



## **SEMI ELECTRIC STACKER OPERATION INSTRUCTIONS**



Carefully read the instructions and obey all kinds of warning labels before operation.  
Please confirm that the vehicle is safe without damage.

# Statement

The model SDYG series produced by our company is a special motor vehicle only used in specific areas such as factories, scenic spots and amusement parks as stipulated in the regulations on safety supervision of special equipment.

**Warning:**

If this operation manual is not followed, the quality assurance of the company will automatically fail, which also applies to the illegal export of products by customers or third parties without the permission of the manufacturer. Without the permission of the customer service department of the company, if the customer and the third party execute the nonstandard operation of the forklift without authorization, the company will not bear any responsibility for the loss.

Note: the manufacturer reserves the right to change the design and specification of the product without notice due to the continuous improvement of the product.

# SDYG SEMI-ELECTRIC STACKER

## Operation manual

### catalog

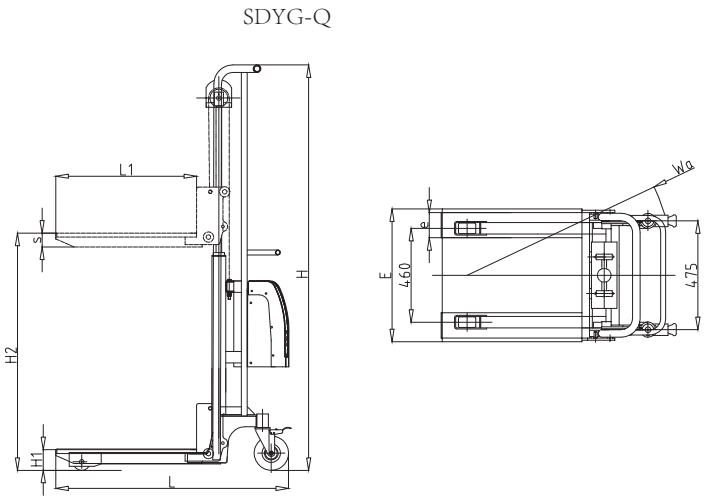
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1. Product introduction and safety rules

Welcome to use this series of semi electric stacker truck. Through the introduction of this operation manual, it is required to clearly understand and master the safe operation of the vehicle.

- 1.1
- The truck is a hand propelled, electro-hydraulic vertical load stacking and cargo stacking logistics equipment. The stacker must be operated by personnel who have been trained in the operation of the stacker. You must carefully read the instruction manual and various warning signs on the vehicle.
- 1.2
- The user of the equipment must ensure that the stacker is only used for the specified purpose. And timely eliminate all possible risks to the user's life and health or others.
- 1.3
- Product introduction: the series of models are welded by steel, with good rigidity, high strength, durability and easy operation. The rated load is 400kg, 1000kg, 1500kg, 2000kg, the maximum lifting height is 3500mm, and the micro switch is installed to prevent the over travel of the carrier. The door seat can be made into fixed or movable wide leg forklift. In order to enhance the stability of lifting, the middle jack can be added according to the needs of customers.
- 1.4
- Pay attention to safety in dangerous areas. It includes: the danger to personnel when the stacker truck or its load lifting device is running or lifting action, or the area where the load is being transported. Usually, this range extends to the area where the load lands or near the vehicle. No person should be carried on the fork. No one is allowed to stand at the bottom and both sides of the fork. Other personnel should leave more than 1m. No one is allowed to stand within the operating radius of the stacker truck.
- 1.5
- Stacking operation: when the fork is kept below 300 mm, move the goods to the side of the shelf or the object where the goods are stored (the distance between the fork head and the rack shall not be more than 100 mm), and then lift the goods. Reach the appropriate height, stack the goods stably at the stacking place, and finally separate the forks from the goods, withdraw the forks and drop them below 300 mm.
- 1.6
- Avoid overload or unbalanced load, and the maximum load shall not exceed the calibration range of the rating plate and load curve. The stacker can not be used in corrosive or flammable and explosive areas. In flammable environment, it may cause explosion.
- 1.7
- During unloading, it is necessary to avoid rapid drop of heavy objects, inclination due to loss of balance or excessive impact on the forks, which may cause deformation; the stacker shall be used on hard and flat road surface; steel plates, corner materials, iron pins and other objects damaging the wheel shall be prevented from colliding with each other; the fork shall not be used to impact the cargo pile; during maintenance and adjustment, the goods shall be unloaded and the fork shall be reduced to the minimum; when handling goods, it shall be done as much as possible Reduce the height of forks, and the height of forks from the ground should not exceed 300 mm.
- 1.8
- Pay attention to safety when parking. Never park the vehicle on the slope. Turn off the electric lock switch and take away the key.
- 1.9
- When the battery is charged, it must be well ventilated, and there is no fireworks or inflammable substances that are easy to produce sparks nearby.
- 1.10
- Note: for the load curve of 2-ton semi electric stacker, please confirm the load rating plate.
- 1.11
- When carrying goods, the goods must be placed on pallets. It is forbidden to put the goods directly on the fork and use the stacker.

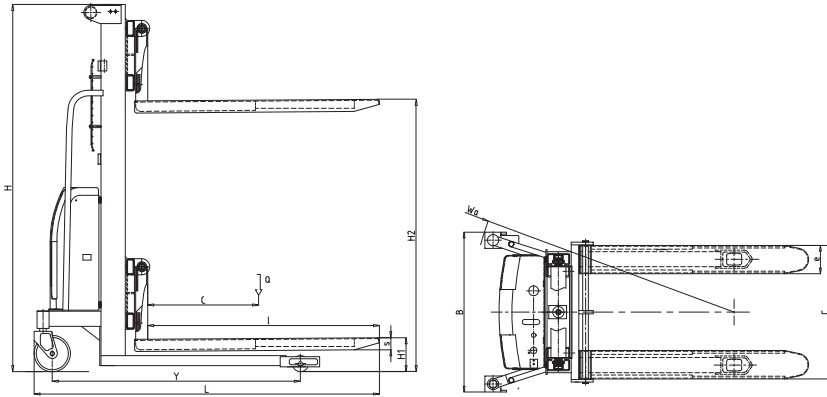
2. Dimensions and technical parameters



| Model                              |                     | SDYG-Q 0411 | SDYG-Q 0413 | SDYG-Q 0415 |
|------------------------------------|---------------------|-------------|-------------|-------------|
| Capacity                           | Q(Kg)               | 400         | 400         | 400         |
| Load center                        | C(mm)               | 350         | 350         | 350         |
| Type of lifting                    |                     | Electric    | Electric    | Electric    |
| Operating type                     |                     | Walkie      | Walkie      | Walkie      |
| Material                           |                     | PU          | PU          | PU          |
| Quantity of Steering/Bearing Wheel |                     | 2/2         | 2/2         | 2/2         |
| Wheel base                         | mm                  | 789         | 789         | 789         |
| Bearing wheel size                 | mm                  | Φ 75×42     | Φ 75×42     | Φ 75×42     |
| Steering wheel size                | mm                  | Φ 150×38    | Φ 150×38    | Φ 150×38    |
| Min.fork height                    | H <sub>1</sub> (mm) | 90          | 90          | 90          |
| Max.fork height                    | H <sub>2</sub> (mm) | 1100        | 1300        | 1500        |
| Fork outside width                 | mm                  | 550         | 550         | 550         |
| Fork inside width                  | mm                  | 310         | 310         | 310         |
| Fork length                        | L <sub>1</sub> (mm) | 615         | 615         | 615         |
| Single fork size                   | e/s(mm)             | 120/60      | 120/60      | 120/60      |
| Overall length                     | L(mm)               | 1050        | 1050        | 1050        |
| Overall width                      | E(mm)               | 610         | 610         | 610         |
| Overall height                     | H(mm)               | 1370        | 1570        | 1770        |
| Table size                         | mm                  | 610×580     | 610×580     | 610×580     |
| Min.turning radius                 | Wa(mm)              | 1022        | 1022        | 1022        |
| Lifting speed(laden/unladen)       | mm/s                | 70/80       | 70/80       | 70/80       |
| Lowering speed(laden/unladen)      | mm/s                | 80/70       | 80/70       | 80/70       |
| Lift motor                         | Kw                  | 0.8         | 0.8         | 0.8         |
| Battery capacity                   | V/Ah                | 12/80       | 12/80       | 12/80       |
| Battery weight                     | Kg                  | 15          | 15          | 15          |
| Net weight                         | Kg                  | 127         | 129         | 130         |

\* The company reserves the right to change product design and specifications without prior notice.

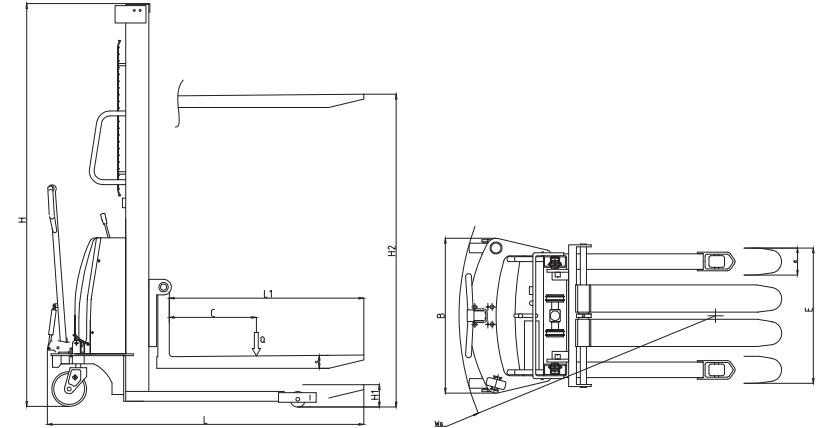
SDYG-E



| Model                              |                     | SDYG-E 1016  | SDYG-E 1020  | SDYG-E 1025  |
|------------------------------------|---------------------|--------------|--------------|--------------|
| Capacity                           | Q(Kg)               | 1000         | 1000         | 1000         |
| Load center                        | C(mm)               | 450          | 450          | 450          |
| Type of lifting                    |                     | Electric     | Electric     | Electric     |
| Operating type                     |                     | Walkie       | Walkie       | Walkie       |
| Material                           |                     | Nylon        | Nylon        | Nylon        |
| Quantity of Steering/Bearing Wheel |                     | 2/2          | 2/2          | 2/2          |
| Wheel base                         | Y(mm)               | 1145         | 1145         | 1145         |
| Bearing wheel size                 | mm                  | Φ 80 × 60    | Φ 80 × 60    | Φ 80 × 60    |
| Steering wheel size                | mm                  | Φ 180 × 50   | Φ 180 × 50   | Φ 180 × 50   |
| Min.fork height                    | H <sub>1</sub> (mm) | 90           | 90           | 90           |
| Max.fork height                    | H <sub>2</sub> (mm) | 1600         | 2000         | 2500         |
| Fork outside width                 | E(mm)               | 320-710      | 320-710      | 320-710      |
| Fork inside width                  | mm                  | 20-410       | 20-410       | 20-410       |
| Fork length                        | l(mm)               | 1150         | 1150         | 1150         |
| Single fork size                   | e/s(mm)             | 150/60       | 150/60       | 150/60       |
| Overall length                     | L(mm)               | 1720         | 1720         | 1720         |
| Overall width                      | B(mm)               | 850          | 850          | 850          |
| Overall height                     | H(mm)               | 2130         | 1580         | 1830         |
| Max.lifting height                 | mm                  | 1510         | 1910         | 2410         |
| Min.turning radius                 | Wa(mm)              | 1420         | 1420         | 1420         |
| Lifting speed(laden/unladen)       | mm/s                | 40-50/85-95  | 40-50/85-95  | 40-50/85-95  |
| Lowering speed(laden/unladen)      | mm/s                | 90-110/85-95 | 90-110/85-95 | 90-110/85-95 |
| Lift motor                         | Kw                  | 12V1.6       | 12V1.6       | 12V1.6       |
| Battery capacity                   | V/Ah                | 12/120       | 12/120       | 12/120       |
| Battery weight                     | Kg                  | 28           | 28           | 28           |
| Net weight                         | Kg                  | 300          | 360          | 400          |

