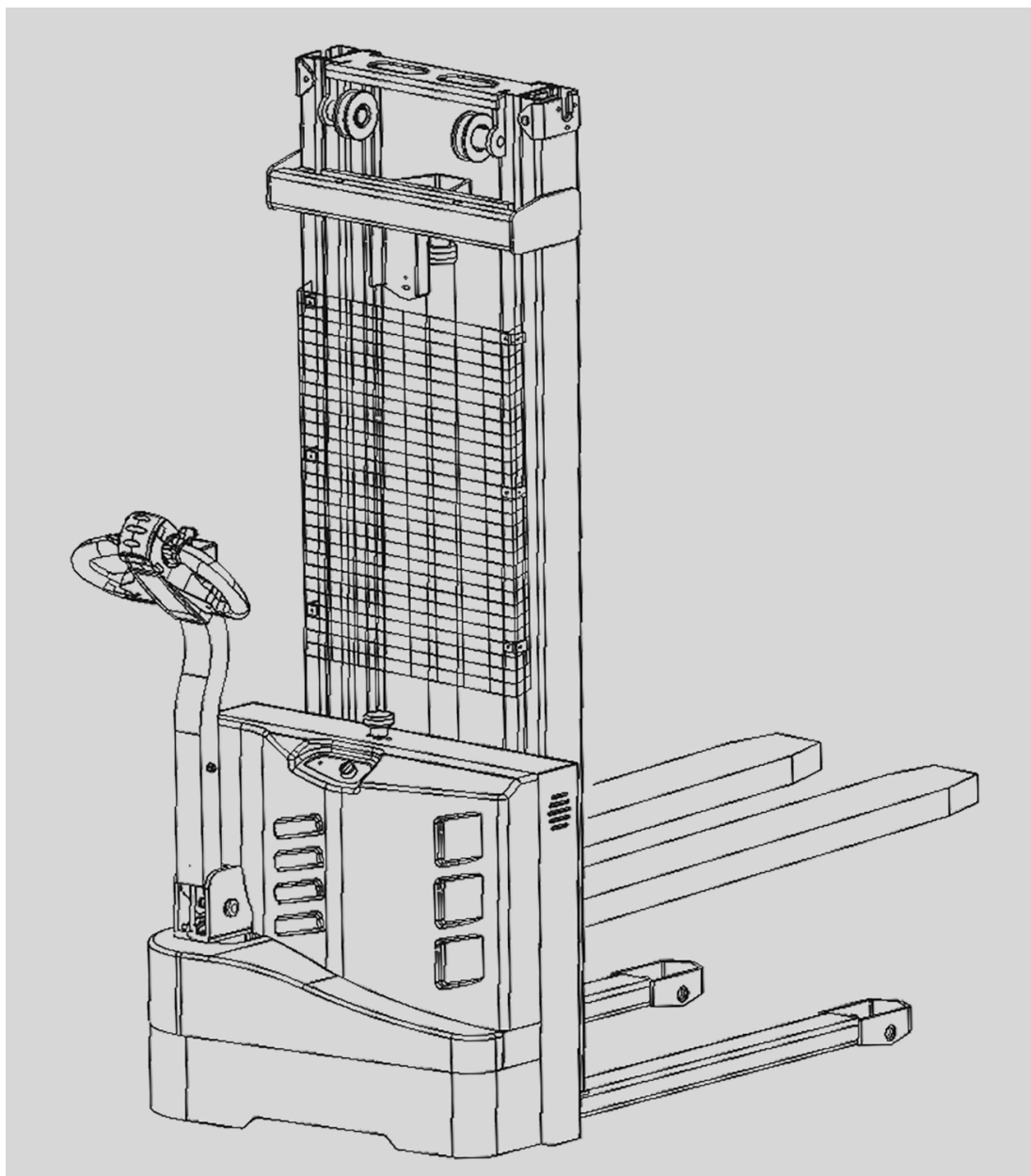


Parts manual

Version: 1021-01

Electric Stackers

WS10S-ei/WS15S-ei



2019-08

PARTS ORDERING INSTRUCTIONS

HOW TO ORDER

When ordering the parts, please supply part number, parts name, quantity, model and serial number of your machine. Supplying this information will assure prompt, efficient handling of your order.

Since your dealer carries many parts in stock and maintains up-to-date prices on all parts, he will be able to process your order immediately. If, for some reasons, the parts is not in stock, he will order it from the factory. In either event, he maintains a current file of service manuals, which give all available parts ordering or technical information.

WHERE TO ORDER

Always order parts from the dealer who sold you the machine. If it is necessary for the dealer to order parts from the factory, he is able to get prompt service for you. Parts are shipped in accordance with shipping instructions given on the order.

INSTRUCTIONS FOR RETURNING PARTS

Under NO CIRCUMSTANCES parts will be accepted at the factory for credit without prior approval. We can not accept responsibility for parts returned without authorization.

If you have some parts which must be returned, contact your dealer. If he believes parts should be returned, he will arrange for authorization to return the parts.

CHANGES

When changes are made to the machine, revised pages for this manual will be issued. These pages must be inserted in your parts manual as soon as they are received. Failure to keep your parts manuals up to date will result in confusion and may cause you to order wrong parts.

