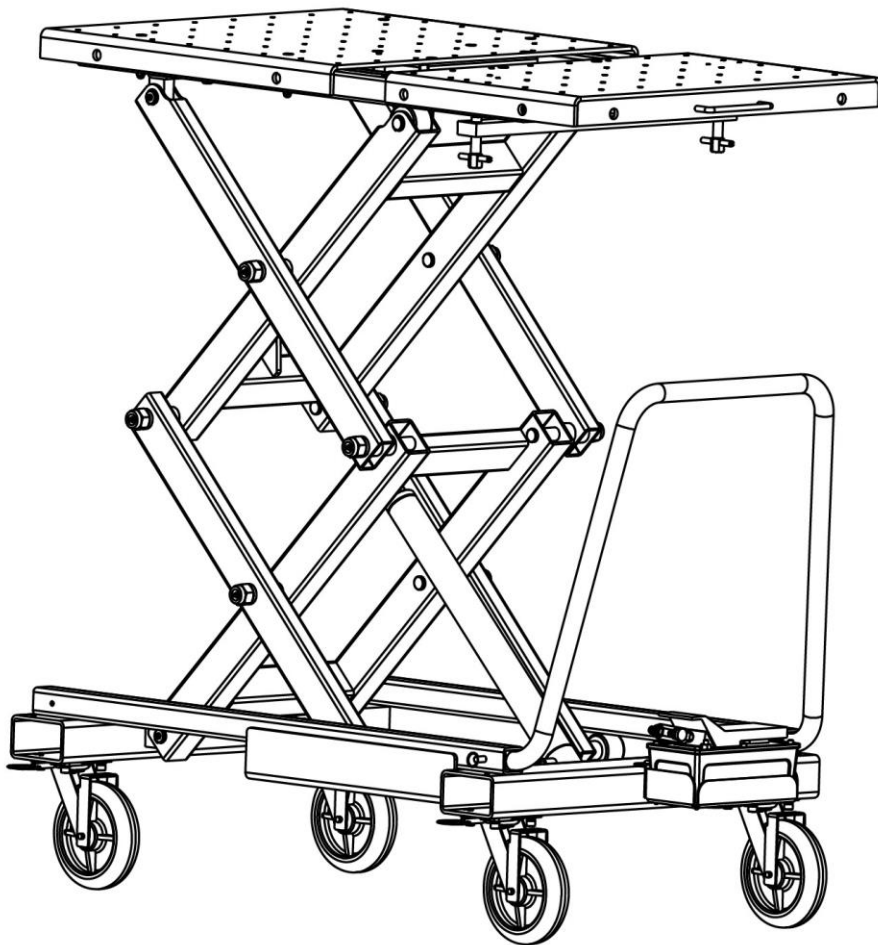


Model No. EE-MS10
Mobile Lifting Table
Lifting Capacity, 1000KG
Drive by pneumatic-hydraulic pump

**TRANSLATED VERSION
Installation, Operation
and Parts Manual**



EAE



Distributed by

Please read this entire manual carefully and completely before installation or operation of the lift.

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www.eae-ae.com

IMPORTANT NOTES

Before start up, connecting and operating EAE products, it is absolutely essential that the operating instructions/owner's manual and, in particular the safety instructions are studied carefully. By doing so you can eliminate any uncertainties in handling EAE products and thus associated safety risks up front; something which is in the interest of you own safety and will ultimately help avoid damage to the device, When an EAE product is handed over to another person, not only the operating instructions but also the safety instructions and information on its designated use must be handed over to the person.

By using the product you agree the following conditions:

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Warranty

The use of non-approved hardware will result in a modification of our products and thus to the exclusion of any liability or warranty, even if such hardware has been removed again in the interim.

It is not permissible to make any changes to our products and these are not only to be used together with genuine accessories and genuine replacement parts. Otherwise any warranty claims will be invalid.

Liability

The liability of EAE is limit to the amount that the customer has actually paid for this product. This exclusion of liability does not apply to damages caused through willful misconduct or gross negligence on the part of EAE.

All information in this manual is believed to be correct at time of publication.

EAE reserves the right to amend and alter technical data and composition without prior notice.

Please confirm at time of ordering.

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SAFETY NOTES

1.1 Operation of the lifting table

This mobile lifting table is designed for dismantling and fixing batteries of electric vehicles as well as engine, gearbox, drive axle, fuel tank, suspension, bracket and chassis components of traditional vehicles. Users are not allowed to use it for any other purposes. The applicable national regulations, laws and directives must be observed.

Only users aged 18 or above who have been instructed on how to operate the lifting table and have proven their ability to do so to the owner are to be entrusted with unsupervised operation of the lifting table. The task of operating the lifting table must be granted in writing.

Before loading onto the lifting table, users should study the original operation instructions and familiarize themselves with the operating procedures in several trial runs.

Lift within the rated load. Don't attempt to raise with excessive weight.

1.2 Checking of the lifting platforms

Checks are to be based on the following directives and regulations:

Basic principles for testing lifting tables

The basic health and safety requirements

Harmonized European standards

The applicable accident prevention regulations

The checks are to be organized by the user. The user is responsible for appointing an expert or qualified person to perform checking. It must be ensured that the person chosen satisfies the requirements.

The user bears special responsibility if employees of the company are appointed as experts or qualified persons.

1.3 Important safety notices

Recommend for indoor use only. DO not expose the lift to rain, snow or excessive moisture.

Only use this lift where the altitude is within 1000 meters and where the foundation is stable and capable of sustaining the load.

Only these properly trained personnel can operate the lift.

Read and understand all safety warnings before operating the lift.

Keep hands and feet away from any moving parts. Keep feet clear of the lift when lowering.

Do not wear unfit clothes such as large clothes with flounces, tires, etc., which could be caught by moving parts of the lift.

Lift within the lifting capacity. Surrounding areas of the lift must be tidy and with nothing unsecured.

Do not enter under the lifting platform unless it is mechanically locked.

Lower the lift to its lowest position and remember to turn off the power when service finishes.

Do not modify without manufacturer's advice.

If the lift is going to be left unused for a long time, users are required to:

- a. Disconnect the power;
- b. Empty the oil tank;

c. Lubricate the moving parts with hydraulic oil.

WARNING: The warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.
























