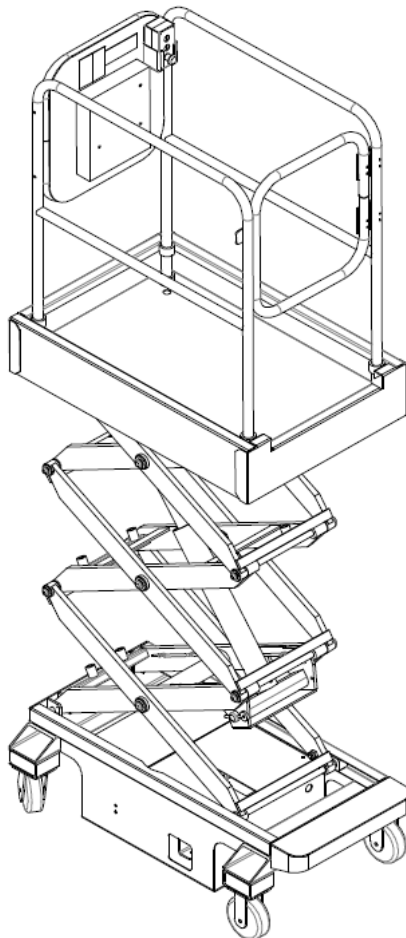


# MX PUSH AROUND Electric Scissor Lift Operation and Maintenance Manual



**This Operators Manual must be placed in the box on the platform. The operator must carefully read and understand this manual before operating this machine.**

**Dear client,**

**Thank you for purchasing this quality product!**

**Your new access equipment is the result of an innovative approach and the pursuit of quality. It has been designed to be functional, safe, comfortable and durable. It has style with excellent operational features.**

**When your machine requires maintenance, only the genuine spare parts should be used as supplied by Upright in order to ensure safety and reliability.**

**Before operating, please read and understand this manual thoroughly!**

## Introduction

**Important!** This manual is intended to help you and should be read carefully and understood when using this product for the first time,

Keep this manual on the machine at all times for reference.

This machine will give you years of safe use and satisfaction if you follow these operation and maintenance instructions carefully.

The main purpose of this manual is to provide the users with the essential knowledge for carrying out the procedures necessary for the correct operation of the machine and for it to be used for the purposes for which it is intended.

All the information contained in this manual must be read and understood before attempting to operate the machine.

The manual is a very important document. It should be kept safe

Remember that NO EQUIPMENT IS SAFE if the operator does not observe the safety precautions.

The manufacturer has no direct control over the operation and applications of the machine, therefore appropriate safety procedures are entrusted to, and are the responsibility of the owner and the user.

All the instructions contained in this manual are based on the use of the machine when it is working CORRECTLY, without alterations and/or modifications to the original model. Any alteration and/or modification to the machine is STRICTLY PROHIBITED, without the prior authorisation from the manufacture.



## Notes

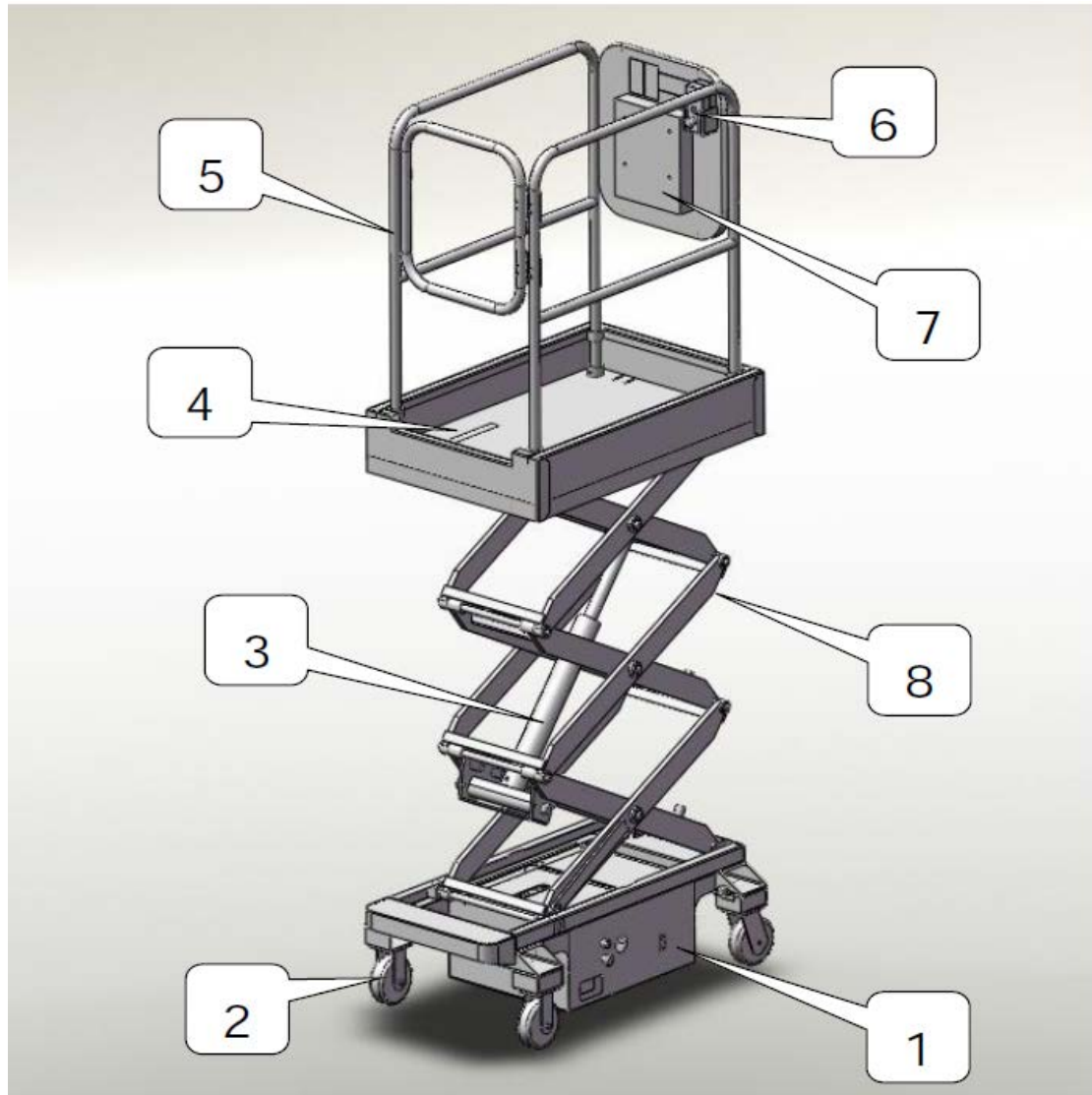
- Compliance with the safety instructions concerning the machine itself, its use and its environment.
- use within the limits of the machine.
- Correct maintenance and operation, which will affect the machine's lifetime.
- During and after the warranty period, our After Sales & Service Department is available to provide any services you may require.
- When contacting our After Sales and Service Department, specify the exact machine type and its serial number.
- When ordering consumable or spare parts, use this manual and the "Spare parts" section to ensure correct ordering of original parts. This is the sole guarantee of part interchangeability and continued satisfactory operation.
- This instruction manual is supplied with the machine and is referenced on the delivery note.