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2019-08 1st EDITION

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Fig.1 Chasis & mast assembly

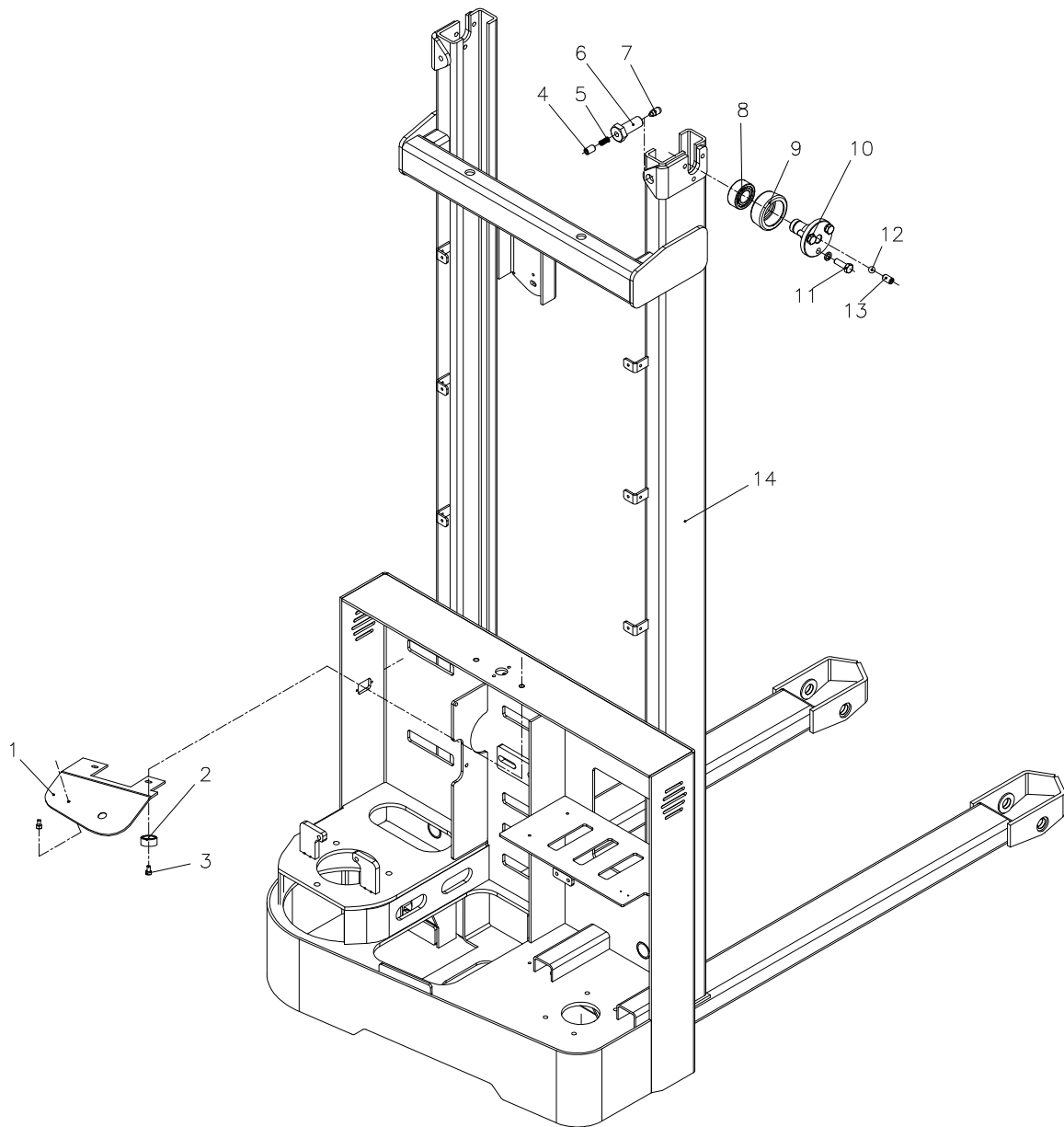


Fig.1 Chasis & mast assembly

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10210101	Installation plate	1	
2	10210102	Cover plate	2	
3	10210103	Screw M6*16	2	
4	10210104	Screw M12*20	2	
5	10210105	Spring	2	
6	10210106	Connected bolt	2	
7	10210107	Positioning rod	2	
8	10210108	Bearing 3205	2	
9	10210109	Roller cover $\phi 72 \times 30$	2	
10	10210110	Upper bearing socket	2	
11	10210111	Bolt M10*30	6	
12	10210112	Steel ball $\phi 12$	2	
13	10210113	Screw M12*20	2	
14	10210114	Chasis for WS15S-ei	1	1.5T
	10210115	Chasis for WS10S-ei	1	1T