1.4 Noise

The noise during normal working is less than 70 dB (A).

1.5 Warning labels

All safety warning labels are clearly depicted on the lift to ensure that the operator is aware of and avoid the dangers of using the lift in an incorrect manner. The labels must be kept clean and they have to be replaced if detached or damaged. Please read carefully the meaning of each label and memories them for future operation.

DON NOT ENTER UNDER THIS PLATFORM UNLESS IT IS MECHANICALLY LOCKED

 CAUTION	 CAUTION	 CAUTION
 <p>Please read and understand the operation instructions completely before operating the lifting table.</p>	 <p>Ensure the load is centered over the carrying table.</p>	 <p>Avoid excessive rocking the lifted load or the carrying table.</p>
 CAUTION	 CAUTION	 CAUTION
 <p>The space under or around load carrying table shall be free of obstructions before use.</p>	 <p>The load carrying table shall be observed by the operator through out the motion of the lift table.</p>	 <p>Put the brake of the casters into use when park the lift table.</p>
 WARNING	 WARNING	 DANGER
 <p>Don't try to carry load with excessive weight.</p>	 <p>Don't use on a slope of greater than 2.5 %.</p>	 <p>Keep hands, feet and other parts of the body away from the moving parts to avoid pinching or shearing.</p>
 WARNING	 WARNING	 DANGER
 <p>It is for carrying goods only. No person is allowed to stand or sit on the lift table. Travelling on the load carrying devices is forbidden.</p>	 <p>Don't use outdoor in strong breeze with the wind speed being more than 14 m/s.</p>	 <p>Don't modify or interfere with safety mechanism.</p>

PACKING, STORAGE AND TRANSPORTATION

Packing, lifting, handling, transporting operations must be performed only by experienced personnel with appropriate knowledge of the lift and after reading this manual.

2.1 The lift was packed as whole for transportation

Name	Packed by	Dimension(mm)	Weight(kg)	Quantity
MS10 mobile lifting table	Carton	1500x800x600	360	1

2.2 Storage

The packs must be kept in a covered and protected area in a temperature range of -10°C to $+40^{\circ}\text{C}$. They must not be exposed to direct sunlight, rain or water.

Stacking the packs

We advise against stacking because the packs are not designed for this type of storage.

2.3 Lifting and handling

The packs can be lifted and transported only by using lift trucks.

Opening the packs

When the lift is delivered, make sure that it has not been damaged during transportation and that all the parts are present.

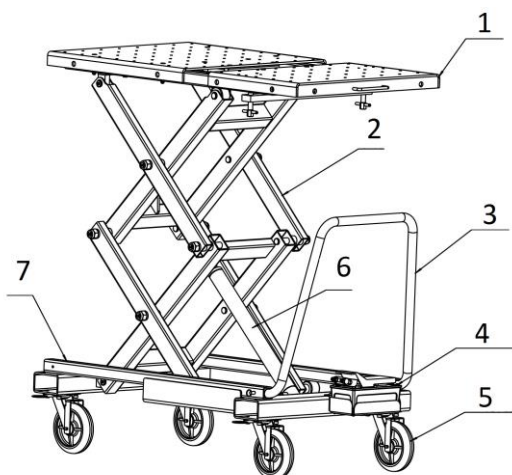
Packs must be opened adopting all the precautions required to avoid injury to persons (keep at a safe distance when cutting the straps) or damage to parts of the machine (be careful that no parts are dropped while you are opening the packs)

PRODUCT DESCRIPTIONS

3.1 General descriptions

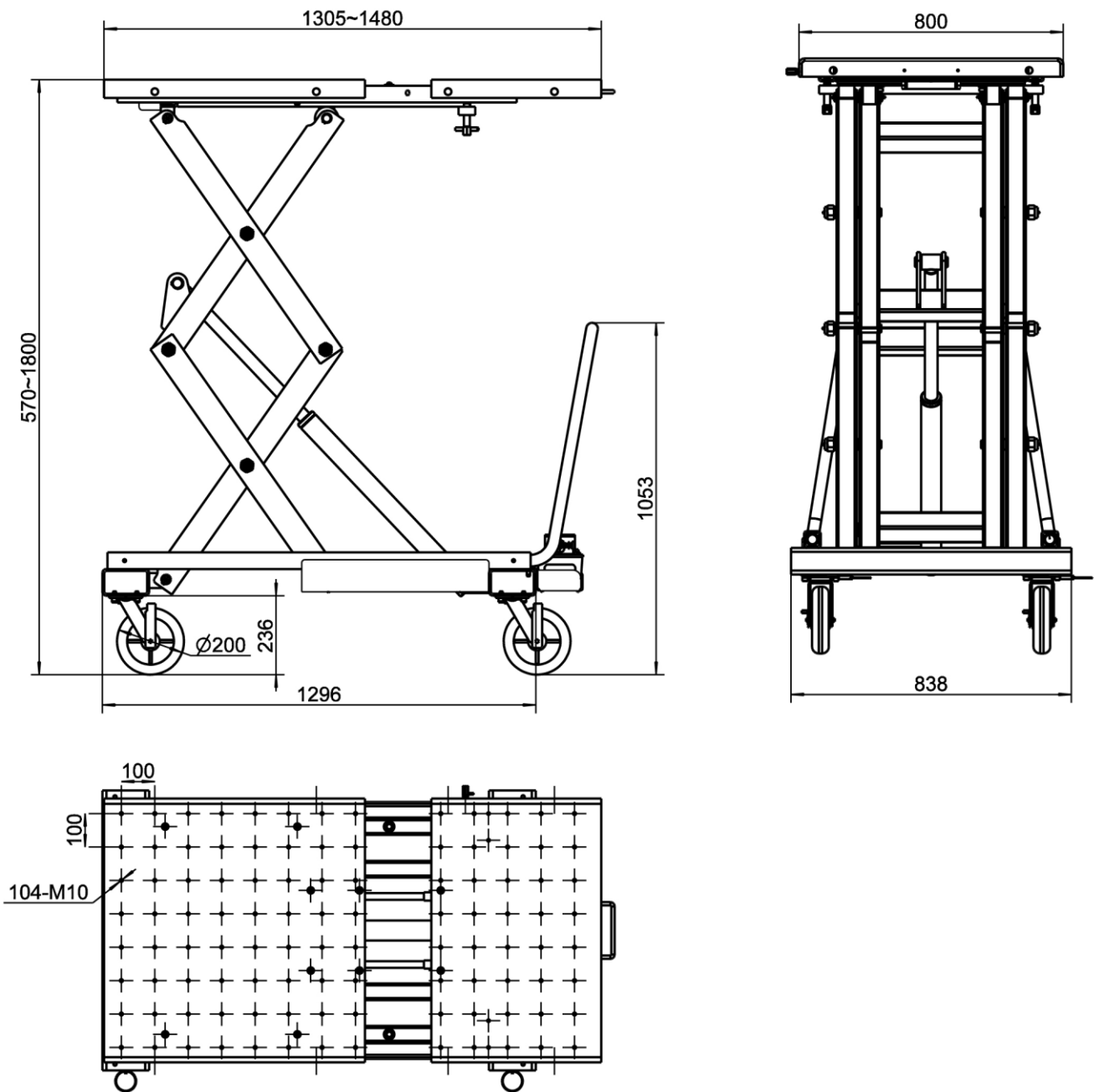
This lifting table is designed to load and move batteries of electric vehicles as well as engine, gearbox, drive axle, fuel tank, suspension, and bracket and chassis components of traditional vehicles. Continuous holes are reserved on the platform for orientation and fixation of particular tools. The platform is extendable in length and can be tilted within certain degree. Its mobile design makes it access easily to your service and repair area.

