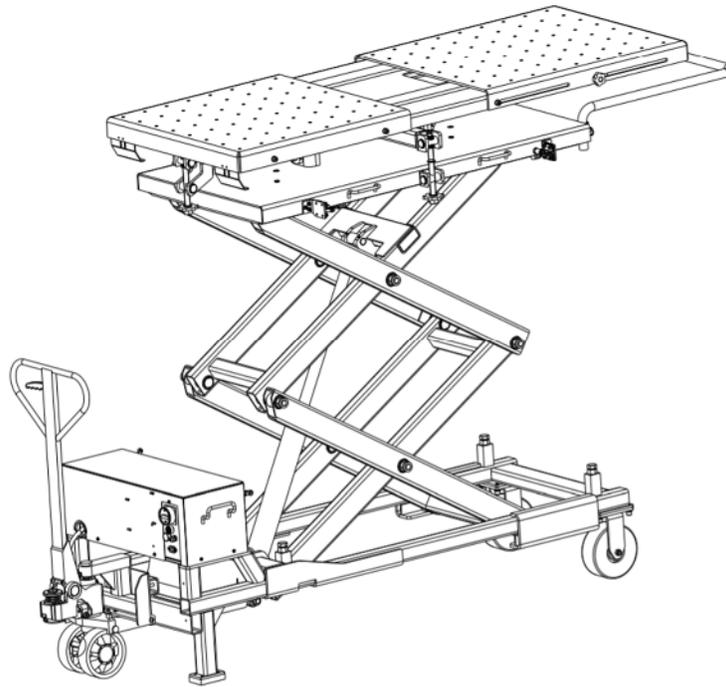


Installation, Operation & Maintenance Manual

Battery Lift



MODEL: BT3300

1500 KG / 3300 LBS. CAPACITY

**IMPORTANT: READ THIS MANUAL COMPLETELY
BEFORE**

INSTALLING OR OPERATING LIFT

2311 SOUTH PARK RD LOUISVILLE, KENTUCKY 40219
EMAIL: SALES@CHALLENGERLIFTS.COM WEB SITE:
WWW.CHALLENGERLIFTS.COM
OFFICE 800-648-5438 / 502-625-0700 FAX 502-587-1933

TABLE OF CONTENTS

1.0	OWNER / EMPLOYER OBLIGATIONS.....	2
2.0	IMPORTANT SAFETY INSTRUCTIONS.....	3
3.0	SAFETY WARNING DECALS.....	5
4.0	GENERAL SPECIFICATIONS.....	6
5.0	TOOLS REQUIRED FOR INSTALLATION OF LIFT.....	7
6.0	RECEIVING.....	8
7.0	INSTALLATION AND OPERATION INSTRUCTIONS.....	8
7.1	INSTALLATION INSTRUCTIONS.....	8
7.2	OPERATION INSTRUCTIONS.....	12
7.2.1	PALLET JACK.....	12
7.2.2	FLEXIBLE LIFTING PLATFORM.....	12
7.2.3	CONTROL SYSTEM DESCRIPTIONS.....	14
7.2.4	CONTROL BUTTON DESCRIPTIONS.....	15
7.2.5	CONSOLE RELATED DESCRIPTIONS.....	15
7.2.6	HYDRAULIC PRINCIPLE.....	16
7.3	OWNER/OPERATOR CHECKLIST.....	16
8.0	OPERATION PROCEDURE.....	17
8.1	SAFETY NOTICES AND DECALS.....	17
8.2	OWNER/EMPLOYER RESPONSIBILITIES.....	17
8.3	IMPORTANT SAFETY INSTRUCTIONS.....	17
8.4	LIFTING A BATTERY.....	18
8.5	LOWERING A BATTERY.....	18
9.0	RECOMMENDED MAINTENANCE.....	19
10.0	EMERGENCY OPERATION.....	20
11.0	TROUBLESHOOTING.....	21
12.0	ORD OF MAINTENANCE/TRAINING.....	22
13.0	BATTERY LIFT ASSEMBLY.....	22
13.1	LIFT ASSEMBLY.....	23
13.2	BASE FRAME ASSEMBLY.....	25
13.3	SCISSOR ASSEMBLY.....	26
13.4	PLATFORM ASSEMBLY.....	27
13.5	CONSOLE BOX ASSEMBLY.....	28

1.0 OWNER / EMPLOYER OBLIGATIONS

Edition of Standards Referenced

Where any ANSI/ASME standard is referenced within this manual, the most recent edition approved by the American National Standards Institute, Inc. shall apply.

1. The Owner/Employer shall ensure that lift operators are qualified and that they are trained in the safe use and operation of the lift using the manufacturer's operating instructions; ASME PASE, **Safety Standard for Portable Automotive Service Equipment; National Standard for Automotive Lifts - Safety Requirements for Operation, Inspection and Maintenance.**
2. The Owner/Employer shall establish procedures to periodically inspect the lift in accordance with the lift manufacturer's instructions and ASME PASE, **Safety Standard for Portable Automotive Service Equipment; National Standard for Automotive Lifts - Safety Requirements for Operation, Inspection and Maintenance;** and the Employer shall ensure that the lift inspectors are qualified and that they are adequately trained in the inspection of the lift.
3. The Owner/Employer shall establish procedures to periodically maintain the lift in accordance with the lift manufacturer's instructions and ASME PASE, **Safety Standard for Portable Automotive Service Equipment; National Standard for Automotive Lifts - Safety Requirements for Operation, Inspection and Maintenance;** and the Employer shall ensure that the lift maintenance personnel are qualified and that they are adequately trained in the maintenance of the lift.
4. The Owner/Employer shall maintain the periodic inspection and maintenance records recommended by the lift manufacturer's instructions and ASME PASE, **Safety Standard for Portable Automotive Service Equipment; National Standard for Automotive Lifts - Safety Requirements for Operation, Inspection and Maintenance.**
5. The Owner/Employer shall display the lift manufacturer's operating instructions; ASME PASE, **Safety Standard for Portable Automotive Service Equipment; National Standard for Automotive Lifts - Safety Requirements for Operation, Inspection and Maintenance.**
6. The Owner/Operator shall provide necessary lockout/tagout means for energy sources per ANSI Z244.1, **Safety Requirements for the Lockout/Tagout of Energy Sources,** before beginning any lift repairs and maintenance.

2.0 IMPORTANT SAFETY INSTRUCTIONS

1. When using this lift, basic safety precautions should always be followed, including the following (where applicable).
2. Read all instructions in this manual and literature provided with lift thoroughly before installing, operating, servicing or maintaining the lift.
3. Care must be taken as burns can occur from touching hot parts.
4. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged – until it has been examined by a qualified service person.
5. Do not let a cord hang over the edge of the table, bench, or counter or come in contact with hot manifolds or moving fan blades.
6. If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords rated for less current than the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
7. Always unplug equipment from electrical outlets when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.
8. Let equipment cool completely before putting it away. Loop cord loosely around equipment when storing.
9. To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline).
10. Adequate ventilation should be provided when working on operating internal combustion engines.
11. Keep hair, loose clothing, fingers, and all parts of body away from moving parts.
12. To reduce the risk of electric shock, do not use wet surfaces or exposure to rain.
13. Use only as described in this manual. Use only the manufacturer's recommended attachments.
14. **ALWAYS WEAR SAFETY GLASSES.** Everyday eyeglasses only have impact-resistant lenses, they are not safety glasses.
15. Inspect lift daily. Do not operate if it malfunctions or problems have been encountered.
16. Never attempt to overload the lift. Do not override the operating controls or the warranty will be void.
17. Only trained and authorized personnel should operate the lift. Do not allow customers or bystanders to operate the lift or be in the lift area.
18. **Caution!** Never work under the lift.

19. Always keep the lift area free of obstruction and debris. Grease and oil spills should always be cleaned up immediately.
20. Before lowering check area for any obstructions.
21. Do not remove hydraulic fittings while under pressure.

For additional safety instructions regarding lifting, lift types, warning labels, preparing to lift, load spotting, load lifting, maintaining load stability, emergency procedures, load lowering, lift limitations, lift maintenance, good shop practices, installation, operator training and owner/employer responsibilities, please refer to “Lifting It Right” (PASE) and “Safety Tips” (PASE).

For additional instruction on general requirements for lift operation, please refer to “Automotive Lift-Safety Requirements for Operation, Inspection and Maintenance” (PASE).

Installation shall be performed in accordance with PASE, Safety Requirements for Installation and Service of Automotive Lifts.



ATTENTION! This lift is intended for indoor use only. It is prohibited to use this product outdoors. The operating environment temperature range should be 41 – 104 °F (5 – 40 °C). Failure to adhere will result in certification, loss of warranty, and possible damage to the equipment.

SAVE THESE INSTRUCTIONS

Note: Some images in this manual are generic and may not reassemble the lift you have purchased.

3.0 SAFETY WARNING DECALS

All safety warning labels are depicted on the lift to ensure that the operator is aware of and avoids the dangers of using the lift incorrectly. 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 memorize them for future operation.