Fig.2 Inner mast assembly

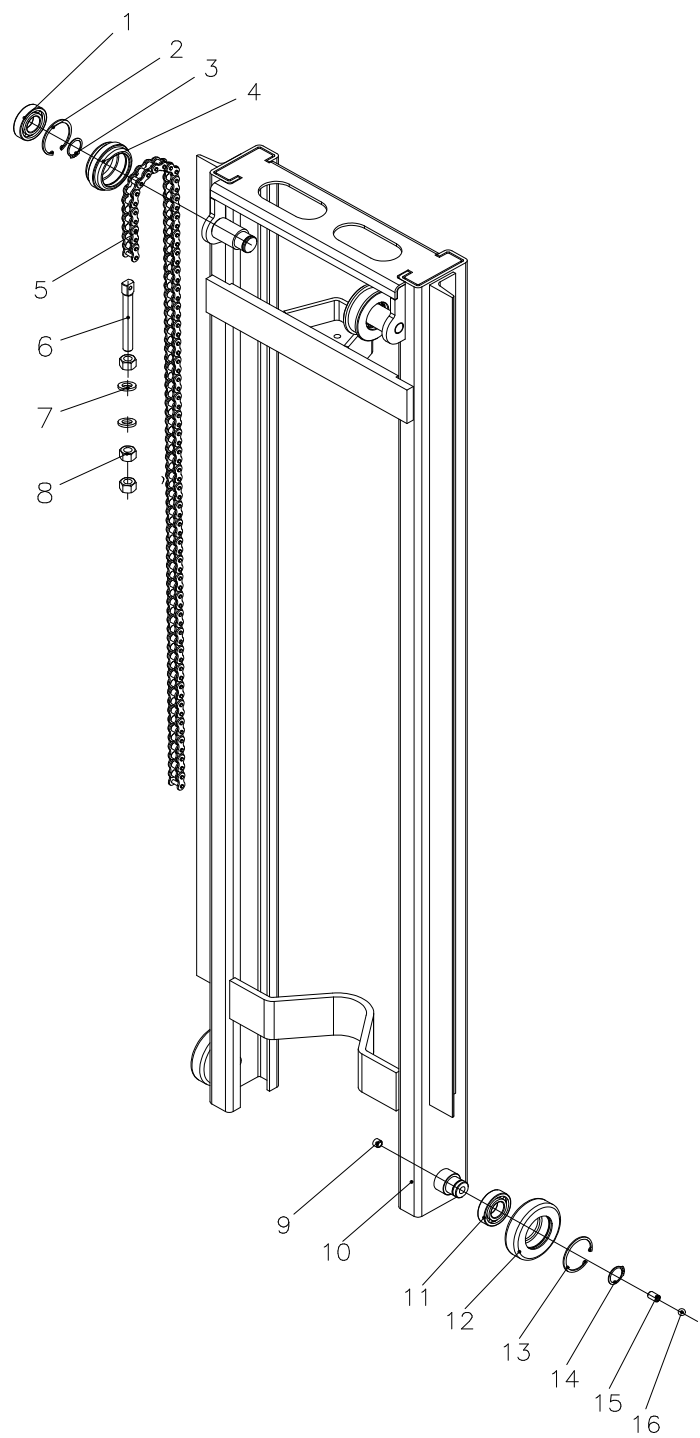


Fig.2 chassis assembly

Item No.	Part No.	Parts details	Qty	Remark
1	10210201	Bearing 6206	2	
2	10210202	Detent ring $\phi 52$	2	
3	10210203	Snap ring $\phi 30$	2	
4	10210204	Chain roller	2	
5	10210205	Roller Chain	2	
6	10210206	Chain connector	2	
7	10210207	Flat washer $\phi 16$	4	
8	10210208	Nut M16	6	
9	10210209	Block	2	
10	10210210	Inner mast for WS10S-ei	1	1T
	10210211	Inner mast for WS15S-ei	1	1.5T
11	10210212	Bearing 6206	2	
12	10210213	Roller cover	2	
13	10210214	Detent ring $\phi 62$	2	
14	10210215	Snap ring $\phi 30$	2	
15	10210216	Screw M12*20	2	
16	10210217	Steel ball $\phi 12$	2	