3.2 Construction of the lifting table



POS.	Description
1	Platform
2	Support arm
3	Handle bar
4	Pneumatic-driven hydraulic pump
5	Caster
6	Hydraulic cylinder
7	Base frame

3.3 Dimensions



3.4 Technical data

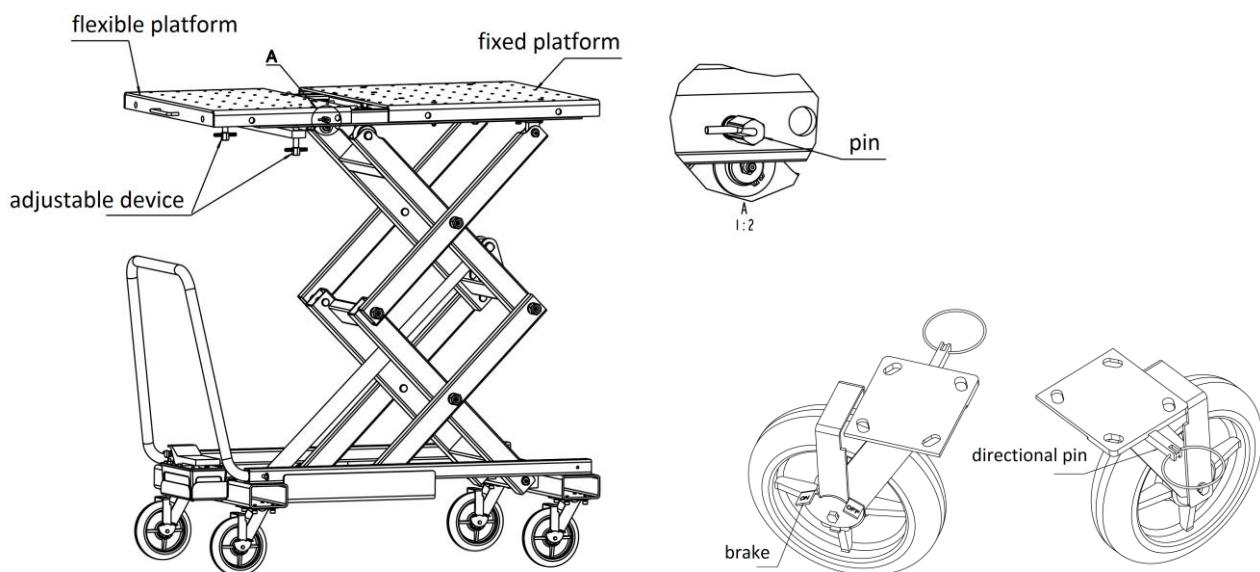
Model	EE-MS10
Rated capacity	1000kg
Air supply	6-8 bar
Full rise time with rated load	Approx. 110s
Full descent time with rated load	Approx. 30s (adjustable)
Hydraulic pressure	20MPa
Oil reservoir	1.5L

OPERATION INSTRUCTIONS

4.1 Precautions

- Read and digest the complete operation instructions before operating the lifting table;
- Permit only trained personnel to operate the lifting table so as to avoid personal injury and/or property damage;
- Check the hydraulic connection to ensure no leakage before commissioning;
- Do not use on a slope of greater than 2.5 %;
- Do not use outdoor in strong breeze with the wind speed being more than 14 m/s;
- Only use this lifting table on a surface that is stable, level and dry and not slippery, and capable of sustaining the load;
- It is for carrying goods only. No person is allowed to stand or sit on the lift table. Travelling on the load carrying devices is forbidden;
- Before loading, run the lift without load for a complete cycle to ensure it is in good condition;
- Do not try to carry load with excessive weight; Gravity of the load should be centered over the lifting platform;
- The load carrying device shall be observed by the operator throughout the motion of the lift;
- Avoid excessive rocking of the raised load while on the lifting table;
- Lock the casters when park the lifting table;
- Keep hands, feet and other parts of the body away from the moving parts to avoid pinching or shearing.

4.2 Operation instructions



- Release the pin and pull the flexible section of the platform so as to extend the lifting platform when you need to carry longer goods. Pay attention to restore the pin to the locked position before loading.
- The load carrying platform can be tilted slightly by turning the adjustable device attached under the platform.
- Park and brake the platform before loading. Release the brake when you try to move the table.
- Use the directional pin attached on the caster to transfer the moving direction.
- Take the feet-operated pump from its holder and place it onto a proper position where there is enough distance between the lifting platform and the operator.

Get familiar with lift controls by running the lift a few cycles before loading.

Ascend

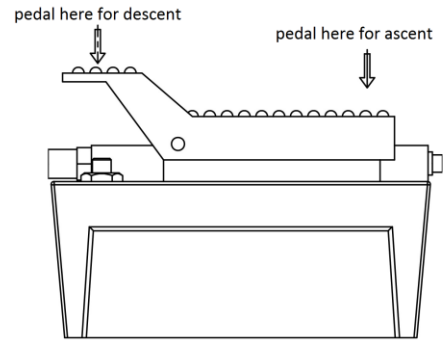
Ensure the load is centered over the carrying table.