<p>⚠ CAUTION</p>  <p>Read operating and safety manuals before using lift</p>	<p>⚠ CAUTION</p>  <p>Always lower the machine to the lowest position before moving it</p>	<p>⚠ CAUTION</p>  <p>Make sure that the platform of the machine is in a stable position when using it</p>
<p>⚠ CAUTION</p>  <p>Before raising operation, running the lifting table without load to ensure it is in a good condition</p>	<p>⚠ CAUTION</p>  <p>Make sure the load is in the center of the platform</p>	<p>⚠ CAUTION</p>  <p>The machine shall be observed by the operator all the motion time</p>
<p>⚠ CAUTION</p>  <p>In case of trouble or disruption, turn off the main switch and make sure it cannot be switched on again unintentionally</p>	<p>⚠ CAUTION</p>  <p>In case of trouble or disruption, turn off the main switch and make sure it cannot be switched on again unintentionally</p>	<p>⚠ CAUTION</p>  <p>The space under or around the machine shall be free of obstructions before use</p>
<p>⚠ WARNING</p>  <p>Do not use this machine on slopes over 2.5 degrees</p>	<p>⚠ WARNING</p>  <p>Do not use outdoors in bad weather or condition</p>	<p>⚠ WARNING</p>  <p>It is for carrying goods only. Travelling on the load carrying platform is forbidden.</p>
<p>⚠ WARNING</p>  <p>Load within the maximum load capacity. Do not attempt to lift goods with excessive length or width.</p>	<p>⚠ WARNING</p>  <p>Keep hands, feet and other parts of the body away from the moving parts to avoid pinching or shearing.</p>	<p>⚠ WARNING</p>  <p>Never try to remove, interrupt or modify the safety related components or devices.</p>

The instructions, cautions and warnings written above cannot cover all possible conditions and situations that may occur. The common sense for safety must always be in the operator's mind. The manufacturer or its distributors are excluded from damage caused through willful misconduct or gross negligence.

4.0 GENERAL SPECIFICATIONS

Lifting Capacity		1500kg (3300lbs)
Lift Height [C]	Rise Height	1950mm (76.77")
	Collapsed Height	750mm (29.53")
Platform Adjust Height [S]		45mm (1.77")
Platform Length [A]		1741-2066mm (68.54"-81.34")
Platform Width [E]		800mm (31.50")
Platform Height [B]		229 ±45 mm (9.02" ±1.77")
Deck Length [D]		1500mm (59.06")
Base Height [F]		205mm (8.07")
Wheel Diameter [G]		Ø200mm (7.87")
Overall length [H]		2956mm (116.38")
Overall, Weight		750kg (1654lbs)
Motor		1.5 kW
Power supply		110VAC-1Ph-60Hz
Control voltage		24VAC
Hydraulic Pressure		25MPa (3626psi)
Hydraulic Oil Capacity		Tank size: 4L (1 gal)
Hydraulic Oil Type		ISO 32 (3L) hydraulic oil
Full stoke time (Rated Load)		45s
Full decent time (Rated Load)		55s
Shipping Weight		850 kg (1900 lbs.)

Lift capacity ratings are based on loads equally distributed.

Lifting and lowering speeds may vary depending on the weight of the load.

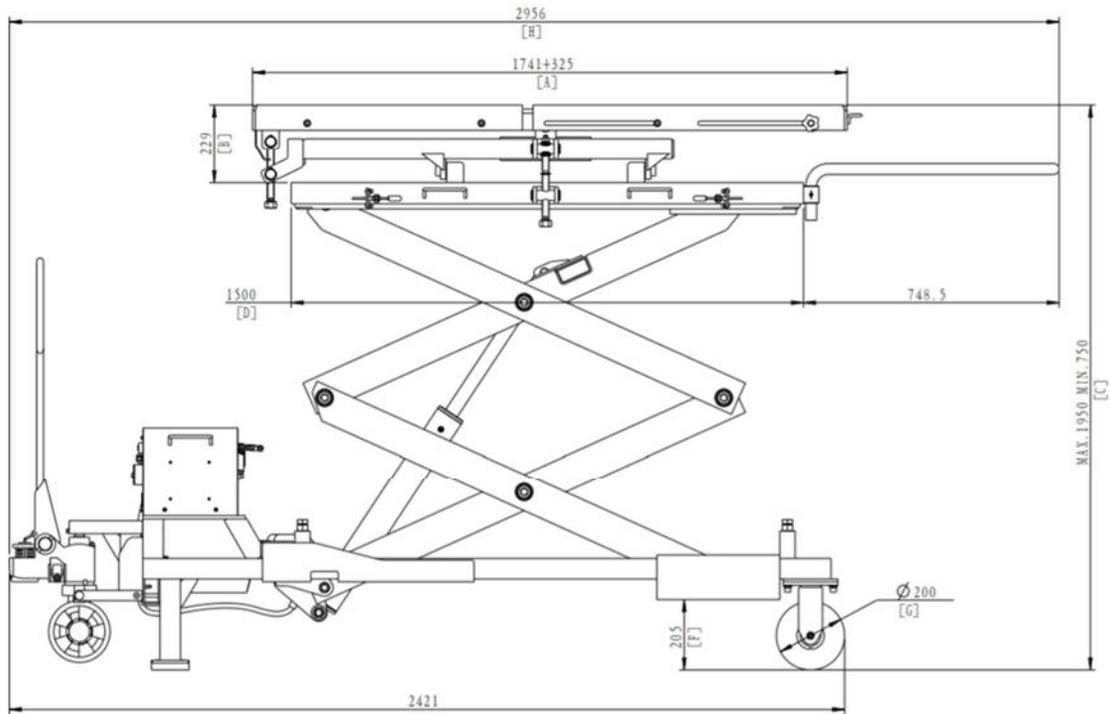


Fig.4.1 General Specification

5.0 TOOLS REQUIRED FOR INSTALLATION OF LIFT

- Self-Leveling Laser Level
- SAE Wrenches and Sockets
- 10" Adjustable Wrench
- 2 lb. Hammer
- Side Cutters
- Screw Drivers
- Funnel
- Utility Knife
- Needle Nose Pliers
- A set of Allen wrenches (metric)

Recommended:

- Impact **Wrench**
- Engine Crane/Hoist
- 8' Sling

6.0 RECEIVING

The shipment should be thoroughly inspected as soon as it is received. The signed bill of lading is acknowledged by the carrier of receipt in good condition of shipment covered by our invoice. If any of the goods called for on this bill of lading are shorted or damaged, do not accept them until the carrier makes a notation on the freight bill of the shorted or damaged goods. Do this for your protection.

7.0 INSTALLATION AND OPERATION INSTRUCTIONS

When the lift arrives on-site, please read the owner's installation and operation manual completely. Check the contents to make sure no parts are missing before starting installation. Gather all of the tools listed and make sure that the instructions are fully understood before starting the installation.

7.1 INSTALLATION INSTRUCTIONS

After the preparations are done, please complete the simple installation according to the following steps:

A. Open the package and check if the accessories are complete.

The items in the shipping box include (Fig.7.1.1)

- ① 1 pc. **Main structure**
- ② 1 pc. **Pallet Jack connecting bracket weldment**
- ③ 1 pc. **Pallet Jack (includes bolts and nuts)**
- ④ 1 pc. **Rear Handle (Including pins)**
- ⑤ 1 pc. **Power connection plug**
- ⑥ 1 pc. **Control handle**
- ⑦ 4 pcs. **Clamp bracket assembly**
- ⑧ 1 pc. **Service manual**

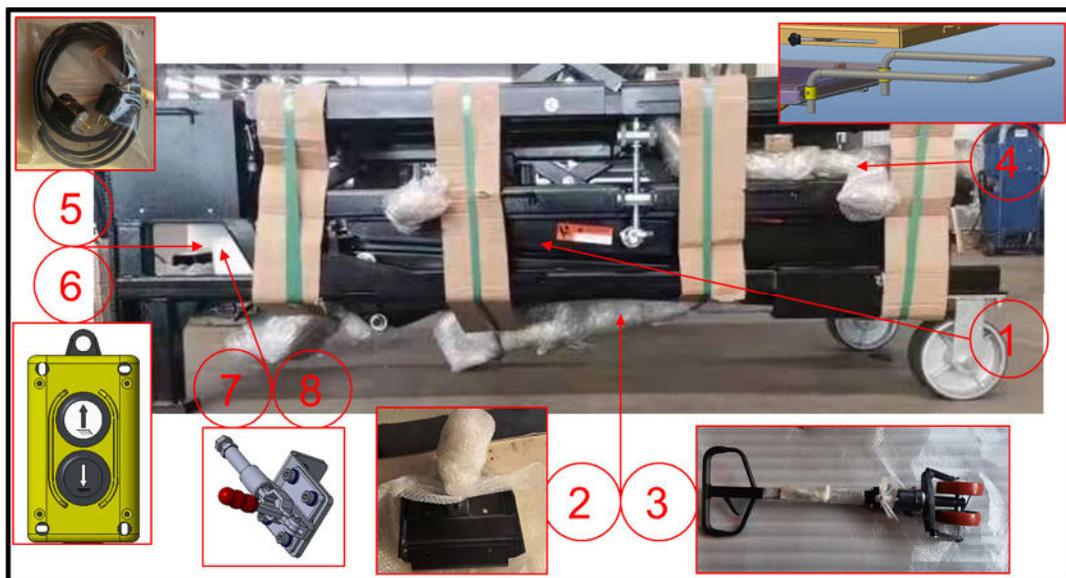


Fig.7.1.1 The Items in The Shipping Box

- B. Hoist the main structure of the machine onto the flat ground.
C. Remove the packing belts. (Fig.7.1.2).



Fig.7.1.2 Packing Belts Position

D. Remove the Wire Ties at the limit switch (Fig.7.1.3).



Fig.7.1.3 Wire Ties Position

E. Install the Pallet Jack and its Bracket Weldment

The Pallet Jack and its bracket weldment are installed to increase the mobility of this machine. It is best to install them before operation. The installation steps are as follows:

a) As shown in Figure 7.1.4, assemble Part 2 with Part 1 through bolts and nuts A.