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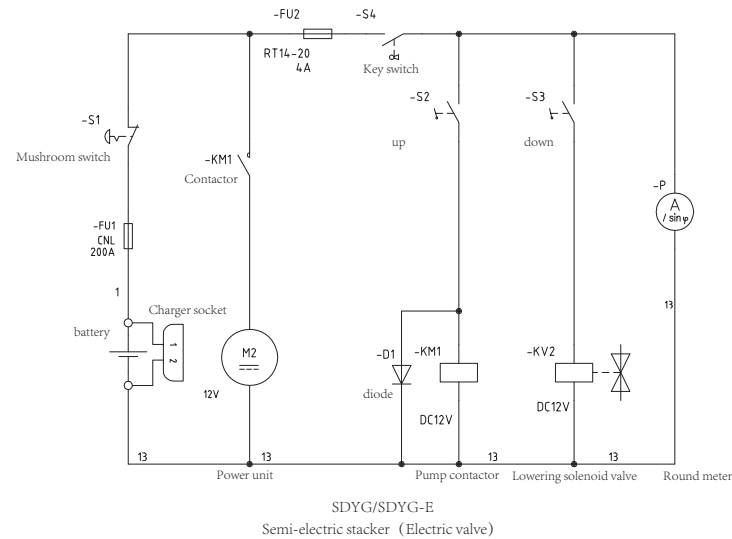
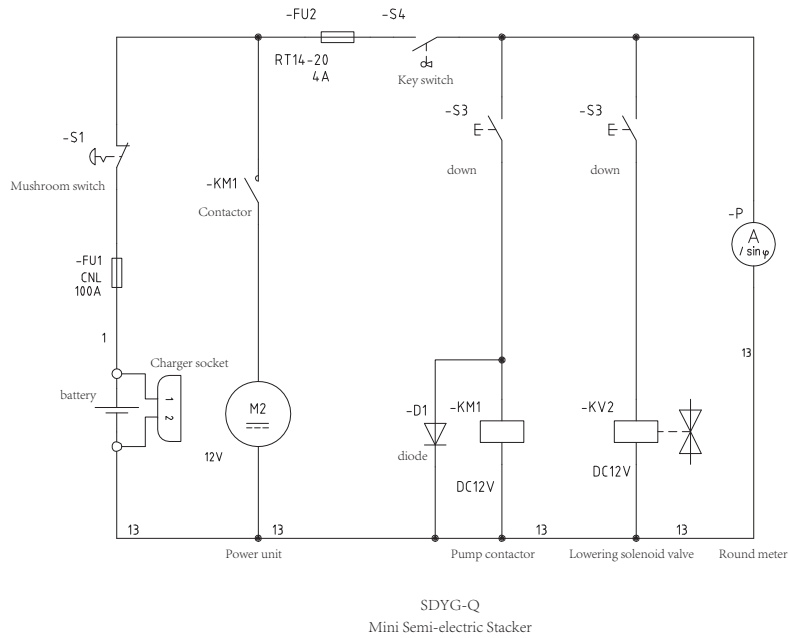
SDYG



| Model                              |                     | SDYG-1016/1020/1025/1030/1035 | SDYG-1516/1520/1525/1530/1535 | SDYG-2016/2020 |
|------------------------------------|---------------------|-------------------------------|-------------------------------|----------------|
| Capacity                           | Q(Kg)               | 1000                          | 1500                          | 2000           |
| Load center                        | C(mm)               | 450                           | 450                           | 450            |
| Type of lifting                    |                     | Electric                      | Electric                      | Electric       |
| Operating type                     |                     | Walkie                        | Walkie                        | Walkie         |
| Material                           |                     | Nylon                         | Nylon                         | Nylon          |
| Quantity of Steering/Bearing Wheel |                     | 2/2                           | 2/2                           | 2/2            |
| Wheel base                         | mm                  | 1182                          | 1182                          | 1182           |
| Bearing wheel size                 | mm                  | Φ 80 × 60                     | Φ 80 × 60                     | Φ 80 × 60      |
| Steering wheel size                | mm                  | Φ 180 × 50                    | Φ 180 × 50                    | Φ 180 × 50     |
| Min.fork height                    | H <sub>1</sub> (mm) | 90                            | 90                            | 90             |
| Max.fork height                    | H <sub>2</sub> (mm) | 1600/2000/2500/3000/3500      | 1600/2000/2500/3000/3500      | 1600/2000      |
| Fork outside width                 | E(mm)               | 320-710                       | 320-710                       | 340-710        |
| Fork inside width                  | mm                  | 20-410                        | 20-410                        | 20-390         |
| Fork length                        | L <sub>1</sub> (mm) | 1150                          | 1150                          | 1150           |
| Single fork size                   | e/s(mm)             | 150/60                        | 150/60                        | 160/60         |
| Overall length                     | L(mm)               | 1810                          | 1810                          | 1810           |
| Overall width                      | B(mm)               | 770                           | 770                           | 770            |
| Overall height                     | H(mm)               | 2130/1580/1830/2080/2330      | 2180/1630/1880/2130/2380      | 2190/1630      |
| Max.lifting height                 | mm                  | 1510/1910/2410/2910/3410      | 1510/1910/2410/2910/3410      | 1510/1910      |
| Min.turning radius                 | Wa(mm)              | 1450                          | 1450                          | 1450           |
| Lifting speed(laden/unladen)       | mm/s                | 40-50/85-95                   | 40-50/85-95                   | 40-50/85-95    |
| Lowering speed(laden/unladen)      | mm/s                | 90-110/85-95                  | 90-110/85-95                  | 90-110/85-95   |
| Lift motor                         | Kw                  | 1.6                           | 1.6                           | 1.6            |
| Battery capacity                   | V/Ah                | 12V120                        | 12V120                        | 12V120         |
| Battery weight                     | Kg                  | 36                            | 36                            | 36             |
| Net weight                         | Kg                  | 340/390/410/430/450           | 360/410/430/450/470           | 430/470        |

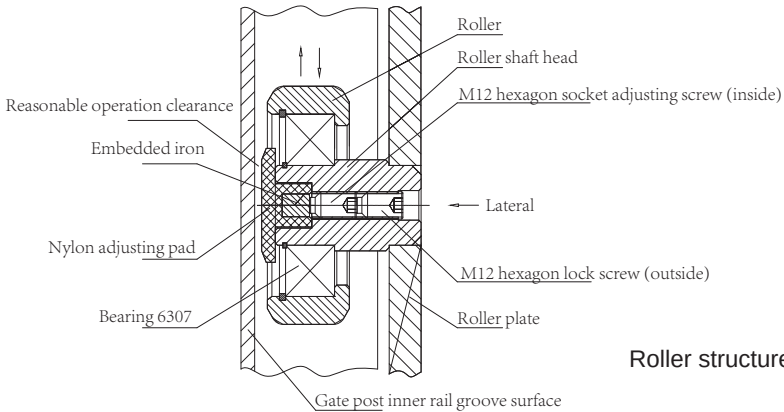
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Electrical schematic diagram



3. Use and maintenance

- 3.1 The ambient temperature of forklift truck is - 5 °C - 35 °C. The working pavement is required to be smooth concrete or asphalt pavement.
- 3.2 After the hydraulic device is used repeatedly, the damage and aging of the seal should be checked to make the oil pressure function damaged. Please replace the seal ring in time, filter and clean the oil circuit. The hydraulic oil is L-HM / hv32.
- 3.3 Before use, check the reliability of the load-bearing chain and connecting bolts strictly. Adjust the length, lock the nut and install the cotter pin at the lower end of the bolt to ensure safety.
- 3.4 The clearance of the moving pair formed by the rollers between the inner and outer frames and between the lifting frame and the inner gantry shall be adjusted by the screws in the hole of the roller shaft head. There are two M12 × 20 hexagon socket cylindrical end set screws in the adjusting hole. The first screw (inside) is against the nylon adjusting pad to form a reasonable running clearance. The last screw (outside) is a locking function to ensure that the position does not change.



Roller structure diagram

- 3.5 Brake adjustment: the cap nut of the brake ejector rod is released retrogradely and clockwise; the brake rod is lowered, and the nut is locked after the clearance is confirmed to be appropriate. The brake pad
- 3.6 should be replaced when it is seriously worn, and the brake reliability should be adjusted under load.
- 3.7 When pushing and translating, the stacker can not replace the brake function.
- 3.8 All moving parts, such as running rail groove, pin shaft and chain, are lubricated regularly.
- The safety and explosion-proof valve is installed in the oil pipe joint.

4. Use and maintenance of battery

- 4.1 Filling electrolyte
- 4.1.1 According to JB / t6459-92, "the battery is not filled with electrolyte" when the stacker truck leaves the factory, the user should fill the electrolyte when using it. Screw off the liquid hole plug of the battery, clean the liquid hole plug, and keep the air vent of the liquid hole plug unblocked (except for the maintenance free battery or the user proposes to add it first).
- 4.1.2 The electrolyte with a specific gravity of 1.28g/cm3 is injected into each charging hole of the battery at one time until the highest liquid level line. After standing for 20-30 minutes, if the liquid level drops, please add liquid to the highest liquid level.
- 4.1.3 Connect the red terminal to the positive terminal and the black terminal to the negative terminal. The connection should be firm and the contact must be good.
- 4.2 charge
- 4.2.1 This machine is generally an external charger, with a socket on the side of the box, and the voltage is 220V / 110V (according to the voltage of the ground).
- 4.2.2 Vehicles must be stopped safely before battery operation. Fireworks are strictly prohibited on site. Fire fighting equipment should be provided. Professionals must be trained to work. The standard battery needs to be charged when its power is less than 30%. If the electric level drops during charging, distilled water should be used to supplement the battery. Electrolyte with specific gravity of 1.280 is not allowed. After discharging, the battery should be charged in time without delay for 24 hours at most. If it is not used for a long time, it should also be charged once a month, and it should be fully charged every time.

5. Causes and troubleshooting

| fault                                                   | Cause analysis                                                                                                                                                                                                                            | Exclusion method                                                                                                  |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| The lifting height can not meet the design requirements | Insufficient hydraulic oil                                                                                                                                                                                                                | Replenish hydraulic oil                                                                                           |
| Lifting and crawling                                    | There is air in the hydraulic system                                                                                                                                                                                                      | Loosen the cylinder vent valve, start the main engine, and let the oil come out to remove the air in the cylinder |
| Slow lifting and lowering speed                         | 1. The oil cylinder seal is aged and loses its sealing function, resulting in oil cylinder oil leakage<br>2. Oil leakage at oil pipe or oil pipe joint<br>3. There are impurities in the oil circuit, which makes the oil circuit blocked | Replace the seal<br>Replace oil pipe or joint<br>Remove impurities and replace hydraulic oil                      |
| Forks cannot fall automatically when empty              | Due to eccentric load and overweight use, the components are deformed, causing serious friction and over tight rotation                                                                                                                   | Adjust the inclination clearance of roller                                                                        |

Note:

1. Warranty period: the warranty period is one year from the date of purchase or within 1000 hours of working time.

2. Attached accessories: a fully automatic charger

3. Easily damaged and sealed accessories shall be provided separately according to customer requirements.

6. Product explosion diagram and parts list

SDYG-Q

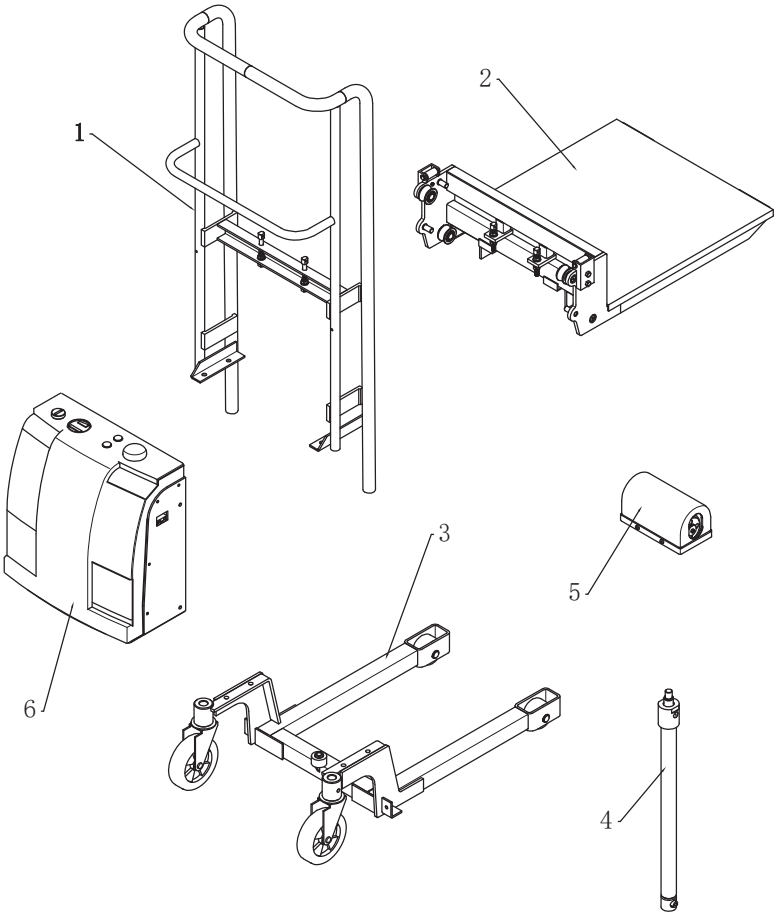


Fig.1

| NO | Parts name                        | QTY | Remarks                  |
|----|-----------------------------------|-----|--------------------------|
| 1  | frame assembly                    | 1   | See Figure 2 for details |
| 2  | Fixed lifting frame assembly      | 1   | See Figure 3 for details |
| 2  | Adjustable lifting frame assembly | 1   | See Figure 4 for details |
| 3  | Base assembly                     | 1   | See Figure 5 for details |
| 4  | Cylinder assembly                 | 1   | See Figure 6 for details |
| 5  | Sprocket seat assembly            | 1   | See Figure 7 for details |
| 6  | Power box assembly                | 1   | See Figure 8 for details |

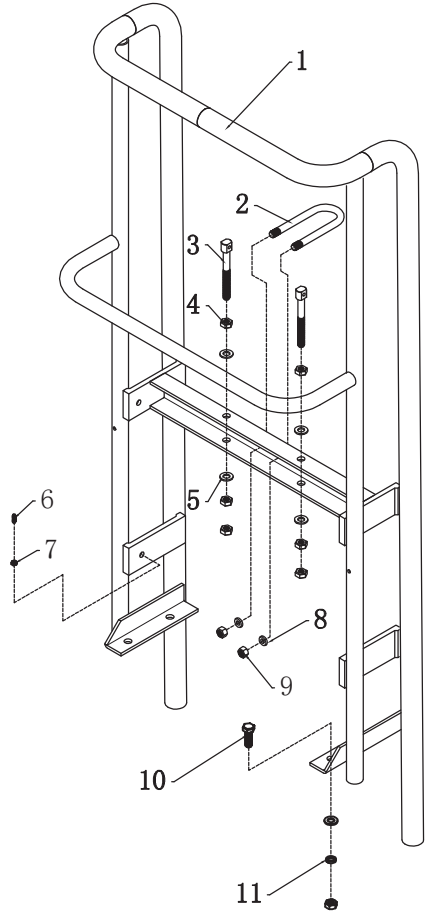


Fig.2  
frame assembly

| NO | Parts name                               | QTY |
|----|------------------------------------------|-----|
| 1  | Frame column weldment                    | 1   |
| 2  | Hoop                                     | 1   |
| 3  | Link bolt 1                              | 2   |
| 4  | Nut M10                                  | 12  |
| 5  | Flat cushion $\Phi$ 10                   | 4   |
| 6  | Hexagon socket head screw M8 $\times$ 25 | 4   |
| 7  | Lock nut M8                              | 4   |
| 8  | Flat cushion $\Phi$ 6                    | 2   |
| 9  | LOCK NUT M6                              | 2   |
| 10 | Hexagon bolt M10 $\times$ 30             | 4   |
| 11 | Spring pad $\Phi$ 10                     | 4   |

