

HIGH-LIFT
EQUIPMENT

YL-9FW

Installation & Operation

Manual



Special Notes:

- ▲ In case of shipping damage, call the truck line immediately and report the damage as a freight claim.
- ▲ Please read this manual thoroughly before installing, operating. Or maintaining this lift.
- ▲ To find out the power supply requirement on the machine nameplate, it must be connected by a professional qualified electrician.
- ▲ Ensure personal safety and avoid electric shock, please make sure that all grounding points are grounded reliably.
- ▲ Our company are not informed of the partial improvement of our products, there is no obligation to update previously sold products.
- ▲ Please read and find out the last page of this manual, warranty card, and feedback to the dealer and the company for the record, as one of the evidence for after-sales service.
- ▲ Not to be lifted more than the rated weight of 4 tons(9000pounds).
- ▲ Read the warning signs on the machine carefully.

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1、 Main performance

- Four post double parking lift that stores two vehicles underneath and two on the ramps above.
- The motor drives the oil pump to drive the hydraulic cylinder, quite working environment.
- mechanical safety lock, can lock any desired height, safe and reliable.
- The levelness of concrete slab in the locked position can be adjusted to meet the needs of the precise wheel alignment.

2、 Installation instructions

Step 1: before selecting the site to install the new lift, pay attention to the following matters:

- 1). the position of the lift, according to the requirements of the whole field design plan, as far as possible to consider the placement size has enough space.
- 2). determine the installation position and underline according to the size of the foundation diagram in figure 1.
- 3). determine that there are no defects on the ground to ensure that the strength of the foundation concrete reaches 3000 psi (2.1 kg / m²)
- 4). open the box to check for missing parts and damage in transit. as per packing list requirements.

Step 2: install column and crossbeam (Z-1,Z-2), install column cover plate and fall the safety hook into the square hole of the safety plate. (Z-2,Z-2-1,Z-2-2).

Step 3: install crossbeams and runways, cables and shields. (Z-3,Z-3-1,Z-3-2,Z-3-3,Z-3-4).

Step 4: install power unit and tubing (Z-4).

Step 5: install the manual unlock section (Z-5,Z-5-1,Z-5-2,Z-5-3,Z-5-4,Z-5-5).

Step 6: install jack tray, boarding plate, stopper, rubber brake pad, plastic oil drop plate. (Z-6).

Step 7: install the moving caster kits (Z-7).

Step 8: connect the power supply and add hydraulic oil according to the requirements of the motor nameplate.

Step 9: point up and observe whether the cables position is correct. The electromagnet unlocked safety drops to the lowest point of the runway and adjusts the tension of the cables to make the four consistent.

Step 10: adjust the position between the column parts and the crossbeam. The limit block is required to be close to the column. Adjust the vertical of the column to the ground plane with iron inserts. Hit anchor bolt hole and fastening bolt.

Step 11: adjust the level of the runway. Raise a certain height to lock. Measure flatness, adjust nut to required position and lock.

Step 12: label and organize all labels.

3、 Debugging of equipment

☞ Fill the power unit tank with pressure oil (hydraulic oil number: N32 or N46).

☞ Click the rise start button to make the runway stand rise and remove the support frame. Pay special attention to the first point to see if the cables is taken in the wheel, the position should be correct.

☞ Press the drop button to make the lift in the normal state of the lock, observe whether the lock block can effectively enter the square hole of the lift bar.

☞ Drop the runway to the lowest position, adjust the nuts on the four steel ropes to make the tension the same.

☞ No-load test run up and down twice, check that the work of each part is normal. Runway lock reliability check, repeat several times to re-plant to check whether the hydraulic system is working properly.

Special note

▲ vehicles parked on the runway brake and use tire wedges.

▲ lifting and descending vehicles, pay attention to the surrounding people and objects do not keep close to the lift.

▲ four columns should be installed perpendicular to the ground plane, otherwise there will be danger in use!

▲ drop operation must first click a little rise, so that the lock block away from the lifting bar square hole, can drop. Otherwise, it will cause damage to the control mechanism.

4、 Maintenance and inspection

Daily Pre-Operation check

1. Check safety lock audibly and visually while in operation.
2. Check safety latches for free movement and full engagement with rack.
3. Check hydraulic connections, and hoses for leakage.
4. Check cables connections bends, cracks-and for loose fittings.
5. Check for frayed cables in both raised and lowered position.
6. Check snap rings at all rollers and sheaves.
7. Check bolts, nuts, and screws and tighten if needed.
8. Check wiring & switches for damage.
9. Check floor for stress cracks near columns.
10. Check lubrications on cable sheaves and shafts

Weekly maintenance

1. If lift is anchored to floor-Check anchor bolts ,if loosen, tighten immediately.
2. Check floor for stress cracks near columns.
3. Check hydraulic oil level.
4. Check and tighten bolts, nuts, and screws.
5. Check all cable sheaves /assembly for free movement or excessive wear on cable sheave shaft.

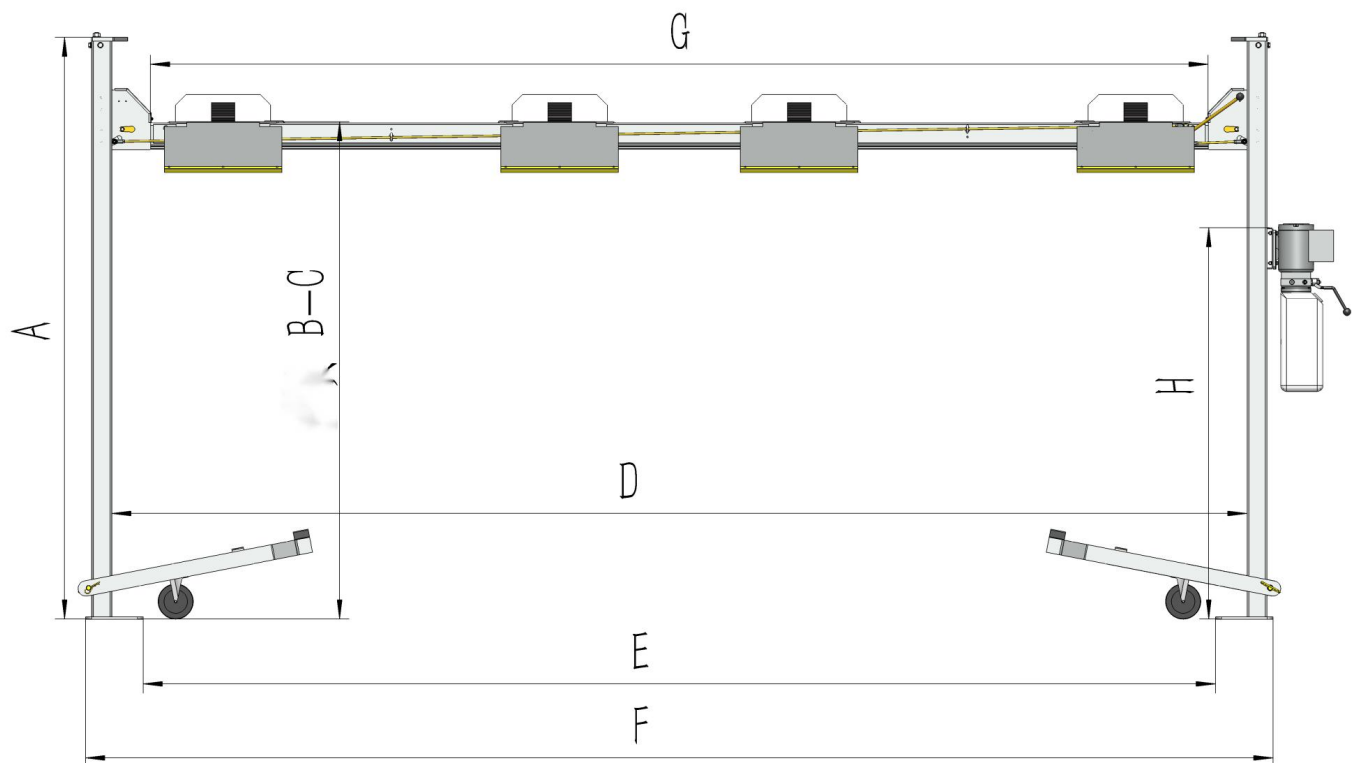
Yearly maintenance

1. Lubricate the cable sheave shaft by using grease gun at least once a year after the lift is in service.
2. Change the hydraulic fluid-good maintenance procedure makes is mandatory to keep hydraulic fluid clean.

3. Check for excessive wear of cable, replace them if necessary.

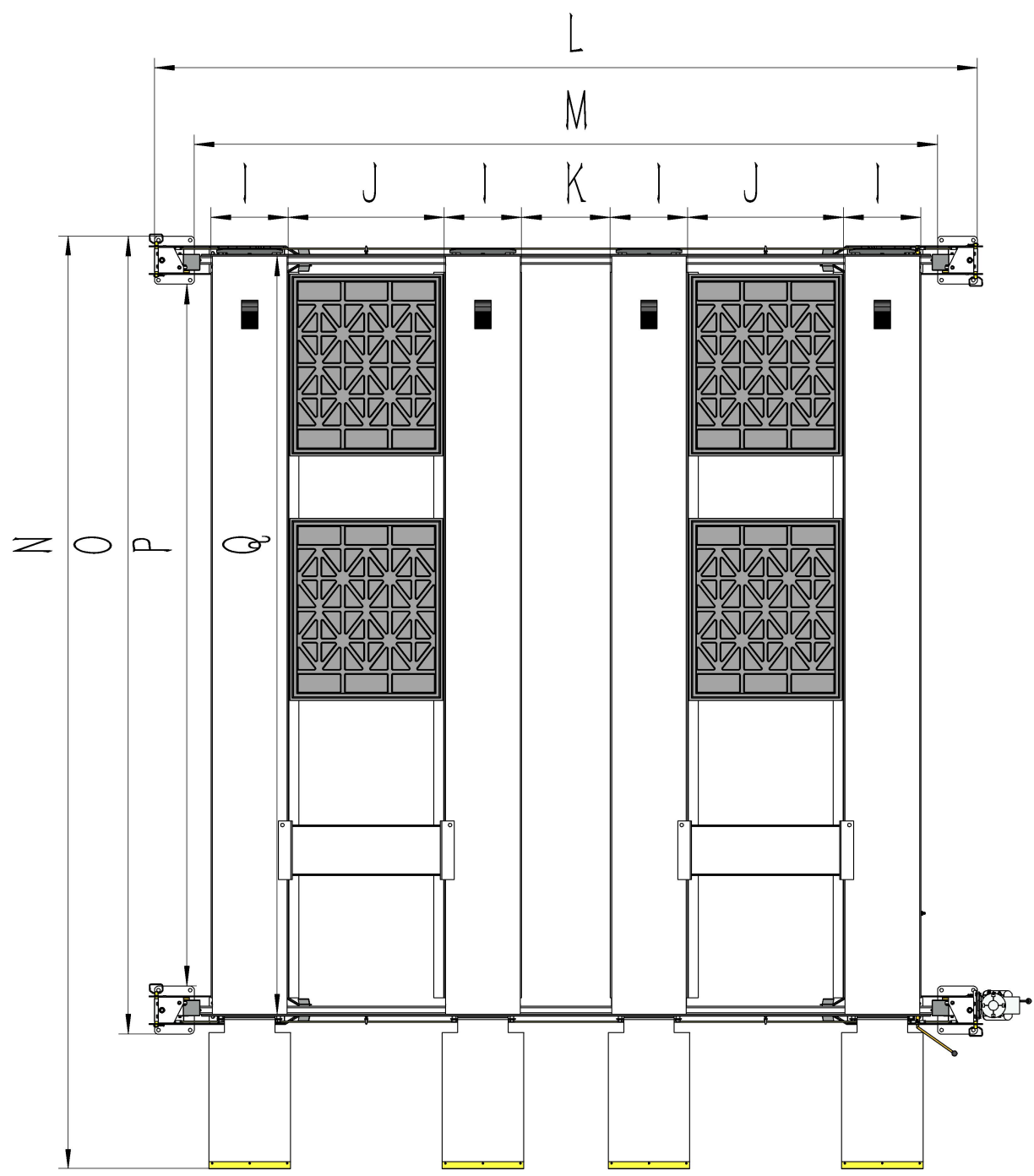
5、 Basic parameters and Dimensions (In millimeters)