1. Push the lifting table under the load to be lifted. Lock the foot casters.
2. Pedal the "PUMP" side to raise the lifting platform until expected height.
3. Place the load. Ensure the load is centered over the carrying platform.

Descend

When lowering the lift pay careful attention that all personnel and objects are kept clear.

1. Pedal the "RELEASE" side at the pump for descent.



DANGER: DO NOT MOVE WHILE THE LOAD IS RAISED AT PRETTY HIGH POSITION.

DANGER: DO NOT ENTER UNDER THIS PLATFORM UNLESS IT IS MECHANICALLY LOCKED.

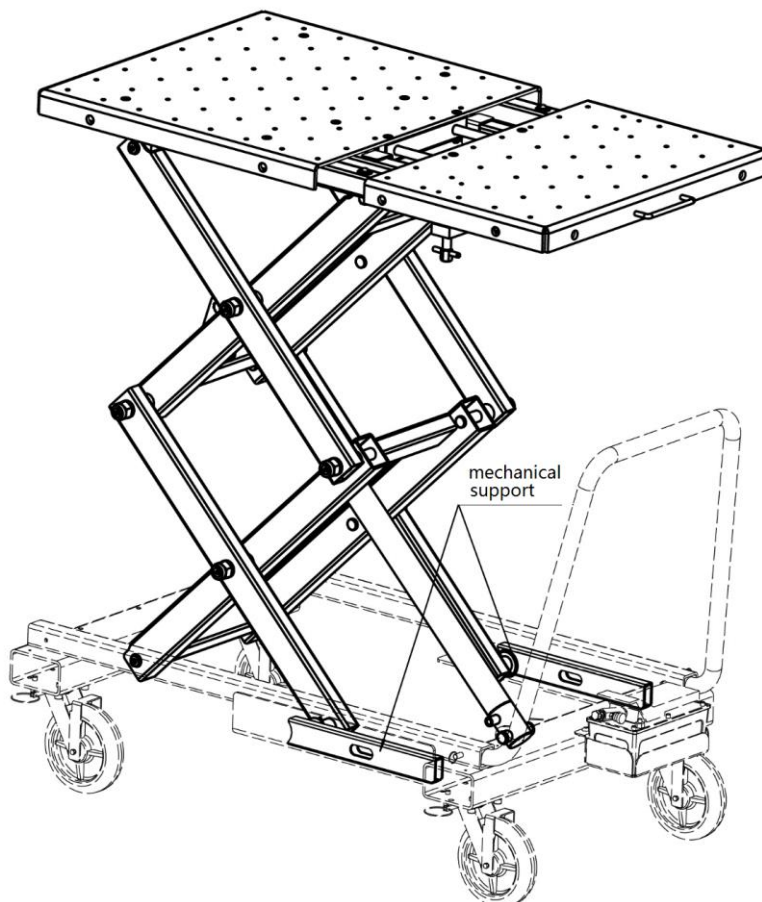
DANGER: USE PROPER STRAPS TO KEEP THE LOAD ON THE PLATFORM FROM FALLING OFF BEFORE MOVING.

Advices and cautions on using the mechanical supports.

When the lifting platform is raised to the highest position to do services like removing or installing parts on lifted vehicles, it is advised to place the supports onto both tracks so as to get rid of any potential risks caused by hydraulic leakage or pump failure.

Caution: Take away both supports before descending operation.

Caution: There could be risks of damage if only one piece of support is used.



TROUBLE SHOOTING

ATTENTION: If the trouble could not be fixed by yourself, please do not hesitate to contact us for help .We will offer our service at the earliest time we can. By the way, your troubles will be judged and solved much faster if you could provide us more details or pictures of the trouble.

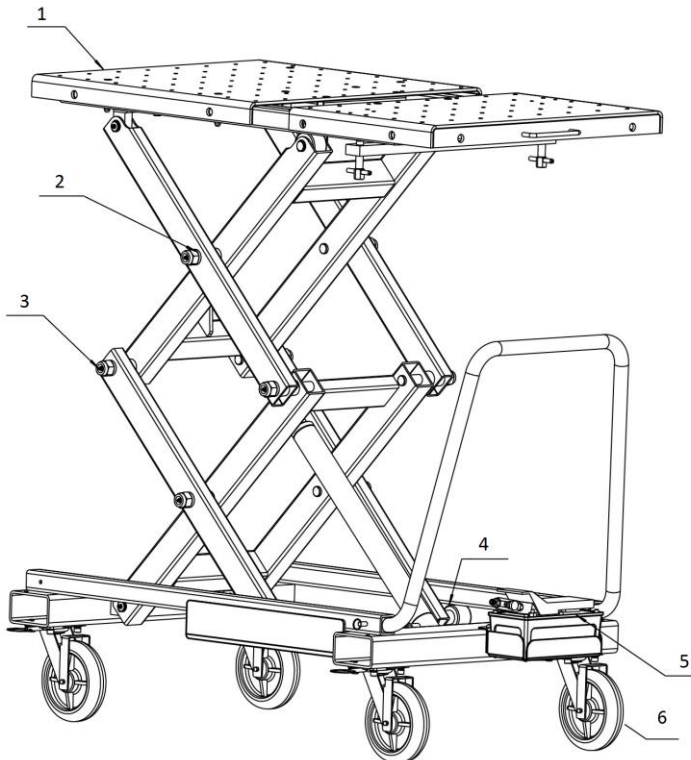
TROUBLES	POSSIBLE CAUSES	SOLUTIONS
The table does not raise	Insufficient air supply pressure	Check the air pressure and set it between 0.6-1MPA
	Damaged pump	Replace with a new pump
	Overloading	Check the weight of the loaded goods.
Raise too slowly	Insufficient air supply pressure	Check the air pressure and set it between 0.6-1MPA
	Damaged pump	Replace with a new pump
Too big noise	Damaged pump	Replace with a new pump
The table goes down slowly after being raised.	Leakage in the hydraulic line	Inspect hydraulic line and get rid of leakage
	Damaged pump	Replace with a new pump
The table does not lower	Damaged pump	Replace with a new pump
	Jammed oil hose fitting	Inspect and clean hose fittings
Lower too slowly	Too tight restrictive valve	Make proper adjustment to the restrictive valve

MAINTENANCE

Easy and low cost routine maintenance can ensure the lift work normally and safely. Following are requirements for routine maintenance. You may choose the frequency of routine maintenance by consulting your lift's working conditions and time.