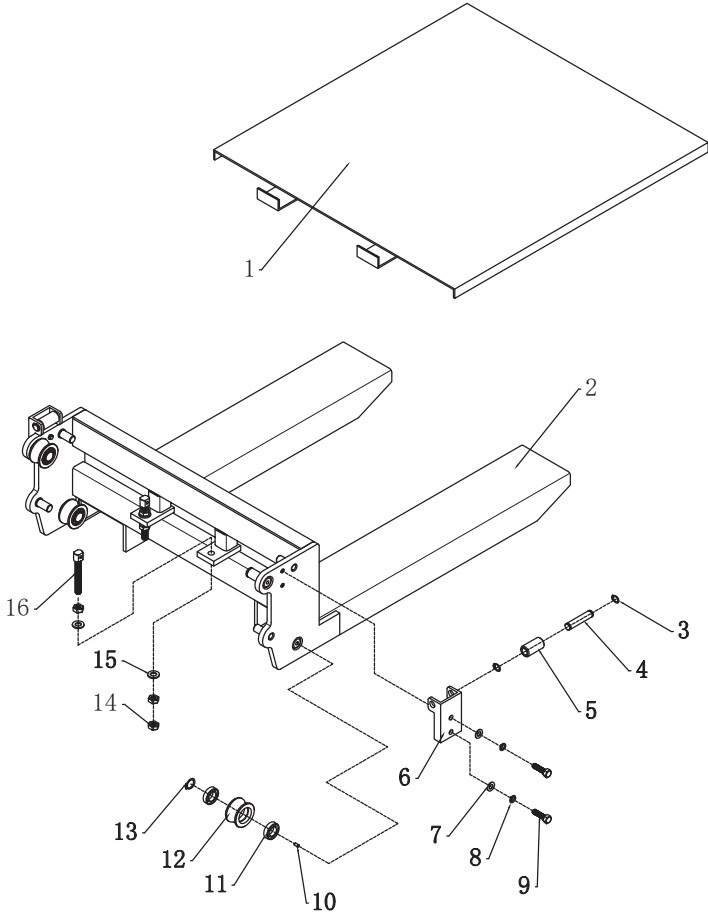


Fig.3  
Fixed lifting frame assembly

| NO | Parts name                     | QTY | NO | Parts name                            | QTY |
|----|--------------------------------|-----|----|---------------------------------------|-----|
| 1  | Platform plate weldment        | 1   | 9  | Hexagon bolt M8 $\times$ 25           | 4   |
| 2  | Fixed lifting frame weldment   | 1   | 10 | Copper oil nozzle $\Phi$ 6 $\times$ 6 | 4   |
| 3  | Shaft retaining ring $\Phi$ 12 | 4   | 11 | Bearing 61903                         | 2   |
| 4  | Fixed block roller shaft       | 2   | 12 | Roller                                | 2   |
| 5  | Fixed block roller             | 2   | 13 | Shaft retaining ring $\Phi$ 17        | 4   |
| 6  | Lifting fixed block            | 2   | 14 | Nut M10                               | 6   |
| 7  | Flat cushion $\Phi$ 8          | 4   | 15 | Flat cushion M10                      | 4   |
| 8  | Spring pad $\Phi$ 8            | 4   | 16 | Connecting bolt 2                     | 2   |

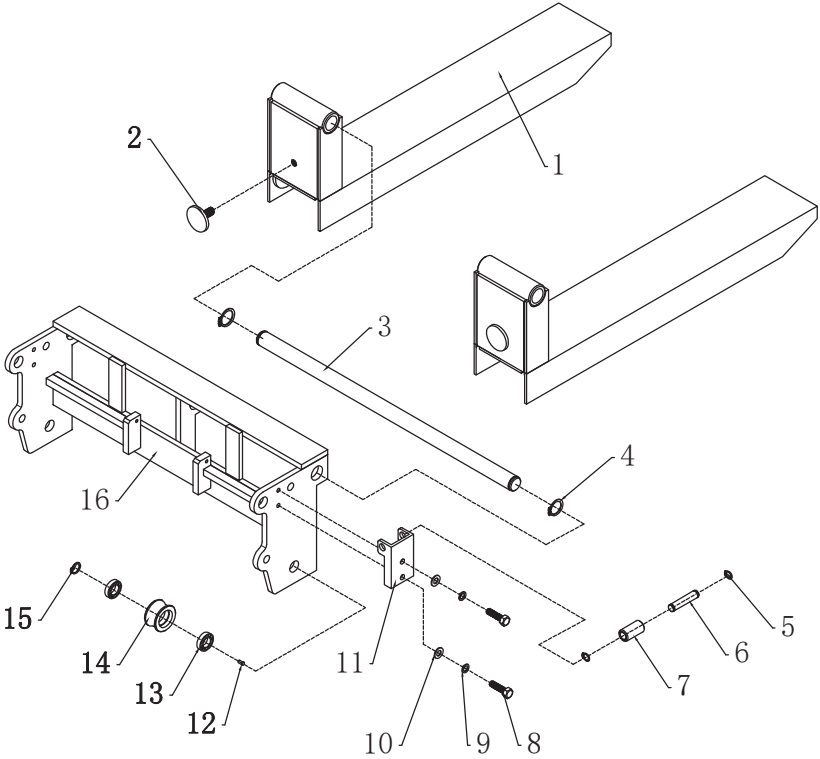


Fig.4  
Adjustable lifting frame assembly

| NO | Parts name                     | QTY | NO | Parts name                            | QTY |
|----|--------------------------------|-----|----|---------------------------------------|-----|
| 1  | Fork weldment                  | 2   | 9  | Spring pad $\Phi$ 8                   | 4   |
| 2  | Adjusting bolt                 | 2   | 10 | Flat cushion $\Phi$ 8                 | 4   |
| 3  | Long shaft of lifting frame    | 1   | 11 | Lifting fixed block                   | 2   |
| 4  | Shaft retaining ring $\Phi$ 25 | 2   | 12 | Copper oil nozzle $\Phi$ 6 $\times$ 6 | 4   |
| 5  | Shaft retaining ring $\Phi$ 12 | 4   | 13 | Bearing 61903                         | 2   |
| 6  | Fixed block roller shaft       | 2   | 14 | Roller                                | 2   |
| 7  | Fixed block roller             | 2   | 15 | Shaft retaining ring $\Phi$ 17        | 4   |
| 8  | Hexagon bolt M8 $\times$ 25    | 4   | 16 | Lifting frame weldment                | 1   |

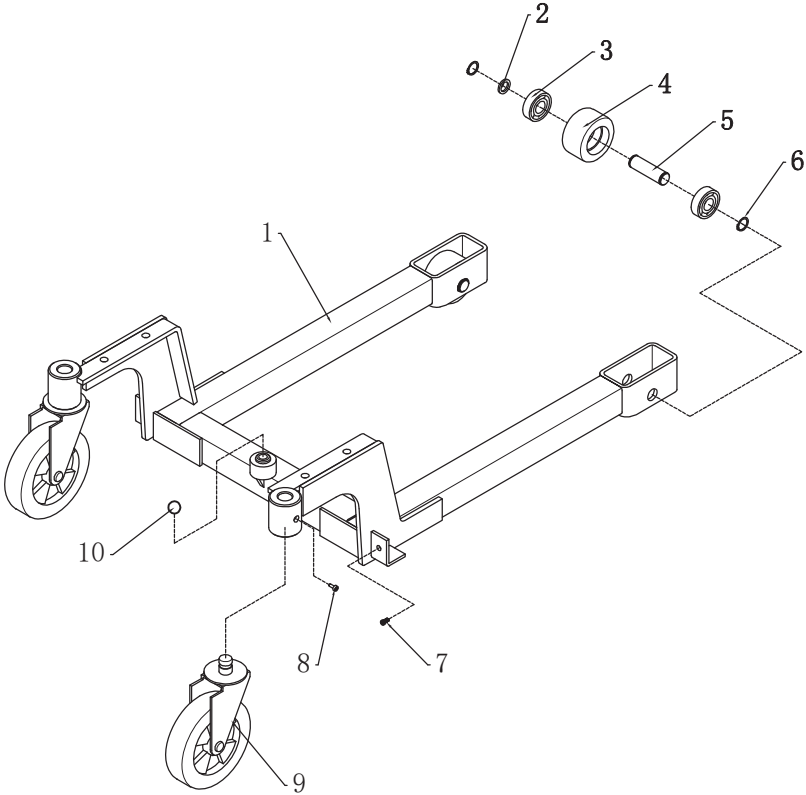


Fig.5  
Base assembly

| NO | Parts name                          | QTY |
|----|-------------------------------------|-----|
| 1  | Door seat weldment                  | 2   |
| 2  | Flat cushion $\Phi$ 20              | 4   |
| 3  | Bearing 6204                        | 4   |
| 4  | front wheel                         | 2   |
| 5  | Front axle                          | 2   |
| 6  | Shaft retaining ring $\Phi$ 20      | 4   |
| 7  | Hexagon socket screw M6 $\times$ 8  | 2   |
| 8  | Hexagon socket screw M8 $\times$ 25 | 2   |
| 9  | Rear steering wheel                 | 2   |
| 10 | Steel ball s $\Phi$ 12              | 1   |

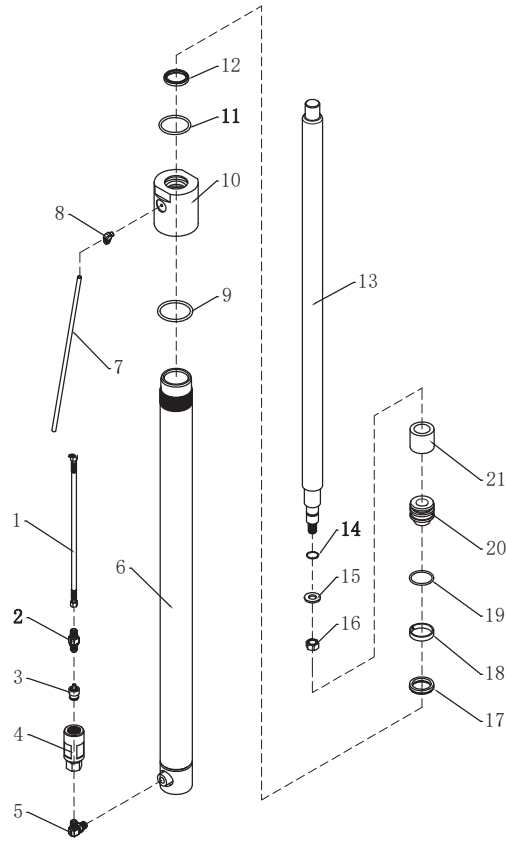


Fig.6  
Cylinder assembly

| NO | Parts name                          | QTY | Remarks        | NO | Parts name                          | QTY |
|----|-------------------------------------|-----|----------------|----|-------------------------------------|-----|
| 1  | Tubing M14 × 1.5/350                | 1   | 1.3m and below | 11 | O-ring d24.7 × 3.55                 | 1   |
| 1  | Tubing M14 × 1.5/450                | 1   | Above 1.3m     | 12 | Dust ring D25 × d33 × 4.5/6         | 1   |
| 2  | Tubing straight reducing joint      | 1   |                | 13 | Lifting rod                         | 1   |
| 3  | Explosion proof valve               | 1   |                | 14 | O-ring d11.8 × 1.8                  | 1   |
| 4  | Explosion proof valve mounting base | 1   |                | 15 | Piston gasket Φ 25 × Φ 11 × 3       | 1   |
| 5  | Right angle joint of oil pipe       | 1   |                | 16 | Jam nut M10                         | 1   |
| 6  | Lifting cylinder weldment           | 1   |                | 17 | Y-ring d30 × D20 × 8                | 1   |
| 7  | trachea                             | 1   |                | 18 | Wear resistant belt d30 × d27 × 5.4 | 1   |
| 8  | Tracheal connector                  | 1   |                | 19 | O-ring d23.39 × 3.53                | 1   |
| 9  | O-ring D38 × 3.55                   | 1   |                | 20 | Lifting cylinder piston             | 1   |
| 10 | Cylinder nut                        | 1   |                | 21 | Lifting rod limit sleeve            | 1   |

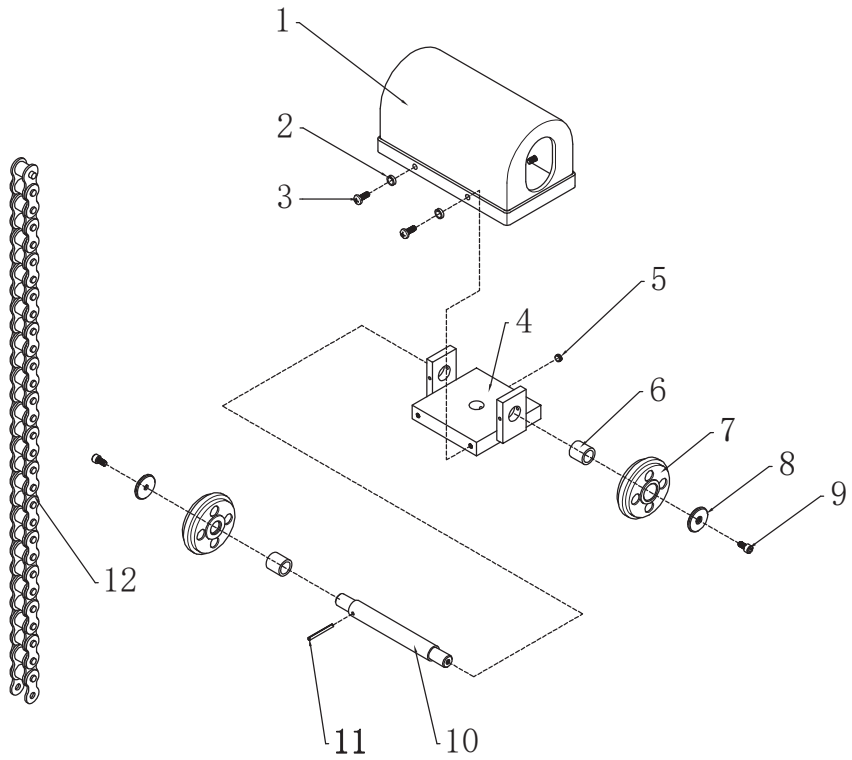


Fig.7  
Sprocket seat assembly

| NO | Parts name                          | QTY |
|----|-------------------------------------|-----|
| 1  | Sprocket cover                      | 1   |
| 2  | Flat cushion Φ 6                    | 4   |
| 3  | Half round head cross screw M6 × 15 | 4   |
| 4  | Sprocket seat weldment              | 1   |
| 5  | Flat end set screw M8 × 15          | 1   |
| 6  | Powder bushing D22 × D16 × 20       | 2   |
| 7  | Sprocket                            | 2   |
| 8  | Washer Φ 32 × 4                     | 2   |
| 9  | Hexagon socket screw M6 × 15        | 2   |
| 10 | Sprocket shaft                      | 1   |
| 11 | Elastic pin Φ 4 × 40                | 1   |
| 12 | Chain 10a-1                         | 2   |

