm whether the LCD screen and indicators are normal.
	Red light on	Input voltage is too low	Charging cannot be started when the input voltage is below AC80 (160) V. Charging will stop automatically when the input voltage is lower than AC80 (160) V during charging. When the input voltage exceeds AC85 (170) V or higher, charging starts again.
	Red light on	The input voltage is too high	Charging cannot be started when the input voltage exceeds AC140 (280) V or higher. Charging stops automatically when the input voltage exceeds 140 (280) V AC during charging. Charging starts again when the input voltage drops below AC132 (264) V.
	Green light on	charging	Normal charging
	Green light flash	80% charged	During normal charging, about 80% of charging is complete
Light off	Yellow light on	End of charge	Indicated at the end of normal charging
	Green on Red flashing	Charging and checking	Checking whether the battery is faulty while charging After charging, please check the charging status again.
	Red light on	Battery abnormal	Indicates that charging failed to complete normally. Please cut off the input power and confirm the charging status after recharging is completed. When the red light turns on again, it means that there is a problem with the battery. Please check the battery condition.
	Red light flash	Reverse polarity of battery	The battery's positive and negative terminals are reversed and charging cannot begin. Check the battery connection.
		Charger failure	No output, internal fuse blown out, etc. This is indicated when the charger fails. Please check the charger.
	Red light on	Temperature rise protection	Stop charging due to overheating. Check if the ambient temperature is too high. Even after the charger has cooled down, it cannot automatically restart charging. To start charging again, turn off the input power and turn it on again.
	Red light on	Protection stopped	When the voltage on the battery side exceeds 34V, charging stops automatically. Check the battery connection.
	Red light on	Protection stopped	When the charging output current exceeds 15A, charging stops automatically. The reason is that the input current cannot be controlled due to a charger failure. Please check the charger.
	Yellow light flash	Charging is unfinished	Due to low input voltage and other reasons, one charge (up to 12 hours) was not fully charged. Please check if there is any abnormality in the input voltage and recharge. Check the charging status and whether it is normal after charging.
	Yellow light flash	Input voltage is too low	Since the input voltage starts to decrease / rise again, one charge (up to 12 hours) cannot be fully charged. After confirming the input power voltage, start charging again. Check the charging status and the status after charging is completed. Charging has temporarily stopped due to some reasons, and it is also calculated as the charging time. So whether it is charging or not, charging stops automatically after 12 hours from the start of charging
	Yellow light flash	Charging is unfinished	Since the input voltage starts to decrease / rise again, one charge (up to 12 hours) cannot be fully charged. After confirming the input power voltage, start charging again. Check the charging status and the status after charging is completed. Charging has temporarily stopped due to some reasons, and it is also calculated as the charging time. So whether it is charging or not, charging stops automatically after 12 hours from the start of charging
	Red light flash	Abnormal checking	The battery is being judged for charging failure caused by connection, charging current below 0.3A, battery failure, etc.

5.6 Adjustment of the walking device

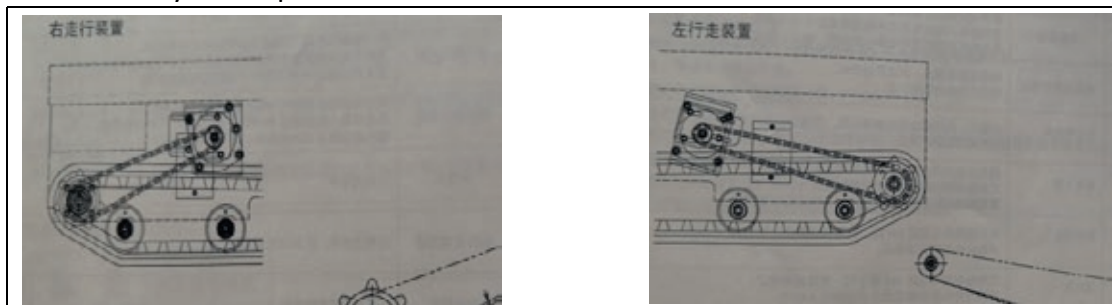


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5.6.1 Adjustment of the chain for walking drive

Adjust the chain tension (relaxation) of the left and right walking gear when the position shown in the figure below exceeds the standard. Loosen the mounting bolts of the running gear, and tighten them again after adjustment. (Torque of walking device is $64 \pm 3\text{Nm}$) The track may rub against the chain cover without affecting the functionality of the product.