Fig.3 Fork assembly

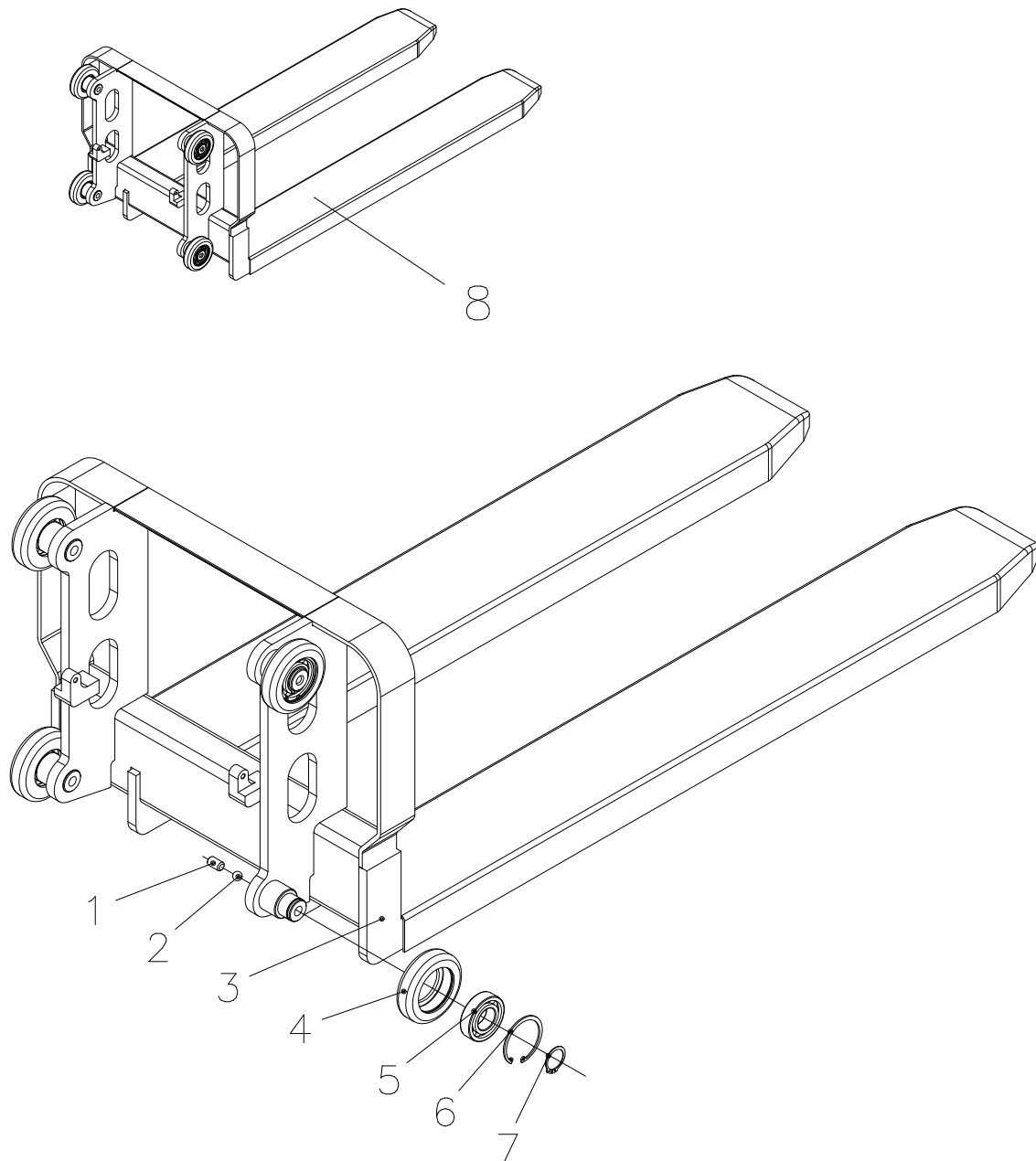


Fig.3 Fork assembly

Item No.	Part No.	Parts details	Qty	Remark
1	10210301	Screw M12*20	4	
2	10210302	Steel ball $\phi 13.5$	4	
3	10210303	Fork for WS10S-ei	1	1T
	10210304	Fork for WS15S-ei	1	1.5T
4	10210305	Roller cover $\phi 95 \times 26$	4	1.5T
	10210306	Roller cover $\phi 107.2 \times 32$	4	1T
5	10210307	Bearing 6206	4	
6	10210308	Detent ring $\phi 62$	4	
7	10210309	snap ring $\phi 30$	4	
8	10210310	Fork assy. for WS10S-ei	1	1T
	10210311	Fork assy. for WS15S-ei	1	1.5T