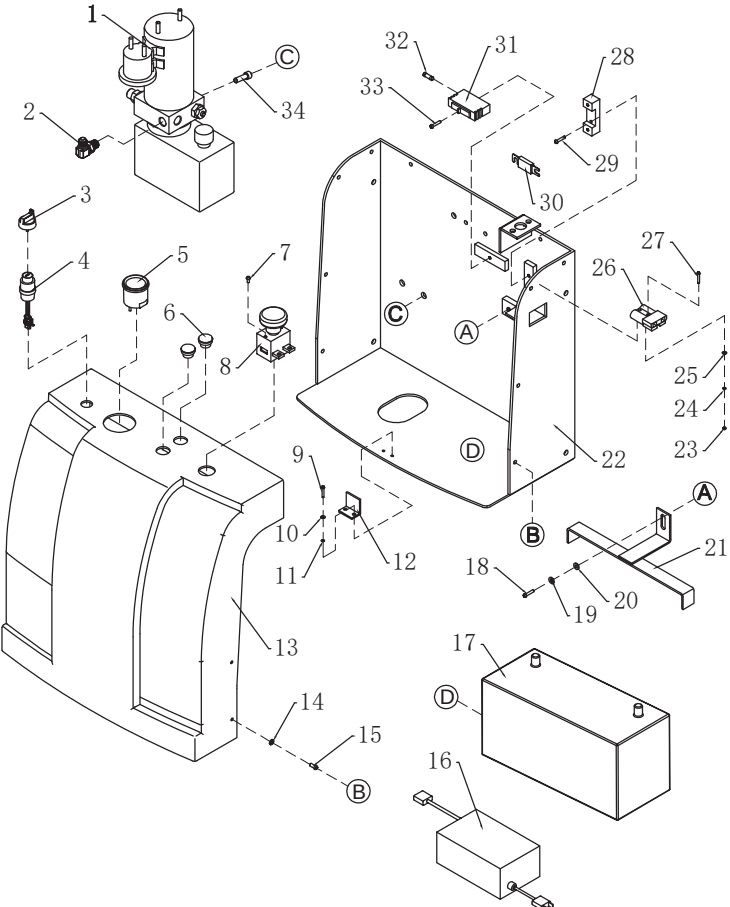
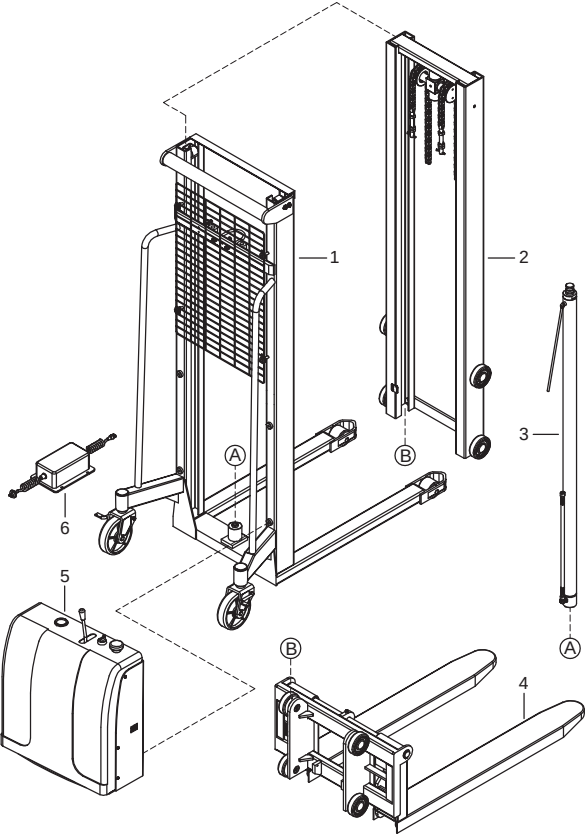


Fig.8  
Power box assembly

| NO | Parts name                                 | QTY | NO | Parts name                                 | QTY | NO | Parts name                                 | QTY |
|----|--------------------------------------------|-----|----|--------------------------------------------|-----|----|--------------------------------------------|-----|
| 1  | Power unit 13050-18                        | 1   | 13 | Power box cover                            | 1   | 25 | Flat cushion $\Phi$ 4                      | 2   |
| 2  | Right angle joint of oil pipe              | 1   | 14 | Flat cushion $\Phi$ 6                      | 6   | 26 | Connector 50A                              | 1   |
| 3  | Key k19-02 / 2                             | 1   | 15 | Half round head cross screw M6 $\times$ 15 | 6   | 27 | Half round head cross screw M4 $\times$ 30 | 2   |
| 4  | Key switch holder k19-02 / 2               | 1   | 16 | External charger v1122a                    | 1   | 28 | DC fuse holder 220 V / 800 A               | 1   |
| 5  | Round meter DC12V                          | 1   | 17 | Battery 12V / 70Ah                         | 1   | 29 | Half round head cross screw M5 $\times$ 10 | 2   |
| 6  | Stainless steel button gq22h-11 / S        | 2   | 18 | Hexagon socket screw M8 $\times$ 12        | 1   | 30 | DC fuse 100A                               | 1   |
| 7  | Half round head cross screw M5 $\times$ 15 | 2   | 19 | Spring pad $\Phi$ 8                        | 1   | 31 | Fuse holder RT14-20                        | 1   |
| 8  | Emergency stop switch 125A                 | 1   | 20 | Flat cushion $\Phi$ 8                      | 1   | 32 | Fuse 4A                                    | 1   |
| 9  | Half round head cross screw M5 $\times$ 10 | 2   | 21 | Battery fastener weldment                  | 1   | 33 | Half round head cross screw M4 $\times$ 10 | 1   |
| 10 | Flat cushion $\Phi$ 5                      | 2   | 22 | Power box weldment                         | 1   | 34 | Hexagon socket screw M10 $\times$ 20       | 2   |
| 11 | Spring pad $\Phi$ 5                        | 2   | 23 | Nut M4                                     | 2   |    |                                            |     |
| 12 | Battery baffle                             | 1   | 24 | Spring pad $\Phi$ 4                        | 2   |    |                                            |     |

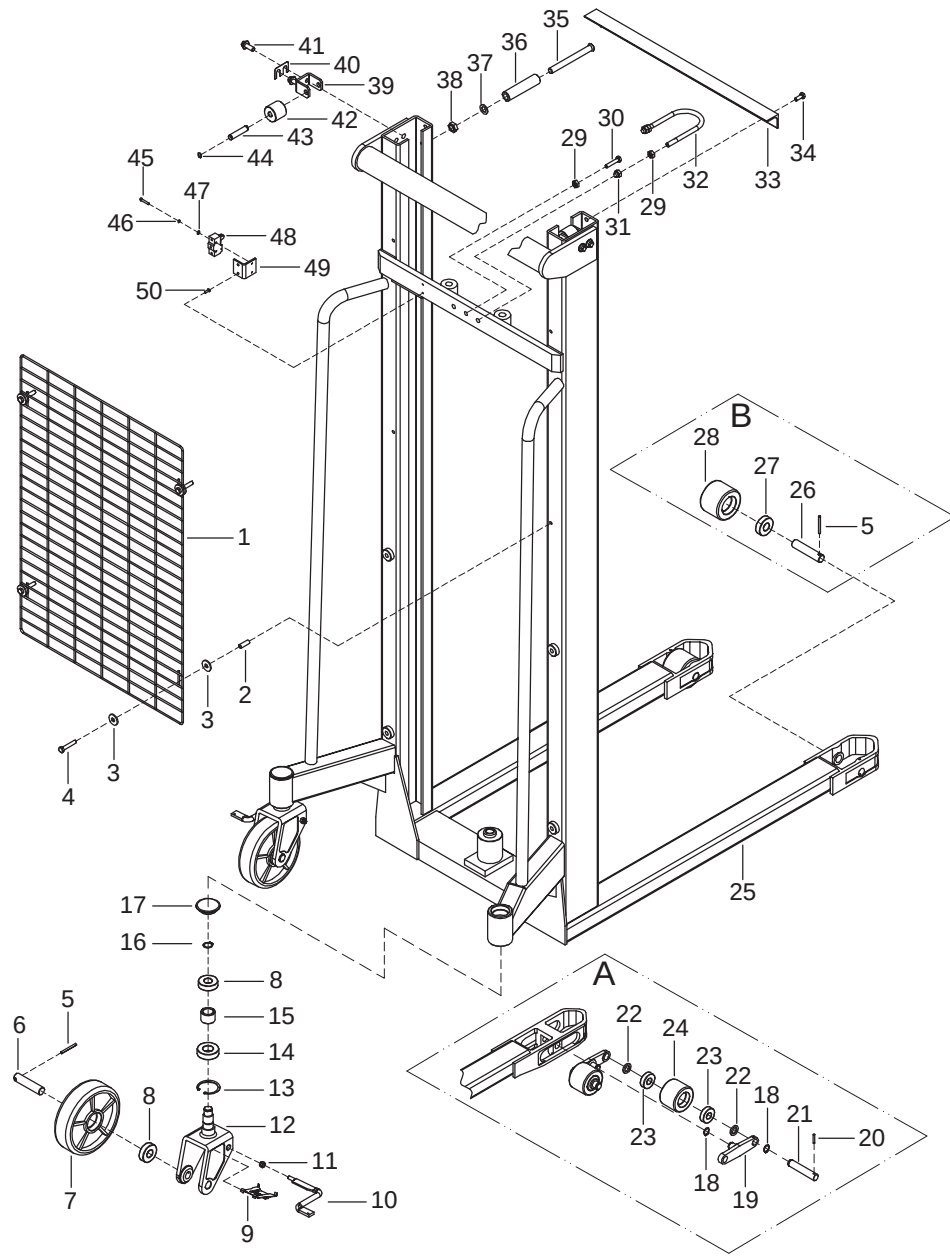
# SDYG-E



- Note:
1. A and B in the figure are the corresponding installation positions.
  2. The single gantry structure has no inner gantry assembly.
  3. The cylinder assembly is suitable for all vehicles except 1016.
  4. Cylinder assembly 1016 is only applicable to model 1016.

Fig.1

| NO | Parts name                | QTY | Remarks                  |
|----|---------------------------|-----|--------------------------|
| 1  | frame assembly            | 1   | See Figure 2 for details |
| 2  | Inner door frame assembly | 1   | See Figure 3 for details |
| 3  | Cylinder assembly         | 1   | See Figure 4 for details |
| 3  | Cylinder assembly 1016    | 1   | See Figure 5 for details |
| 4  | Lifting frame assembly    | 1   | See Figure 6 for details |
| 5  | Power box assembly        | 1   | See Figure 7 for details |
| 6  | Charger 12V20A            | 1   |                          |



Note: double dotted lines in the figure

Area a is a double front wheel group, which is suitable for 1030 vehicles;

Area B is a single front wheel set, which is suitable for vehicles with a height of less than 3 meters.

Fig.2  
frame assembly

| NO | Parts name                                        | QTY | Remarks                   |
|----|---------------------------------------------------|-----|---------------------------|
| 1  | Safety net                                        | 1   | Single gantry             |
| 1  | Safety net                                        | 1   | Double gantrys 2m         |
| 1  | Safety net                                        | 1   | Double gantrys 2.5m       |
| 1  | Safety net                                        | 1   | Double gantrys 3m         |
| 2  | Aluminum tube                                     | 4   |                           |
| 3  | Enlarged flat pad $\Phi 8$                        | 8   |                           |
| 4  | Hexagon bolt M8 $\times 45$                       | 4   |                           |
| 5  | Elastic pin $\Phi 5 \times 50$                    | 4   |                           |
| 6  | Rear axle                                         | 2   |                           |
| 7  | Rear wheel $\Phi 180 \times 50$                   | 2   |                           |
| 8  | Bearing 6204                                      | 6   |                           |
| 9  | Brake pads                                        | 2   |                           |
| 10 | Brake lever                                       | 2   |                           |
| 11 | Lock nut M8                                       | 2   |                           |
| 12 | Rear wheel fork                                   | 2   |                           |
| 13 | Hole retaining ring $\Phi 52$                     | 2   |                           |
| 14 | Bearing 6205                                      | 2   |                           |
| 15 | Steering shaft spacer                             | 2   |                           |
| 16 | Shaft retaining ring $\Phi 20$                    | 2   |                           |
| 17 | Shaft sleeve plastic cover                        | 2   |                           |
| 18 | Shaft retaining ring $\Phi 20$                    | 8   |                           |
| 19 | Balance arm                                       | 4   | Double front wheels group |
| 20 | Elastic pin $\Phi 4 \times 30$                    | 4   |                           |
| 21 | Front axle                                        | 4   |                           |
| 22 | Elastic cushion $\Phi 20 \times \Phi 30 \times 4$ | 8   |                           |
| 23 | Bearing 6204                                      | 8   |                           |
| 24 | Front wheel $\Phi 80 \times 60$                   | 4   |                           |
| 25 | Frame                                             | 1   |                           |
| 26 | Front axle                                        | 2   | Single front wheel group  |
| 27 | Bearing 6204                                      | 4   |                           |
| 28 | Front wheel $\Phi 80 \times 60$                   | 2   |                           |
| 29 | Nut M10                                           | 3   |                           |
| 30 | Hexagon bolt M10 $\times 45$                      | 1   |                           |
| 31 | Cover nut M10                                     | 2   |                           |
| 32 | U-shaped hoop                                     | 1   |                           |
| 33 | Upper connecting rod                              | 1   | Single gantry             |
| 34 | Hexagon bolt M10 $\times 16$                      | 2   |                           |
| 35 | Safety screw of outer door frame                  | 2   |                           |
| 36 | Safety screw cover (polyurethane)                 | 2   | Single gantry             |
| 36 | Safety screw cover (metal)                        | 2   | Double gantrys            |
| 37 | Flat cushion $\Phi 14$                            | 2   |                           |
| 38 | Nut M14                                           | 2   |                           |
| 39 | Guide wheel frame                                 | 2   | Double gantrys            |
| 40 | Guide wheel insert                                | 4   |                           |
| 41 | Hexagon flange bolt M10 $\times 30$               | 4   |                           |
| 42 | Guide wheel                                       | 2   |                           |
| 43 | Guide axle                                        | 2   |                           |
| 44 | Shaft retaining ring $\Phi 12$                    | 4   |                           |
| 45 | Half round head cross screw M4 $\times 30$        | 2   |                           |
| 46 | Spring pad $\Phi 4$                               | 2   |                           |
| 47 | Flat cushion $\Phi 4$                             | 2   |                           |
| 48 | Travel switch lxw5-11g2                           | 1   |                           |