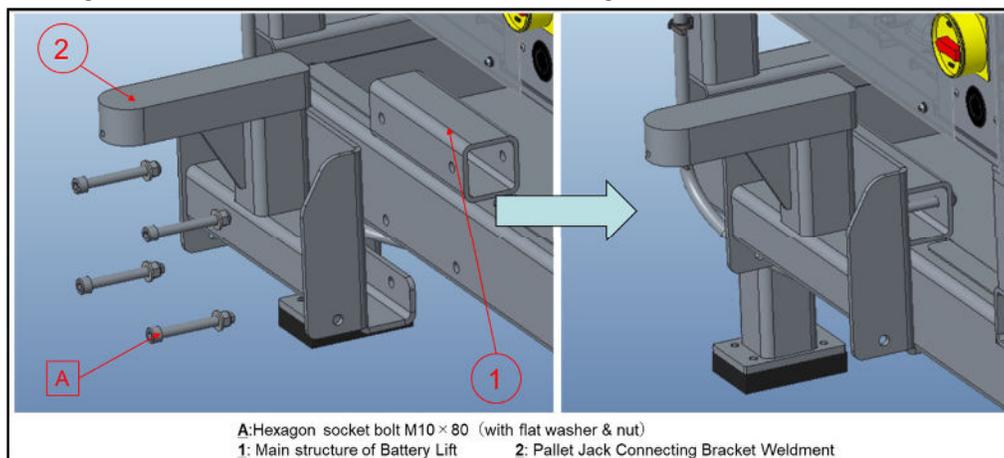


Fig.7.1.4 Bracket Weldment Installation

b) Follow the steps below to connect Part 3 (already connected to Part 4) to Part 2:

- 1 Insert the hydraulic rod (with steel ball) on Part 3 into Part 2.
- 2 Connect Part 4 to Part 2 with bolts D and nuts E.
- 3 Tighten screw B at the position shown in Figure 7.1.5.

NOTE: Be careful not to lose the steel ball when unpacking.

Add oil to the Pallet Jack and cycle several times without load.

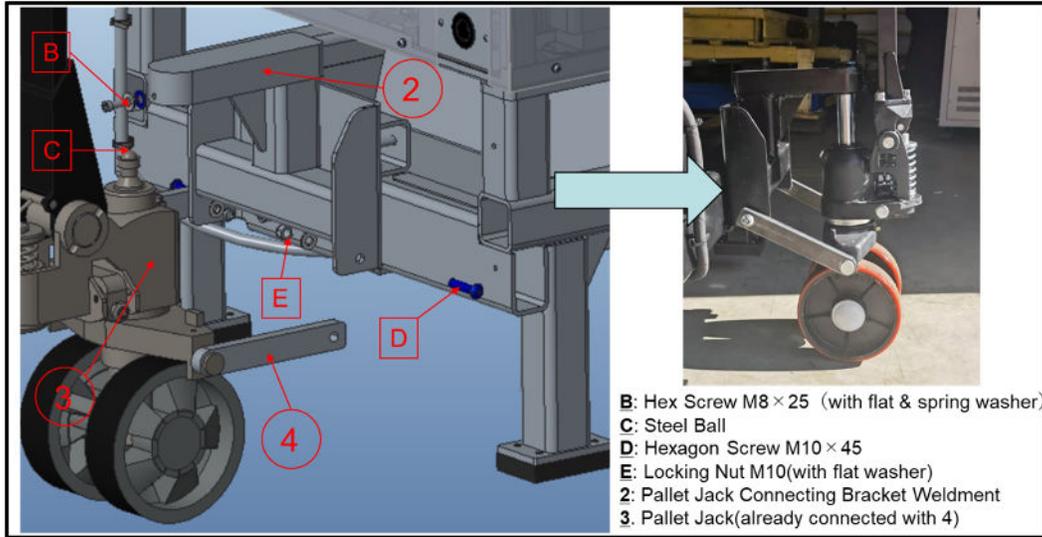


Fig.7.1.5 Pallet Jack Installation

- c) Open the cover of the console and add about 3L ISO 32 Hydraulic Oil into the oil tank. Then reinstall the cover (Fig.7.1.6).
- d) **NOTE: Only** clean hydraulic oil is allowed.
Lift must be fully lowered before changing or adding hydraulic oil.
Pay attention to the scale mark.

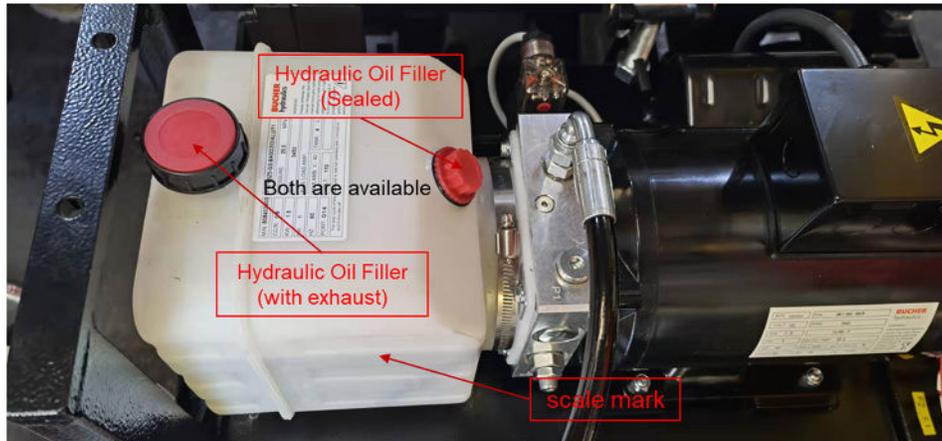


Fig.7.1.6 Console

- F. Power on the machine, run the lift up and down for 2 or 3 cycles. Then raise the machine to a certain height and remove four Shipping Brackets.
Note: The bolts and washers related need to be reassembled after removal.



Fig.7.1.7 Shipping Brackets Position

- G. Complete the Clamp Bracket Assembly (4 pcs) assembly (Fig.7.1.8).

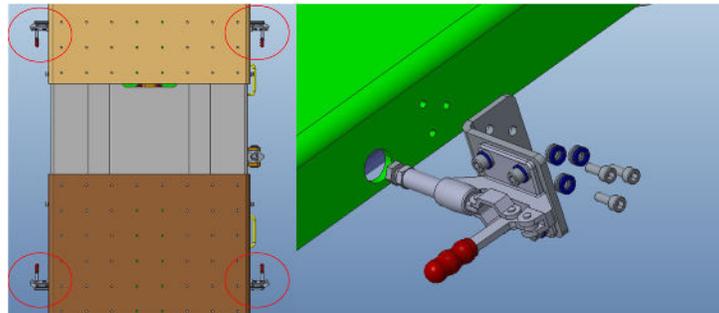


Fig.7.1.8 Clamp Bracket Assembly

- H. Lower the scissor to the lowest position, disconnect the power supply.

- I. Install the Rear Handle for pushing and pulling (Fig.7.1.9).

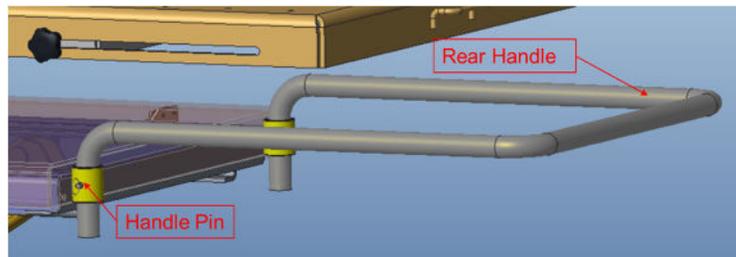


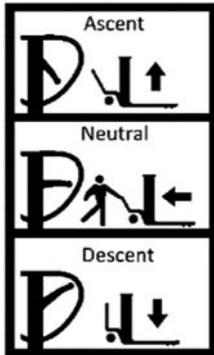
Fig.7.1.9 Rear Handle

- J. Check again after assembling the entire unit.

7.2 OPERATION INSTRUCTIONS

Before using this machine formally, please read these operating instructions carefully. Only trained and authorized personnel should operate the lift.

7.2.1 PALLET JACK



Before moving the table, the load platform must have been lowered fully.
The Pallet Jack is used to move the lift by lifting its base off the floor.
Always descend the base onto the floor before raising.

The Pallet Jack is operated by a handgrip and a lever inside the grip.
Push down the LEVER (down, ascent) and move up and down the handgrip to raise the base frame of the lift.
Keep the LEVER at a neutral position when moving the lift.
Pull up the LEVER to descend the base frame of the lift.

7.2.2 FLEXIBLE LIFTING PLATFORM

Before loading operation, run the lifting table without load for a complete cycle to ensure it is in good condition.
Get familiar with lift controls by running the lift without a load through a few cycles.
The load-carrying table shall be observed by the operator throughout the motion of the lift table.
Do not try to move the lifting table when its platform is raised with the load. ONLY move when the lifting table is completely lowered.
The flexible platform is designed with a three-layer structure, and the diagram is as follows:

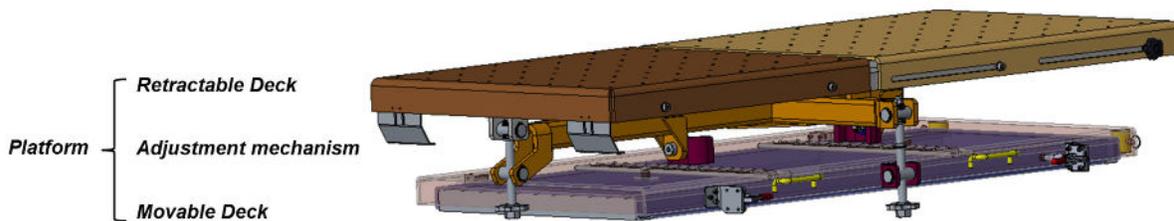


Fig.7.2.2.1 Flexible Lifting Platform

7.2.2.1 RETRACTABLE DECK

Use the length adjustment function when it is necessary to fix extra fixtures during maintenance service or to carry larger loads.