## CONTENTS

<b>1. Outline drawing</b>	<b>6</b>
<b>2. Specification</b>	<b>8</b>
<b>3. Safty instructions</b>	<b>10</b>
<b>4. Schematic</b>	<b>20</b>
<b>5. Operate instructions</b>	<b>26</b>
<b>6. Maintenance</b>	<b>28</b>
<b>7. Common faults and methods of solutions</b>	<b>31</b>
<b>8. Warranty Card</b>	<b>40</b>
<b>9. After service Record Table</b>	<b>44</b>
<b>10. Check and Maintenance Record</b>	<b>47</b>

## 1. Outline Drawing

### The Product Outline Features



1. Chassis

2. Steering wheels

3. Hydraulic Lift Cylinder

4. Platform

5. Guardrail

6. Control panel

7. Operators Manual

8. Scissors Boom

## 2. Specification

Model	MX1030PA	MX1330PA
Max. Working Height m H1	5	6
Max.Platform Height m H2	3	4
Lifting Capacity Kg	240	240
Weight Kg	465	565
Platform Size m B*C*A	1.15*0.76*1.1	1.15*0.76*1.1
Toe Board height m	0.15	0.15
Stowed Footprint Size m E*F	1.15*0.76	1.15*0.76
Stowed Height m D	1.85	1.94
Hydraulic tank capacity Ltr	2	2
Wheelbase m G	1.07	1.07
Ground Clearance m H	0.06	0.06
Load No. Max Persons	2	2
Raise/Lowering Times secs	28/24	35/31
Power Source	12V/100AH	12V/100AH
Tyre/wheel Size mm	Non-Marking Wheels 150	Non-Marking Wheels 150

## 3. Safety Instructions

### 3.1 GENERAL WARNING

#### 3.1.1 Manual

This manual aims to help the operator to familiarise him or herself with the machine to ensure its efficient and SAFE use. However, this manual cannot be a substitute for the basic training required by any site equipment operator.

The company manager is required to inform operators of the recommendations in the instruction manual.

He is also responsible for applying any "user regulations" in force in the country of use.

Before using the machine, it is essential to be familiar with and understand all operating and safety instructions to ensure safe and efficient use of the equipment. This instruction manual must be available to the operators on the machine at all times. Extra copies can be supplied on request.

#### 3.1.2 Labels

Potential hazards and machine instructions are indicated by labels and plates. Read the instructions on these labels and plates.



All labels use the following color code. Red indicates a potentially fatal hazard.



Orange indicates a hazard that may cause serious injury.



Yellow indicates a hazard that may cause material damage or slight injury.

The owner or company manager must ensure that all labels and plates are in good condition, in position and are legible. Extra copies can be ordered and supplied by the manufacturer on request.

### 3.1.3 Safety

Ensure all the personnel strictly follow the safety instructions.

Avoid working in the conditions which will influence safety.

Failure to follow all safety instructions and safety rules may lead to serious risk to the operator and other persons possibly resulting in injury and machine damage.

Avoid any work conditions liable to affect safety. Any use that is not conforming to the instructions may incur risks and injury to people.



#### **WARNING**

**Ensure that all plates and labels related to safety and hazards are complete, fixed in position and are legible.**

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## 3.2 GENERAL SAFETY INSTRUCTIONS

### 3.2.1 Operators

Operators must be aged 18 or over and hold an operating permit issued by approved training centre and after verification of health, aptitude and practical platform operational tests.

- There should be at least two operators present so that one can:
- React quickly in an emergency.
- Take over the controls in the event of accident or failure.
- Monitor and prevent vehicles and pedestrians from moving around the platform.





## Caution:

Only Trained and Authorised operators may use this machine.

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### 3.2.2 Working Environment



#### Never use the machine:

- On soft, unstable or cluttered ground
- On a slope that is greater than the permitted slope
- In wind. Max wind speed 0 m/s (zero) indoor and outdoor use.

*Do not raise the platform in the wind or in the case where the platform is raised, lower it.*

- Near electric lines (refer below for minimum distances according to voltage)
- In temperatures of less than -29°C (particularly in cold rooms), consult Upright if work is to be carried out at less than -29°C.
- In an explosive atmosphere
- During storms (lightning risk)
- At night if the machine is not equipped with the adequate lighting
- In the presence of intense electromagnetic fields (e.g radar, high electrical currents)

### 3.2.3 Using the machine

It is important to ensure that in normal operation, i.e. using upper controls in platform, we recommend removal of the platform controls selection key and be held at ground level by a person present and trained in emergency/rescue operation.