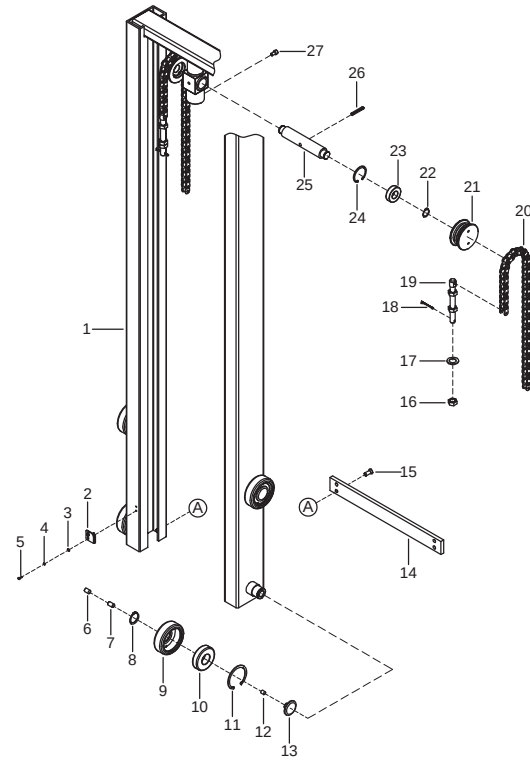


**Fig.3**  
**Inner door frame assembly**

Note: A in the figure is the corresponding installation position

| NO | Parts name                                      | QTY | NO | Parts name                            | QTY |
|----|-------------------------------------------------|-----|----|---------------------------------------|-----|
| 1  | Inner gantry                                    | 1   | 15 | Hexagon socket countersunk head screw | 4   |
| 2  | Limit block of travel switch                    | 1   | 16 | Nut M16 × 1.5                         | 6   |
| 3  | Flat cushion Φ 4                                | 2   | 17 | Flat cushion Φ 16                     | 4   |
| 4  | Spring pad Φ 4                                  | 2   | 18 | Split pin Φ 3 × 35                    | 2   |
| 5  | Half round head cross screw M4 × 10             | 2   | 19 | Connecting bolt                       | 2   |
| 6  | Hexagon socket set screw with cone end M12 × 20 | 4   | 20 | Load bearing chain 12a-1              | 2   |
| 7  | Hexagon socket flat end set screw M12 × 20      | 4   | 21 | Sprocket                              | 2   |
| 8  | Shaft retaining ring Φ 35                       | 4   | 22 | Shaft retaining ring Φ 25             | 2   |
| 9  | Inner gantry roller                             | 4   | 23 | Bearing 6205                          | 2   |
| 10 | Bearing 6307                                    | 4   | 24 | Hole retaining ring Φ 52              | 2   |
| 11 | Hole retaining ring Φ 80                        | 4   | 25 | Sprocket shaft                        | 1   |
| 12 | Adjusting pad mandrel Φ 10 × 12                 | 4   | 26 | Elastic pin Φ 8 × 50                  | 1   |
| 13 | Nylon adjusting pad                             | 4   | 27 | Hexagon socket screw M8 × 16          | 1   |
| 14 | Lower connecting plate of inner gantry          | 1   |    |                                       |     |

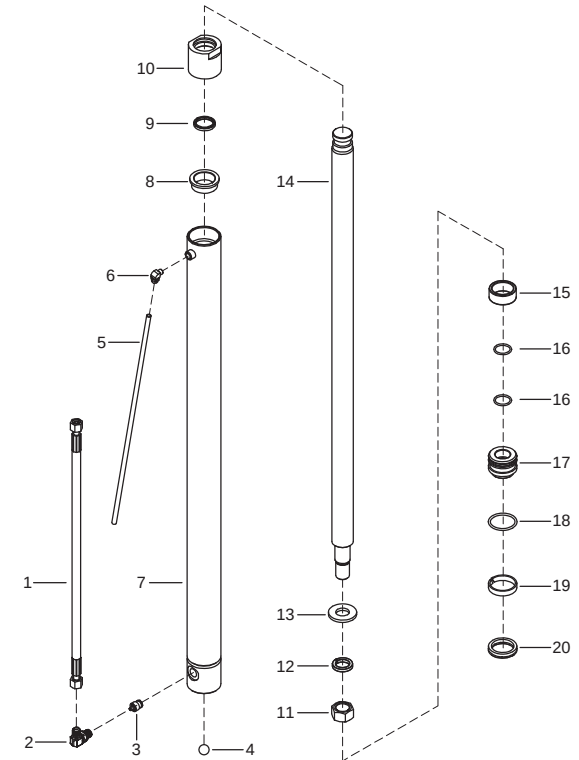


**Fig.4**  
**Cylinder assembly**

Note: the cylinder assembly is applicable to other vehicles except 1016.

| NO | Parts name                    | QTY | Remarks         | NO | Parts name                         | QTY | Remarks |
|----|-------------------------------|-----|-----------------|----|------------------------------------|-----|---------|
| 1  | Tubing                        | 1   | M16 × 1.5 / 648 | 13 | Piston sleeve washer               | 1   | 1 t     |
| 2  | Right angle joint of oil pipe | 1   | M16 × 1.5       | 13 | Piston sleeve washer               | 1   | 1.5 t   |
| 3  | Explosion proof valve         | 1   | M16 × 1.5       | 14 | Lifting rod                        | 1   | 1020    |
| 4  | Steel ball s Φ 18             | 1   |                 | 14 | Lifting rod                        | 1   | 1025    |
| 5  | Oil return pipe               | 1   | Φ 8             | 14 | Lifting rod                        | 1   | 1030    |
| 6  | 90° elbow joint of trachea    | 1   | G1/8            | 14 | Lifting rod                        | 1   | 1516    |
| 7  | Lifting cylinder              | 1   | 1020            | 15 | Cylinder top sleeve                | 1   | 1 t     |
| 7  | Lifting cylinder              | 1   | 1025            | 15 | Cylinder top sleeve                | 1   | 1.5 t   |
| 7  | Lifting cylinder              | 1   | 1030            | 16 | O-ring d26.5 × 2.65                | 2   |         |
| 7  | Lifting cylinder              | 1   | 1516            | 17 | Piston sleeve                      | 1   | 1 t     |
| 8  | Copper sleeve of oil cylinder | 1   | 1 t             | 17 | Piston sleeve                      | 1   | 1.5 t   |
| 8  | Copper sleeve of oil cylinder | 1   | 1.5 t           | 18 | O-ring d43.7 × 3.55                | 1   | 1 t     |
| 9  | Dust ring D53 × D45 × 5 / 6.5 | 1   |                 | 18 | O-ring d48.7 × 3.55                | 1   | 1.5 t   |
| 10 | Cylinder nut                  | 1   | 1 t             | 19 | Wear resistant belt D50 × D45 × 10 | 1   | 1 t     |
| 10 | Cylinder nut                  | 1   | 1.5 t           | 19 | Wear resistant belt d55 × D50 × 10 | 1   | 1.5 t   |
| 11 | Nut M24 × 1.5                 | 1   |                 | 20 | Y-ring D50 × D40 × 9               | 1   | 1 t     |
| 12 | Spring pad Φ 24               | 1   |                 | 20 | Y-ring d55 × d47 × 10              | 1   | 1.5 t   |

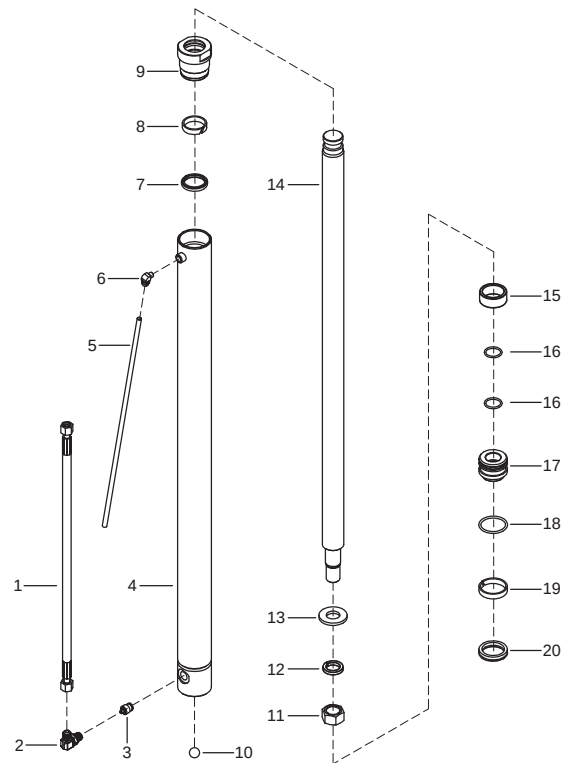


Fig.5  
Cylinder assembly 1016

Note: the cylinder assembly is only applicable to model 1016

| NO | Parts name                         | QTY | Remarks       | NO | Parts name                         | QTY |
|----|------------------------------------|-----|---------------|----|------------------------------------|-----|
| 1  | Tubing                             | 1   | M16×1.5 / 648 | 11 | Nut M24 × 1.5                      | 1   |
| 2  | Right angle joint of oil pipe      | 1   | M16×1.5       | 12 | Spring pad Φ 24                    | 1   |
| 3  | Explosion proof valve              | 1   | M16×1.5       | 13 | Piston sleeve washer               | 1   |
| 4  | Lifting cylinder                   | 1   |               | 14 | Lifting rod                        | 1   |
| 5  | Oil return pipe                    | 1   | Φ 8           | 15 | Cylinder top sleeve                | 1   |
| 6  | 90 ° elbow joint of trachea        | 1   | G1/8          | 16 | O-ring d26.5 × 2.65                | 2   |
| 7  | Dust ring D46 × D38 × 5 / 6.5      | 1   |               | 17 | Piston sleeve                      | 1   |
| 8  | Wear resistant belt d43 × D38 × 10 | 1   |               | 18 | O-ring d43.7 × 3.55                | 1   |
| 9  | Cylinder nut                       | 1   |               | 19 | Wear resistant belt D50 × D45 × 10 | 1   |
| 10 | Steel ball s Φ 18                  | 1   |               | 20 | Y-ring D50 × D40 × 9               | 1   |

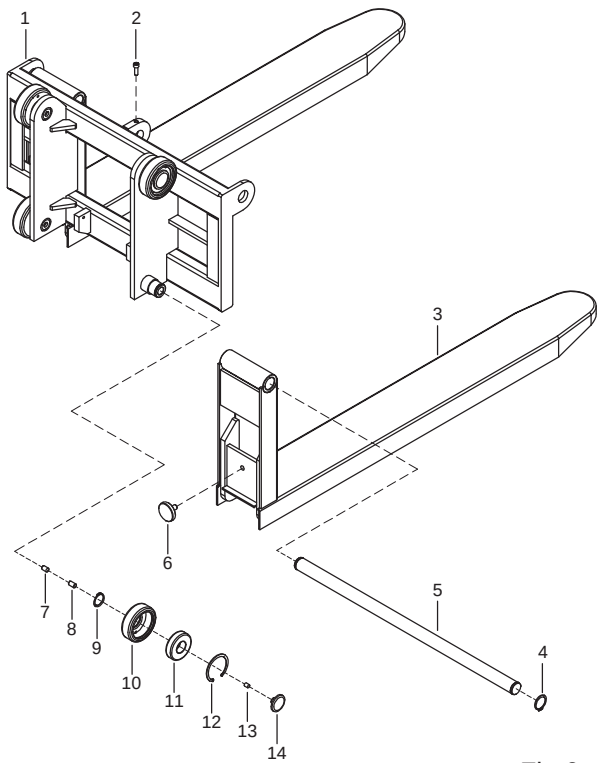


Fig.6  
Lifting frame assembly

| NO | Parts name                   | QTY | Remarks            | NO | Parts name                                      | QTY |
|----|------------------------------|-----|--------------------|----|-------------------------------------------------|-----|
| 1  | Lifting frame                | 1   | Single gantry 1T   | 7  | Hexagon socket set screw with cone end M12 × 20 | 4   |
| 1  | Lifting frame                | 1   | Single gantry 1.5T | 8  | Hexagon socket flat end set screw M12 × 20      | 4   |
| 1  | Lifting frame                | 1   | Double gantrys 1T  | 9  | Shaft retaining ring Φ 35                       | 4   |
| 2  | Hexagon socket screw M8 × 25 | 1   |                    | 10 | Lifting frame roller                            | 4   |
| 3  | Fork                         | 2   | 1t                 | 11 | Bearing 6307                                    | 4   |
| 3  | Fork                         | 2   | 1.5t               | 12 | Hole retaining ring Φ 80                        | 4   |
| 4  | Shaft retaining ring Φ 32    | 2   |                    | 13 | Adjusting pad mandrel Φ 10 × 12                 | 4   |
| 5  | Long shaft of lifting frame  | 1   |                    | 14 | Nylon adjusting pad                             | 4   |
| 6  | Fork adjusting screw         | 2   |                    |    |                                                 |     |