Its length can be easily adjusted by adjusting the thumbscrew.

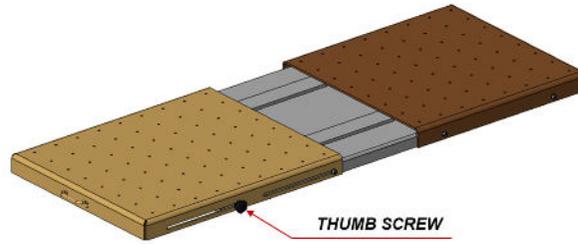


Fig.7.2.2.1.1 Retractable Deck

7.2.2.2 ADJUSTMENT MECHANISM

In case the intended load is not perfectly horizontal, tilting the platform slightly can assure better contact between the platform and load. Through the three-layer structure, BT3300 can realize the all-around multi-angle step-less adjustment. More support points also make its structure much more stable.

Tilt by adjusting the adjustable handle (Fig.7.2.2.2.1).

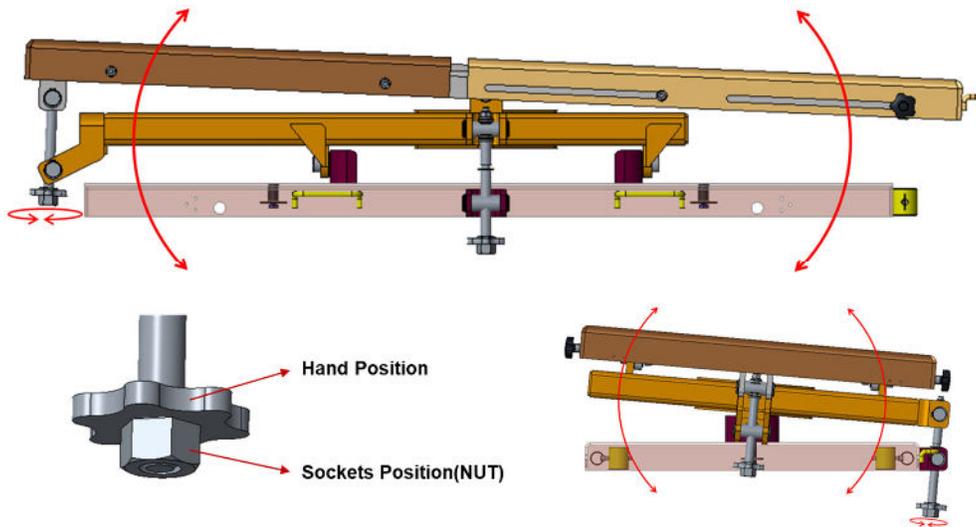


Fig.7.2.2.2.1 All-Round Multi-Angle Step-Less Adjustment

7.2.2.3 MOVABLE DECK

The movable deck can be horizontally moved within 25mm by releasing the handle.

When there is a slight deviation to align the fixture, release the handle and the movable deck can be moved to a certain position that is suitable to align the fixture with the intended load.

When the alignment is finished, push the handle back to make the platform static.

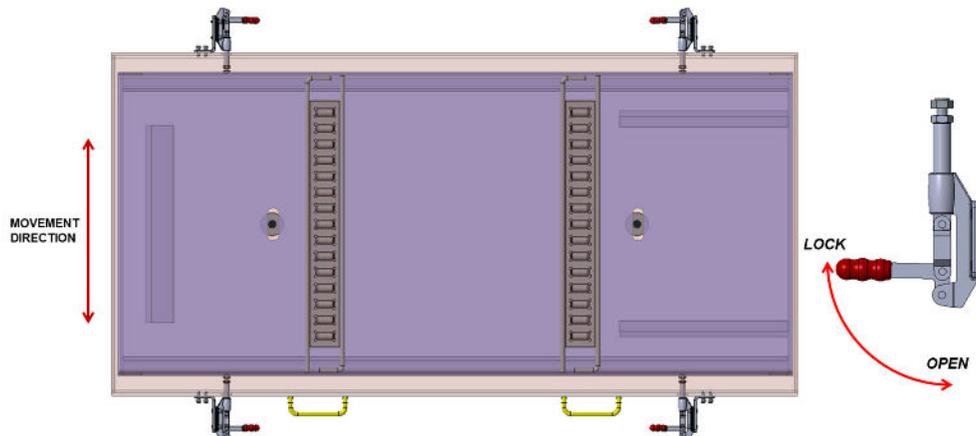
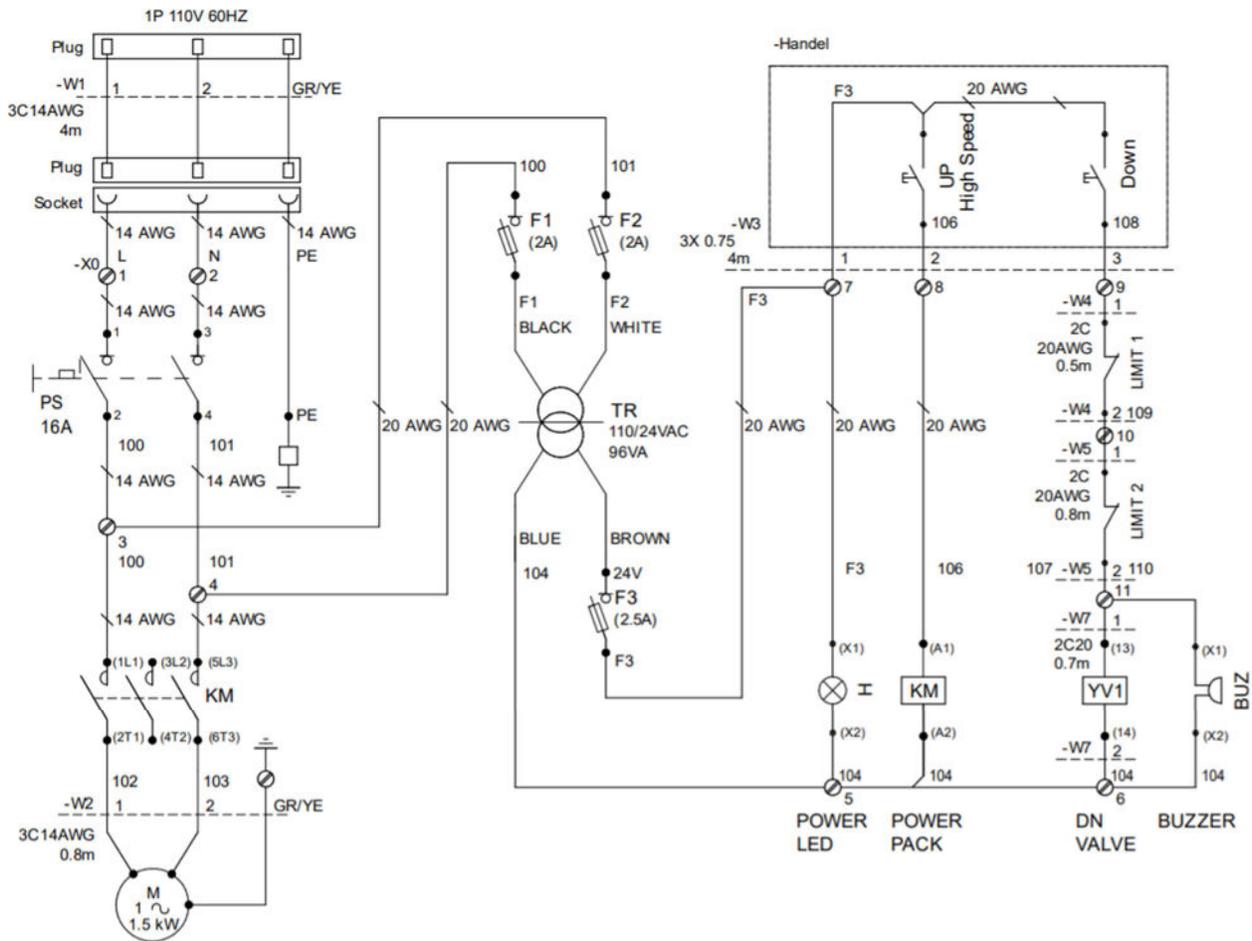


Fig.7.2.2.3.1 Movable Deck

7.2.3 CONTROL SYSTEM DESCRIPTIONS

Provide the circuit diagram of the control part (Fig.7.2.3.1) to the experienced service engineer for easy maintenance.