Figure 1



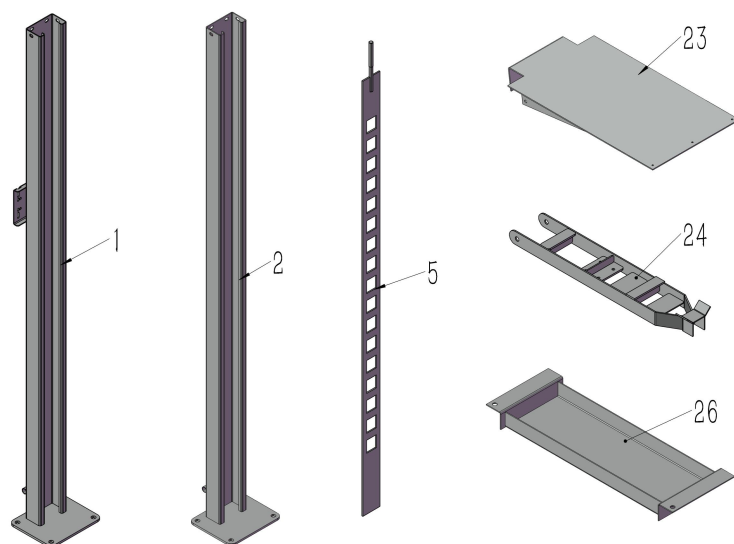
Model	A	B	C	D	E	F	G	H	I	J
YL-9FW	2476	130	2200	4833.5	4565.5	5055.5	4503	1665	475	958
	K	L	M	N	O	P	Q	Capacity	Power	
	545	5055.5	4565.5	5725	4899	4309	5725	9000LBS 4000KGS	240V 50HZ	

Figure 2

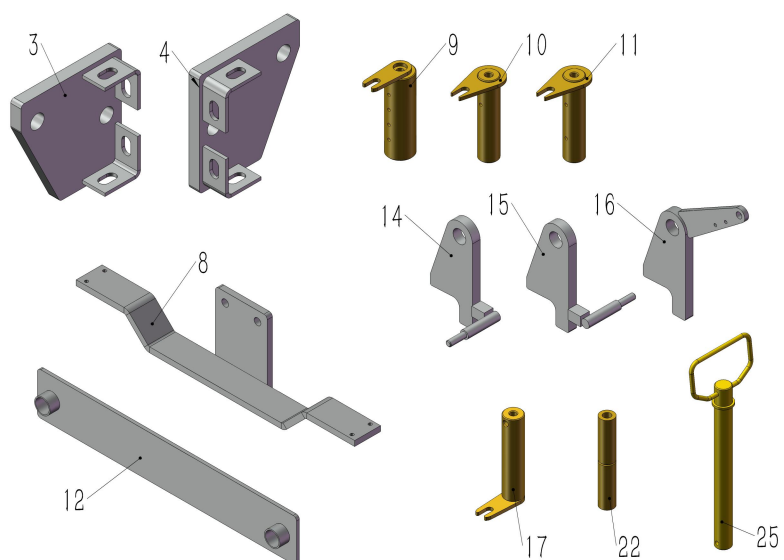


6、 Installation of procedure

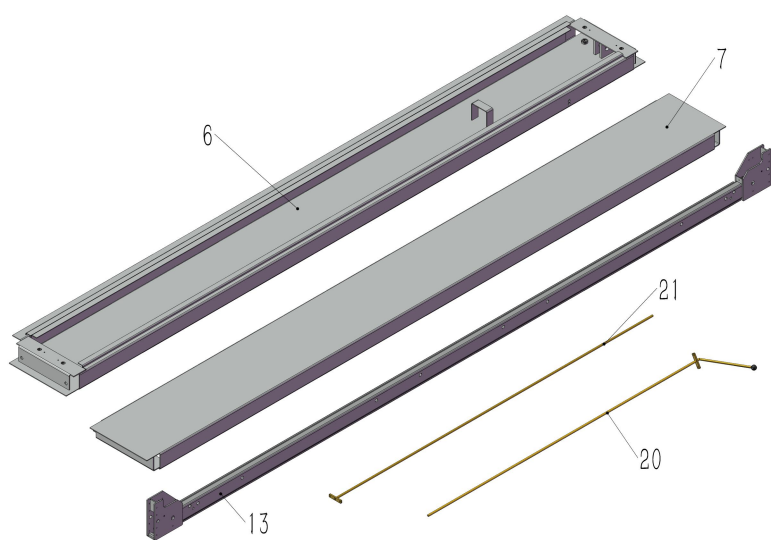
1-2-5-23-24-26 (Optional part 24)



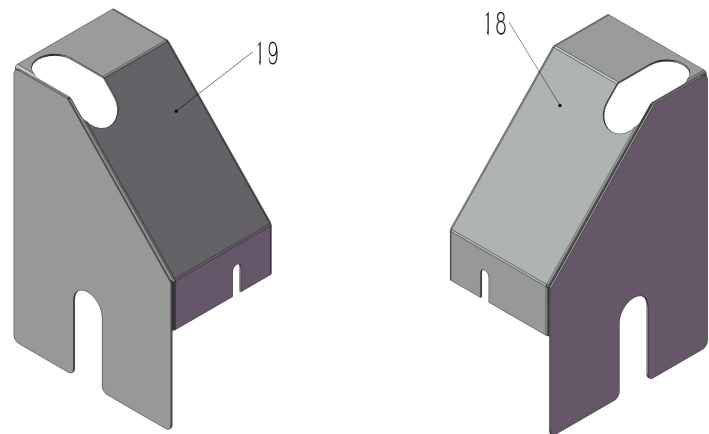
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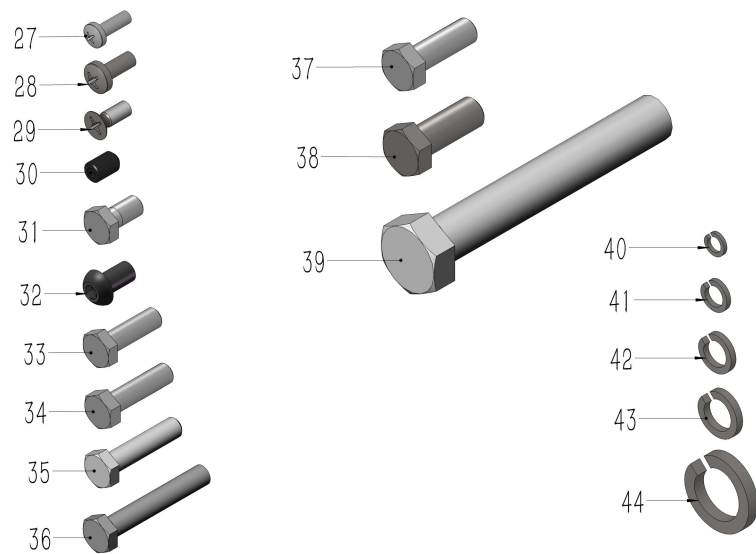
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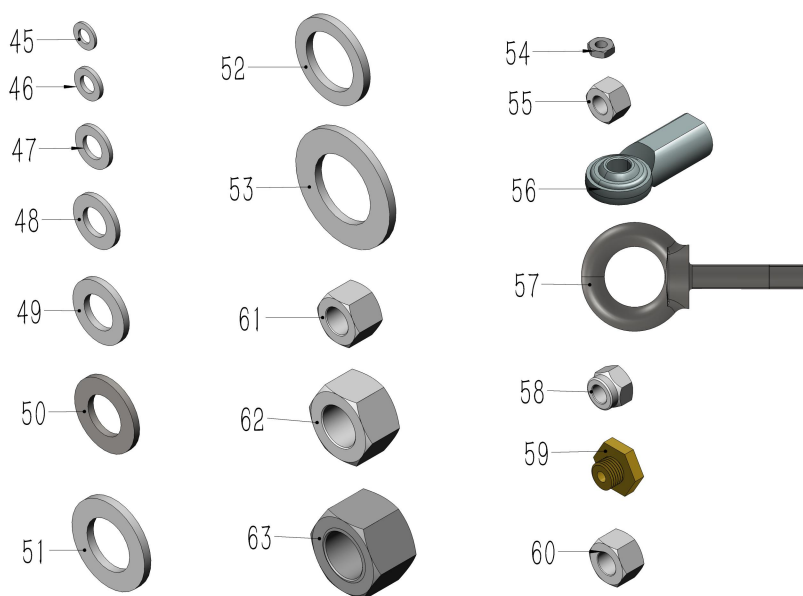
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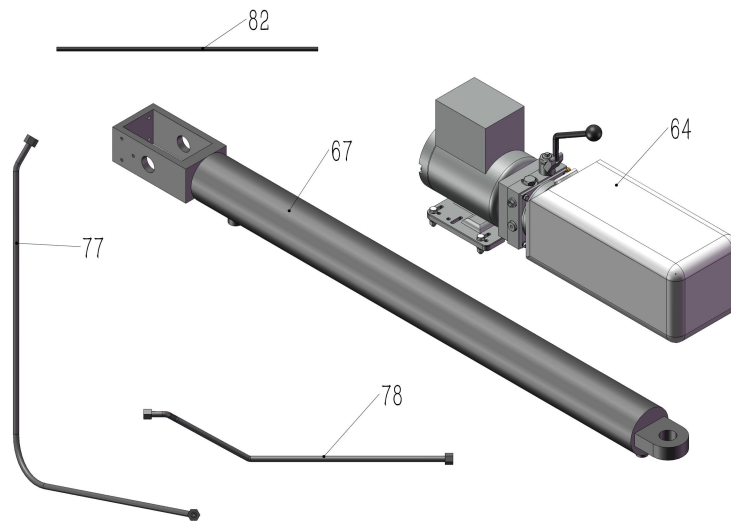