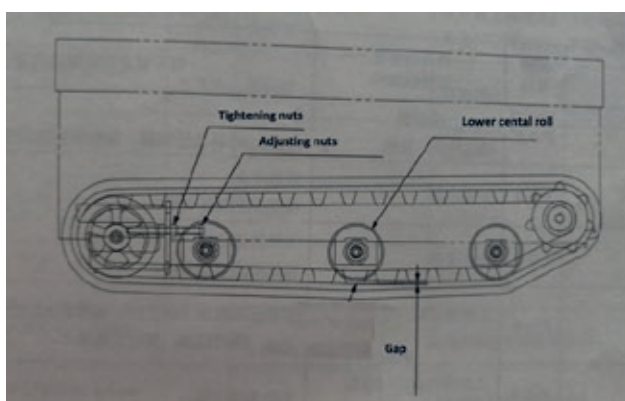
5.6.2 Adjustment of track tension

Notice

- Check the tension adjustment of the track while the track is in suspension.
- In the suspended state, if the clearance between the track and the lower roller is outside the standard range, adjust it.
 - 1) Align the anastomotic symbol Δ on the track with the lower roller in the center of the body.
 - 2) Loosen the lock nut of the idler adjustment bolt.
 - 3) Adjust the adjusting bolt so that the gap between the track and the lower roller is within $15 \pm 3\text{mm}$.
 - 4) If the adjustment bolt continues to be fixed, tighten the lock nut.
 - 5) After the end of one side, please adjust the tension of the opposite side of the track.

Knowledge

- Please keep the same left and right track tension.
- Please walk after adjusting and confirm the status of the track tension again. Walking the track in a relaxed state can cause the crawler to fall off.



6. Maintenance

When fault occurs,

- If there are unit malfunctions or other unknown faults, please confirm the project and

contact our agent or our service department.

Model/ Machine number/ Date of manufacture

- If some abnormality occurs during machine use, please confirm the problem and correct it.
- In order to be able to respond to problems, please carefully read and understand this manual.
- Please be familiar with the structure and functions of this unit.
- When it is difficult to repair this equipment, please contact the agent or our service department.

Knowledge Emergency Stop

- When the machine detects a machine failure, it will automatically stop as shown below, and the machine cannot be operated.

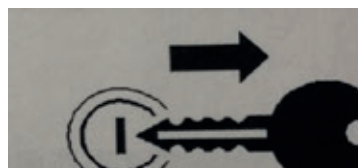
Upper operation panel Power indicator (green) · Alarm indicator (red) · Battery status indicator switch

Ground operation panel Power indicator (green) · Alarm indicator (red) flashes

- When a problem is detected, it will be displayed on the LCD screen.
- In the emergency stop state, only the ground operation can be performed

Note Measures for Storage

- When storing this machine, please unplug the power key from the switch. It should be kept by special person. In addition, please put it on a flat road. Store it by using the anti-slip measures such as the wheel stopper.



- When the machine is temporarily stored due to malfunctions, while taking above measures, the person in charge and the operator shall be notified of "prohibition of operation due to malfunction," and please clearly indicate contents of the abnormality, name and contact number of the person in charge as well the period of storage.

7. Storage of the Machine

7.1 Daily Storage

This machine is designed for indoor use and cannot be used outdoors. However, since it is manufactured to allow outdoor storage, it can be stored outdoors as it is.

7.2 Long-term Storage

When the machine is stored for more than half a year without being used, please store it in a place where there is little dust and is dry, after taking following measures:

- When stored outdoors for a long time, the machine may be cracking due to the influence of ultraviolet rays and dust. Please put it into a temporary simple board room, etc. as much as possible. Please don't cover it with waterproof cloth for long-term storage, which will cause rust.
- Please perform following disposal before storage and check its status regularly.

<Procedures>

- 1) Clean the entire machine and repair the peeling paint. However, please do not to clean electronic parts by steam or water.
- 2) If there are any defects, please perform maintenance and correction so as not to affect the next time of operation.
- 3) Apply the lubricating oil to each movable part.
- 4) Seal the shaft of the drive unit with a plastic sheet, packaging tape, etc. to prevent intrusion of moisture and dust.
- 5) Apply the rust agent to the exposed part of the piston rod and use the protective cover.
- 6) If the amount of oil in the hydraulic tank is insufficient, replenish it to the specified amount.
- 7) Remove the negative wire of the battery from the electrode.
- 8) Since the battery will naturally discharge, please charge it periodically when it is not in use for a long time.

8. Warranty and After-sales Service

8.2 Warranty

- During the warranty period, if the material defects or manufacturing defects of parts of the machine are found and recognized by the company, the parts will be exchanged or repaired free of charge by the company or the supplier or the service factory designated by the company.