Do not use the machine with:

- A Load greater than the maximum allowable load limit or
- with more than the maximum persons allowed in the platform



**Warning: Do not use the machine as a crane, goods lift or elevator.**

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**To avoid all risks of serious falls, operators must comply with the following instructions:**

- Firmly hold the Handrails when the machine is moving.
- Wipe all traces of oil or grease from the steps, floor or hand rails.
- Wear personal protective clothing and equipment suited to the work conditions and applicable local regulations, in particular when working in hazardous areas
- Do not disable the safety switches and travel sensor interlocks
- Avoid hitting stationary or moving obstacles
- Do not use ladders or other accessories to increase working height
- Do not use the Handrails as a means of access to climb into or out of the platform (use the steps provided on the machine)
- Do not climb on the Handrails
- Do not use the machine without setting up the platform's Handrails or closing the safety gate
- Do not stand or climb on the covers

This machine is equipped with approved restraint anchor points that will accept a single harness per point of anchor. These anchor points are indicated by the label opposite.

**To avoid risks of overturning, operators must comply with the following instructions:**

- Do not disable or override safety switches and travel controls
- Do not overload the machine. Respect the maximum load, and number of persons authorised to be in the platform
- Spread the load and place in the centre of the platform if possible
- Check that the ground conditions resist the pressure and load per wheel
- Avoid hitting stationary or moving obstacles
- Do not use the machine with an untidy or cluttered platform
- Do not use the machine with elements that may increase its wind resistance (e.g.: panels)
- Do not perform machine maintenance operations while the machine is raised without implementing the necessary safety precautions (Chocks, gantry crane, crane)

- Perform daily checks and monitor correct operation during periods of use
- Only trained and approved personnel shall use or maintain this machine

### 3.3 RESIDUAL RISKS

#### 3.3.1 Risks of falling or overturning

The risks of falling or overturning are high in the following situations:

- Sudden action on the control levers
- Platform overload
- Ground collapse (be careful during thaw periods in winter)
- Gusts of wind
- Hitting an obstacle on the ground or overhead
- Working on quays, pavements, etc

#### 3.3.2 Electric risks

Electric risks are high in the following situations:

- Contact with a live lines or overhead cables
  - Use during storms
- See "Minimum safety distances"

#### 3.3.3 Risks of explosion or burning

The risks of explosion or burning are high in the following situations:

- Work in an explosive or inflammable atmosphere
- Use of a machine with a hydraulic leak

#### 3.3.4 Risks of collision

- Risk of crushing people within the machine's operating area, check before use
- The operator must evaluate any ground and overhead risks before using the machine.

## 3.4 VERIFICATIONS CHECKS

### 3.4.1 Periodical checks

The machine must be thoroughly examined every 6 months to detect any defects that may cause an accident.

These examinations are carried out by an approved external organisation or a competent person specially appointed by the company and reporting directly to management (e.g. competent employee of the company)

The results of these examinations are recorded in a safety log kept by the company manager, available at all times to the factory inspector and the company's health and safety committee. The list of any competent persons should also be available.

#### Attention:

The appointed competent persons must be experienced in the field of risk prevention.

No-one should perform verification tests during normal machine operation.

### 3.4.2 Examination of machine suitability

The management of the company in which this machine is used must ensure that the machine is fit for purpose and is suitable for the work to be carried out safely and in compliance with the instruction manual.

### 3.4.3 Maintenance

Regular inspection and maintenance must be carried out by the Owner/User and any defects or deterioration liable to cause dangerous situations e.g. safety systems, load limiters, tilt control, Cylinder oil leaks, deformation, state of welds, tightness of bolts, hoses, electric connections, condition of tyres, or excessive mechanical play, shall be repaired or made good immediately and before it re-enters normal service.

NOTE: If the machine is rented, the user or manager of the rented machine is responsible for checking the state of repair and machine suitability. He must confirm with the lessor that the general periodical checks and verifications before use have been carried out.

### 3.5 BEAUFORT SCALE

The Beaufort scale is a recognised measurement for wind force and to communicate weather conditions. The scale goes from 0 to 12 and each level represents a certain wind force. Alternate measurements such as an Anemometer can be used to determine wind speeds