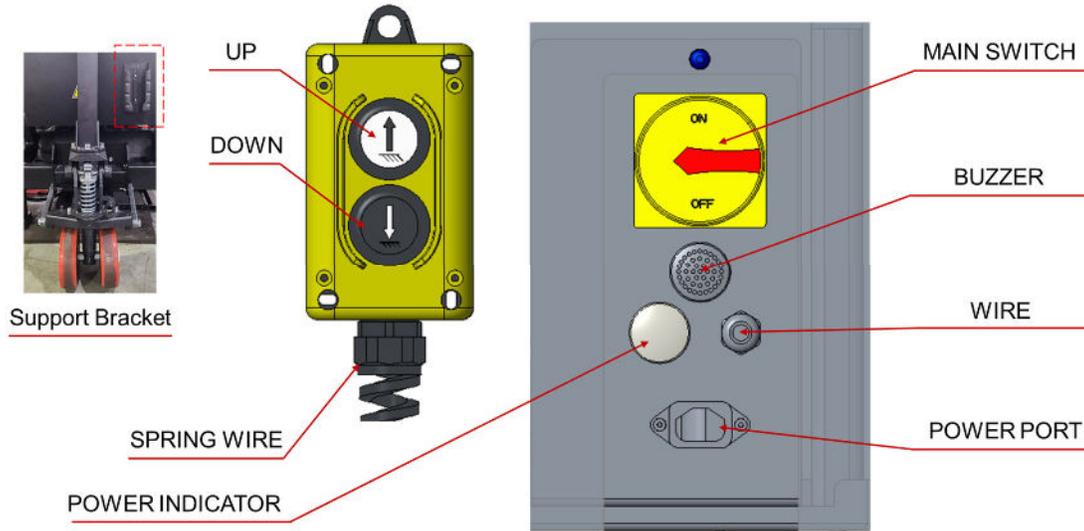
8	F3	Fuse, T 2.5A 250VAC	16		
7	F1, F2	Fuse, T 2A 250VAC	15		
6	TR	Transformer, 110V/24V 96VA	14	BUZ	BUZZER, 24VAC
5	M	Motor 1P 110V 60Hz 1.5kW	13	YV1	Unloading Solenoid valve, 24VAC
4	KM	Contactor, Ie:20A, 120VAC	12	Limit 2	Limit switch 1, 1NO, 1NC
3	PS	Main switch 2Pole 16A 600VAC	11	Limit 1	Limit switch 1, 1NO, 1NC
2	Socket	2Pole 3Wire 20A 125VAC	10	H	LED _Power LED 24V Green
1	Plug	2Pole 3Wire 20A 125VAC	9	Handel	Up; Down
NO	CODE	NAME	NO	CODE	NAME

Fig.7.2.3.1 Electrical Schematic for 1P 110V 60HZ

7.2.4 CONTROL BUTTON DESCRIPTIONS

Only an authorized person can operate the control buttons. Buttons function as shown in Fig.7.2.4.1

Note: When the control handle is not in use, please put it into the support bracket.



Description	Function
Main Switch	Turn on or off the main power supply
Power Indicator	Lights up when the main switch is on
Power Port	1P 110VAC 60HZ Power Port
UP Button	Push to rise normally
DOWN Button	Control the lowering movement
Buzzer	Audible warning for a descent
Spring Wire	Maximum elongated length: 4m
Support Bracket	Where to store the control handle

Fig.7.2.4.1 Control Buttons Description

7.2.5 CONSOLE RELATED DESCRIPTIONS

➤ Meet UL Certification Requirements

According to the requirements of the **UL** standard, the height of the console from the ground must be greater than 460mm. This machine meets this standard.

➤ Limit Bolt & Limit Switch

We designed the **limit bolts** to allow the minimum height of this machine to be adjustable. Moreover, this design can better fit the load platform according to the actual situation

Based on safety considerations, we have added **limit switches**. This is to prevent the console from loading the battery with the extreme tilt deck.

➤ Frame

To protect the power unit, we have set up a final protective barrier——Stronger **Frame**. This barrier will only work if all other protective measures fail and user error occurs.

➤ Tool Box

We use the extra space to design small storage space for users. This space can temporarily store some tools such as wrenches.

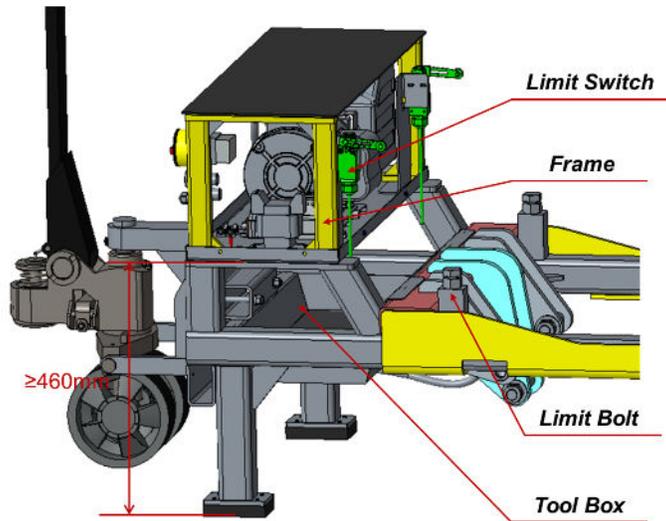


Fig.7.2.5.1 Console Descriptions

7.2.6 HYDRAULIC PRINCIPLE

Provide the hydraulic diagram of the control part (Fig.7.2.6.1) to the service for easy maintenance.

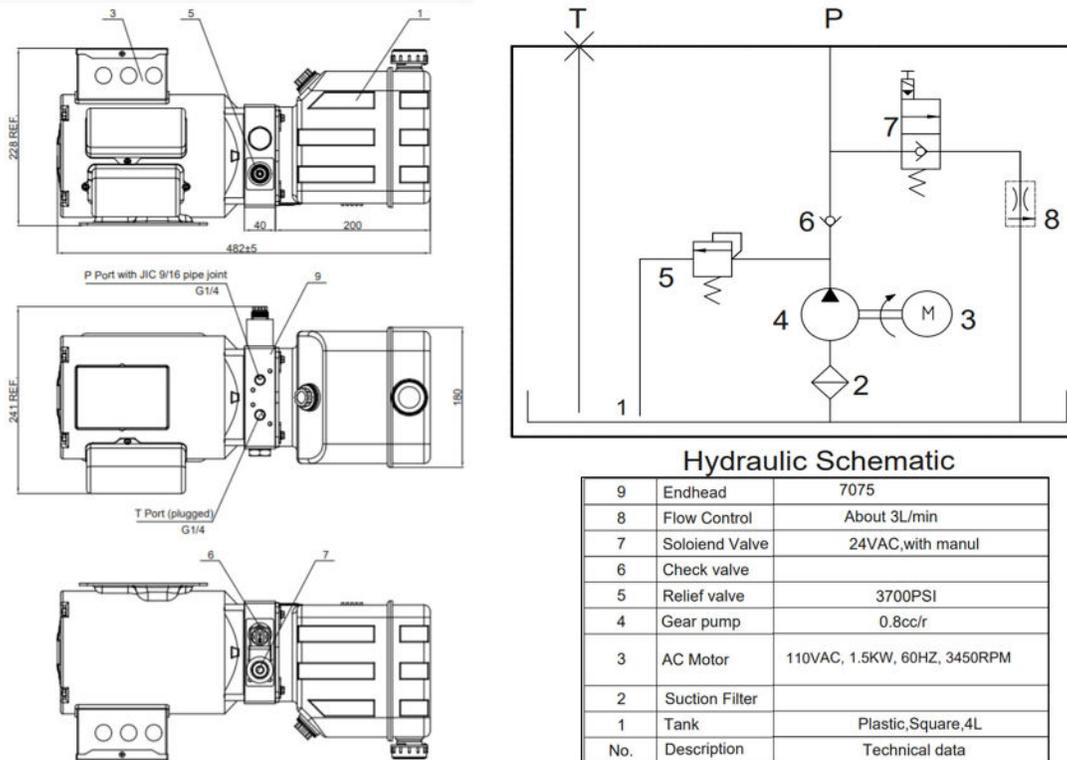


Fig.7.2.6.1 Hydraulic Diagram

7.3 OWNER/OPERATOR CHECKLIST

- 1) Demonstrate the operation of the lift to the owner/operator and review correct and safe lifting procedures using this manual as a guide.
- 2) Complete the Installation Checklist/Warranty Validation questionnaire with the owner. Review the terms of the warranty registration card and return the card and a copy of the questionnaires.

8.0 OPERATION PROCEDURE

8.1 SAFETY NOTICES AND DECALS

This product is furnished with graphic safety warning labels, which are reproduced on page 5 of these instructions. Do not remove or deface these warning labels or allow them to be removed or defaced. For your safety, and the safety of others, read and understand all of the safety notices and decals included.

8.2 OWNER/EMPLOYER RESPONSIBILITIES

This lift has been designed and constructed according to ASME PASE standard. The standard applies to lift manufacturers, as well as to owners and employers. The owner/employer's responsibilities as prescribed by ASME PASE, are summarized below. For exact wording refer to the actual standard provided with this manual in the literature pack.

The Owner/Employer shall ensure that lift operators are qualified and that they are trained in the safe use and operation of the lift using the manufacturer's operating instructions; ASME PASE, Safety Standard for Portable Automotive Service Equipment; National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance.

The Owner/Employer shall establish procedures to periodically inspect the lift in accordance with the lift manufacturer's instructions or ASME PASE, Safety Standard for Portable Automotive Service Equipment; National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection, and Maintenance; and the employer shall ensure that the lift inspectors are qualified and that they are adequately trained in the inspection of the lift.

The Owner/Employer shall maintain the periodic inspection and maintenance records recommended by the manufacturer or ASME PASE, Safety Standard for Portable Automotive Service Equipment; National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection, and Maintenance.

The Owner/Employer shall display the lift manufacturer's operating instructions; ASME PASE, Safety Standard for Portable Automotive Service Equipment; National Standard for Automotive Lifts-Safety Requirements for Operation, Inspection and Maintenance; in a conspicuous location in the lift area convenient to the operator.

8.3 IMPORTANT SAFETY INSTRUCTIONS

When using your garage equipment, basic safety precautions should always be followed, including the following:

1. Read all instructions.
2. Care must be taken as burns can occur from touching hot parts.
3. To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline).
4. Keep hair, loose clothing, fingers, and all parts of body away from moving parts.
5. Use only as described in this manual. Use only the manufacturer's recommended attachments.
6. **ALWAYS WEAR SAFETY GLASSES.** Everyday eyeglasses only have impact-resistant lenses, they are not safety glasses.