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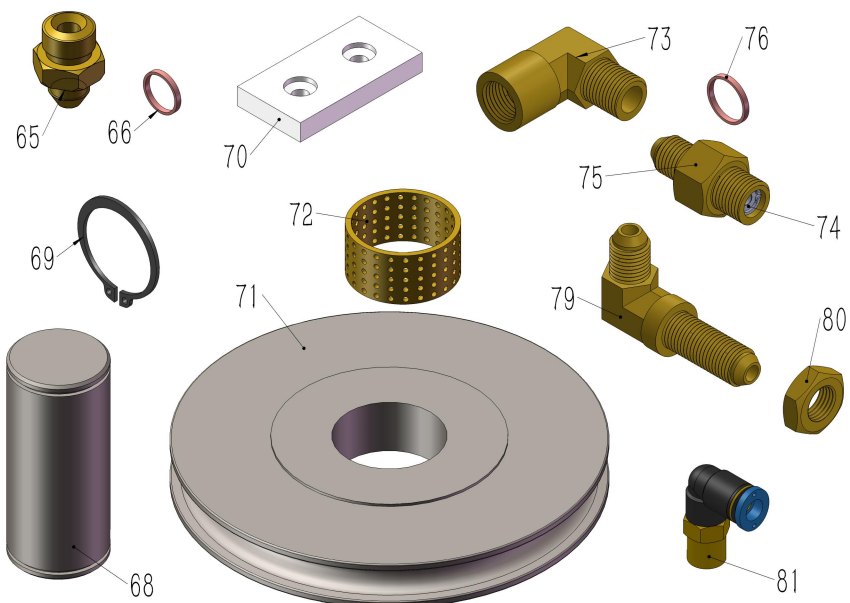
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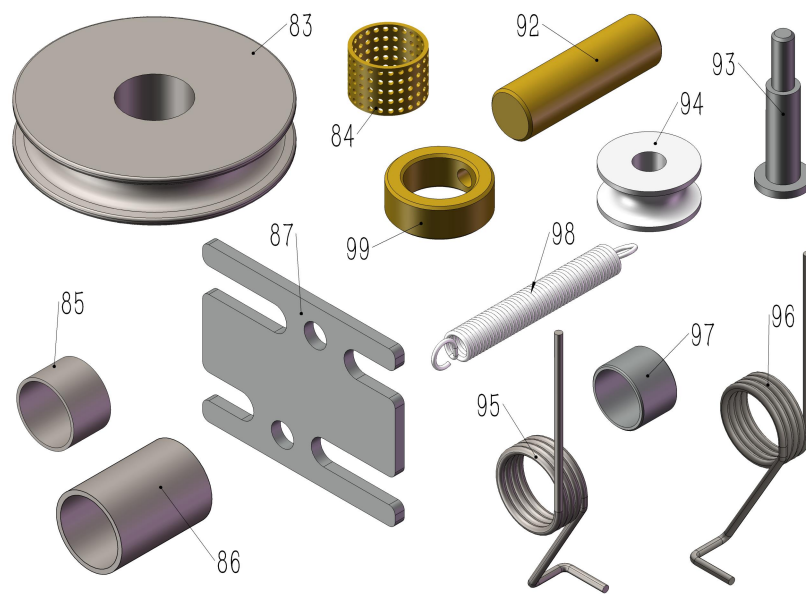
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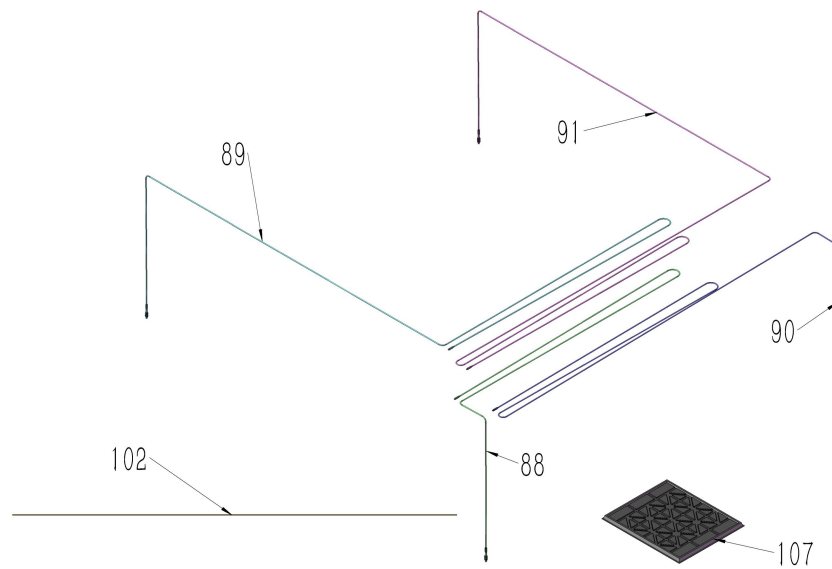
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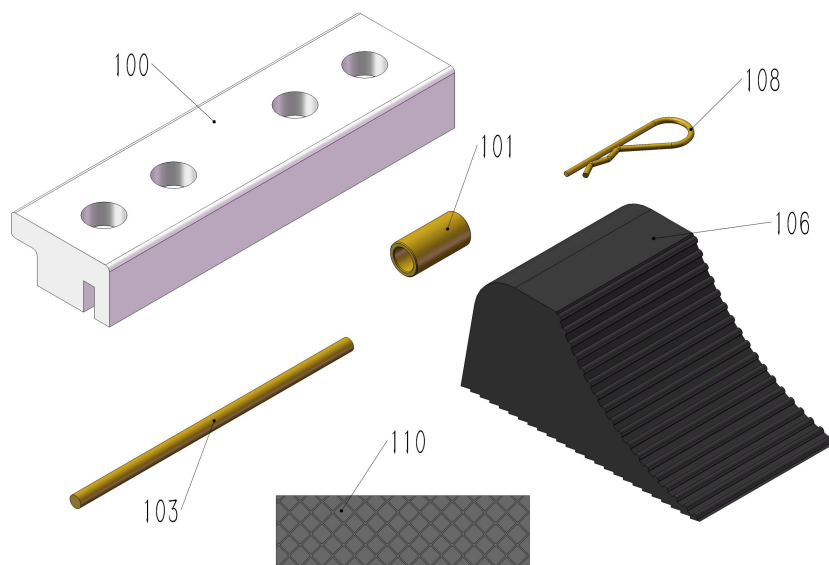
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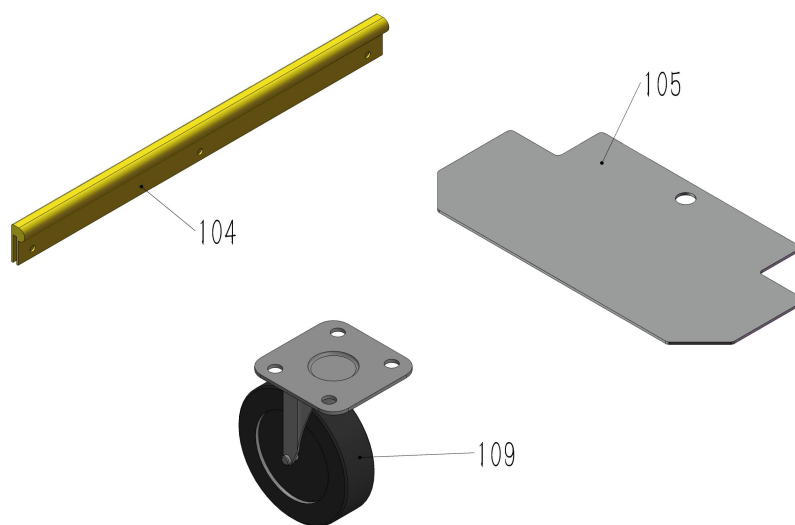
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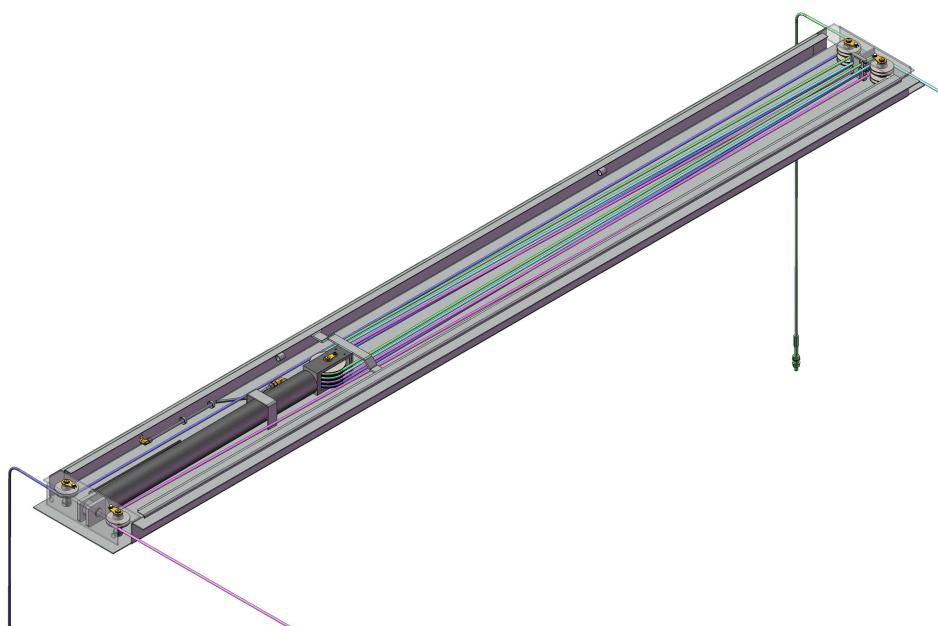
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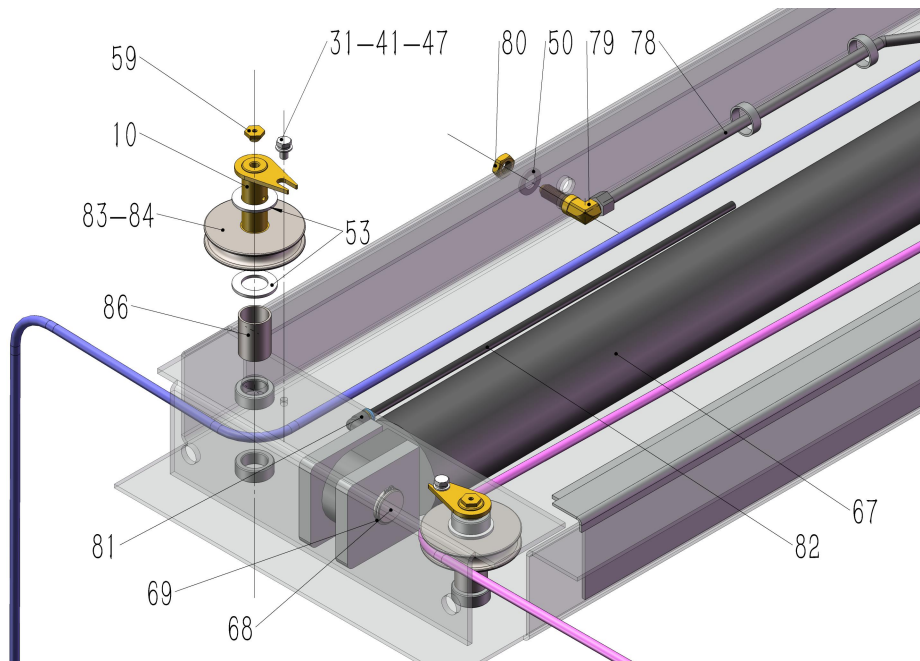
104-105-109 (Optional part 109)