Fig.4 Steering control system

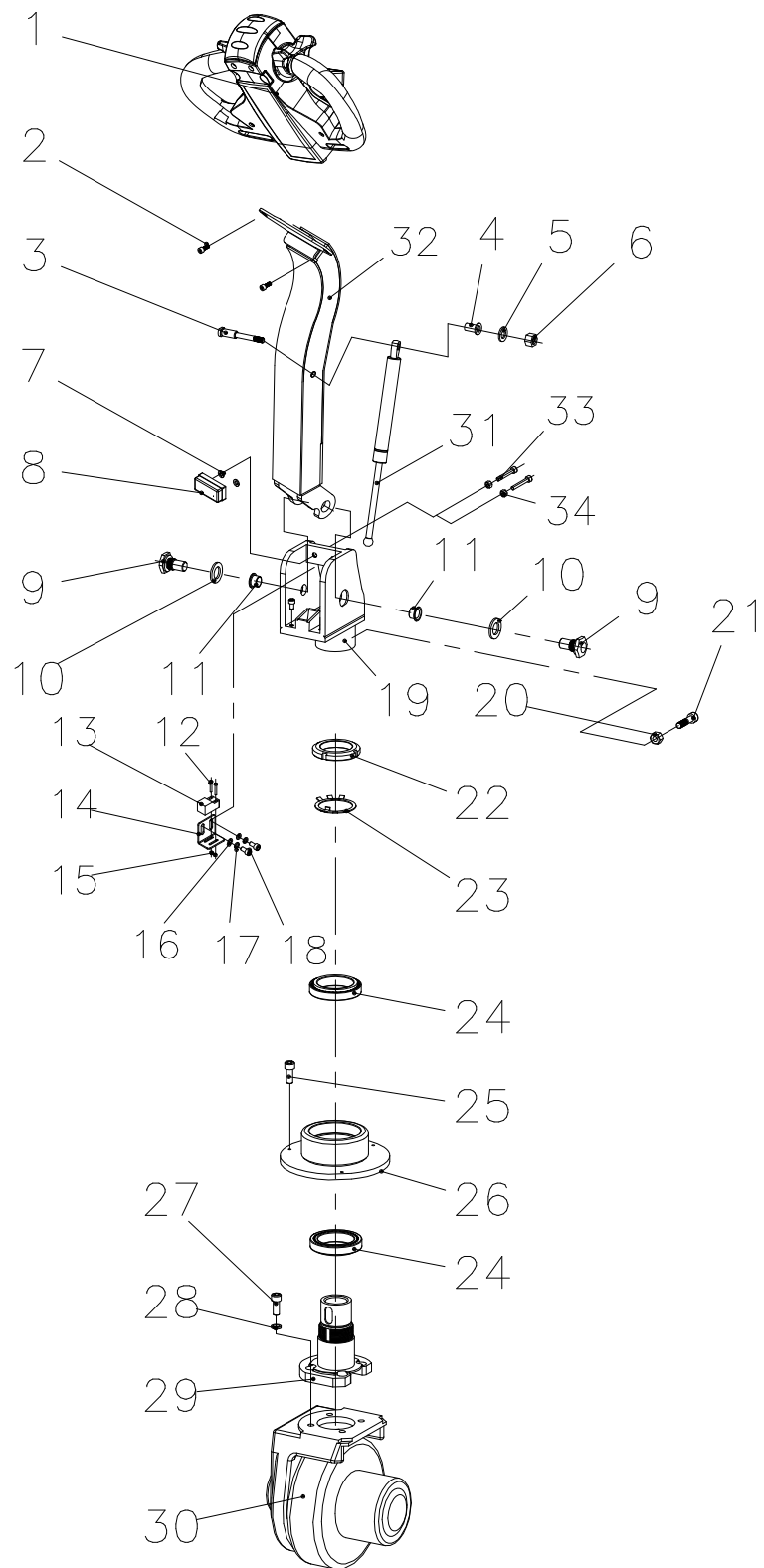


Fig.4 Steering control system

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10210401	Handle control box	1	
2	10210402	Screw M8*16	2	
3	10210403	Connecting axle	1	
4	10210404	Axle sleeve	1	
5	10210405	Flat washer $\phi 8$	1	
6	10210406	Nut M8*1.25	1	
7	10210407	Flat Washer $\phi 6$	2	
8	10210408	Handle cushion	1	
9	10210409	Bolt	2	
10	10210410	Spring washer $\phi 18$	2	
11	10210411	Oil-less bearing	2	
12	10210412	Screw M3*20	2	
13	10210413	Interlock switch(Sensor)	1	
14	10210414	Fixed seat	1	
15	10210415	Nut M3	2	
16	10210416	Flat Washer $\phi 6$	2	
17	10210417	Spring washer $\phi 6$	2	
18	10210418	Screw M6*12	2	
19	10210419	Connecting bracket	1	
20	10210420	Nut M12*1.75	1	
21	10210421	Screw M12*35	1	
22	10210422	Nut M55*2	1	
23	10210423	Lock washer $\Phi 55$	1	
24	10210424	Bearing 32912	2	
25	10210425	Screw M10 $\times$ 15	3	
26	10210426	Installation plate	1	
27	10210427	Screw M10 $\times$ 25	4	
28	10210428	Spring washer $\phi 10$	4	
29	10210429	Support seat	1	
30	10210430	Drive unit assy.	1	
31	10210431	Gas spring	1	
32	10210432	Handle tube	1	
33	10210433	Screw M6*25	2	
34	10210434	Nut M6	2	

Fig.5 Handle control box

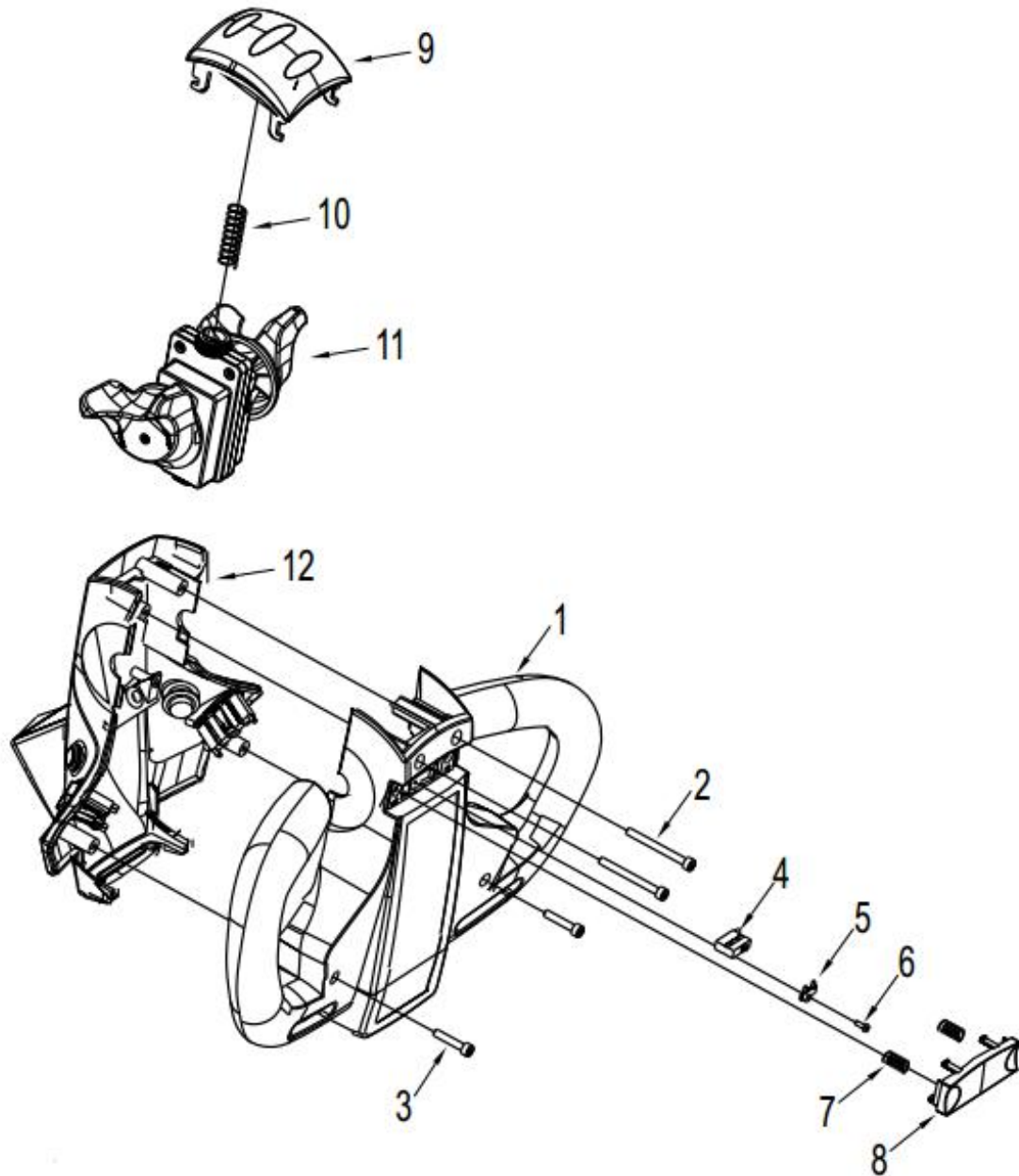


Fig.5 Handle control box

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10210501	Lower cover of handle	1	
2	10210502	Screw	2	
3	10210503	Screw	2	
4	10210504	Inching switch	1	
5	10210505	Fixed plate of inching switch	1	
6	10210506	Screw	1	
7	10210507	Spring	2	
8	10210508	Low-speed switch	1	
9	10210509	Emergency reverse button	1	
10	10210510	Spring	1	
11	10210511	Potentiometer assy.	1	
12	10210512	Upper cover assy. of handle	1	