SAVE THESE INSTRUCTIONS

8.4 LIFTING A BATTERY

- 1) Make sure that you have read and understood the operation manual before operation.
- 2) Make sure that the vehicle is in good support condition.
- 3) Push the lifting table under the load to be lifted. Lower the mobile pallet jack.
- 4) Push the UP button until the expected height.
- 5) Turn off the power switch before starting service work.

NOTE: The center of gravity is based on the weight distribution and is not the same as the vehicle's center point.

DO NOT EXCEED 1500KG (3300LBS.)

DO NOT USE THIS MACHINE TO LIFT A VEHICLE.

The battery should remain level during lifting.

Always use safety stands when removing or installing heavy components.

8.5 LOWERING A BATTERY

- 1) Ensure that the area under the vehicle is clear of personnel and tools.
- 2) Turn on the power switch.
- 3) Push the DOWN button until lowering to the expected height.
- 4) Turn off the power switch.

9.0 RECOMMENDED MAINTENANCE

The following maintenance schedule is recommended for ensuring the operation of the lift. A record of maintenance performed should be maintained and any items that resulted in additional service should be noted.

To avoid personal injury, permit only qualified personnel to perform maintenance on this equipment.

The actual maintenance program should be tailored to the installation. See ASME PASE-2019 booklet for periodic inspection checklist and maintenance log sheet.

Replace all Safety, Warning, or Caution Labels if missing or damaged (See Safety Warning Decals on page 5.)

Schedule	Maintenance Required
Daily	Check that all lift components are clean.
	Inspect the operation of the lift by raising and lowering the lift fully.
	Check for loose or broken parts.
	Check spotting blocks for damage or excessive wear. Replace as required.
	Check hydraulic lines for leaks and fraying. Frayed hoses must be replaced immediately.
Weekly	Check the fluid level in the reservoir with the lift fully lowered. Top up the reservoir with ISO 32 (3L) hydraulic oil as needed.
Monthly	Inspect the electrical and mechanical operation of all switches.
	Clean and lubricate slide tracks with heavy viscous grease.
	Check the fluid level of the pallet jack. Top up the reservoir with ISO 32 hydraulic oil as needed.
	Grease the pins on wheels (include pallet jack).
5 Year	Change the hydraulic fluid every five years. Use only ISO 32 hydraulic oil.

NOTE: FAILURE TO FOLLOW RECOMMENDATION MAY AFFECT WARRANTY OF LIFT

10.0 EMERGENCY OPERATION

If the lift becomes inoperative in the raised position, it is best to wait until the electrical power is restored before lowering the battery. However, if it's critical to safety that the lift be lowered, the following steps should be taken.



WARNING: DO NOT LOOSEN OR REMOVE HYDRAULIC CONNECTIONS OR FITTINGS UNDER PRESSURE. SERIOUS INJURY OR DEATH COULD OCCUR.

NOTE: Safely performing this process requires 3 people. All personnel should stay clear of the path of the lift. All tools and other non-secured items should be removed from the related surface.

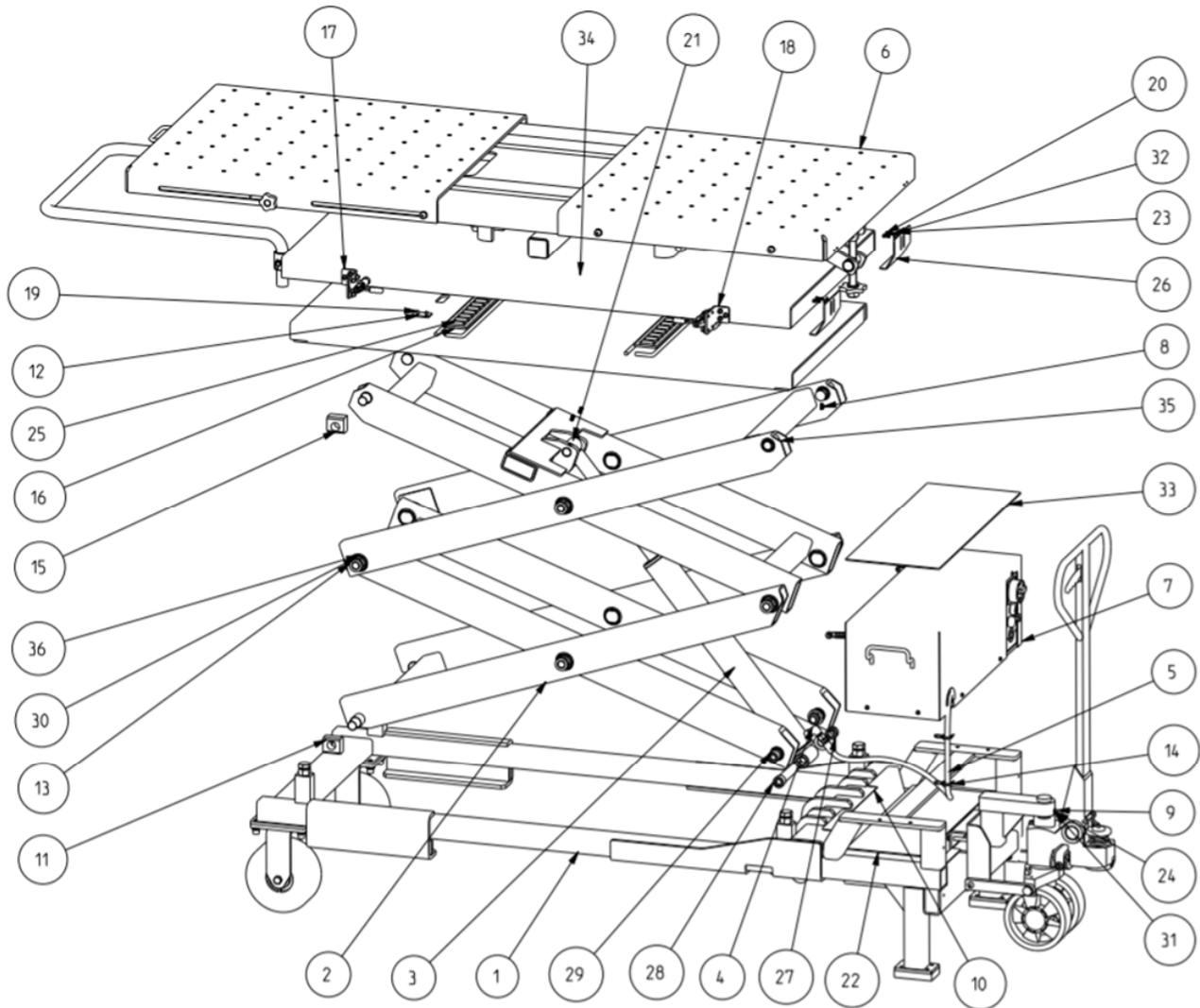
- 1) Survey the area surrounding the lift; remove any items and personnel from the area before proceeding with this procedure.
- 2) Perform the appropriate lockout/tag-out procedure on electrical energy.
- 3) Add additional chocks to the load to secure it from moving in the forward and rear directions.
- 4) Use a second person standing at a safe distance away from the lift to keep watch on the area, lift, load, and other personnel throughout the process. This person should signal the person performing the procedure to stop if necessary.
- 5) Use a caution tape or similar to barrier the area around the lift to avoid personnel from accidentally entering the area while this process is being performed.
- 6) Do not proceed with this procedure if you are unfamiliar with the lift or its function.

11.0 TROUBLESHOOTING

PROBLEM	REASON	SOLUTION
Motor does not turn.	Bad fuse or circuit breaker.	Replace the fuse or reset the breaker.
	Incorrect voltage to the motor.	Provide proper voltage to the motor.
	Incorrect wiring.	Have a certified electrician check
	Motor switch is malfunctioning	Replace motor switch.
	Motor burned out	Replace motor.
Motor runs but lift not rise	Relief valve is not well screwed up or jammed.	Clean or make an adjustment
	Damaged gear pump.	Replace it.
	Too low oil level.	Add oil.
	The hose connection is loose.	Tighten it.
	The cushion valve is not well screwed up or jammed.	Clean or make an adjustment
The table goes down slowly after being raised.	The oil hose leaks.	Check or replace it.
	Untightened oil cylinder.	Replace the seal.
	The non-return valve leaks.	Clean or replace it.
	Solenoid unloading valve fails to work well.	Clean or replace it.
	Unloading valve leaks.	Check and adjust the tightness.
Raising too slow.	Jammed oil filter	Clean or replace it.
	Too low oil level.	Add oil.
	The relief valve is not adjusted to the right position.	Make some adjustments.
	Too hot hydraulic oil (above 45°)	Change the oil.
	Abraded seal of the cylinder	Replace the seal.
Lowering too slowly.	Jammed single way throttle valve	Clean or replace it.
	Dirty hydraulic oil	Clean or replace.
	Jammed oil hose	Clean it.
The buzzer keeps ringing	Buzzer damaged	Replace the buzzer
	Limit switch not triggered	Adjust the limit switch
	Limit switch damaged	Replace the limit switch
	Relief value is not work	Replace the relief valve