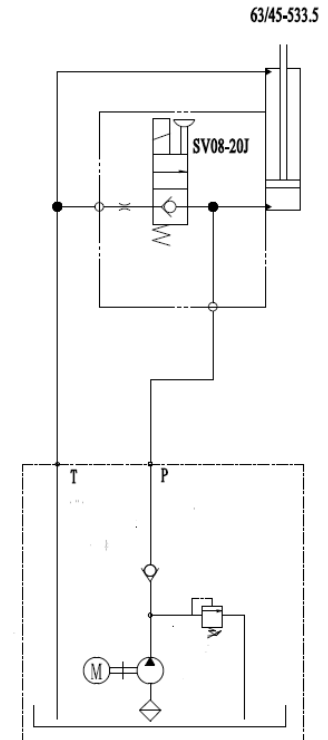
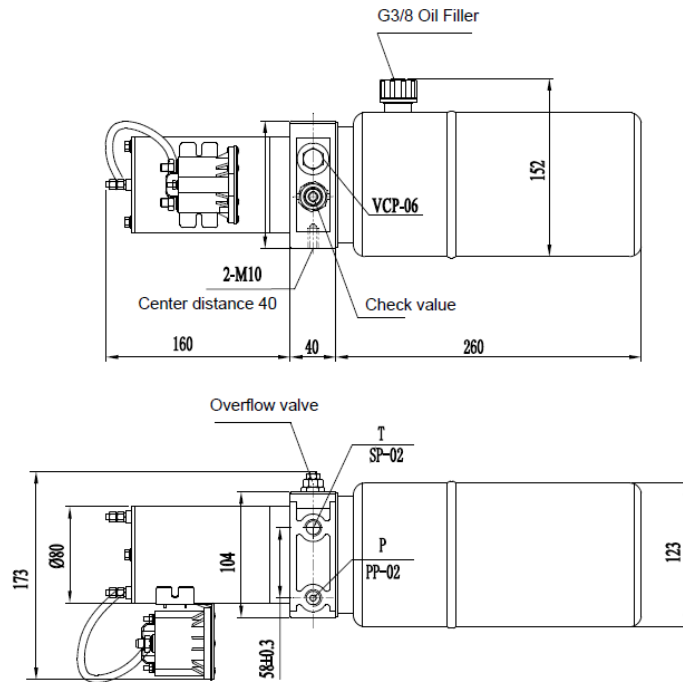
Wind description		Effects observed on land	Kmh	m/s
0	Calm	Smoke rises vertically	0-1	0-0.2
1	Light air	smoke indicates wind direction	1-5	0.3-1.5
2	Light breeze	Wind felt on fac. Leaves rustle. Wind vanes move	6-11	1.6-3.3
3	Gentle breeze	Leaves and small twigs constantly moving, flags move slightly	12-19	3.4-5.4
4	Moderate breeze	Dust and light papers lifted, small branches move	20-28	5.5-7.9
5	Fresh breeze	Small trees sway. Waves form on lakes	29-38	8.0-10.7
6	Strong breeze	Large branches move, electric wires and chimneys whistle. Umbrellas difficult to use	39-49	10.8-13.8
7	Near gale	All trees move. Resistance felt walking against the wind	50-61	13.9-17.1
8	Gale	Broken branches, generally cannot walk against the wind	62-74	17.2-20.7
9	Strong gale	Wind causes slight damage to buildings. Tiles and chimney pots lifted from rooftops.	75-88	20.8-24.4

### 3.6 MINIMUM SAFETY DISTANCES

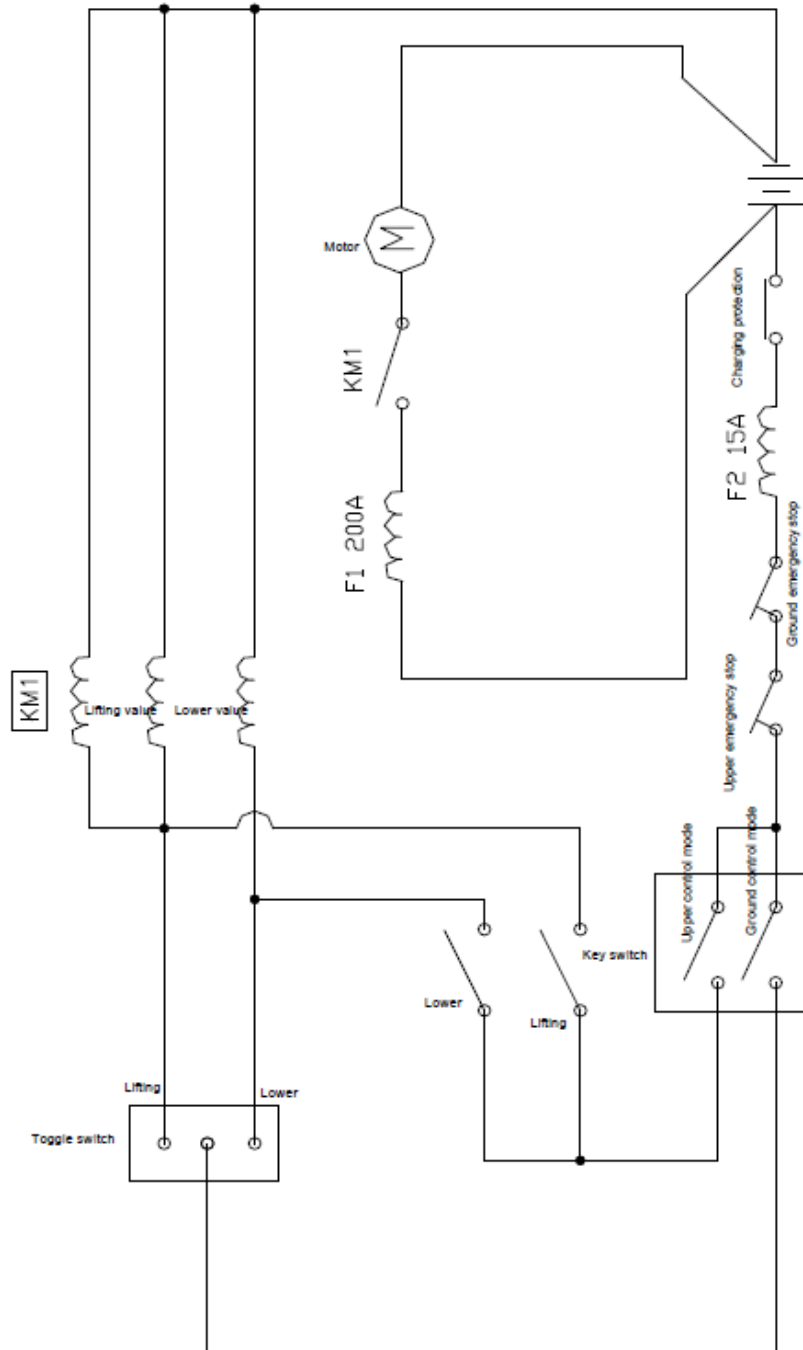
Voltage	Minimum Safe distance in meters
0-300V	Avoid contact
300V-50KV	3.05m
50KV-200KV	4.60m
200KV-350KV	6.10m
350KV-500KV	7.62m
500KV-750KV	10.67m
750KV-1000KV	13.72m

## 4- Schematic

### 4.1 The Schematic of Hydraulic System



## 4.2 The Schematic of Electric diagram



## **5. Operator Instructions**

### **5.1 Checks before Use**

To ensure safe use, make sure the machine in good working condition i.e. carry out a thorough inspection and performance check before use.