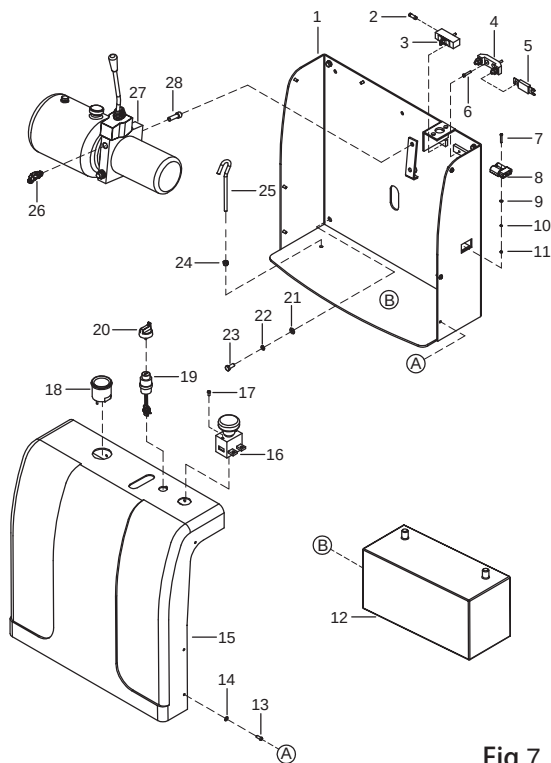
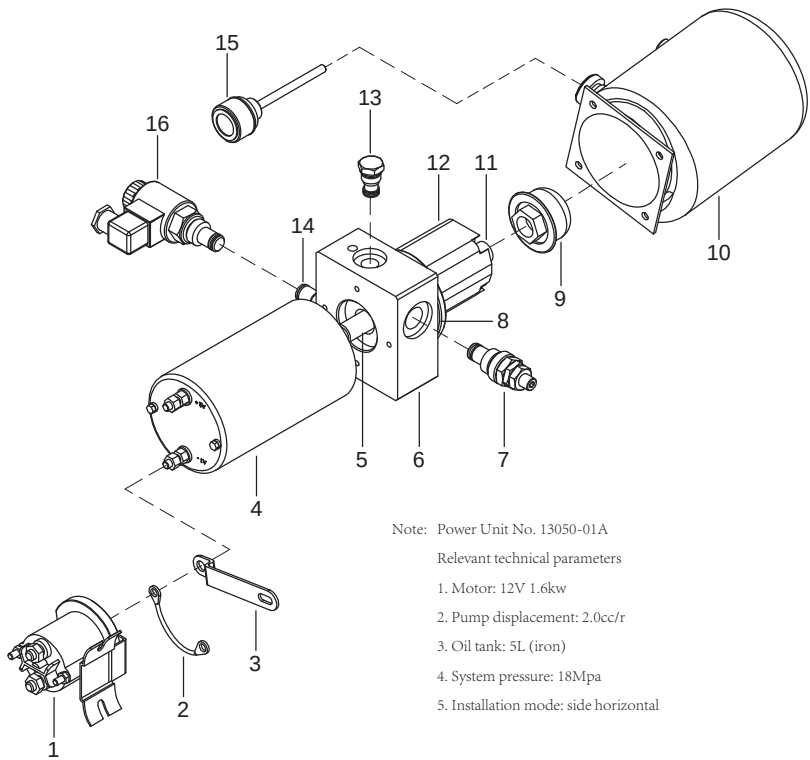


Fig.7  
Power box assembly

Note: A and B in the figure are the corresponding installation positions

| NO | Parts name                          | QTY | NO | Parts name                          | QTY | Remarks        |
|----|-------------------------------------|-----|----|-------------------------------------|-----|----------------|
| 1  | Power box                           | 1   | 15 | Power box cover                     | 1   |                |
| 2  | Fuse 4A                             | 1   | 16 | Emergency stop switch 250A          | 1   |                |
| 3  | Fuse base                           | 1   | 17 | Half round head cross screw M5 × 10 | 2   |                |
| 4  | DC fuse holder                      | 1   | 18 | Round meter 12V                     | 1   |                |
| 5  | DC fuse 200A                        | 1   | 19 | Key switch holder jk410             | 1   |                |
| 6  | Half round head cross screw M5 × 10 | 3   | 20 | key                                 | 1   |                |
| 7  | Half round head cross screw M4 × 30 | 2   | 21 | Flat cushion Φ 10                   | 4   |                |
| 8  | Cable connector 50A                 | 1   | 22 | Spring pad Φ 10                     | 4   |                |
| 9  | Flat cushion Φ 4                    | 2   | 23 | Hexagon bolt M10 × 15               | 4   |                |
| 10 | Spring pad Φ 4                      | 2   | 24 | Lock nut M8                         | 2   |                |
| 11 | Nut M4                              | 2   | 25 | Battery hook                        | 2   |                |
| 12 | Battery 120ah / 12V                 | 1   | 26 | Right angle joint of oil pipe       | 1   | M16×1.5 - G3/8 |
| 13 | Half round head cross screw M6 × 15 | 6   | 27 | Power unit assembly                 | 1   | see Fig.8      |
| 14 | Flat cushion Φ 6                    | 6   | 28 | Hexagon socket screw M10 × 25       | 2   |                |

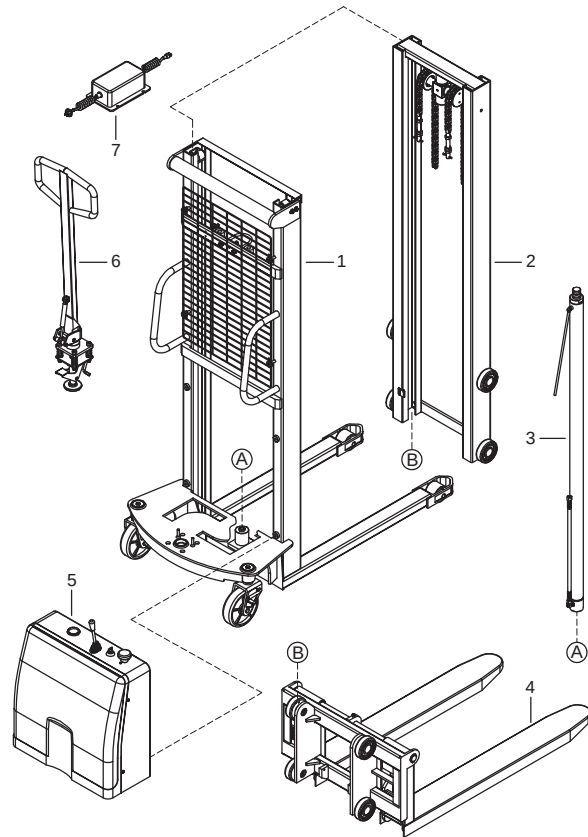


Note: Power Unit No. 13050-01A  
Relevant technical parameters  
1. Motor: 12V 1.6kw  
2. Pump displacement: 2.0cc/r  
3. Oil tank: 5L (iron)  
4. System pressure: 18Mpa  
5. Installation mode: side horizontal

Fig.8  
Power unit assembly

| NO | Parts name         | QTY | NO | Parts name         | QTY |
|----|--------------------|-----|----|--------------------|-----|
| 1  | Start switch       | 1   | 9  | filter screen      | 1   |
| 2  | Connecting line    | 1   | 10 | tank               | 1   |
| 3  | Copper connector   | 1   | 11 | Joint              | 1   |
| 4  | electric machinery | 1   | 12 | Gear pump          | 1   |
| 5  | coupling           | 1   | 13 | Check valve        | 1   |
| 6  | Valve block        | 1   | 14 | Flow control valve | 1   |
| 7  | Relief valve       | 1   | 15 | Oil dipstick       | 1   |
| 8  | seal ring          | 1   | 16 | Manual valve       | 1   |

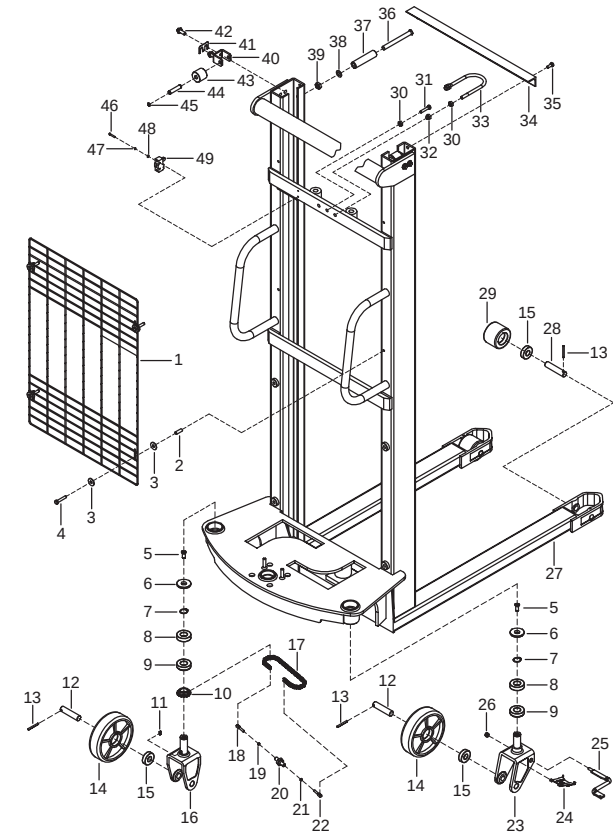
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- Note: 1. A and B in the figure are the corresponding installation positions.  
 2. The single gantry structure has no inner gantry assembly.  
 3. The cylinder assembly is suitable for all vehicles except 1016.  
 4. Cylinder assembly 1016 is only applicable to model 1016.

Fig.1

| NO | Parts name                | QTY | Remarks                  |
|----|---------------------------|-----|--------------------------|
| 1  | frame assembly            | 1   | See Figure 2 for details |
| 2  | Inner door frame assembly | 1   | See Figure 3 for details |
| 3  | Cylinder assembly         | 1   | See Figure 4 for details |
| 3  | Cylinder assembly 1016    | 1   | See Figure 5 for details |
| 4  | Lifting frame assembly    | 1   | See Figure 6 for details |
| 5  | Power box assembly        | 1   | See Figure 7 for details |
| 6  | Handle brake assembly     | 1   | See Figure 8 for details |
| 7  | Charger 12v20a            | 1   |                          |

Fig.2  
frame assembly

| NO | Parts name                            | QTY | Remarks            | NO | Parts name                 | QTY | NO | Parts name                          | QTY | Remarks        |
|----|---------------------------------------|-----|--------------------|----|----------------------------|-----|----|-------------------------------------|-----|----------------|
| 1  | Safety net                            | 1   | Single gantry      | 15 | Bearing 6204               | 8   | 34 | Upper connecting rod                | 1   | Single gantry  |
| 1  | Safety net                            | 1   | Double gantrys2m   | 16 | Straight rear wheel fork   | 1   | 35 | Hexagon bolt M10 × 16               | 2   |                |
| 1  | Safety net                            | 1   | Double gantrys2.5m | 17 | Steering chain 06b-1       | 1   | 36 | Safety screw of outer door frame    | 2   |                |
| 1  | Safety net                            | 1   | Double gantrys3m   | 18 | Chain tension bolt (left)  | 1   | 37 | Safety screw sleeve                 | 2   |                |
| 1  | Safety net                            | 1   | Double gantrys3.5m | 19 | NUT M6 (left)              | 1   | 38 | Flat cushion Φ 14                   | 2   |                |
| 2  | Aluminum tube                         | 4   |                    | 20 | Chain tension nut          | 1   | 39 | Nut M14                             | 2   |                |
| 3  | Enlarged flat pad Φ 8                 | 8   |                    | 21 | NUT M6 (right)             | 1   | 40 | Guide wheel frame                   | 2   |                |
| 4  | Hexagon bolt M8 × 45                  | 4   |                    | 22 | Chain tension bolt (right) | 1   | 41 | Guide wheel insert                  | 4   |                |
| 5  | Hexagon socket countersunk head screw | 2   |                    | 23 | Rear wheel fork            | 1   | 42 | Hexagon flange bolt M10 × 30        | 4   |                |
| 6  | Straight wheel bearing cover          | 2   |                    | 24 | Brake pads                 | 1   | 43 | Guide wheel                         | 2   |                |
| 7  | Shaft retaining ring Φ 25             | 2   |                    | 25 | Brake lever                | 1   | 44 | Guide axle                          | 2   |                |
| 8  | Bearing 6205                          | 2   |                    | 26 | Lock nut M8                | 1   | 45 | Shaft retaining ring Φ 12           | 4   |                |
| 9  | Bearing 30205                         | 2   |                    | 27 | Frame                      | 1   | 46 | Half round head cross screw M4 × 30 | 2   | Double gantrys |
| 10 | Straight wheel steering sprocket      | 1   |                    | 28 | Front axle                 | 2   | 47 | Spring pad Φ 4                      | 2   |                |
| 11 | Flat key 6 × 6 × 8                    | 1   |                    | 29 | Front wheel Φ 80 × 60      | 2   | 48 | Flat cushion Φ 4                    | 2   |                |
| 12 | Rear axle                             | 2   |                    | 30 | Nut M10                    | 3   | 49 | Travel switch bxw5-11g2             | 1   |                |
| 13 | Elastic pin Φ 5 × 50                  | 4   |                    | 31 | Hexagon bolt M10 × 45      | 1   | 50 | Switch mounting base                | 1   |                |
| 14 | Rear wheel Φ 180 × 50                 | 2   |                    | 32 | Cover nut M10              | 2   | 51 | Half round head cross screw M4 × 10 | 2   |                |
|    |                                       |     |                    | 33 | U-shaped hoop              | 1   |    |                                     |     |                |