- Even if it is within the warranty period, any item listed below will not be covered by the warranty.

1. Earthquakes, typhoons, floods, accidents, and fires
2. Damaged part is lost.
3. Repairs are performed outside the service factory designated by the company or the company, and the failure caused by these repairs.
4. Failure to apply this change to the machine or device without the company's approval.
5. When the genuine parts are not used or the greases specified by the company are not used.
6. The machine is used beyond the limits set by the company.
7. Failures caused by failure to follow the correct use of the operating methods, periodic inspection and maintenance methods.
8. Defects that change with over time (natural fading of paint, plating, etc.).
9. Periodic inspection maintenance operations and consumables required by this manual.
10. Failure occurs in the delivery checkpoint.
11. Use it before the company or the vendor and the service center deliver it to checkpoint, and then failure occurs.
12. Consumable categories as shown below.

Grease, battery solution

- The following conditions are not covered by the warranty.

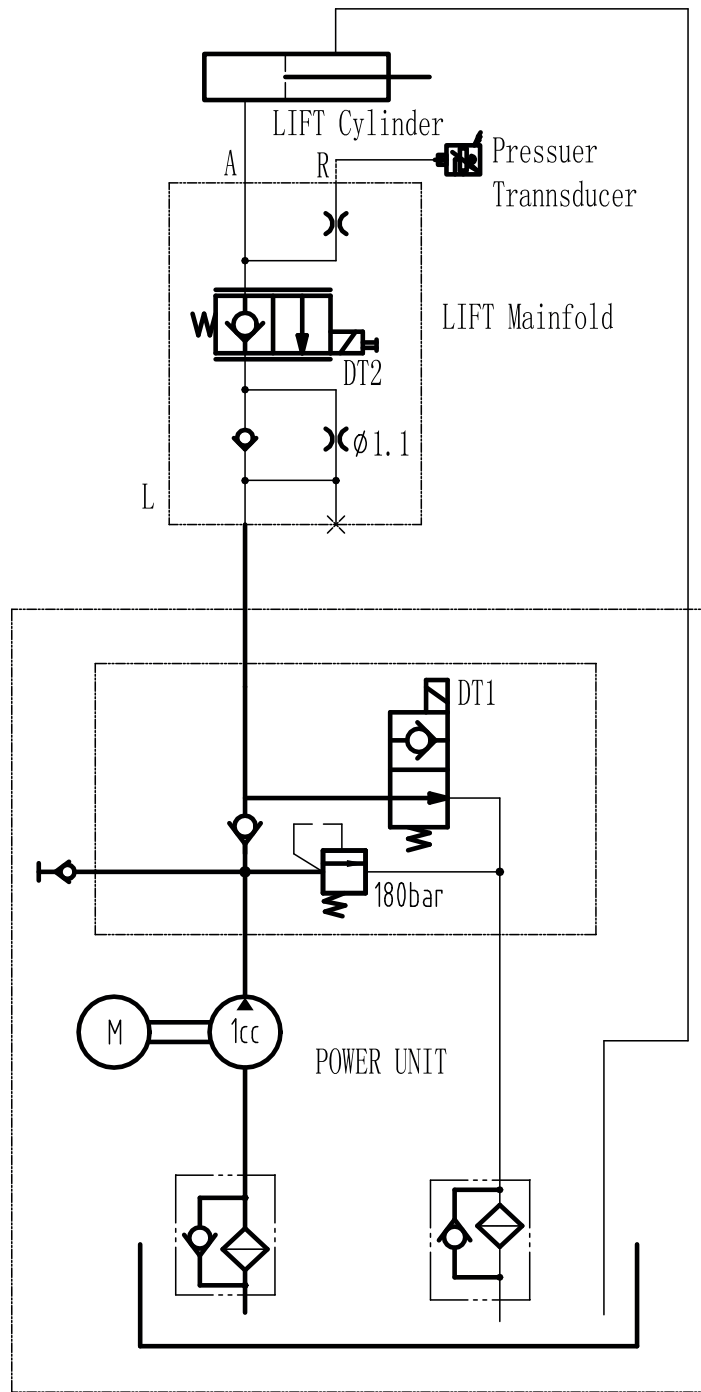
1. The cause of the failure of the machine or all losses and expenses associated with it.

8.3 After-sales service

- When commissioning repair, please confirm the following items and notify the seller and service center.