Check contents:

- a. Check for power lines in proximity to the machine, this machine is not insulated.
- b. Check functionality of all controls?
- c. Check whether there is oil leakage in hoses and fitting?
- d. Check whether all nuts and bolts are present and tightened?
- e. Check tilt Sensor functionality? Push Tilt level sensor by hand and confirm it will alarm at the maximum tilt angle for this machine.)

### **5.2 Check steps**

- a. Connect power supply (Plug in) and turn the key switch until the indicator light is on. Check battery is charging correctly.

### **5.3 Instructions for Use**

- a. Overloading of machine is prohibited!
- b. Operating the machine or just being on the platform when it is not safe to do so is strictly prohibited.
- c. Do not move the machine when carrying out work when in the elevated position.
- d. Before operating the platform, outriggers must be installed correctly to ensure stability
- e. Shaking or vibration on the platform is strictly prohibited.
- f. Working with electricity on the platform is prohibited.
- g. Any abnormal sound or loud noises should be immediately investigated. This will avoid any machine damage or potential hazardous condition occurring. Refer to the "Fault and Troubleshooting" guide
- g. Power supply should be switched off at the controls when not in use,  
This will conserve power and ensure longer battery life between charging times and possible hazardous condition arising.



## **6. Maintenance**

### **6.1 Safety warnings**

- a. Only approved and trained electrical and mechanical professionals should carry out any repair or maintenance so as to prevent electric shock or misconnection.
- b. If there is a need to carry out work on the platform or scissors structure when elevated, the platform and scissors must be adequately and safely supported by Crane or Chock to prevent inadvertent lowering or dropping which can result in serious casualties.
- c. The operator shall not adjust the relief valve at any time. This is factory set and any adjustment of the pressure relief valve is prohibited unless under instruction from the manufacturer. Unauthorised adjustment will cause malfunctioning , oil pipe bursts and could result in injury or death. If there is a need to adjust any factory settings please contact the manufacturer. The manufacturer cannot be held responsible for abuse of the machine.
- d. Before undertaking any and hydraulic work or maintenance of the hydraulic system, you must first release the system pressure to prevent hydraulic oil spray and sudden platform operation.

### **6.2 Monthly maintenance**

- a. Check for wear and damage on the following:- Casters wheels, intermediate axis and bearings, cylinder pins, scissors arm axis.
- b. Regularly lubricate all parts with approved lubricants. This will ensure a smooth operation and longer life of machine parts.
- c. Check the hydraulic oil level. Raise platform to full height, the hydraulic oil level should be between 40%- 50% full. Check the hydraulic oil for its consistency and colour, Replace hydraulic immediately if on inspection its its cloudy, Tacky or there was ingress of grit or dirt or any sign of contamination (use 32 # hydraulic oil).

### **6.3 Year-end Maintenance**

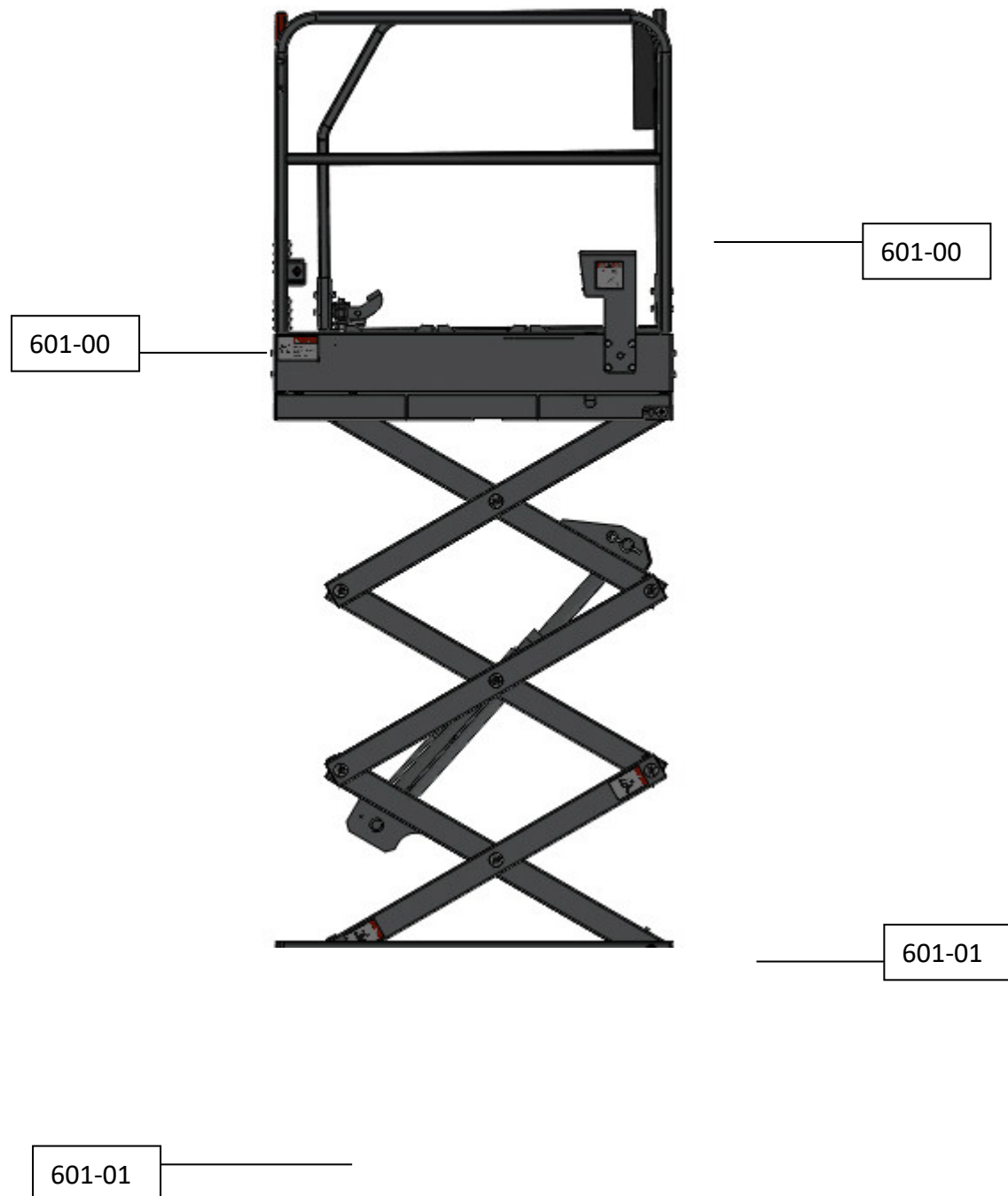
- a. Check all the hydraulic pipes and fittings, pipes shall not be damaged and joints shall not be loose or allow oil to escape.
- b. Remove and disassemble the support valve, blow the plunger net by compressed air, and then re-placement and install well.
- c. Remove and replace the hydraulic oil and discard in a controlled and environmental safe manner. Remove and replace the oil filter.
- d. Clean all hoses