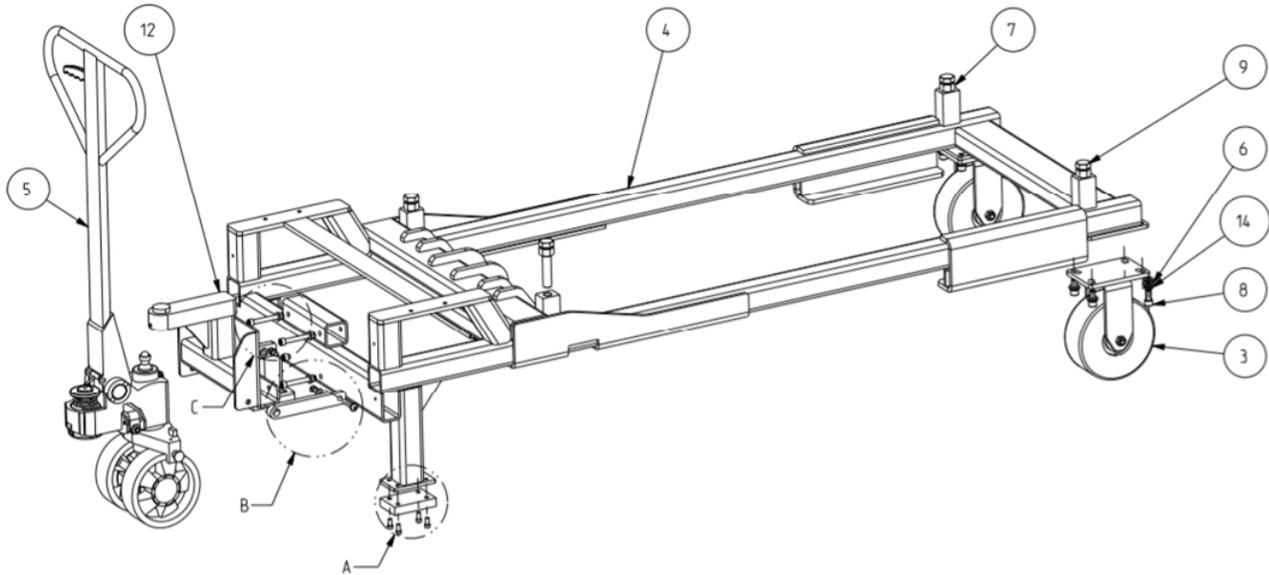
REPLACE WORN, DAMAGED, OR BROKEN PARTS WITH PARTS APPROVED BY THE ORIGINAL EQUIPMENT MANUFACTURER ONLY.

13.1 LIFT ASSEMBLY



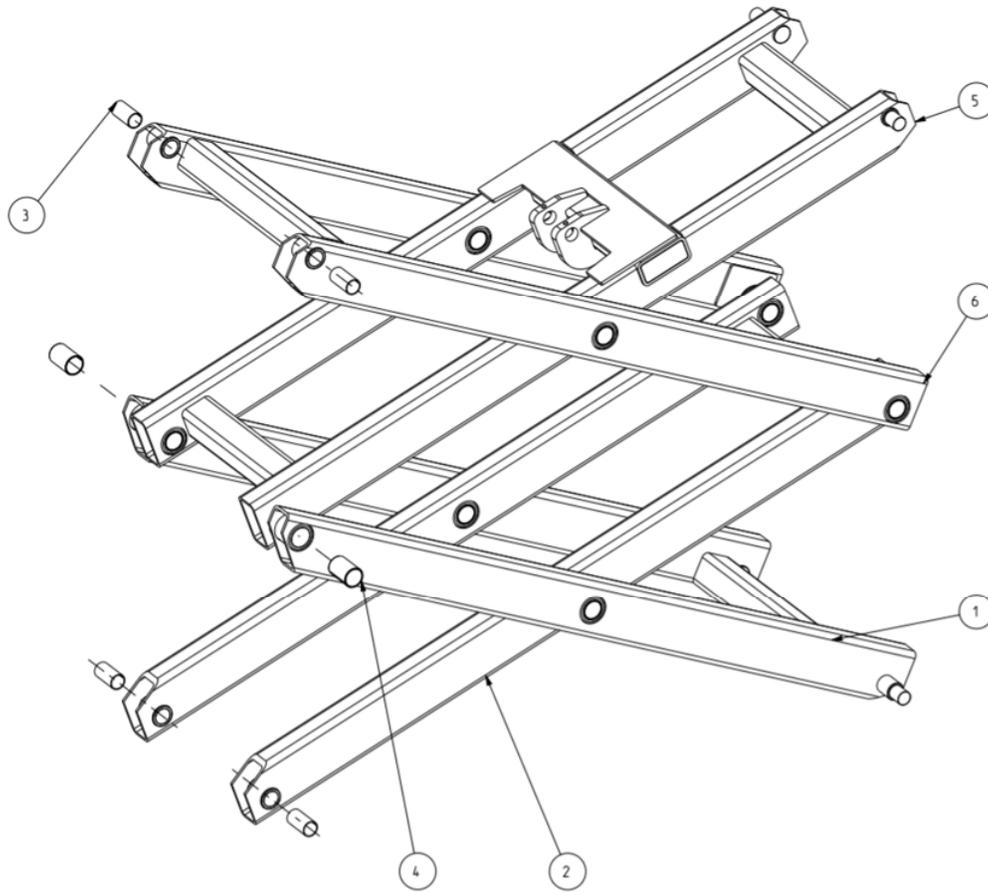
ITEM	PART#	QTY	DESCRIPTION
1	EAA0546V01A	1	BASE FRAME ASSEMBLY
2	EAA0546V07A	1	SCISSOR ASSEMBLY
3	EAA0546V03A	1	BL CYLINDER
4	EAH0087V01A	1	VEL.FUSE NPT3/8-9/16
5	EAH0087V02A	1	HYDRAULIC HOSE L=1380
6	EAA0546V04A	1	TILT LIFTING TABLE ASSEMBLY
7	EAA0546V06A	1	BL CONSOLE BOX-1PH 110V 1.5KW
8	1-10588A	4	SET SCREW, M8X16
9	1-18488A	1	HEX.SBHS M8x25 GB/T70.2-2008, G.R 8.8
10	EAS2254V23A	1	BL TOOL TRAY
11	EAM0206V41A	2	BOTTOM SLIDE BLOCK
12	EAM0207V24A	2	BUFFER PLATE
13	1-47988A	8	M24 LOCK NUT
14	6-3998CN	2	SCREW MASONRY MOUNTS
15	EAM0206V42A	2	TOP SLIDE BLOCK
16	EAM0207V15A	2	BOTTOM ROLLER HOLD PLATE
17	EAA0546V26A	2	CLAMP BRACKET L ASSEMBLY
18	EAA0546V27A	2	CLAMP BRACKET R ASSEMBLY
19	1-19688A	4	COUNTERSUNK FLAT HEAD SCREW M6×12
20	1-15588A	4	CROSS RECESS HEAD SCREW GB/T818-2000 M5X12
21	EAM0206V99A	1	CYLINDER TOP SHAFT
22	EAM0207V21A	1	DRAWER MAT
23	1-37788A	4	FLAT WASHER GB/T 97.1-2002
24	1-00688A	1	D8 FLAT WASHER
25	1-10587A	30	GB/T 119.2 16x40 PIN
26	EAM0206V79A	2	LIMIT SWITCH TRIGGER
27	1-46788A	3	M20 LOCK NUT
28	1-46288A	1	M20x120 SHOULDER BOLT
29	1-46388A	2	M20x90 SHOULDER BOLT
30	EAM0206V89A	8	SCISSOR CONNECTING SHAFT
31	1-00988A	1	SPRING WASHER GB/T 93-1987 8
32	1-14288A	4	SPRING WASHER GB/T 93-1987 5
33	EAM0207V20A	1	TOP MAT
34	EAS2254V11A	1	TOP PLATFORM WELDMENT
35	EAM0206V49A	2	TOP SCISSOR CONNECTING SHAFT
36	1-18041A	11	WASHER GB/T 95 24