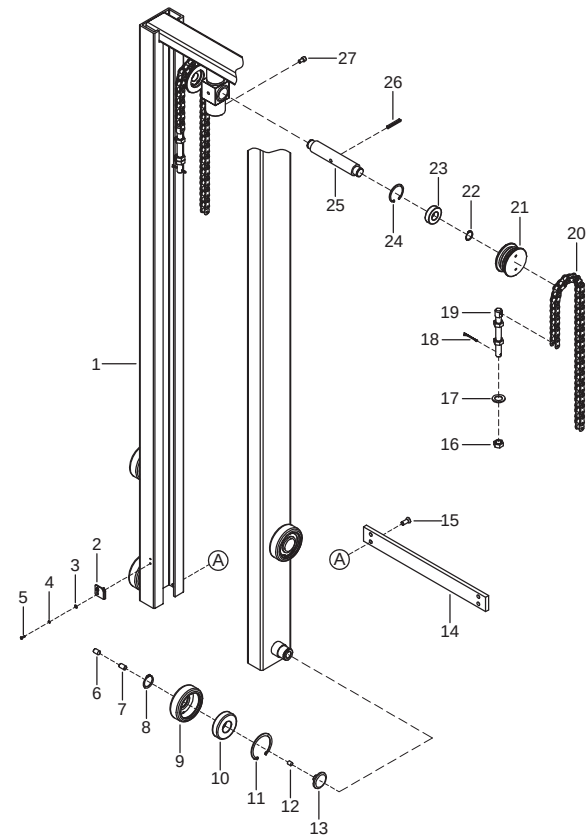


**Fig.3**  
**Inner door frame assembly**

Note: A in the figure is the corresponding installation position

| NO | Parts name                                      | QTY | NO | Parts name                            | QTY | Remarks   |
|----|-------------------------------------------------|-----|----|---------------------------------------|-----|-----------|
| 1  | Inner gantry                                    | 1   | 15 | Hexagon socket countersunk head screw | 4   |           |
| 2  | Limit block of travel switch                    | 1   | 16 | Nut M16 × 1.5                         | 6   |           |
| 3  | Flat cushion Φ 4                                | 2   | 17 | Flat cushion Φ 16                     | 4   |           |
| 4  | Spring pad Φ 4                                  | 2   | 18 | Split pin Φ 3 × 35                    | 2   |           |
| 5  | Half round head cross screw M4 × 10             | 2   | 19 | Connecting bolt                       | 2   |           |
| 6  | Hexagon socket set screw with cone end M12 × 20 | 4   | 20 | Load bearing chain 12a-1              | 2   | 1t / 1.5t |
| 7  | Hexagon socket flat end set screw M12 × 20      | 4   | 20 | Load bearing chain lh223              | 2   | 2t        |
| 8  | Shaft retaining ring Φ 35                       | 4   | 21 | Sprocket                              | 2   |           |
| 9  | Inner gantry roller                             | 4   | 22 | Shaft retaining ring Φ 25             | 2   |           |
| 10 | Bearing 6307                                    | 4   | 23 | Bearing 6205                          | 2   |           |
| 11 | Hole retaining ring Φ 80                        | 4   | 24 | Hole retaining ring Φ 52              | 2   |           |
| 12 | Adjusting pad mandrel Φ 10 × 12                 | 4   | 25 | Sprocket shaft                        | 1   |           |
| 13 | Nylon adjusting pad                             | 4   | 26 | Elastic pin Φ 8 × 50                  | 1   |           |
| 14 | Lower connecting plate of inner gantry          | 1   | 27 | Hexagon socket screw M8 × 16          | 1   |           |

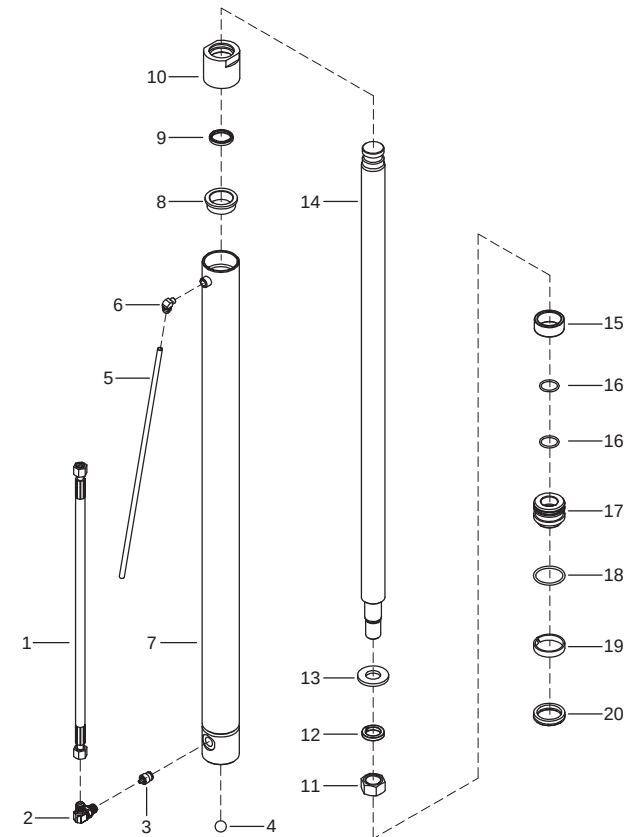


**Fig.4**  
**Cylinder assembly**

Note: the cylinder assembly is applicable to other vehicles except 1016

| NO | Parts name                    | QTY | Remarks         | NO | Parts name                    | QTY | Remarks |
|----|-------------------------------|-----|-----------------|----|-------------------------------|-----|---------|
| 1  | Tubing                        | 1   | M16 × 1.5 / 648 | 7  | Lifting cylinder              | 1   | 1530    |
| 2  | Right angle joint of oil pipe | 1   | M16 × 1.5       | 7  | Lifting cylinder              | 1   | 1535    |
| 3  | Explosion proof valve         | 1   | M16 × 1.5       | 7  | Lifting cylinder              | 1   | 2016    |
| 4  | Steel ball s Φ 18             | 1   |                 | 7  | Lifting cylinder              | 1   | 2020    |
| 5  | Oil return pipe               | 1   | Φ 8             | 8  | Copper sleeve of oil cylinder | 1   | 1t      |
| 6  | 90 ° elbow joint of trachea   | 1   | G1/8            | 8  | Copper sleeve of oil cylinder | 1   | 1.5t    |
| 7  | Lifting cylinder              | 1   | 1020            | 8  | Copper sleeve of oil cylinder | 1   | 2t      |
| 7  | Lifting cylinder              | 1   | 1025            | 9  | Dust ring D53 × D45 × 5 / 6.5 | 1   |         |
| 7  | Lifting cylinder              | 1   | 1030            | 10 | Cylinder nut                  | 1   | 1t      |
| 7  | Lifting cylinder              | 1   | 1035            | 10 | Cylinder nut                  | 1   | 1.5t    |
| 7  | Lifting cylinder              | 1   | 1516            | 10 | Cylinder nut                  | 1   | 2t      |
| 7  | Lifting cylinder              | 1   | 1520            | 11 | Nut M24 × 1.5                 | 1   |         |
| 7  | Lifting cylinder              | 1   | 1525            | 12 | Spring pad Φ 24               | 1   |         |

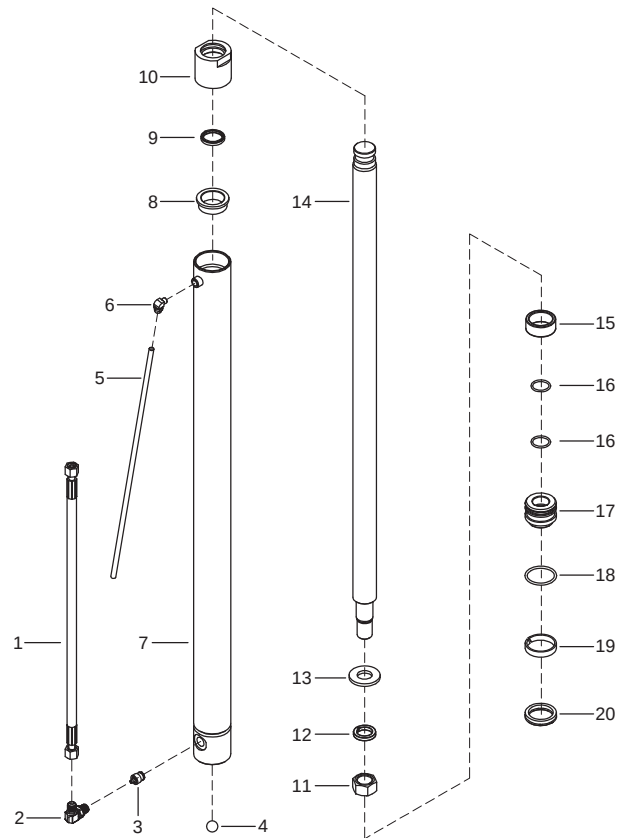


Fig.4  
Cylinder assembly

Note: the cylinder assembly is applicable to other vehicles except 1016

| NO | Parts name           | QTY | Remarks           | NO | Parts name                         | QTY | Remarks                |
|----|----------------------|-----|-------------------|----|------------------------------------|-----|------------------------|
| 13 | Piston sleeve washer | 1   | 1t                | 15 | Cylinder top sleeve                | 1   | Single gantry1.5 / 2t  |
| 13 | Piston sleeve washer | 1   | 1.5t              | 15 | Cylinder top sleeve                | 1   | Double gantrys1.5 / 2t |
| 13 | Piston sleeve washer | 1   | 2t                | 16 | O-ring d26.5 × 2.65                | 2   |                        |
| 14 | Lifting rod          | 1   | 1020              | 17 | Piston sleeve                      | 1   | 1t                     |
| 14 | Lifting rod          | 1   | 1025              | 17 | Piston sleeve                      | 1   | 1.5t                   |
| 14 | Lifting rod          | 1   | 1030              | 17 | Piston sleeve                      | 1   | 2t                     |
| 14 | Lifting rod          | 1   | 1035              | 18 | O-ring d43.7 × 3.55                | 1   | 1t                     |
| 14 | Lifting rod          | 1   | 1516              | 18 | O-ring d48.7 × 3.55                | 1   | 1.5t                   |
| 14 | Lifting rod          | 1   | 1520              | 18 | O-ring D53 × 3.55                  | 1   | 2t                     |
| 14 | Lifting rod          | 1   | 1525              | 19 | Wear resistant belt D50 × D45 × 10 | 1   | 1t                     |
| 14 | Lifting rod          | 1   | 1530              | 19 | Wear resistant belt d55 × D50 × 10 | 1   | 1.5t                   |
| 14 | Lifting rod          | 1   | 1535              | 19 | Wear resistant belt D60 × d55 × 10 | 1   | 2t                     |
| 14 | Lifting rod          | 1   | 2016              | 20 | Y-ring D50 × D40 × 9               | 1   | 1t                     |
| 14 | Lifting rod          | 1   | 2020              | 20 | Y-ring d55 × d47 × 10              | 1   | 1.5t                   |
| 15 | Cylinder top sleeve  | 1   | Double gantrys 1t | 20 | Y-ring D60 × D50 × 10              | 1   | 2t                     |

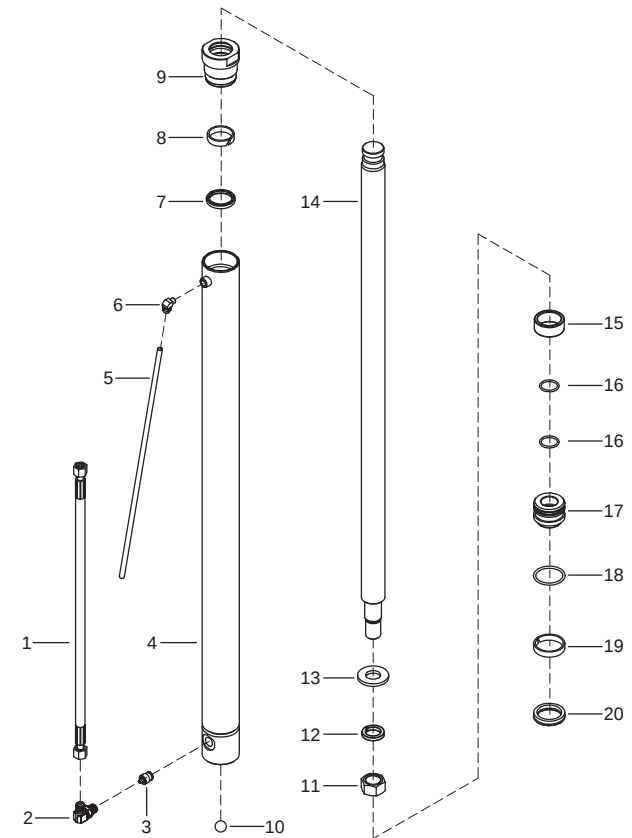


Fig.5  
Cylinder assembly 1016

Note: the cylinder assembly is only applicable to model 1016

| NO | Parts name                         | QTY | Remarks       | NO | Parts name                         | QTY |
|----|------------------------------------|-----|---------------|----|------------------------------------|-----|
| 1  | Tubing                             | 1   | M16×1.5 / 648 | 11 | Nut M24 × 1.5                      | 1   |
| 2  | Right angle joint of oil pipe      | 1   | M16×1.5       | 12 | Spring pad Φ 24                    | 1   |
| 3  | Explosion proof valve              | 1   | M16×1.5       | 13 | Piston sleeve washer               | 1   |
| 4  | Lifting cylinder                   | 1   |               | 14 | Lifting rod                        | 1   |
| 5  | Oil return pipe                    | 1   | Φ 8           | 15 | Cylinder top sleeve                | 1   |
| 6  | 90 ° elbow joint of trachea        | 1   | G1/8          | 16 | O-ring d26.5 × 2.65                | 2   |
| 7  | Dust ring D46 × D38 × 5 / 6.5      | 1   |               | 17 | Piston sleeve                      | 1   |
| 8  | Wear resistant belt d43 × D38 × 10 | 1   |               | 18 | O-ring d43.7 × 3.55                | 1   |
| 9  | Cylinder nut                       | 1   |               | 19 | Wear resistant belt D50 × D45 × 10 | 1   |
| 10 | Steel ball s Φ 18                  | 1   |               | 20 | Y-ring D50 × D40 × 9               | 1   |