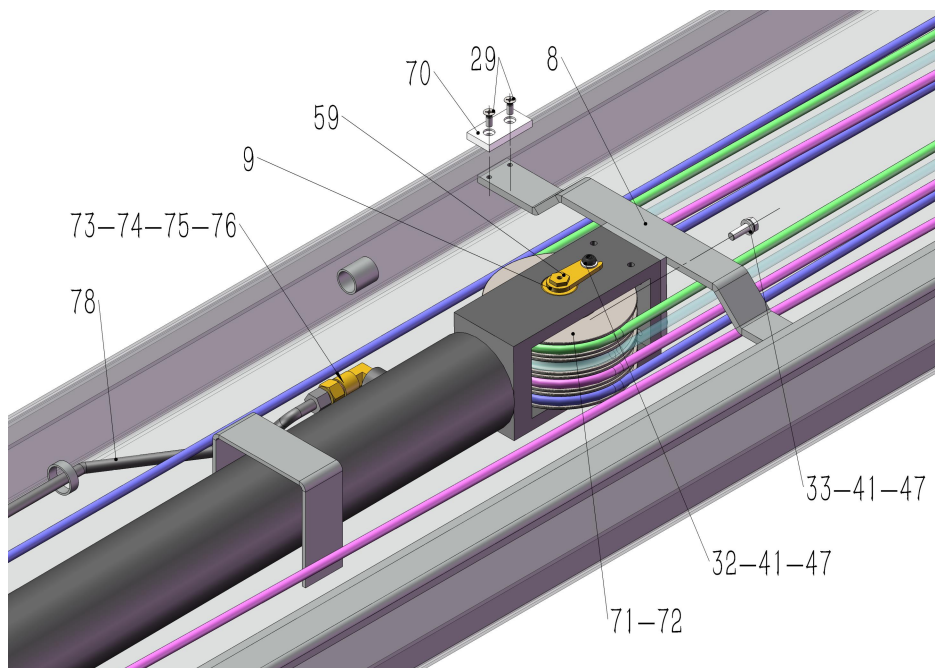
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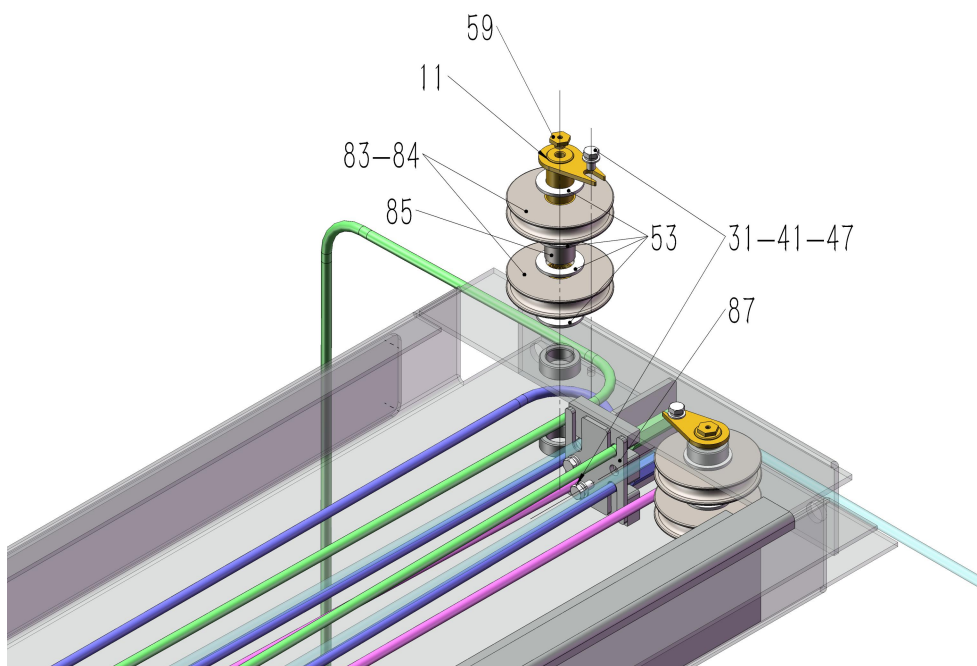
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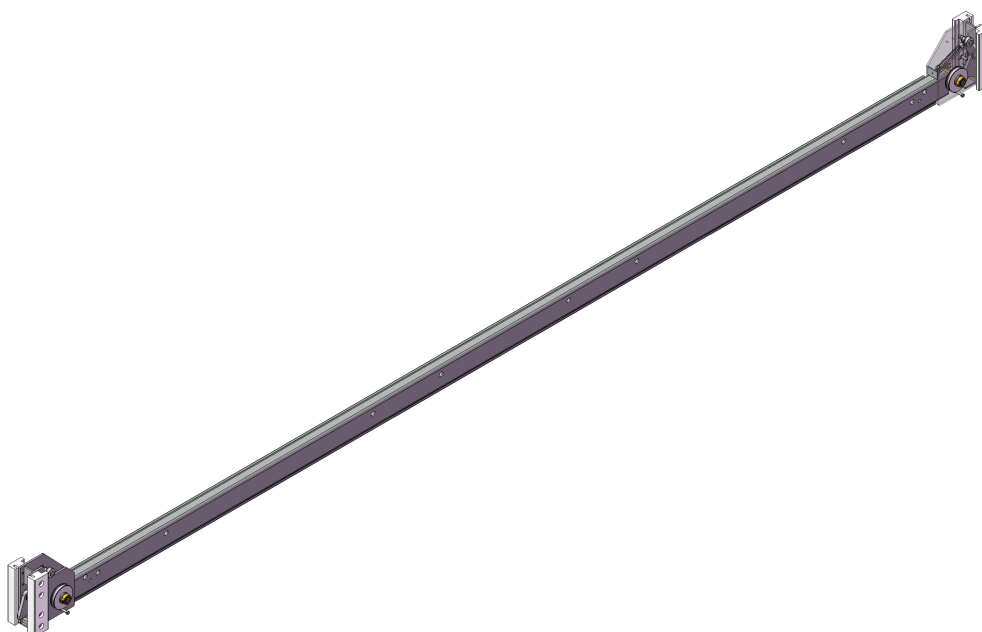
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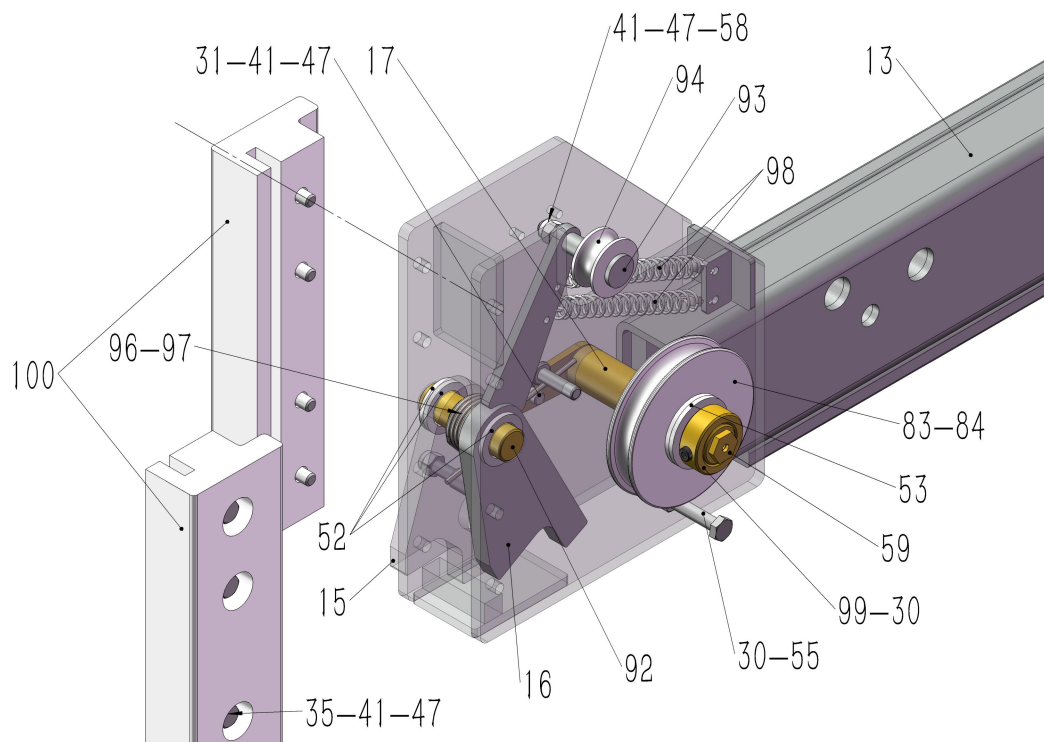
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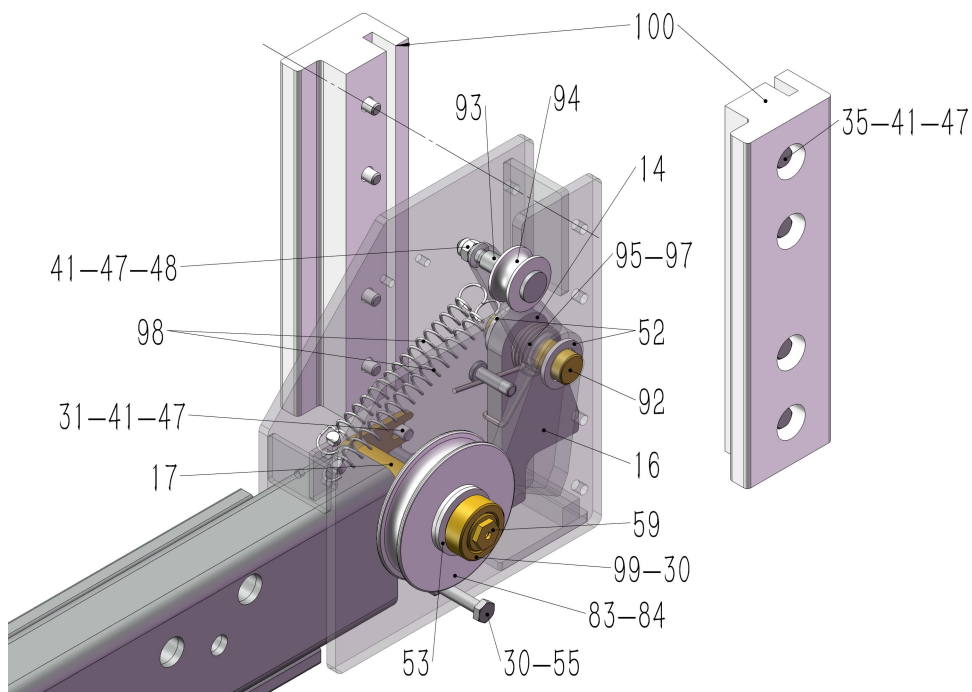
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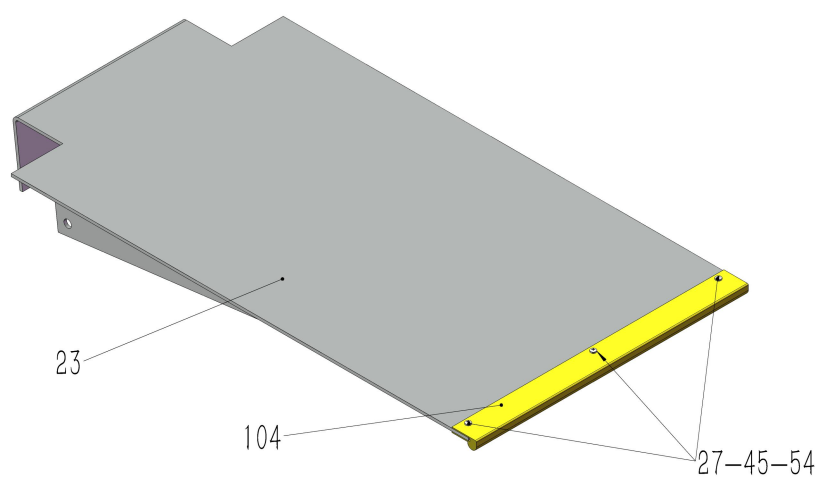
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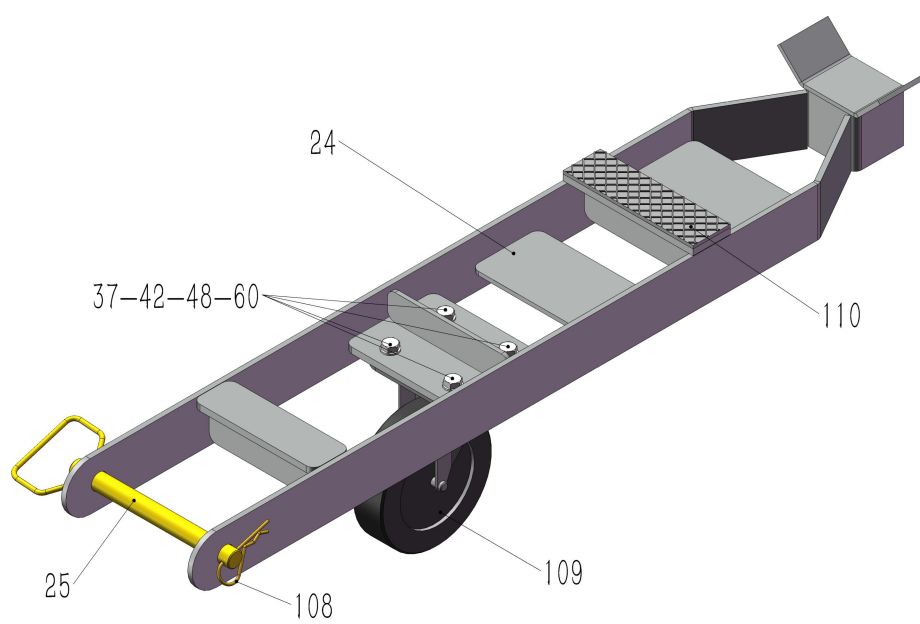
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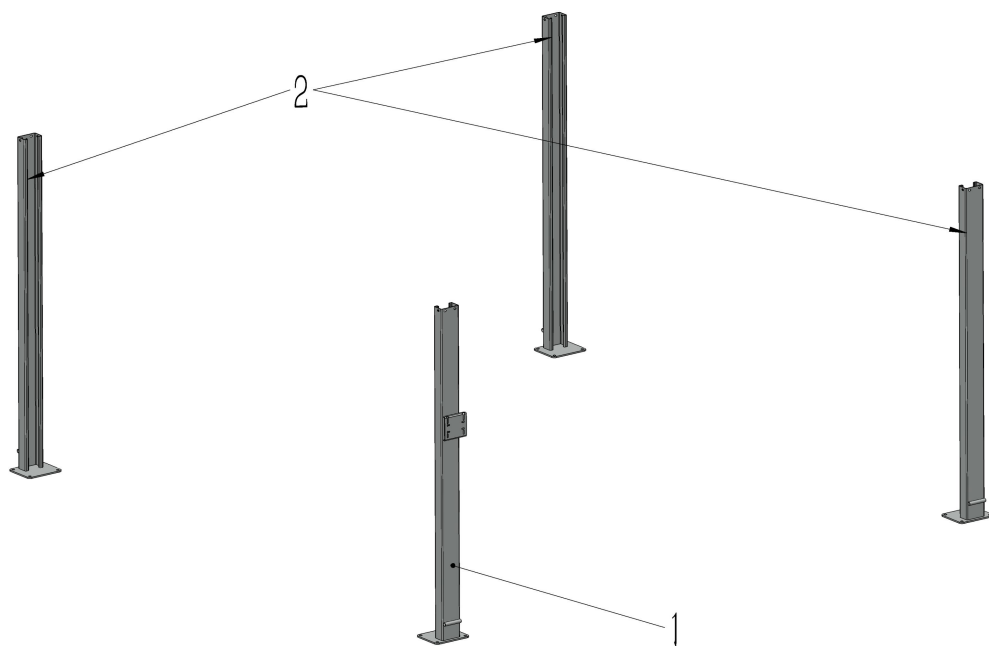
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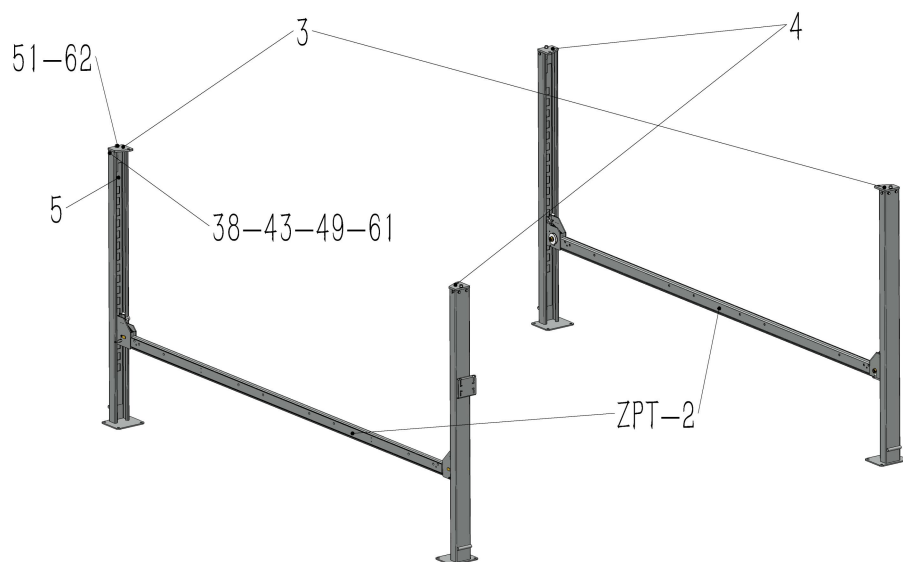
ZPT-4 (Optional part)