Fig.6 Upper cover parts of handle

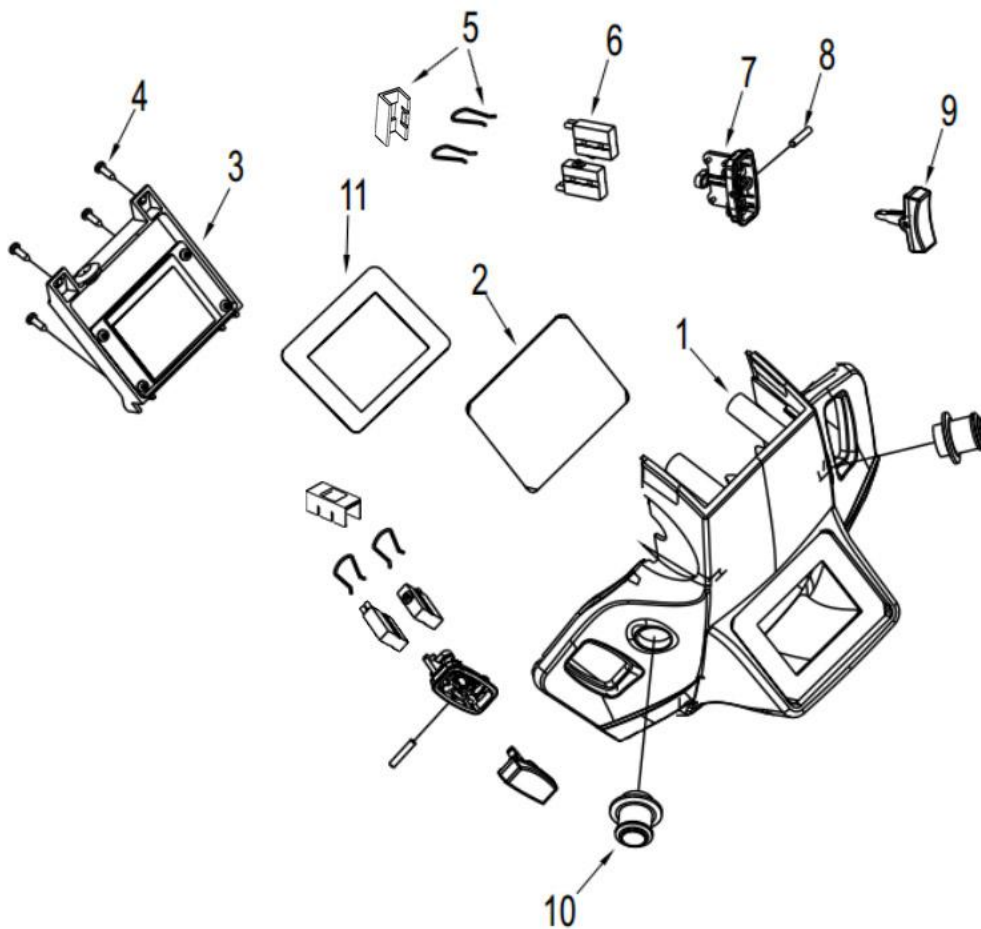


Fig.6 Upper cover parts of handle

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10230601	Upper cover of handle	1	
2	10230602	Cover of Monitor	1	
3	10230603	Monitor assy.	1	
4	10230604	Screw	4	
5	10230605	Clip (Old design ~2020.7.15)	4	
	10230605-1	Plastic fastener (New design 2020.7.1~)	2	
6	10230606	Inching switch	4	
7	10230607	Button socket	2	
8	10230608	Axle	2	
9	10230609	Lift/lower button	2	
10	10230610	Horn button	2	
11	10230611	Double sided adhesive	1	

Fig.7 Potentiometer assy.