DON NOT ENTER UNDER THIS PLATFORM UNLESS IT IS MECHANICALLY LOCKED

Use the mechanical supports to prevent the lifting platform from collapse before you enter under the platform for maintenance work.

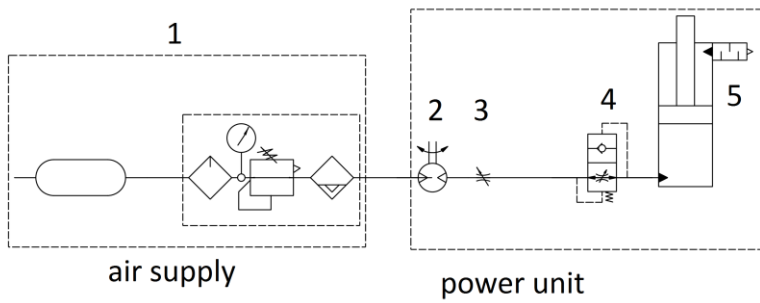


POS.	ITEM	METHODS	PERIOD
1	Surface of platform	Mop it clean.	when necessary
2	Bearings	Inspect and replace over worn bearings.	Every six months
3	Oil cups	Add grease into the oil cups.	Every three months
4	Sliders and its tracks	Inspect and make both tracks be clear of solid objects. Raise and lower the platform to check if any slider is over-worn. Add grease to ensure smooth running. Change over-worn sliders.	Every day
5	Pneumatic pump	Check the function of the pedal.	Every day
6	Casters	Release the lock and move lifting platform to check the flexibility of the casters. Lock the casters and push platform to check the stability of casters.	Every day
	Entire lifting system	Raise and lower the lift for a complete cycle before use and no abnormal sound occurs.	Every day
	Oil hose and connectors	Inspect to ensure no leakage before using.	Every three months

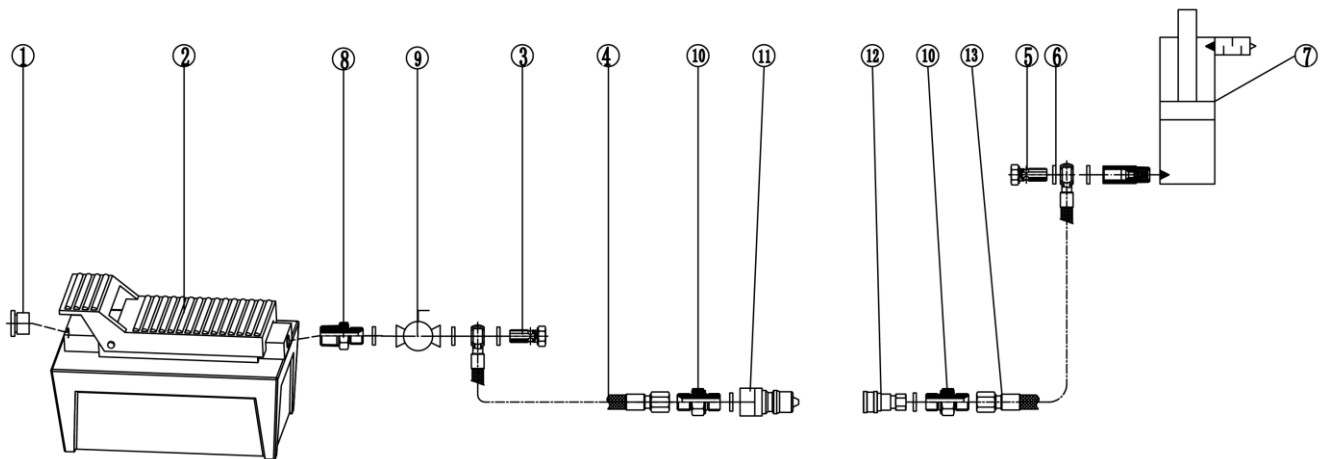


POS.	ITEM	METHODS	PERIOD
	Replace the oil in the pump	<ol style="list-style-type: none">1. It is advised to replace the hydraulic oil in the pump for every 350 working hours. Use 1.6 liters of fresh HM NO.32 anti-abrasive hydraulic oil.2. Entirely lower the jacking beam and remove the cap for ventilation to pour the used oil out and refill with fresh oil. Don't let any solid substance go into the oil reservoir.3. When it is necessary to clean the oil reservoir, its cover can be removed as a whole. Pour out the used oil, wash the tank using clean diesel and dry the tank with clean air.	Every three months