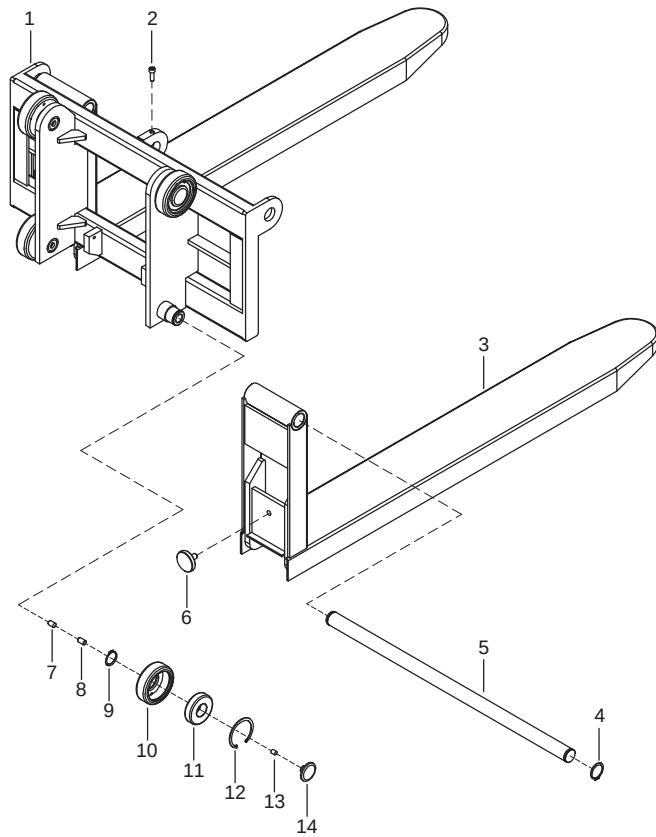


Fig.6  
Lifting frame assembly

| NO | Parts name                | QTY | Remarks             | NO | Parts name                             | QTY | Remarks   |
|----|---------------------------|-----|---------------------|----|----------------------------------------|-----|-----------|
| 1  | Lifting frame             | 1   | Single gantry 1T    | 5  | Long shaft of lifting frame            | 1   | 1t / 1.5t |
| 1  | Lifting frame             | 1   | Single gantry 1.5T  | 5  | Long shaft of lifting frame            | 1   | 2t        |
| 1  | Lifting frame             | 1   | Single gantry 2T    | 6  | Fork adjusting screw                   | 2   |           |
| 1  | Lifting frame             | 1   | double gantrys 1T   | 7  | Hexagon socket set screw with cone end | 4   | M12 × 20  |
| 1  | Lifting frame             | 1   | Double gantrys 1.5T | 8  | Hexagon socket flat end set screw      | 4   | M12 × 20  |
| 1  | Lifting frame             | 1   | Double gantrys 2T   | 9  | Shaft retaining ring Φ 35              | 4   |           |
| 2  | Hexagon socket screw      | 1   | M8 × 25             | 10 | Lifting frame roller                   | 4   |           |
| 3  | Fork                      | 2   | 1t                  | 11 | Bearing 6307                           | 4   |           |
| 3  | Fork                      | 2   | 1.5t                | 12 | Hole retaining ring Φ 80               | 4   |           |
| 3  | Fork                      | 2   | 2t                  | 13 | Adjusting pad mandrel Φ 10 × 12        | 4   |           |
| 4  | Shaft retaining ring Φ 32 | 2   |                     | 14 | Nylon adjusting pad                    | 4   |           |

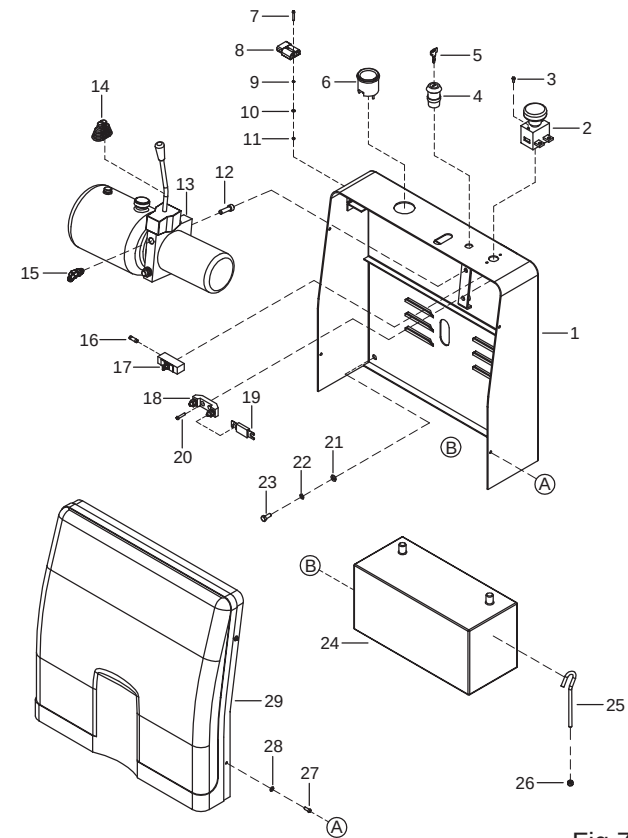


Fig.7  
Power box assembly

Note: A and B in the figure are the corresponding installation positions

| NO | Parts name                    | QTY | Remarks          | NO | Parts name                          | QTY |
|----|-------------------------------|-----|------------------|----|-------------------------------------|-----|
| 1  | Power box                     | 1   |                  | 16 | Fuse 4A                             | 1   |
| 2  | Emergency stop switch 250A    | 1   |                  | 17 | Fuse base                           | 1   |
| 3  | Half round head cross screw   | 2   | M5 × 10          | 18 | DC fuse holder                      | 1   |
| 4  | Key switch holder K19         | 1   |                  | 19 | DC fuse 200A                        | 1   |
| 5  | key                           | 1   |                  | 20 | Half round head cross screw M5 × 10 | 3   |
| 6  | Round meter 12V               | 1   |                  | 21 | Flat cushion Φ 10                   | 4   |
| 7  | Half round head cross screw   | 2   | M4 × 30          | 22 | Spring pad Φ 10                     | 4   |
| 8  | Cable connector 50A           | 1   |                  | 23 | Hexagon bolt M10 × 15               | 4   |
| 9  | Flat cushion Φ 4              | 2   |                  | 24 | Battery 120ah / 12V                 | 1   |
| 10 | Spring pad Φ 4                | 2   |                  | 25 | Battery hook                        | 2   |
| 11 | Nut M4                        | 2   |                  | 26 | Lock nut M8                         | 2   |
| 12 | Hexagon socket screw          | 2   | M10 × 25         | 27 | Half round head cross screw M6 × 15 | 4   |
| 13 | Power unit assembly           | 1   | see Fig.9        | 28 | Flat cushion Φ 6                    | 4   |
| 14 | Dust cover                    | 1   |                  | 29 | Power box cover                     | 1   |
| 15 | Right angle joint of oil pipe | 1   | M16 × 1.5 - G3/8 |    |                                     |     |

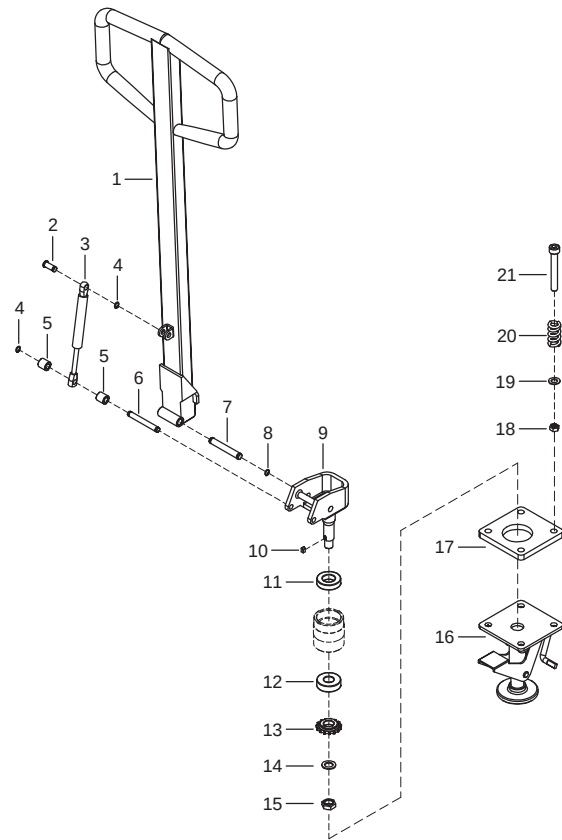
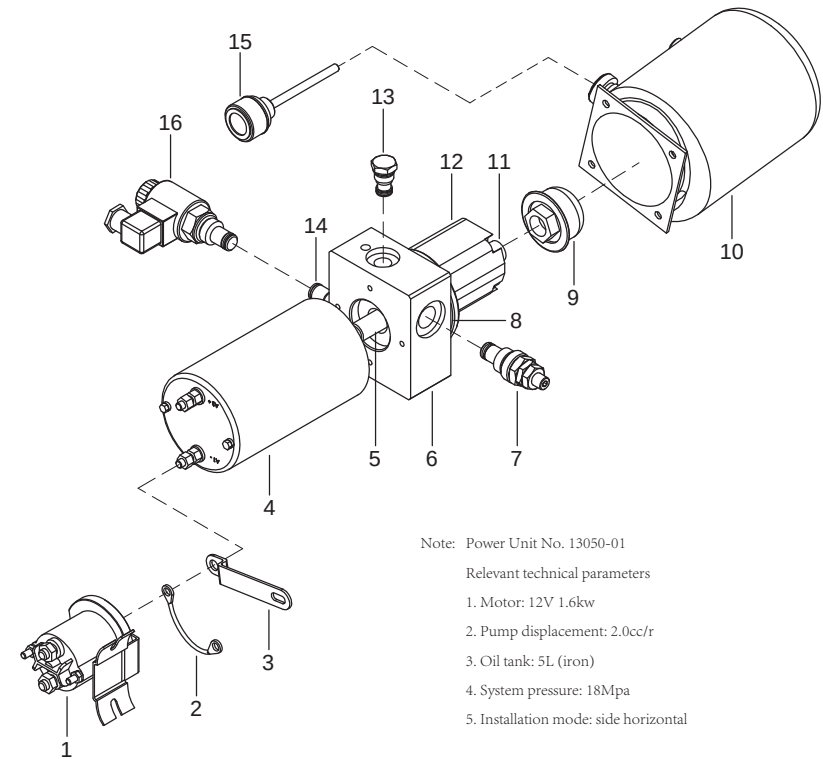


Fig.8  
Handle brake assembly

| NO | Parts name                      | QTY | Remarks | NO | Parts name                                      | QTY |
|----|---------------------------------|-----|---------|----|-------------------------------------------------|-----|
| 1  | Steering handle                 | 1   |         | 12 | Bearing 6204                                    | 1   |
| 2  | Upper shaft of gas spring       | 1   |         | 13 | Handle steering sprocket                        | 1   |
| 3  | Air spring $\Phi 8 \times 218$  | 1   | 350N    | 14 | Flat cushion $\Phi 16$                          | 1   |
| 4  | Shaft retaining ring $\Phi 10$  | 3   |         | 15 | Nut M16 $\times$ 1.5                            | 2   |
| 5  | Gas spring spacer               | 2   |         | 16 | Lifter fln-5                                    | 1   |
| 6  | Air spring lower pin            | 1   |         | 17 | Upper connecting plate of handle base           | 1   |
| 7  | Handle seat pin                 | 1   |         | 18 | Nut M12                                         | 8   |
| 8  | Shaft retaining ring $\Phi 12$  | 2   |         | 19 | Flat cushion $\Phi 12$                          | 4   |
| 9  | Handle base                     | 1   |         | 20 | Lifter spring $\Phi 25 \times \Phi 5 \times 50$ | 4   |
| 10 | Flat key $6 \times 6 \times 12$ | 1   |         | 21 | Hexagon socket screw M12 $\times$ 90            | 4   |
| 11 | Bearing 6005                    | 1   |         |    |                                                 |     |



Note: Power Unit No. 13050-01

Relevant technical parameters

1. Motor: 12V 1.6kw

2. Pump displacement: 2.0cc/r

3. Oil tank: 5L (iron)

4. System pressure: 18Mpa

5. Installation mode: side horizontal

Fig.9  
Power unit assembly

| NO | Parts name         | QTY | NO | Parts name         | QTY |
|----|--------------------|-----|----|--------------------|-----|
| 1  | Start switch       | 1   | 9  | filter screen      | 1   |
| 2  | Connecting line    | 1   | 10 | tank               | 1   |
| 3  | Copper connector   | 1   | 11 | Joint              | 1   |
| 4  | electric machinery | 1   | 12 | Gear pump          | 1   |
| 5  | coupling           | 1   | 13 | Check valve        | 1   |
| 6  | Valve block        | 1   | 14 | Flow control valve | 1   |
| 7  | Relief valve       | 1   | 15 | Oil dipstick       | 1   |
| 8  | seal ring          | 1   | 16 | Manual valve       | 1   |

## Regular maintenance record

Please maintain regularly according to the time specified in the routine maintenance form, and record in the following form at the same time.  
Note: the fault caused by the failure of maintenance within the specified time is not covered by the product warranty.

|                                                                                                      |                                                                                                      |
|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <p>3 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p>             | <p>6 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p>             |
| <p>9 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p>             | <p>1 year after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p>               |
| <p>1 year and 3 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p>  | <p>1 year and 6 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p>  |
| <p>1 year and 9 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p>  | <p>2 years after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p>              |
| <p>2 years and 3 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p> | <p>2 years and 6 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p> |

|                                                                                                      |                                                                                                      |
|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <p>2 years and 9 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p> | <p>3 years after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p>              |
| <p>3 years and 3 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p> | <p>3 years and 6 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p> |
| <p>3 years and 9 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p> | <p>4 years after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p>              |
| <p>4 years and 3 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p> | <p>4 years and 6 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p> |
| <p>4 years and 9 months after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p> | <p>5 years after purchase</p> <p>Maintainer:</p> <p>Maintenance date:</p> <p>(sign)</p>              |