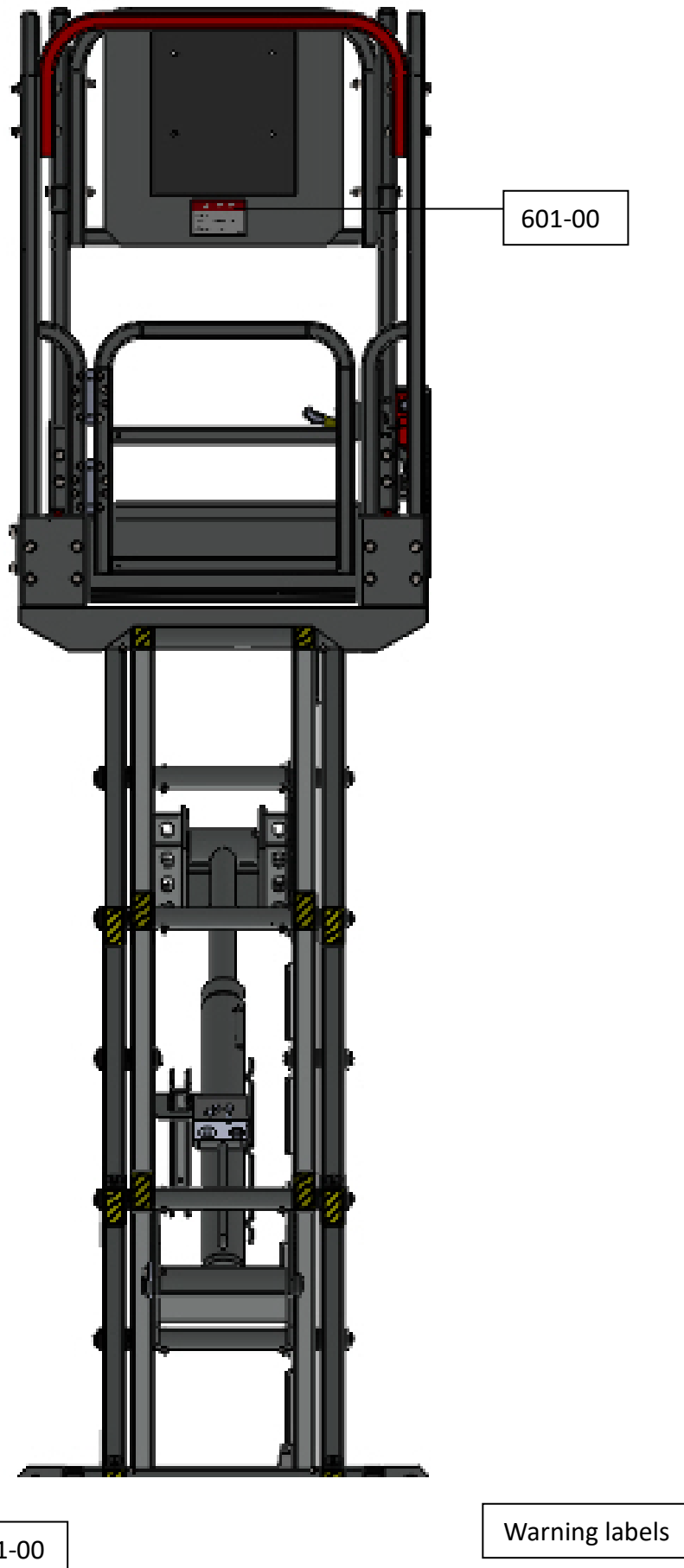
## 7. Common Faults and Methods of Solutions