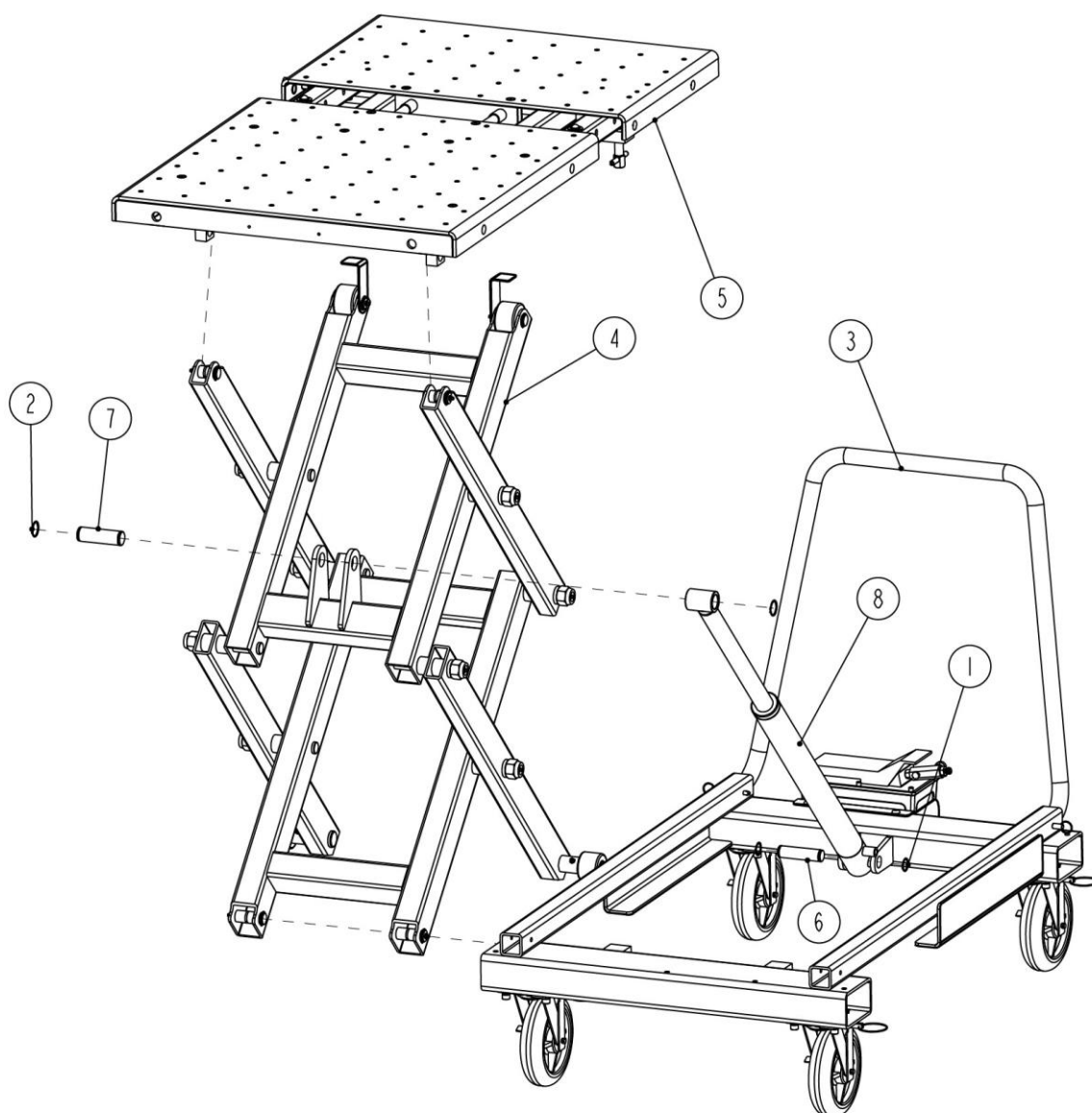
If users stick to the above maintenance requirements, the lift will always keep a good working condition and its service life could be extended.

Annex 1, Hydraulic scheme and parts list


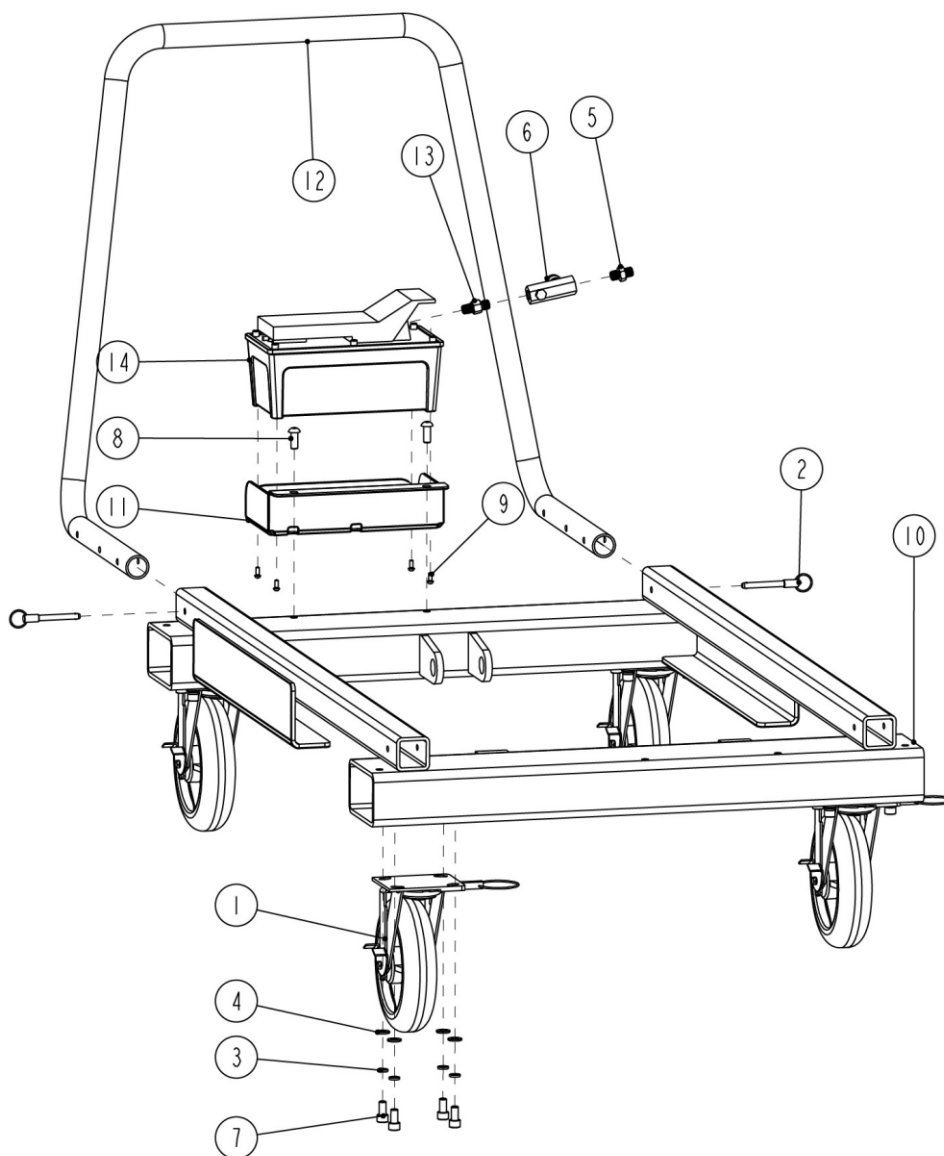
1. Air supply
2. Pneumatic hydraulic pump
3. Restrictive valve
4. Composite hose fitting
5. Oil cylinder