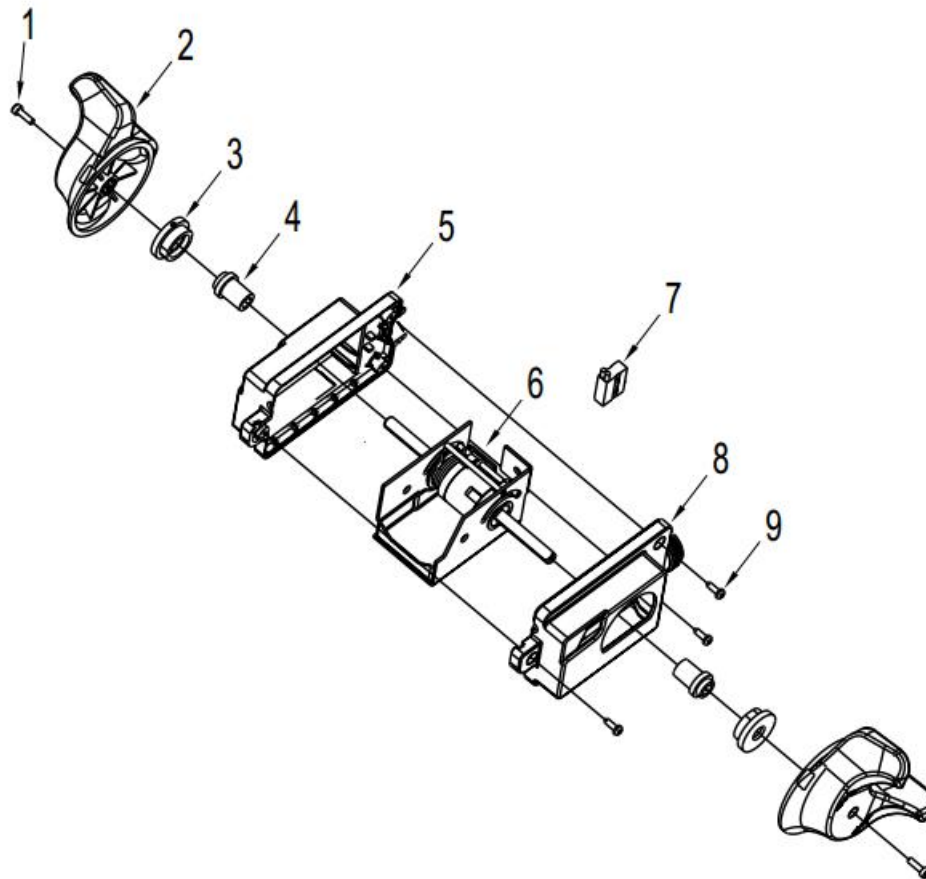


Fig.7 Potentiometer assy.

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10210701	Screw	2	
2	10210702	Control knob	2	
3	10210703	External spacer	2	
4	10210704	Interior spacer	2	
5	10210705	Right cover of potentiometer	1	
6	10210706	Potentiometer	1	
7	10210707	Inching switch	1	
8	10210708	Left cover of potentiometer	1	
9	10210709	Screw	3	

Fig.8 Driving unit assembly

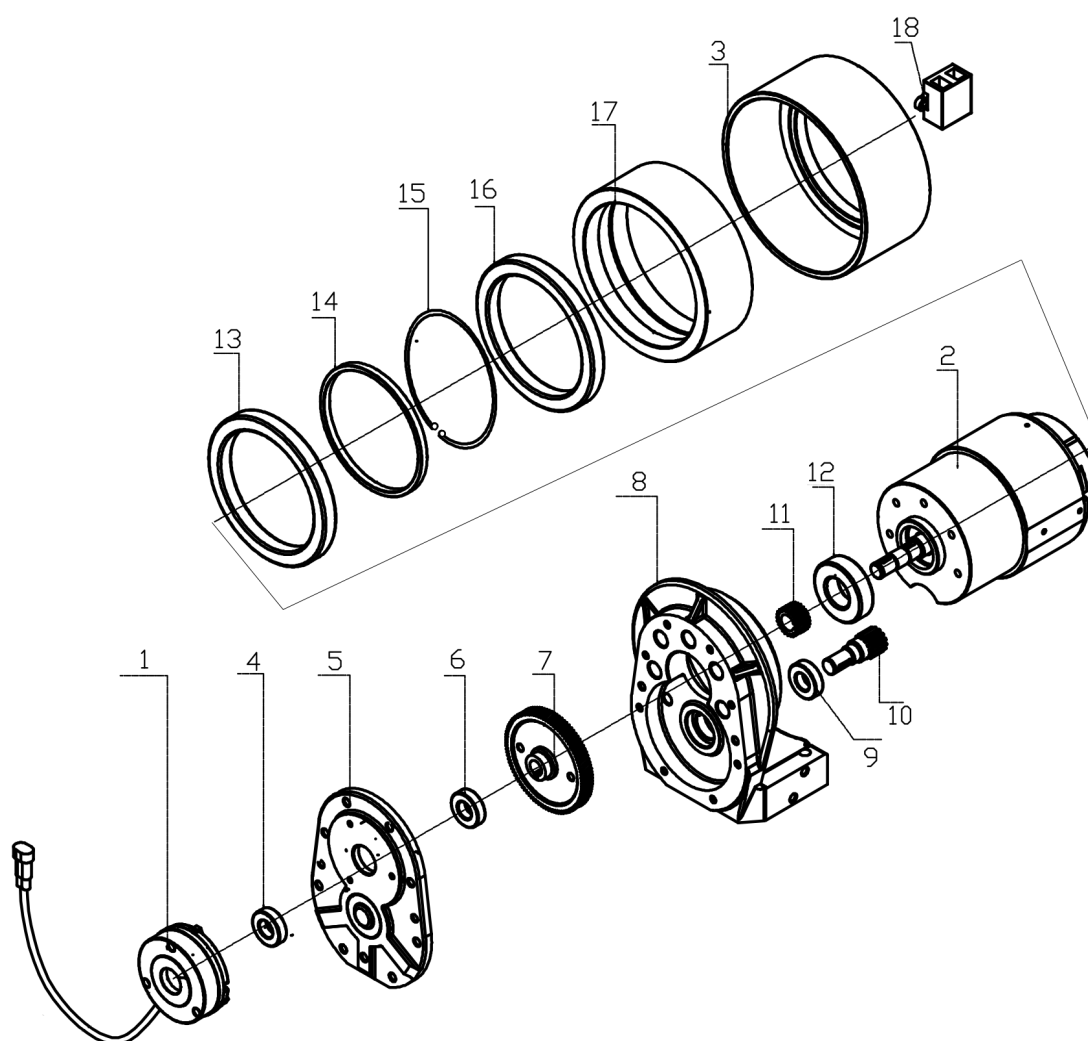


Fig.8 Driving unit assembly

Item No.	Parts No.	Specification	Qty/truck	Remark
1	10210801	Brake assy.	1	
2	10210802	Drive motor	1	
3	10210803	Drive wheel	1	
4		Seal washer	1	
5		Cover of gearbox	1	
6		Bearing	1	
7		Gear	1	
8		Gear box socket	1	
9		Bearing	1	
10		10# Gear	1	
11		Gear	1	
12		Seal washer	1	
13		Bearing	1	
14		Bearing ring	1	
15		Circlip	1	
16		Bearing	1	
17		15# Gear	1	
18		Junction box	1	