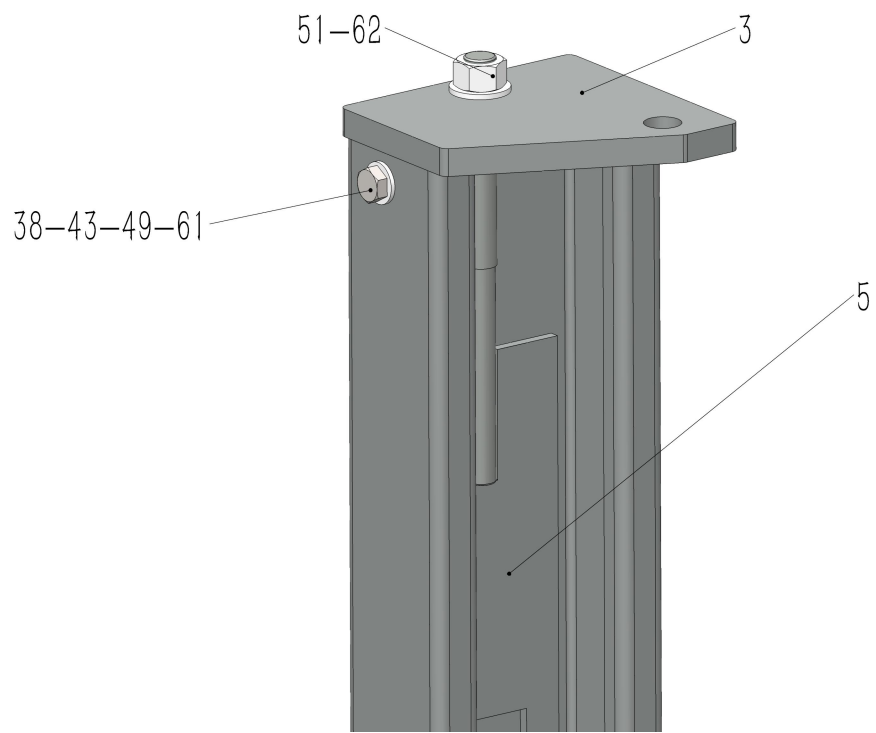
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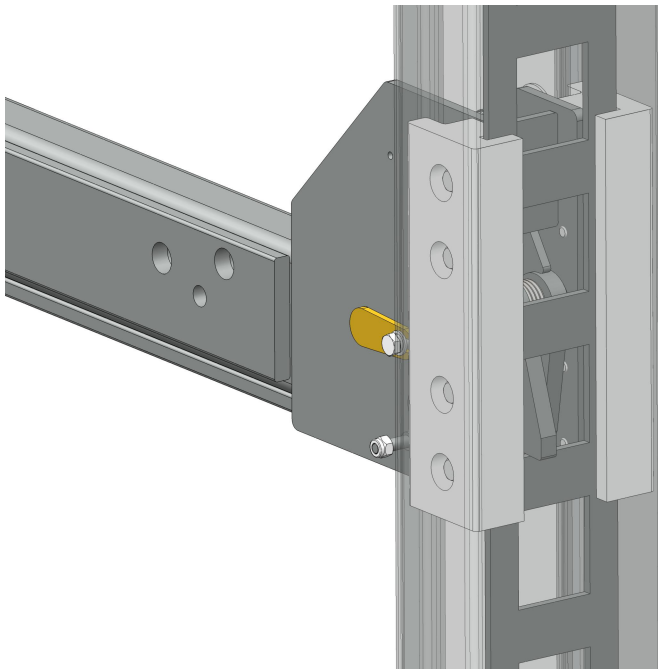
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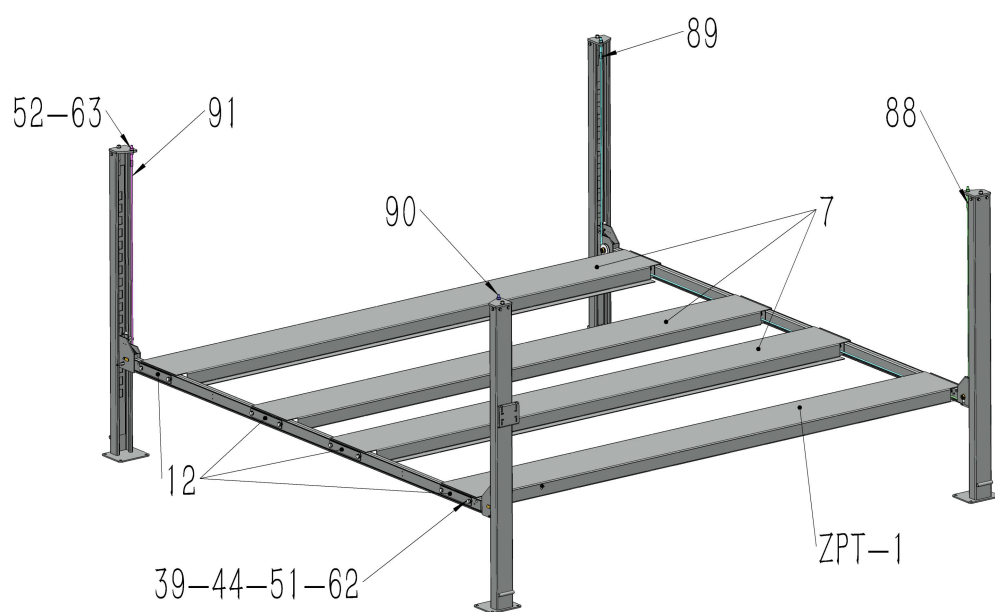
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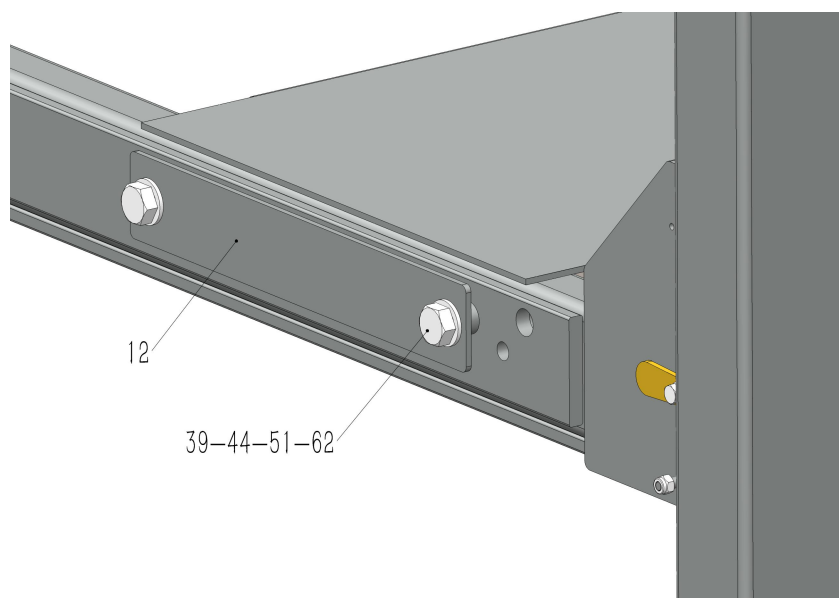
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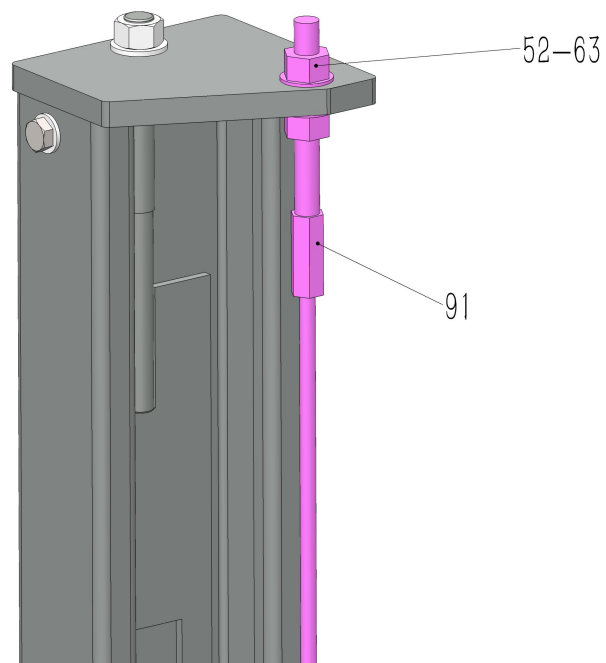
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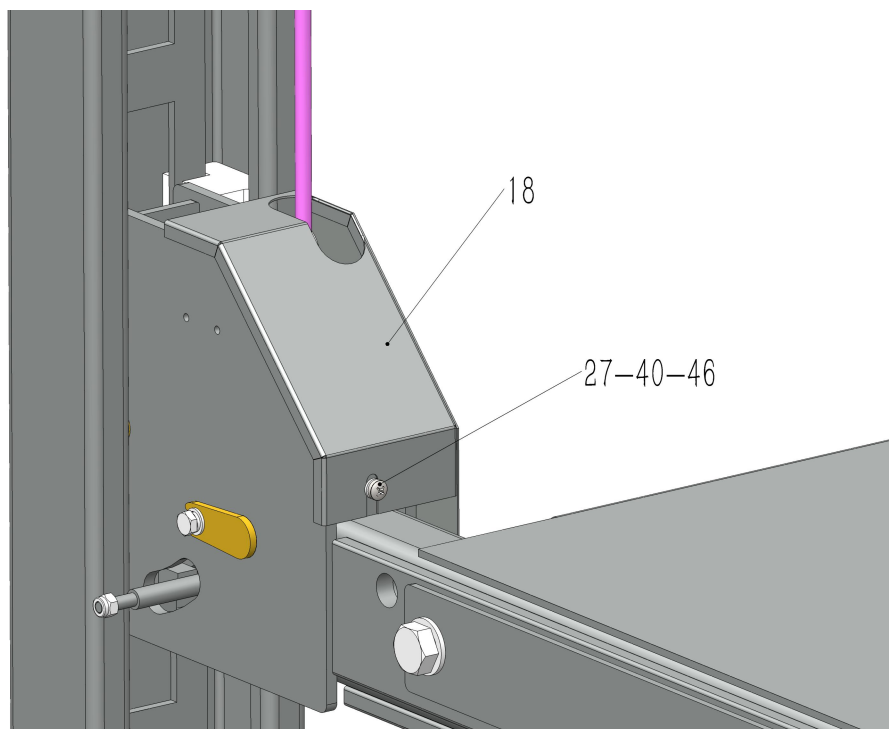
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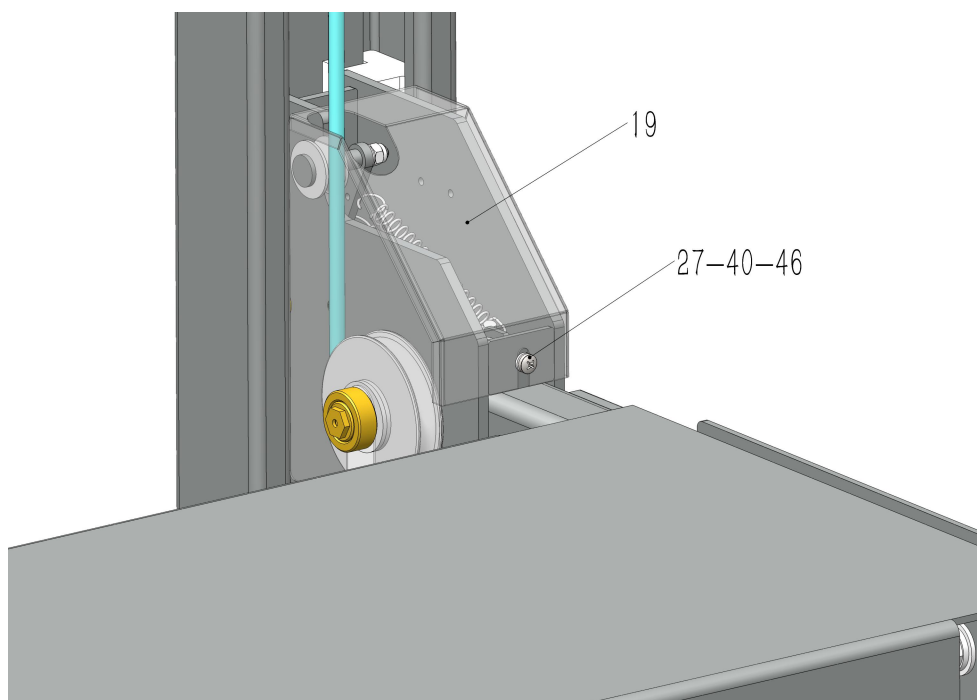
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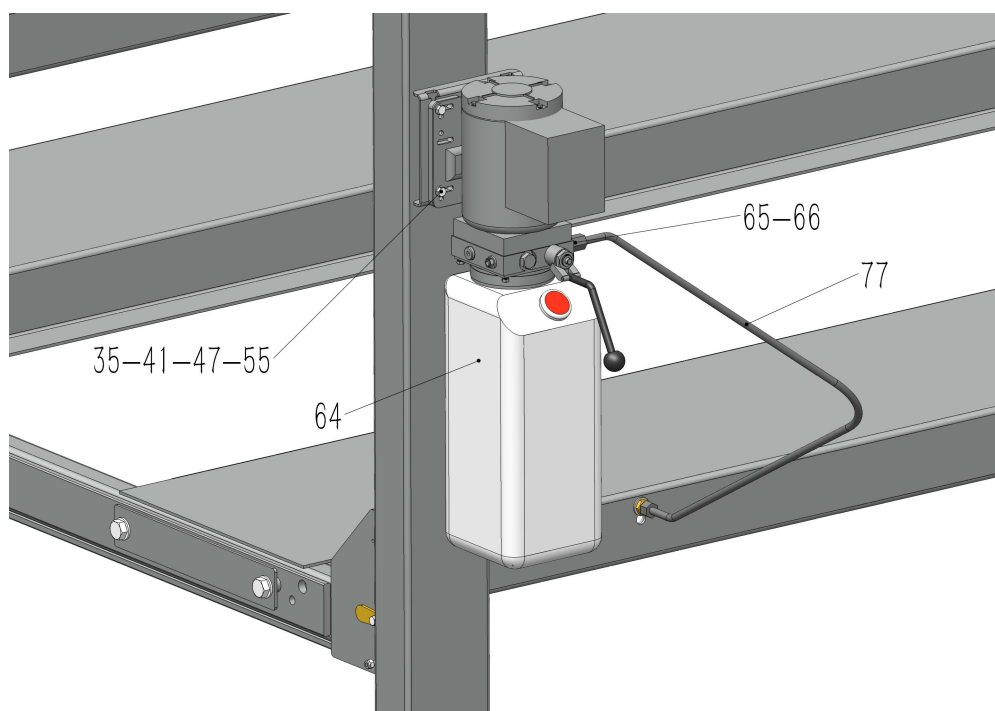