POS.	Code	Description	Specification	Qty
1	310101015	quick straight air hose fitting	KLC8-02	1
2	615028024	Pneumatic pump	BQ-DA5	1
3	410281130	Cylinder fitting	CJ-A12-B5-C10	1
4	624002120	Oil hose	Φ6*2, L=1000	1
5	615006004	Composite fitting	6254E-A4-B8(6214A-A5-B4)	1
6	207103025	Composite washer	13_7X20X1_5	7
7	615062006	Cylinder assembly	YG5060-38-520	1
8	310101061B	Straight fitting	NPT3/8, G1/4 L=80	1
9	330305004	Restrictive valve	DVG-R-DN8 G1/4-1A	1
10	310101010	Straight fitting	G1/4---G1/4	2
11	320701024	Quick connector (male)	LSQ-S2-02PF-G1/4	1
12	320701025	Quick connector (female)	LSQ-S2-02SF-G1/4	1

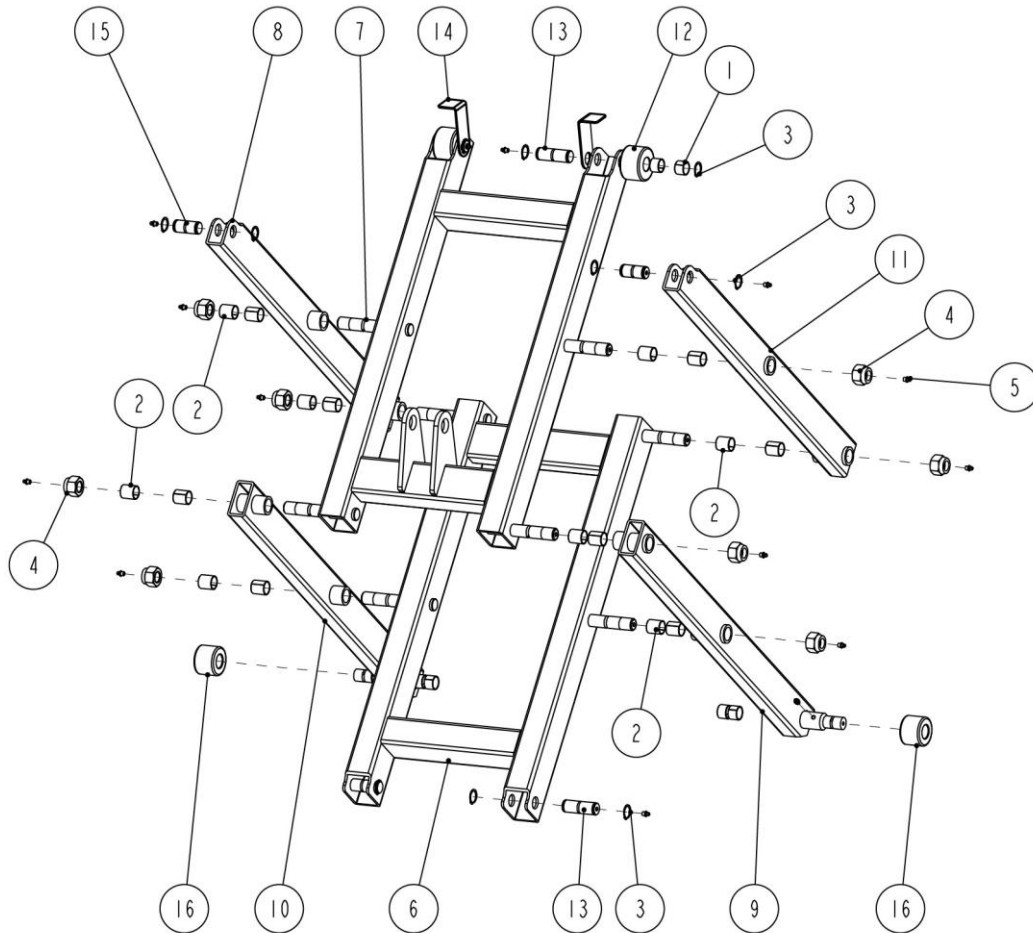
Annex 2, Exploded mechanical drawings and parts list


POS.	CODE	Description	Specification	Qty
1	204301009	Circlip	D25-GB894_1	2
2	204301011	Circlip	D30-GB894_1	2
3	615062107	Base frame assembly	MS10-A01	1
4	615062108	Support arm assembly	MS10-A02	1
5	615062109	Platform assembly	MS10-A03	1
6	410562191	DOWN shaft of the cylinder	MS10-A04	1
7	410562201	UP shaft of the cylinder	MS10-A05	1
8	615062006	cylinder	YG5060-38-520	1