1. Model
2. Manufacturing number
3. Date of manufacture
4. Delivery date
5. Running time

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A

A

B

B

借通用件登记

描图

校描

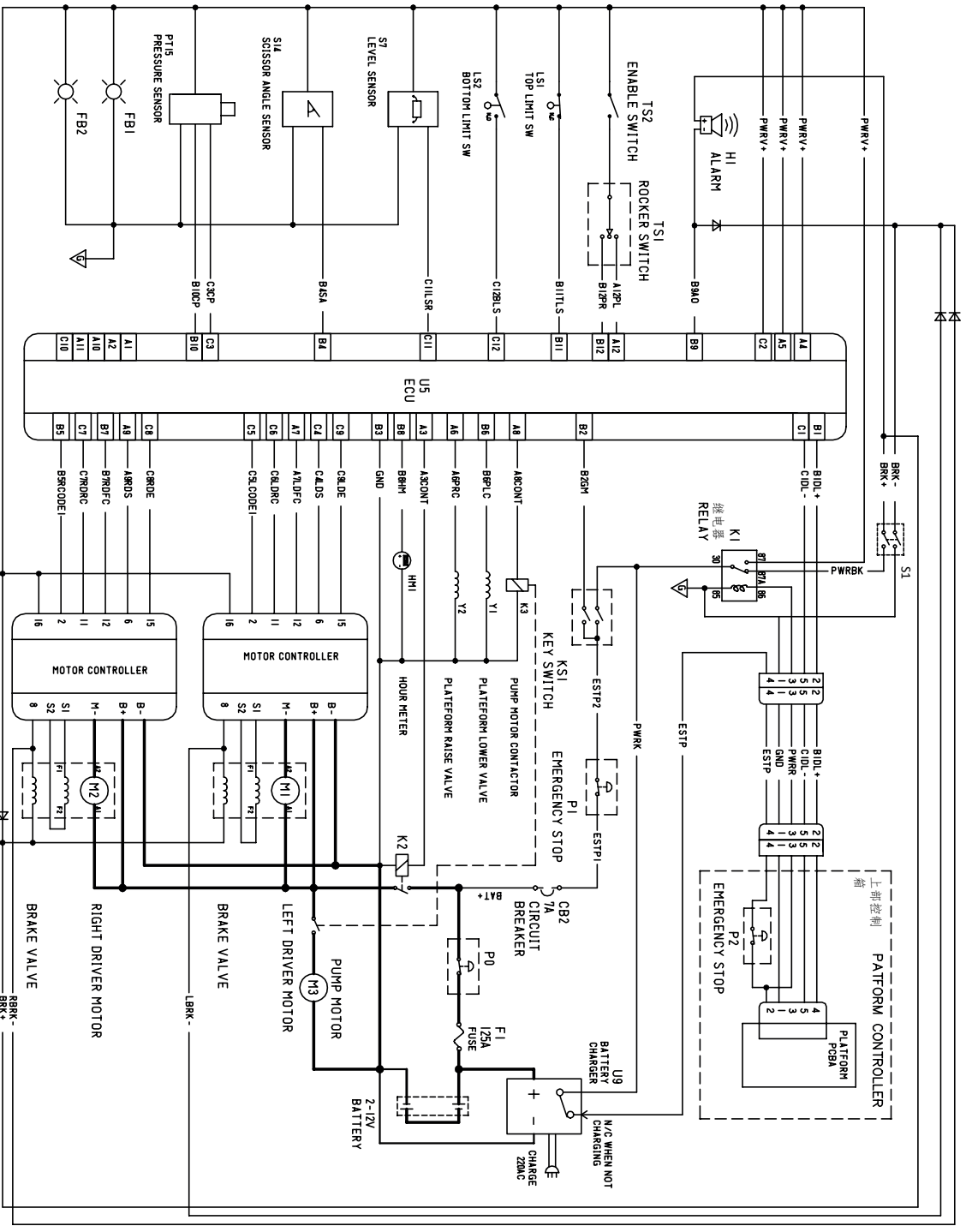
旧底图总号

					FS0507T		
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Design			Standardize				
Check			Approve				
Process			date		total	paper	total
					total	paper	total

FRONTEQ

Hydraulic Schematics

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Electrical Schematic



FS0507T

更改文件号		签字		日期	
设计	标准化	设计	版本	重量	比例
审核	批准	审核	批准		1:1
工艺	日期	共	页	第	页

借通用件登记

插图

校描

旧底图总号

签字

日期

Original Instruction



Lifting your trust.

No.243 Central Huayuan, Chunjiang Town, Xinbei
District, Changzhou City, Jiangsu, China