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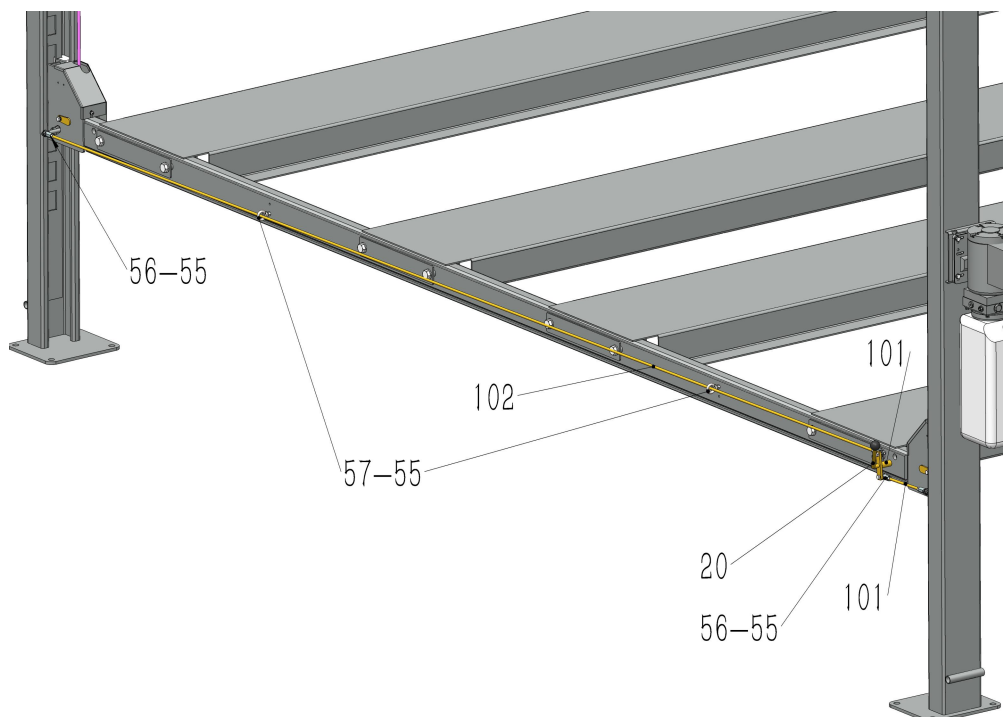
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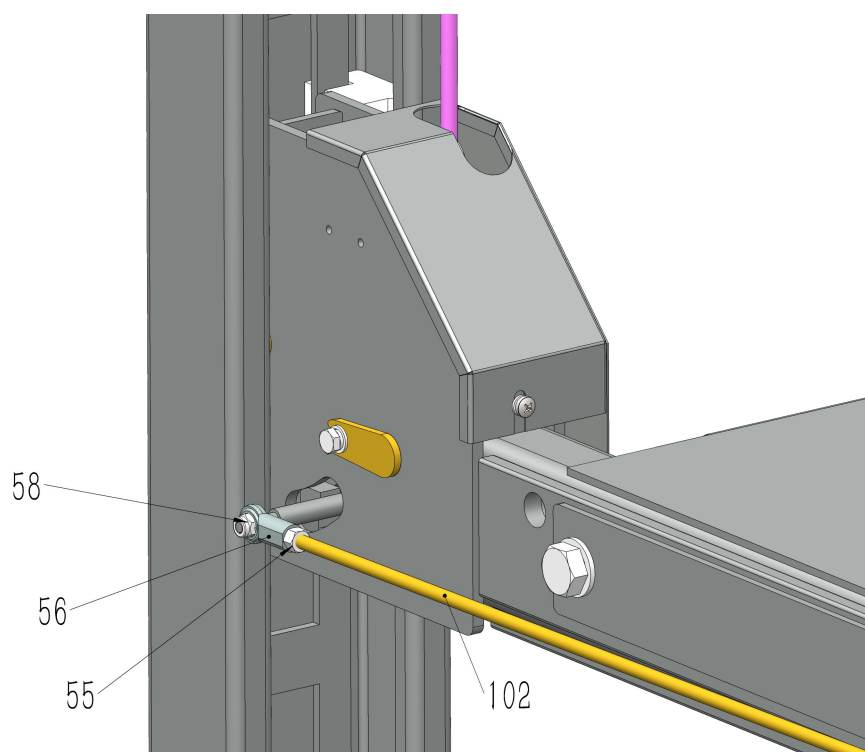
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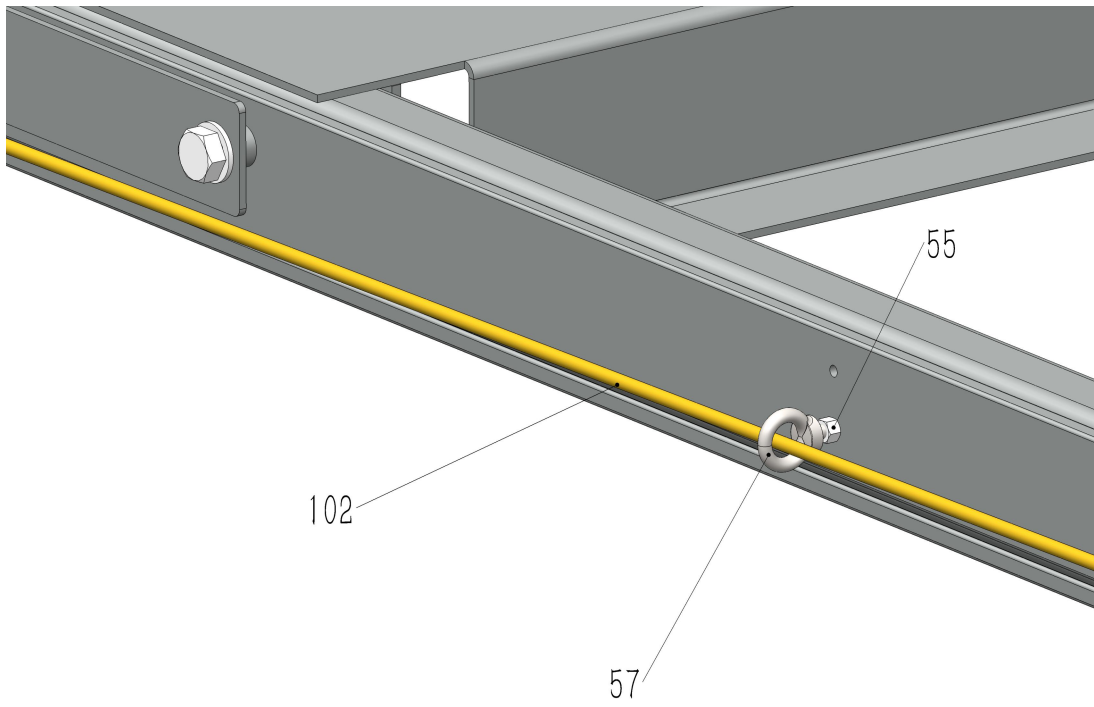
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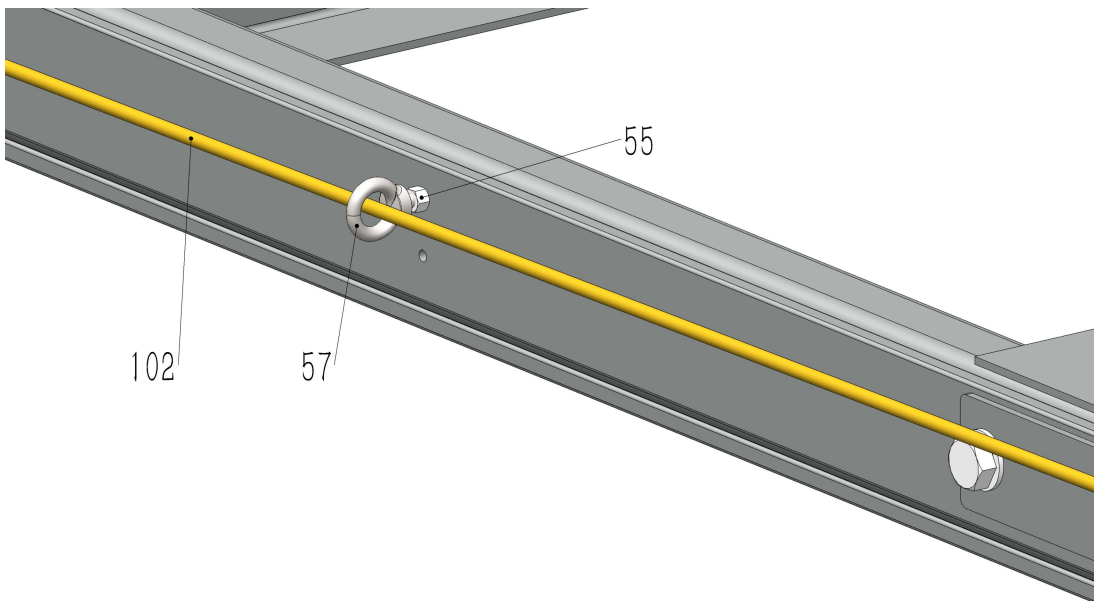
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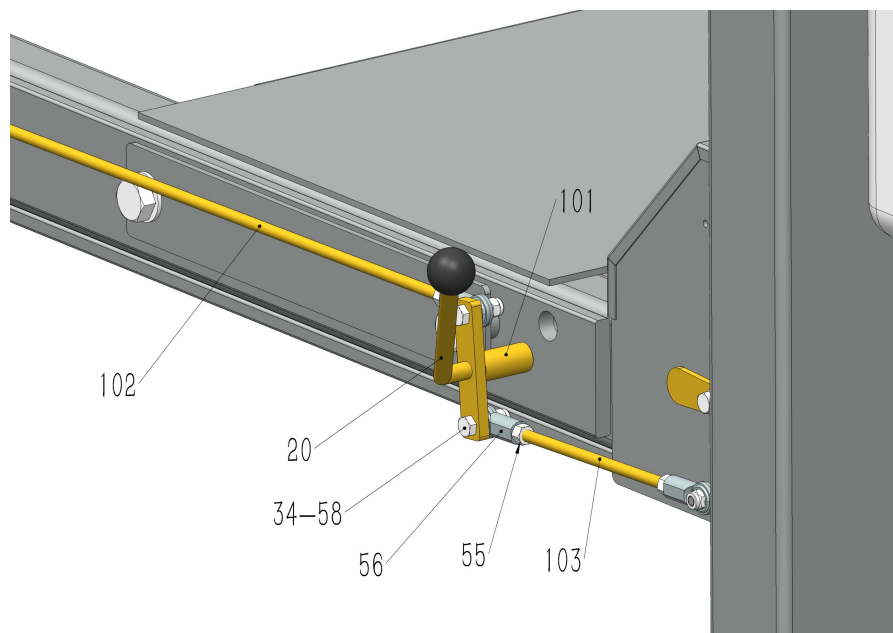
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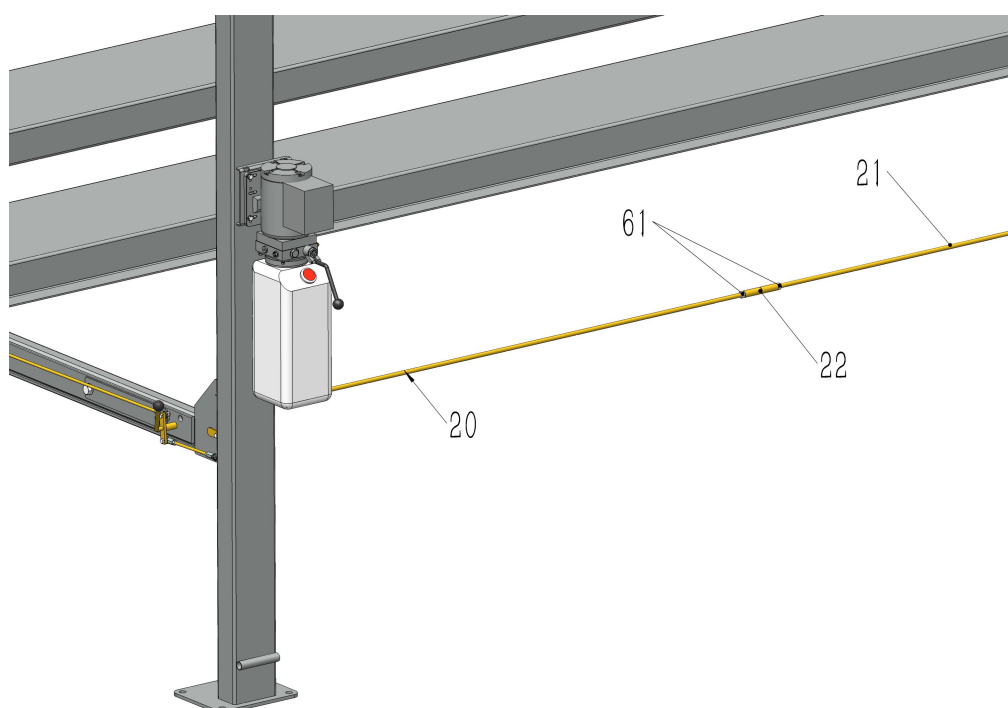
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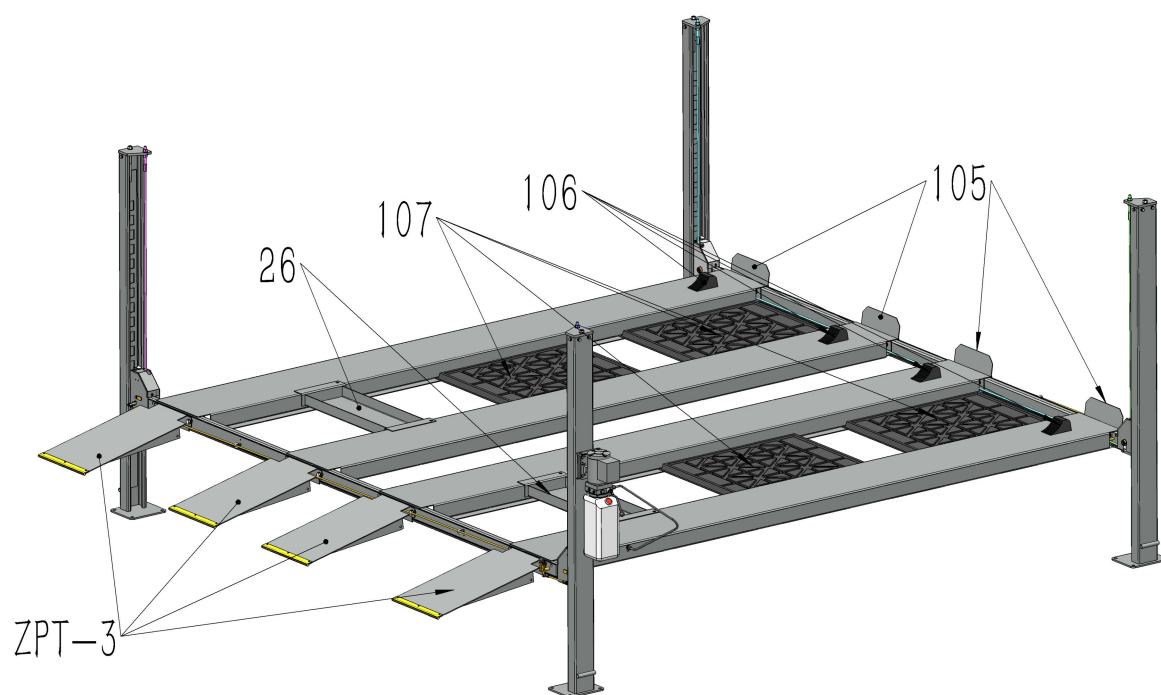
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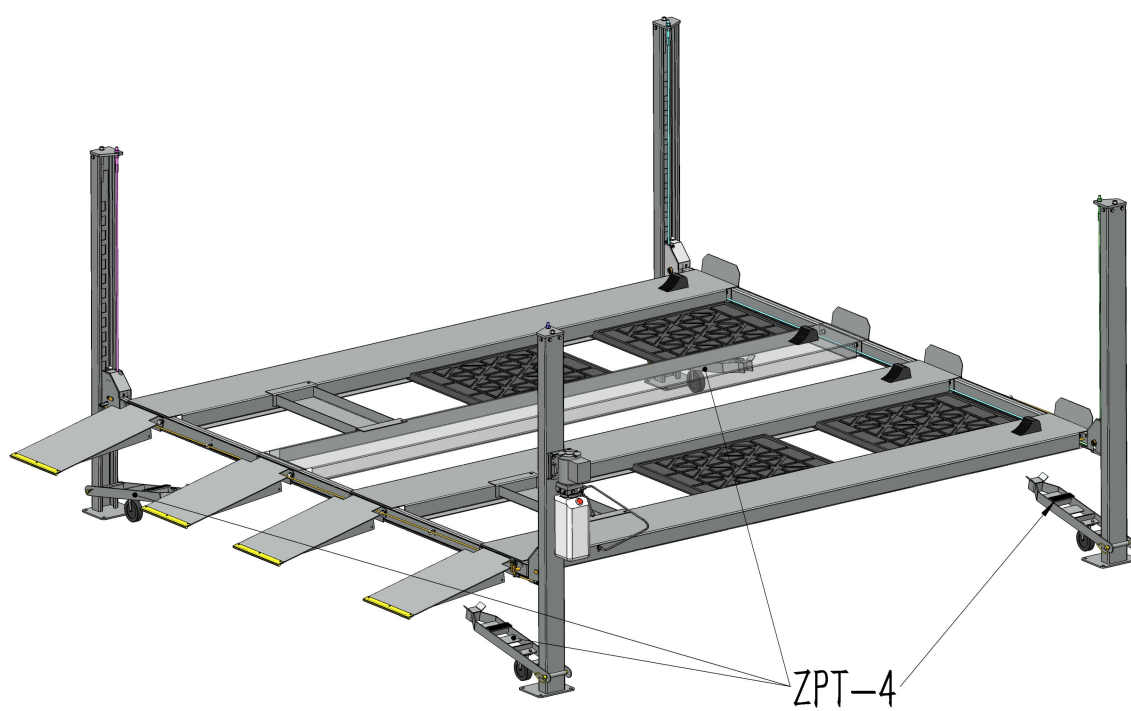
Z-5-5