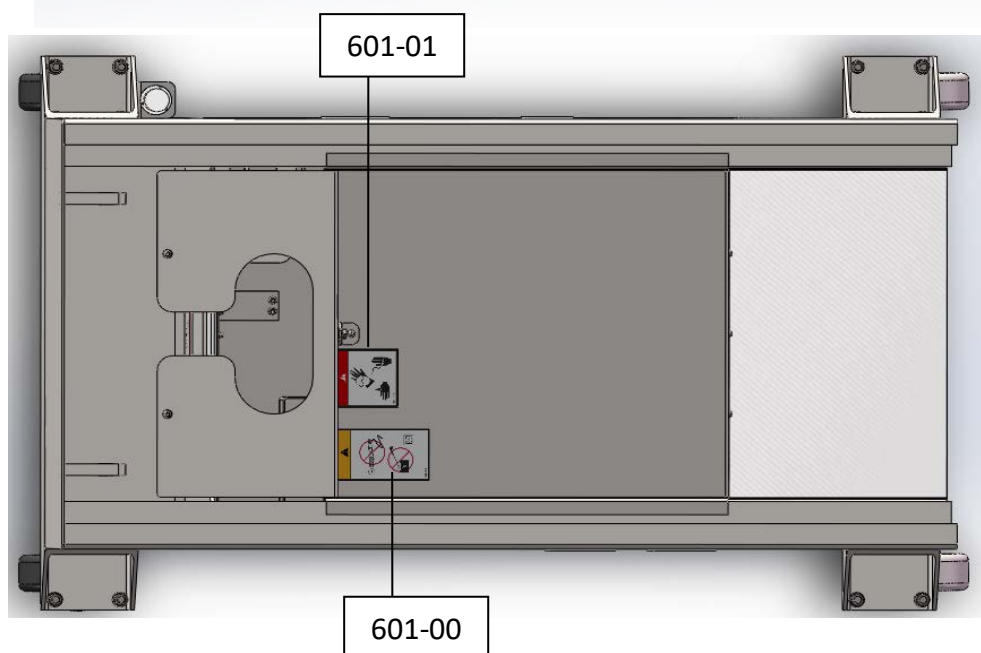
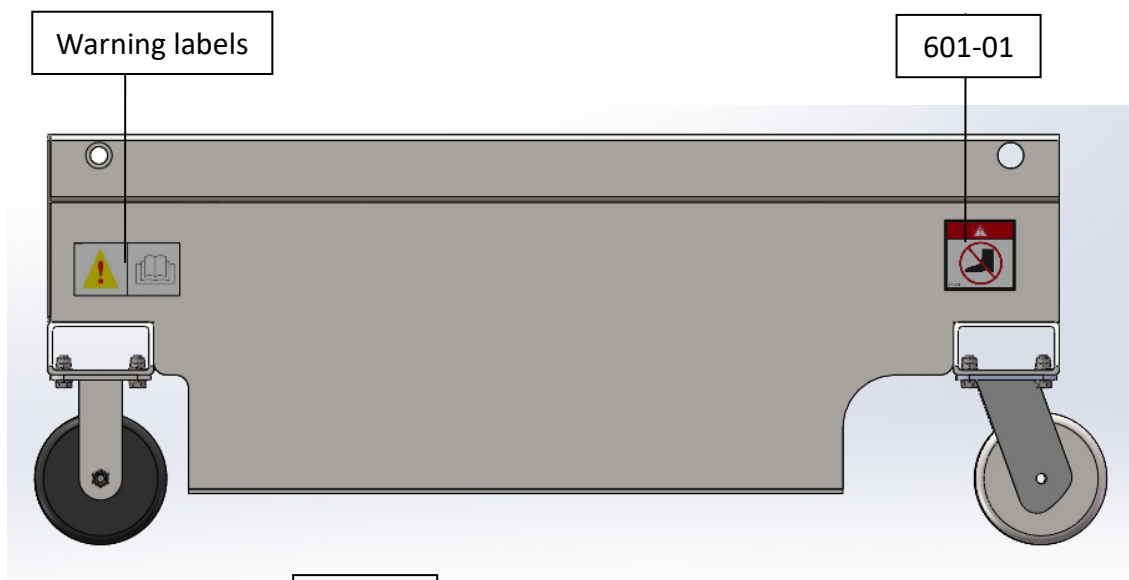
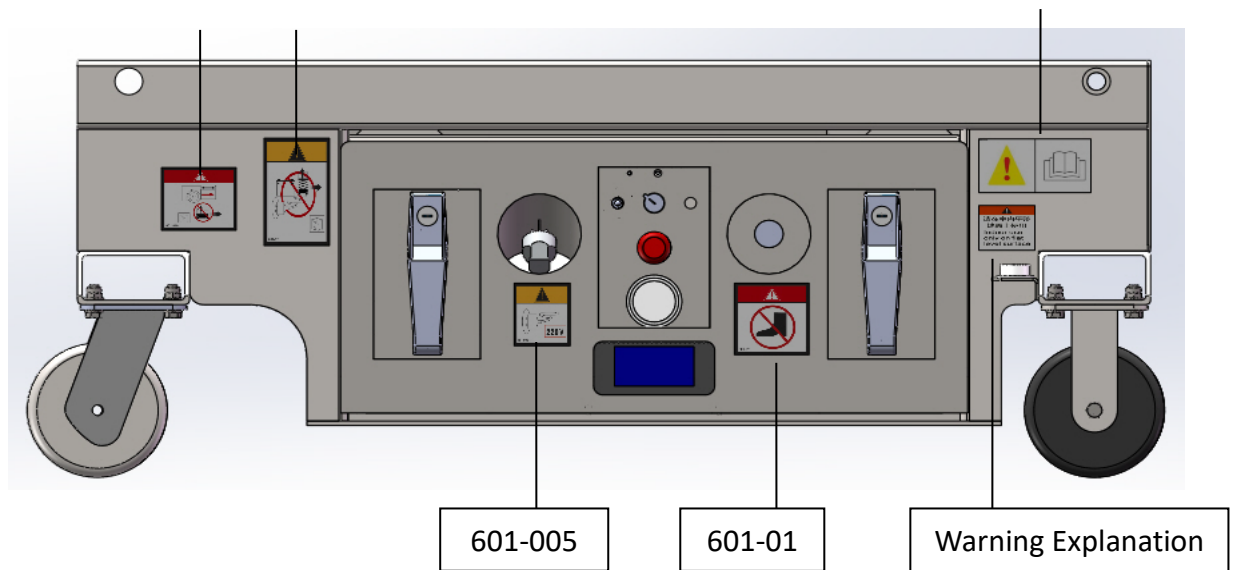
Fault		Methods of solutions
The platform will not raise	Voltage is too low	Check the Battery Check Battery charger is operating satisfactorily
	Motor does not run	Check the motor and electric circuit.
	Motor reverse	Any changes of two during three items.
	Motor does not start	Check the circuit breaker fuse and electrical wiring. Check electric Voltage at the starter contactor
	Lowering valve open	Down function Solenoid Valve stuck in position, check, lubricate and replace if necessary. Check if voltage is present and keeping valve open. Check for valve function, lubricate and keep clean.
	Relief valve for the pressure is too low	To adjust the pressure relief valve, do the adjustment when the load is 110%.
	The oil level is too low	Increase the hydraulic oil level
	Suction filter clogging	Clean the filter. Replace if necessary
	Suction leak	Check the suction pipe and fittings, tighten the fittings replace if necessary.
	Overload	Reduce the load, overload is prohibited.
Platform Automatically down	Check valve oil leakage	Check valves, one-way valve, check valve sealing surface for dirt, clean the check valve, replace if necessary
	Lowering valve not closed and seated	Lowering held open by dirt or voltage. Check for Zero voltage at Solenoid Clean or replace Down Valve.
	The fuel tank or Cylinder leakage	Check for oil leaks Replace the hydraulic cylinder seals.
The platform will not lower	Lowering valve failure	Check for debris in scissors, check Voltage in lowering function Solenoid Valve, lubricate and replace if necessary. Check for valve function, lubricate and keep clean.
	Lowering speed control valve disorders	Adjust the rate of lowering Control valve, Replace with a new valve if necessary.