13.2 BASE FRAME ASSEMBLY



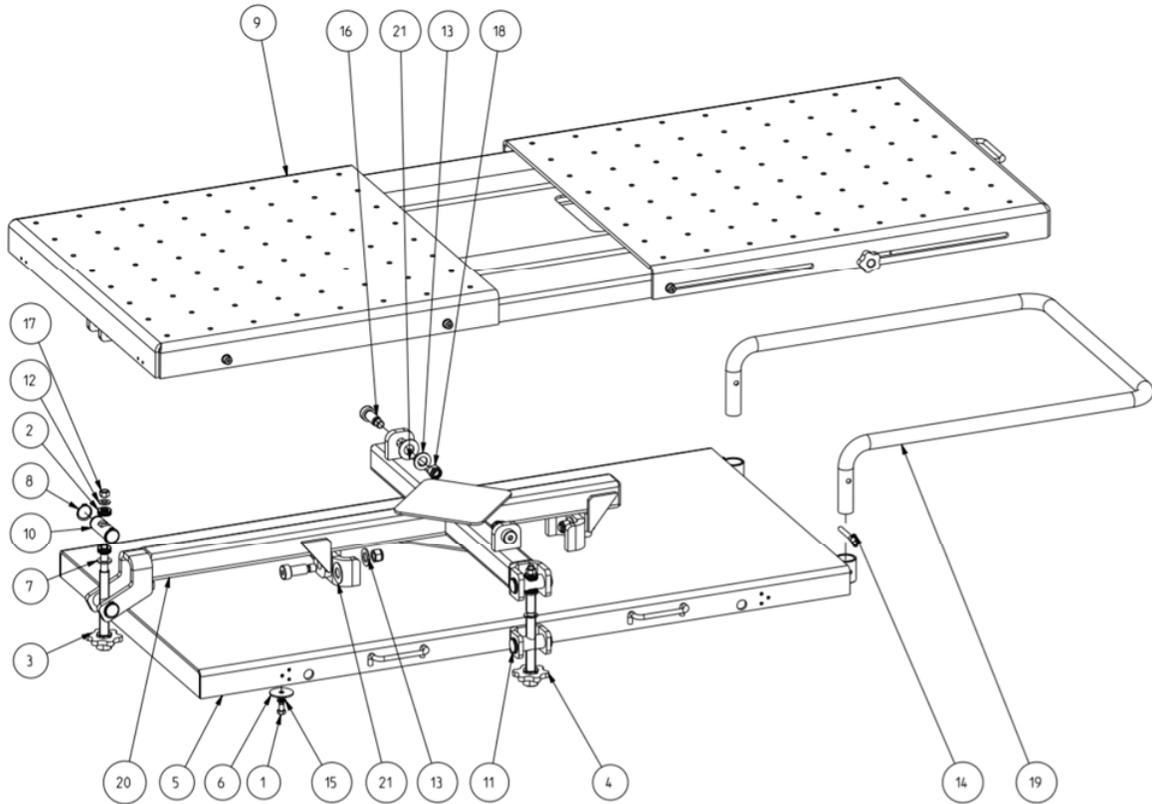
ITEM	PART#	QTY	DESCRIPTION
1	1-20988A	2	HEX.SBHS M10X45 GB/T70.2-2008, G.R 8.8
2	1-09788A	6	NYLON LOCK NUT M10X1 GB/T 889.2-2000, G.R 8
3	EAM0206V18A	2	BATTERY LIFT WHEEL
4	EAS2254V01A	1	BASE FRAME WELDMENT
5	EAA0546V05A	1	BATTERY LIFT PALLET-JACK
6	1-01588A	16	FLAT WASHER Ø12 GB/T95-2002
7	1-04088A	4	HEX NUT M20 GB/T 6170 -2000
8	1-24388A	8	HEX BOLT M12x25 GR.12.9, GB/T70.1-2000
9	1-47588A	4	HEX BOLT M20X100 GB/T 5783-2016
10	1-47088A	4	HEX.SOCKET BUTTON HEAD SCREW M10x80
11	EAM0206V26A	2	PALLET-JACK CONNECTING BAR
12	EAS2254V05A	1	PALLET-JACK CONNECTING BRACKET WELDMENT
13	1-03488A	8	SOCKET HEAD CAP SCREW GB/T70.1-2000 M8X16
14	1-01688A	8	SPRING WASHER Ø12 GB/T93-1987
15	EAM0206V12A	2	SUPPORT LEG RUBBER PAD
16	1-05388A	6	FLAT WASHER GB/T 95-2002 Ø10

13.3 SCISSOR ASSEMBLY



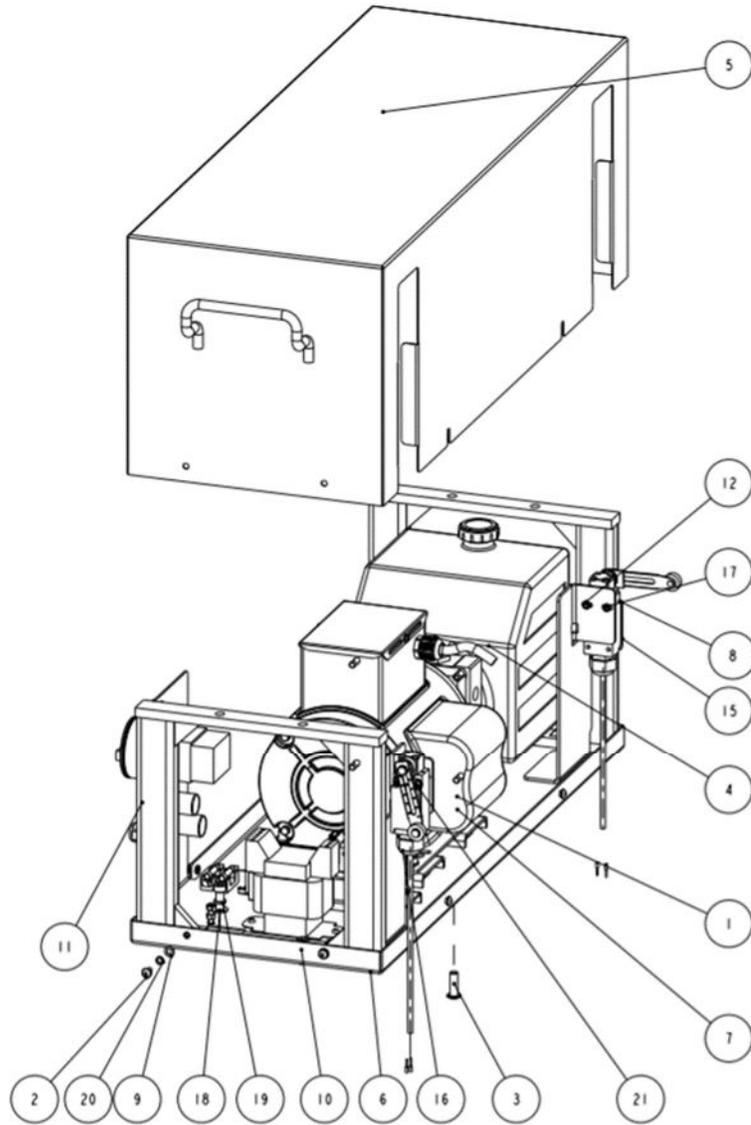
ITEM	PART#	QTY	DESCRIPTION
1	EAS2254V06A	1	BOTTOM INNER SCISSOR WELDMENT
2	EAS2254V07A	1	BOTTOM OUTER SCISSOR WELDMENT
3	1-17865A	4	SF2555 BUSHING
4	1-17965A	16	SF3255 BUSHING
5	EAS2254V08A	1	TOP INNER SCISSOR WELDMENT
6	EAS2254V10A	1	TOP OUTER SCISSOR WELDMENT

13.4 PLATFORM ASSEMBLY



ITEM	PART#	QTY	DESCRIPTION
1	1-46488A	2	M10X16 BOLT 8.8 GB/T 5781-2016
2	1-13663A	4	51102 BEARING
3	EAS2254V19A	1	ADJUST SHORT STUD WELDMENT
4	EAA0546V10A	1	ADJUST STUD ASSY
5	EAS2254V13A	1	BOTTOM LIFTING TABLE WELDMENT
6	EAM0206V63A	2	D10 WASHER OD50
7	1-32841A	2	D16 FLAT WASHER GB/T95-2002
8	1-00287A	8	RETAINING RING Ø30 GB894.1-1986
9	EAA0546V08A	1	EXTENDABLE TABLE ASSEMBLY
10	EAM0206V73A	2	EXTENDABLE TABLE FRONT SHAFT
11	EAM0206V74A	2	EXTENDABLE TABLE SIDE SHAFT
12	1-01588A	2	FLAT WASHER D12 GB/T 95-2002
13	6-0738CN	4	Ø20 FLAT WASHER GB/T 97.1-2002
14	EAM0206V77A	2	HANDLE PIN
15	1-01388A	2	LOCK WASHER D10 GB/T93-1987
16	1-46588A	4	M16x40 SHOULDER BOLT GB/T 5281-1985
17	1-16388A	2	NYLON LOCK NUT M12 GB/T889.1-2000
18	1-47188A	4	NYLON LOCKNUT, M16 GR.8, GB/T 889.1-2015
19	EAM0206V76A	1	REAR HANDLE
20	EAS2254V14A	1	TILT LIFTING BRACKET WELDMENT
21	EAM0207V18A	4	WASHER D22x45x1.5

13.5 CONSOLE BOX ASSEMBLY



ITEM	PART#	QTY	DESCRIPTION
1	1-18988A	4	NYLON LOCKNUT, M8 GR.8, GB/T889.2-2000
2	1-48288A	9	SCREW M5X10 GB/T70.2-2008
3	1-18488A	4	HEX.SOCKET BUTTON HEAD SCREW GB/T 70.2-2008 M8X25
4	EAA0546V15A	1	POWERPACK ASSEMBLY
5	EAA0546V17A	1	CONSOLE BOX COVER ASSEMBLY
6	EAA0546V13A	1	CONSOLE BOX ELECTRONIC ASSEMBLY
7	1-15188A	4	FLAT WASHER GB/T 848-2002 Ø8
8	1-03188A	4	Ø4 FLAT WASHER GB/T95-2002
9	1-37788A	7	FLAT WASHER Ø5 GB/T 97.1-2002
10	1-00688A	4	D8 FLAT WASHER
11	1-11433	4	M4 NUT
12	EAM0206V87A	1	HOSE PROTECTOR
13	EAM0206V93A	1	HOSE PROTECTOR
14	EAA0546V21A	1	LIMIT SWITCH LEFT
15	EAA0546V22A	1	LIMIT SWITCH RIGHT
16	1-03688A	4	CROSS RECESS HEAD SCREW GB/T818-2000 M4X30
17	1-17888A	4	SOCKET HEAD CAP SCREW M8*20 GB/T70.1-2000
18	1-00988A	4	SPRING WASHER GB/T 93-1987 8
19	1-14288A	7	SPRING WASHER GB/T 93-1987 D5
20	1-28788A	4	SPRING WASHER GB/T 93-1987 D4

Product Change Notice

REV.	PCN	DESCRIPTION	DATE	BY
		Made some suggestions for clarity	3/7/22	ND
		Made some changes of content	3/10/22	HL
		Made some changes of content	3/17/22	HL
		Grammatical changes	3/31/22	ND
		Updated ANSI, ASME PASE REFERENCES, ADDED ANSI STANDARDS REFERENCE STATEMENT SECTION. PG. 2.	3/29/2024	WD