Z-6



Z-7



7、 Parts list

Main serial number	Serial number	Product name	Quantity/machine
Four-column lift - Manual version			
Welding part			
1		Main columns	1
2		Subsidiary columns	3
3		Left column 's cup	2
4		Right column 's cup	2
5		Safety lock	4
6		Main platform	1
7		Subsidiary Platform	3
8		Oil cylinder slider bracket	1
9		Cylinder Growth Wheel Shaft	1
10		Main Platform A Rope Wheel Shaft	2
11		Main Platform B Rope Wheel Shaft	2
12		Linkages	8
13		Crossbeam	2

14		Left manual bumper	2
15		Right manual bumper	2
16		Stop bumper	4
17		Pulley pin roll	4
18		Left hood assembly	2
19		Right guard	2
20		Safety handle	1
21		bumper	1
22		bumper connector	1
23		Approach ramp	4
24		Caster kit	4
25		Hitch pin	4
26		Tool/Jack tray	2
Standard parts			
27		M5x15 round head bolts	12
28		M6×15 round head bolts	4
29		M6×15 flat head screws	4
30		M8×10 Tightening Bolts	4
31		M8x15 Hexagon Bolt	4+6
32		Hexagon bolts M8X15 round head	1
33		M8×25 hexagon bolts	2
34		M8x30 Hexagon Bolt	4
35		M8x35 Hexagon Bolt	4+32
36		M8×50 hexagon bolts	4
37		M10×30 hexagon bolts	16
38		M12×30 hexagon bolts	16
39		M18×115 hexagon bolts	16
40		Diameter 6 spring washer	4
41		Diameter 8 spring washer	4+2+1+6+4+4+32
42		Diameter 10 spring washer	16
43		Diameter 12 spring washer	16

44		Diameter 18 spring washer	16
45		Diameter 5 flat washer	12
46		Diameter 6 flat washer	4
47		Diameter 8 flat washer	8+2+1+6+4+4+32
48		Diameter 10 flat washer	32
49		Diameter 12 flat washer	32
50		Diameter 14 flat washer	1
51		Diameter 18 flat washer	16+32
52		20 x3 Diameter Flat washer	8+12
53		Flat x3 24 diameter	12
54		M5 nuts	12
55		M8 nuts	4+4+12
56		M8 eye bearing	8
57		M8 ring bolts	4
58		M8 self-locking nuts	4+4+4
59		M10 butter mouth	1+4+4
60		M10 nuts	16
61		M12 nuts	16+2
62		M18 nuts	16+16
63		M20 nuts	8
Column assembly part			
	1	Main column assembly	1
	2	Auxiliary column assembly	3
64		Power unit	1
65		9/16 Point power unit connector	1
66		Ø 14 Copper gasket	1
	35	M8X35 Hexagon Bolt	4
	47	Diameter 8 flat washer	8
	41	Diameter 8 spring washer	4
	55	M8 nuts	4
	3	Column 's cup left	2
	4	Column 's cup right	2
	38	M12×30 hexagon bolts	16
	43	Diameter 12 spring washer	16

	49	Diameter 12 flat washer	32
	61	M12 nuts	16
	5	Column Safety Sheet	4
	51	Diameter 18 flat washer	16
	62	M18 nuts	16
Platform assembly part			
	6	Main platform	1
	7	Deputy Platform	3
67		Oil tank	1
68		Cylinder Tailstock SH General purpose	1
69		35 diameter card spring	2
	8	Oil cylinder slider bracket	1
	33	M8×25 hexagon bolts	2
	41	Diameter 8 spring washer	2
	47	Diameter 8 flat washer	2
70		Nylon foot	2
	29	M6×15 flat head screws	4
71		Growth wheels	4
72		Oil-free bearing-35	4
	9	Cylinder Growth Wheel Shaft	1
	59	M10 butter mouth	1
	32	Hexagon bolts M8X15 round head	1
	41	Diameter 8 spring washer	1
	47	Diameter 8 flat washer	1
73		90 degrees ZG3/8 internal and external joints	1
74		External ZG3/8 Teeth Long Explosion-proof Valve	1
75		9/16 Sharp	1
76		Diameter 16 copper cushion	2
77		Double head 9/16 tip tubing always bent	1
78		Double straight 9/16 tip live tubing	1
79		External joint 9/16 tip - ZG3/8	1
	50	Diameter 14 flat washer	1
80		External joint nut	1
81		1/4 return tubing direct head	1

82		Trachea	1
83		pulley	6
84		Oil-free bearings-25	6
	53	Flat X3 24 diameter	12
85		1 inch galvanized pipe ×18	2
86		1 inch galvanized pipe ×44	2
	10	Main Platform A Rope Wheel Shaft	2
	11	Main Platform B Rope Wheel Shaft	2
	59	M10 butter mouth	4
87		Main platform cables locking plate	1
	31	M8X15 Hexagon Bolt	6
	47	Diameter 8 flat washer	6
	41	Diameter 8 bullet pad	6
88		According to the model corresponding cable Diameter 11, L1	1
89		According to the model corresponding cable Diameter 11, L2	1
90		According to the model corresponding cable Diameter 11, L3	1
91		According to the model corresponding cable Diameter 11, L4	1
	63	M20 nuts	8
	52	20 X3 Diameter Flat	8
	12	Linkages	8
	39	M18×115 hexagon bolts	16
	51	Diameter 18 flat washer	32
	44	Diameter 18 spring washer	16
	62	M18 nuts	16
Crossbeam assembly part			
	13	Cross beams	2
	14	Left manual bumper	2
	15	Right-handed bumper	2
	58	M8 self-locking nuts	4
92		Cross Beam safety axle	4
	52	20 X3 Diameter Flat	12

	16	Stop bumper	4
93		Stop Insurance Hook Limit Wheel Pin	4
94		Stop hook limit wheel	4
	47	Diameter 8 flat washer	4
	41	Diameter 8 spring washer	4
	58	M8 self-locking nuts	4
95		torsion spring - left	2
96		torsion spring - right	2
97		6 galvanized pipe ×17	4
98		Pull spring (∅ 1.6× ∅ 12×72)	8
	17	Cross Beam	4
	31	M8X15 Hexagon Bolt	4
	47	Diameter 8 flat washer	4
	41	Diameter 8 spring washer	4
	53	Flat X3 24 diameter	12
	83	pulley	4
	84	Oil-free bearings-25	4
99		CrossBeam Rope Gear Set	4
	30	M8×10 Tightening Bolts	4
	59	M10 butter mouth	4
	36	M8×50 hexagon bolts	4
	55	M8 nuts	4
100		Cross Beam Slider	8
	35	M8×35 hexagon bolts	32
	47	Diameter 8 flat washer	32
	41	Diameter 8 spring washer	32
	18	Left hood assembly	2
	19	Right guard assembly	2
	27	M6×15 round head bolts	4
	46	Diameter 6 flat washer	4
	40	Diameter 6 spring washer	4
Assembly part			
	20	Safety handle	1
	21	bumper	1