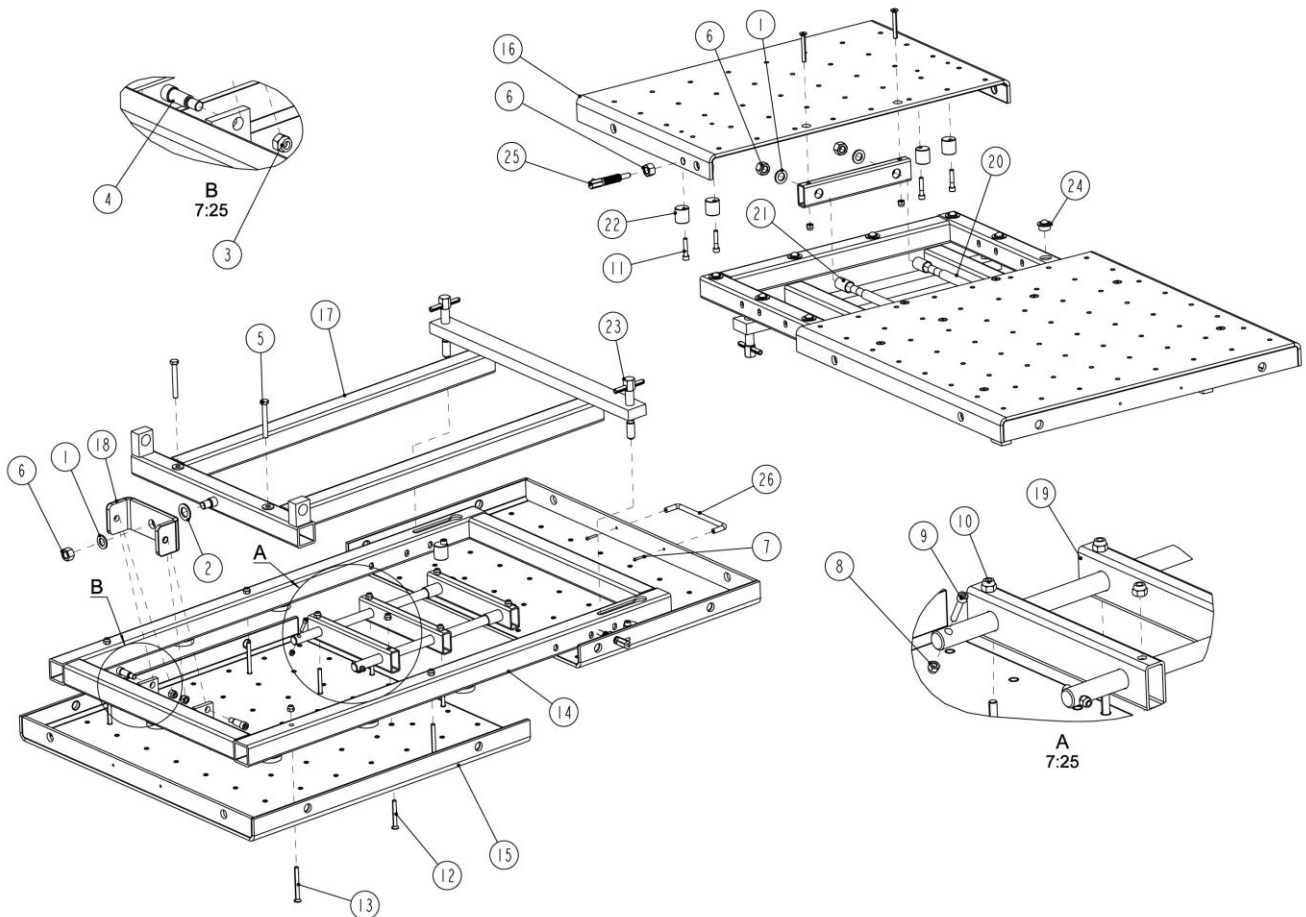
POS.	CODE	Description	Specification	Qty
1	208109015	Brake	208109015	4
2	206105002	Single steel ball pin	BLPF8_55	2
3	204201005	Spring washer	D10-GB93	16
4	204101006	Flat washer	D10-GB95	16
5	310101010	Straight fitting	G1_4-G1_4	1
6	330305004	Restrictive valve	DVG-R-DN8 G1/4-1A	1
7	202109041	Hex socket cylinder head screw	M10X20-GB70	16
8	202110007	Hex socket button head screw	M10X20_GB70_2	2
9	202101022	Cross socket cap head screw	M5X12-GB818	4
10	614059101	Base frame assembly	MS10-A01-B01	1
11	410562723	Holder for the pump	MS10-A01-B02	1
12	410562101	Handle bar	MS10-A01-B03	1

POS.	CODE	Description	Specification	Qty
13	310101061B	Straight fitting	NPT3/8-G1/4, L=60	1
14	615028024	Pneumatic driven hydraulic pump	BQ-DA5	1



POS.	CODE	Description	Specification	Qty
1	205101096	Bushing	2520_SF-1	8
2	205101012	Bushing	2530_SF-1	16
3	204301009	Circlip	D25-GB894_1	12
4	203103011	Hex tightening nut	M24-GB889	8
5	208106001	Straight oil cup	M8X1-GB7940	16
6	614059103	Support arm A	MS10-A02-B01	1
7	614059104	Support arm B	MS10-A02-B02	1
8	614059105	Support arm C	MS10-A02-B03	1
9	614059106	Support arm D	MS10-A02-B04	1
10	614059107	Support arm E	MS10-A02-B05	1
11	614059108	Support arm F	MS10-A02-B06	1
12	410562151	UP sliding wheel	MS10-A02-B07	2
13	410562161	Shaft of the sliding wheel	MS10-A02-B08	4

POS.	CODE	Description	Specification	Qty
14	410562543	Roll-over prevention plate	MS10-A02-B09	2
15	410562551	Shaft of the platform support holder	MS10-A02-B10	2
16	410562141	Down sliding wheel	MS10-A02-B11	2



POS.	CODE	Description	Specification	Qty
1	204101009	Flat washer	D16-GB95	3
2	204101011	Flat washer	D20-GB95	1
3	203103007	Hex tightening nut	M10-GB889	2
4	202208007	Hex socket cylinder head shoulder screw	M10X25-GB5281	2
5	201102072	Hex head full swivel screw	M10X80-GB5783	2
6	203101009	Hex nut	M16-GB6170	4
7	202101010	Cross socket cap head screw	M4X25-GB818	2
8	203103005	Hex tightening nut	M6-GB889	2
9	202109023	Cross socket cylinder head screw	M6X30-GB70	2
10	203103006	Hex tightening nut	M8-GB889	10
11	202109033	Cross socket cylinder head screw	M8X40-GB70	4
12	202111033	Cross socket flat head screw	M8X65-GB70-3	6

POS.	CODE	Description	Specification	Qty
13	202111034	Cross socket flat head screw	M8X80-GB70-3	4
14	614059109	Tilting platform assembly	MS10-A03-B01	1
15	410902162	Platform A	MS10-A03-B11	1
16	410902164	Platform A	MS10-A03-B12	1
17	614059110	Base frame assembly of the platform	MS10-A03-B04	1
18	410562673	Hinge	MS10-A03-B05	1
19	410562683	Guiding tube	MS10-A03-B06	3
20	410562211	Guiding rod	MS10-A03-B07	2
21	410562221	Spacing sheath	MS10-A03-B08	2
22	410562231	Guiding eccentric wheel	MS10-A03-B09	4
23	615062105	Adjustable screw rod assembly	MS10-A03-B10	2
24	208109013	Universal ball	SP-15	8
25	206105001	Plunger pin	TBLT10	1
26	208109014	Stainless knob	US10-160	1