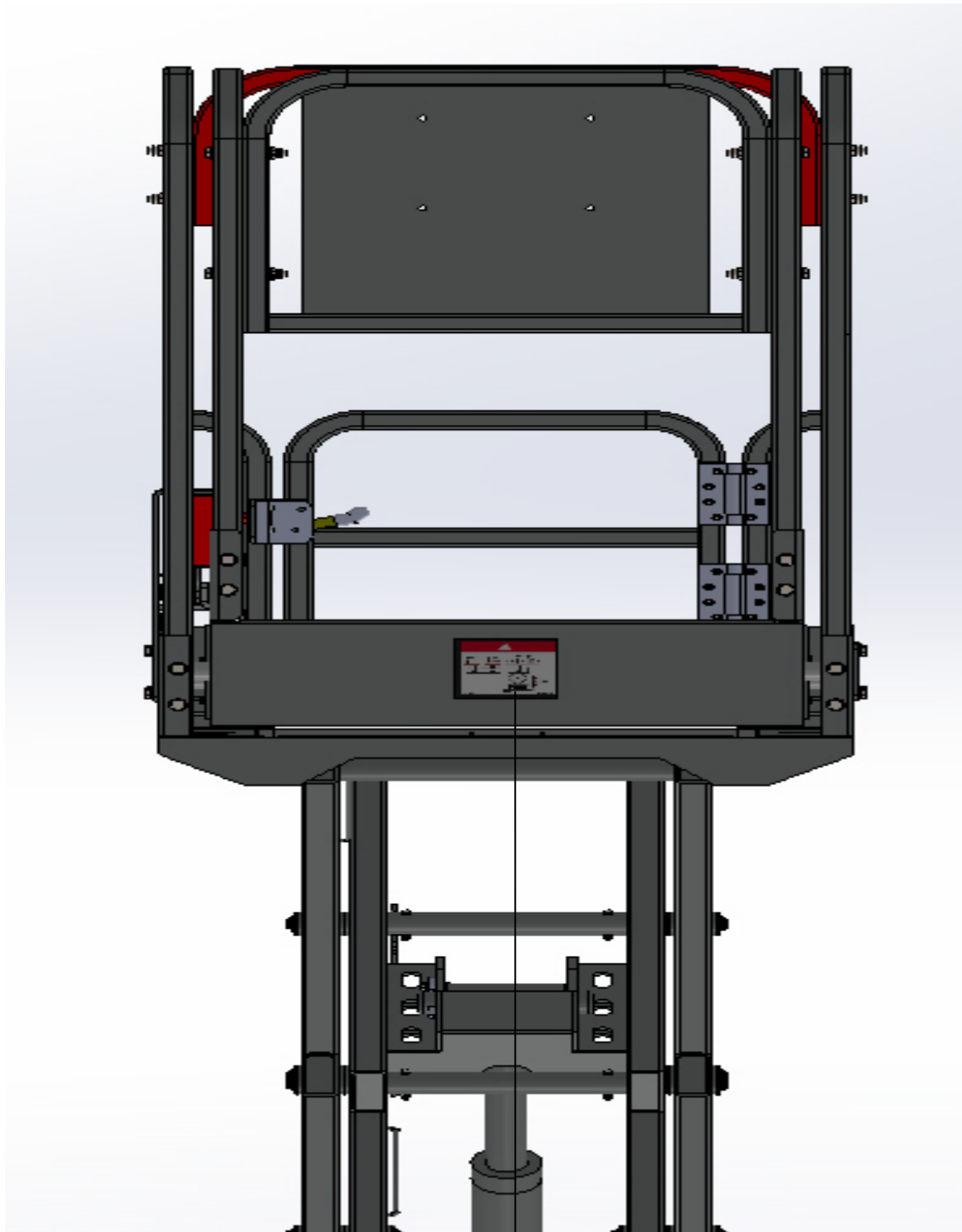
## MX1030 and MX1330 Decals

(The Decals for both machines are identical)









601-061 or 601-062 / 1 pcs

## Decal & Labels:- Legend

No.	Legend	Material No.
601-001	Danger of Overturning	051005J094
601-002	Danger of Smash	051005J095
601-003	Disable when charging	051005J096
601-004	Platform Control Power 220V	051005J097
601-005	Ground Control Power 220V	051005J098
601-008	Power supply prohibits external use and painting	051005J101
601-010	When the battery is exposed, the use of equipment is forbidden.	051005J103
601-011	Forbid pedal	051005J104
601-013	Danger of Hand Injury	051005J106
601-014	Waterproof and electricity protection	051005J107
	MX1030PA Decal for platform control	
	MX1030PA Decal for Ground control	
	MX1030PA Warning Explanation	
601-061	MX1030PA Load capacity	
	MX1030PA Model Decal	
	Warning Decal	
	MX1030PA Nameplate	