	22	bumper connector	1
	61	M12 nuts	2
101		bumper spacer	2
102		Cross Beam Unlock Bar A	2
103		Cross Beam Unlock Bar B	2
	56	M8 eye bearing	8
	57	M8 ring bolts	4
	34	M8X30 Hexagon Bolt	4
	55	M8 nuts	12
	58	M8 self-locking nuts	4
	23	Approach ramp	4
104		Nylon slip strip	4
	27	M5X15 round head bolts	12
	45	Diameter 5 flat washer	12
	54	M5 nuts	12
105		Stop end plate	8
106		Rubber brake pads	4
	26	Tool/Jack tray	2
107		Plastic drip tray	4
	24	Caster kit	4
	25	Hitch pin	4
108		R Hairpin clip	4
109		Universal wheel 150 in diameter (Optional part)	4
	37	M10×30 hexagon bolts	16
	48	Diameter 10 flat washer	32
	42	Diameter 10 spring washer	16
	60	M10 nuts	16
110		Film	4
		Boxes package part	
Serial number		Product name	Quantity
64		Power unit	1
65		9/16 Point power unit connector	1

66		Ø 14 Copper gasket	1
	35	M8X35 Hexagon Bolt	4
	47	Diameter 8 flat washer	8
	41	Diameter 8 spring washer	4
	55	M8 nuts	4
77		Double head 9/16 tip tubing always bent	1
105		Stop end plate	8
106		Rubber brake pads	4
107		Plastic drip tray	4
		M19 expansion bolts	16
		Round notch flat washer	20
		Banding	10
		Consumable pieces	
Serial number		Product name	
70		Nylon foot	2
71		Growth wheels	4
72		Oil-free bearing-35	4
83		pulley	6
84		Oil-free bearings-25	6
88		According to the model corresponding Cable Diameter 11 , L1	1
89		According to the model corresponding Cable Diameter 11, L2	1
90		According to the model corresponding Cable Diameter 11, L3	1
91		According to the model corresponding Cable Diameter 11, L4	1
100		Cross Beam Slider	8
104		Nylon slip strip	4
106		Rubber brake pads	4
107		Plastic drip tray	4
109		Caster wheel 150 in diameter (Optional part)	4
110		Film	4

8、 Hydraulic systems and electrical components of equipment

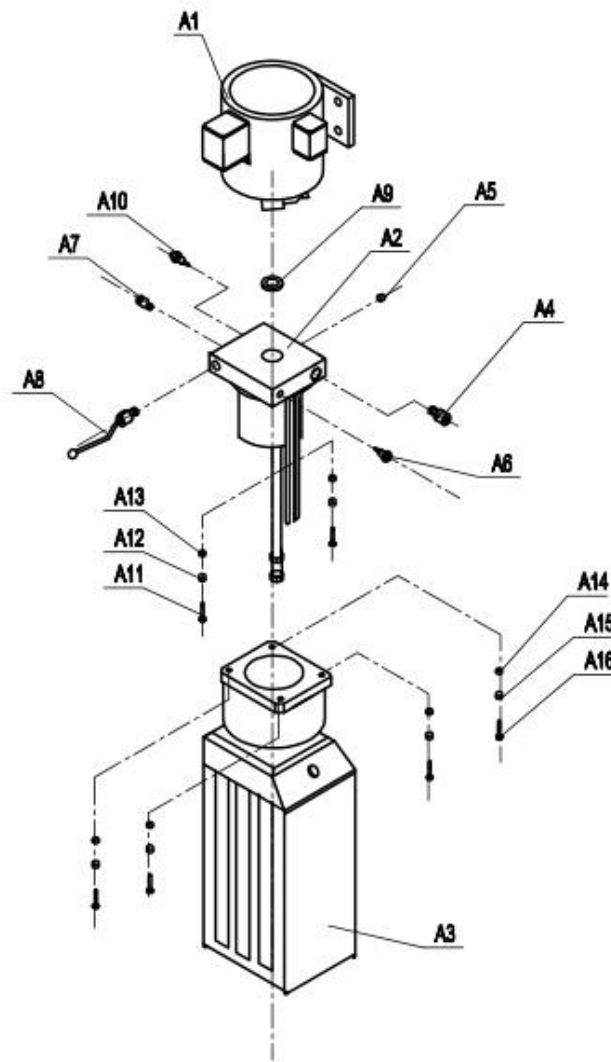
1.Appearance Explosion Chart of Hydraulic Station

2.Hydraulic systems for equipment

- a. hydraulic schematic diagram
- b. Hydraulic Components
- c. Hydraulic System Working Principle
- d. electrical schematic

Exterior Explosion Chart of

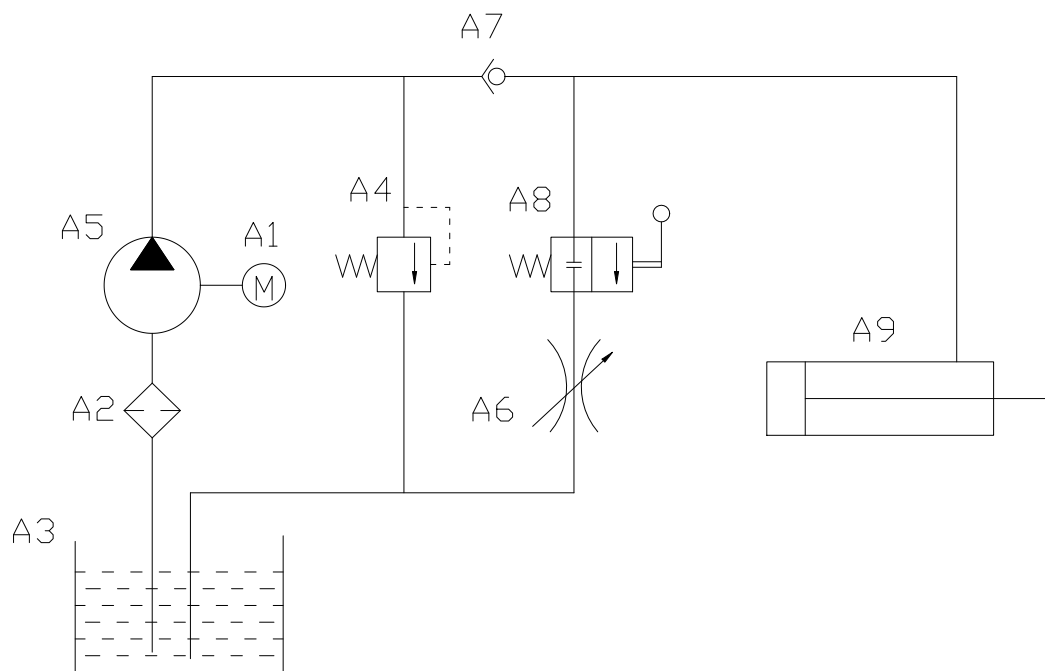
1. Hydraulic Station



number	Name of name	Quantity	Number	Name of name	Quantity
A1	Motor	1	A9	Sealing gasket	1
A2	Valve core	1	A10	Stuffy	1
A3	Fuel tank	1	A11	M5X40 Hexagon Screw	4
A4	Drop Speed Control Valve	1	A12	Φ5 flat washer	4
A5	Stuffy	1	A13	Φ5 spring washer	4
A6	Oil outlet	1	A14	M6X20 Hexagon Screw	4
A7	Oil outlet	1	A15	Φ6 flat washer	4
A8	Hand wrench valve	1	A16	Φ6 spring washer	4

2. Hydraulic system

A. Hydraulic principle



B. Hydraulic Components

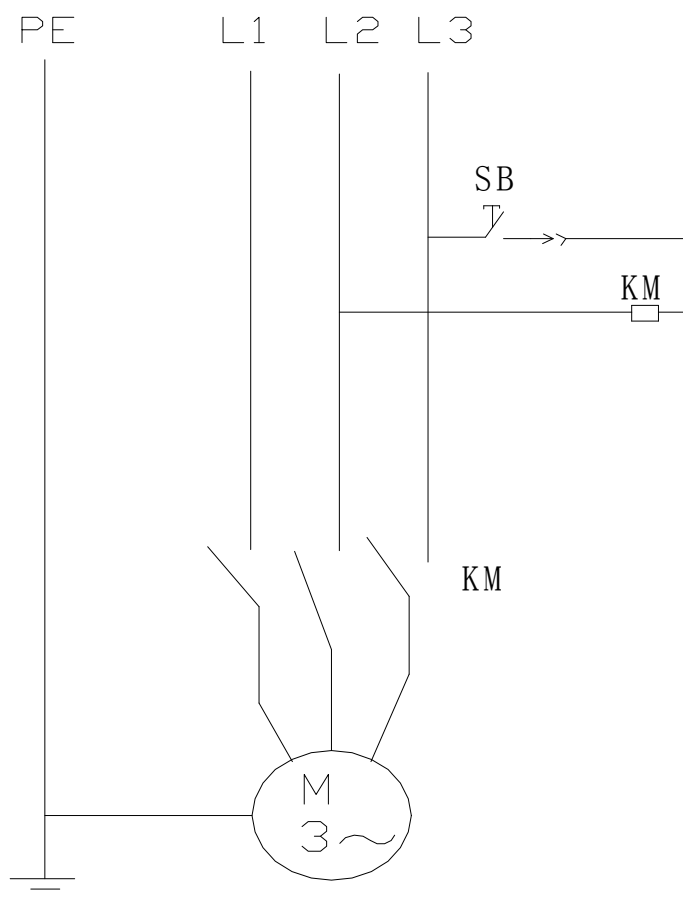
A9	Oil tank			1	
A8	Solenoid valve			1	
A7	One-way valve			1	
A6	Down throttle			1	
A5	Oil pump			1	
A4	Relief valve			1	
A3	Fuel tank			1	Volume 10 liters
A2	Filter			1	
A1	Motor		240V, 50HZ, 2.2KW	1	Optional 3PH
Number	Name of name	Model	Specifications	Number of cases	Remarks

C. hydraulic system works as follows:

When the start button on the hydraulic station is pressed, the motor starts, drives the oil pump, inhales the pressure oil from the tank and sends it to the serial A9 cylinder, so that the piston rod can move. At this time A4 the relief valve closed, the pressure has been adjusted before leaving the factory. Ensure the rated load requirements of lifting. But when the pressure in the system exceeds the limit, the automatic relief valve unloads the oil. Loosen the start button, stop the oil supply, lift the end, and start the operation. If down, first click up a little, open the mechanical safety lock, press the manual valve A8 start unloading down.

D. electrical schematic (three-phase or single-phase)

(* When installing, be sure to connect according to the schematic diagram to ensure that each grounding is reliable, and the input power must be provided with leakage, overcurrent protection switch)



9、 Common troubleshooting

Number	Fault phenomenon	Exclusion methods
1	Motor not rotating	● check the power supply

		<ul style="list-style-type: none"> ● check loose wiring in motor junction box
2	Motor rotation pressure-free oil	<ul style="list-style-type: none"> ● the single-phase electric rotation direction is wrong, replace two of the incoming line position. ● check that the suction pipe in the tank is off.
3	Hydraulic pressure drops slowly after lifting (not keeping pressure well)	<ul style="list-style-type: none"> ● cleaning power unit one-way valve and reversing valve.
4	Security lock	<ul style="list-style-type: none"> ● Observe whether the position of the lock hook is normal. ● Observe whether the position of the column is correct. ● Check the reset spring action of the safety hook.
5	Electrical and electrical failure	<ul style="list-style-type: none"> ● cut off the power supply in time, check, repair and replace by professional electrician.
6	Other	<ul style="list-style-type: none"> ● other found abnormal work, can be consulted by telephone. willing to serve you.

10、Packing list

Number		Product name	Quantity
64		Power unit	1

65		9/16 Point power unit connector	1
66		Ø 14 Copper gasket	1
	35	M8X35 Hexagon Bolt	4
	47	Diameter 8 flat washer	8
	41	Diameter 8 spring washer	4
	55	M8 nuts	4
77		Double head 9/16 tip tubing always bent	1
105		Stop end plate	8
106		Rubber brake pads	4
107		Plastic drip tray	4
		M19 expansion bolts	16
		Round notch flat pad	20
		Banding	10

11、 List of vulnerable parts

		Vulnerable	
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Serial number		Product name	
70		Nylon foot	
71		Growth wheels	
72		Oil-free bearing-35	
83		pulley	
84		Oil-free bearings-25	
88		According to the model corresponding Cable Diameter 11, L1	
89		According to the model corresponding Cable Diameter 11, L2	
90		According to the model corresponding Cable Diameter 11, L3	
91		According to the model corresponding Cable Diameter 11, L4	
100		Beam Slider	
104		Nylon slip strip	
106		Rubber brake pads	
107		Plastic drip tray	
109		Caster wheel 150 Diameter	Optional part
110		Film	