Fig.9 Balance wheel assembly

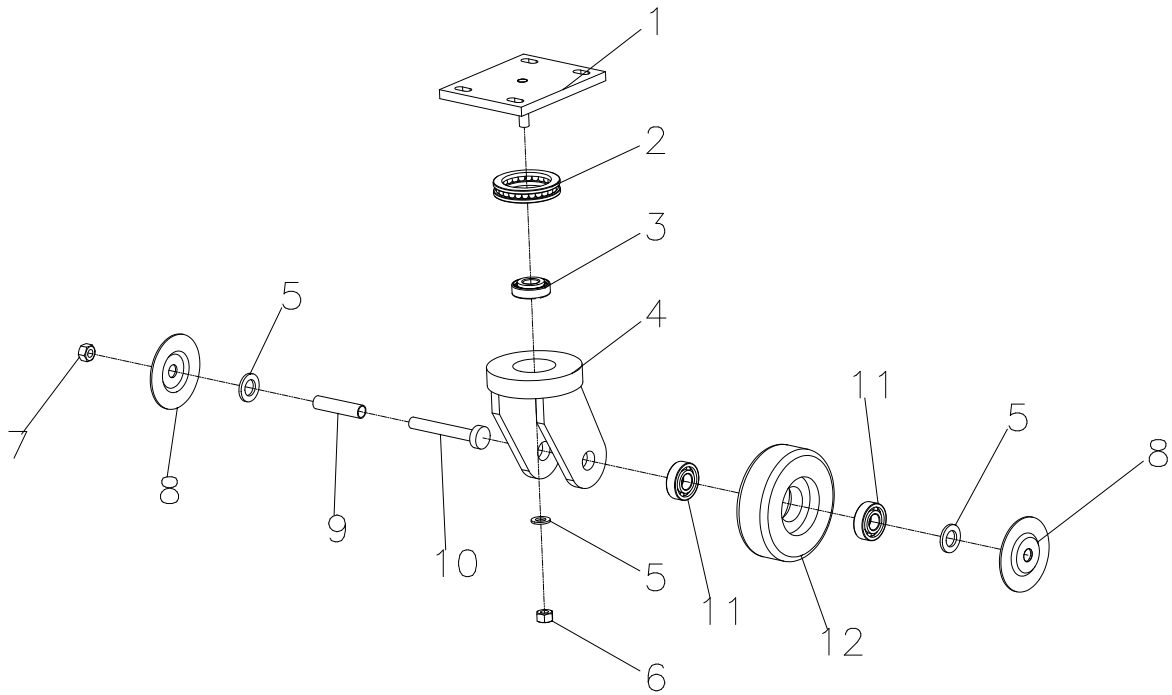


Fig.9 Balance wheel assy.

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10210901	Mounting plate	9	
2	10210902	Bearing 51110	1	
3	10210903	Bearing 30203	1	
4	10210904	Mounting bracket of balance wheel	1	
5	10210905	Flat washer $\phi 12$	1	
6	10210906	Nut M16	2	
7	10210907	Nut M12	2	
8	10210908	Pressing cover	2	
9	10210909	Sleeve of axle	2	
10	10210910	Linked axle	4	
11	10210911	Bearing 6203	4	
12	10210912	Balance wheel	4	

Fig.10 Loading wheel details

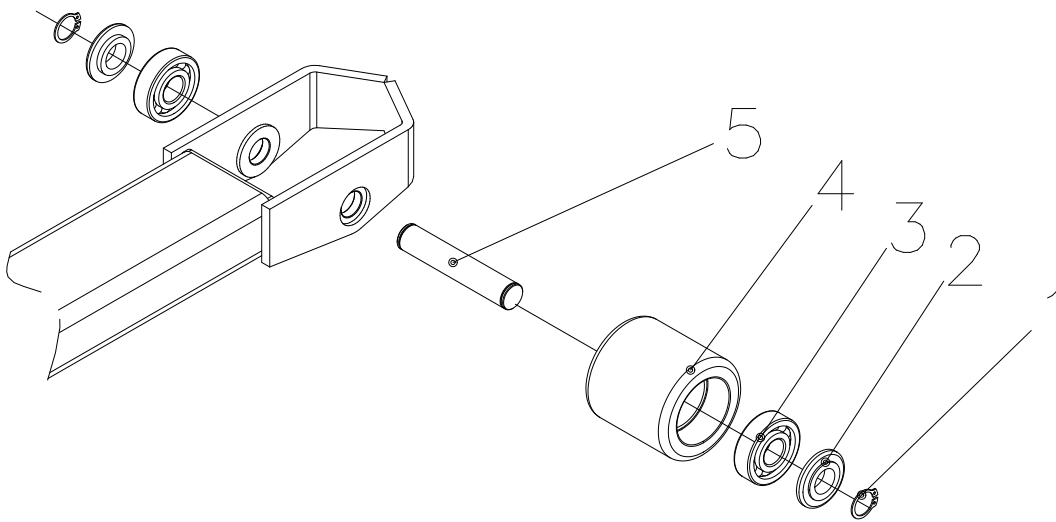


Fig.10 Loading wheel details

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10211001	Circlip for shaft 20	4	
2	10211002	Press cover	4	
3	10211003	Bearing 6304	4	
4	10211004	Loading wheel	2	
5	10211005	Axle of loading wheel	2	

Fig.11 Covers

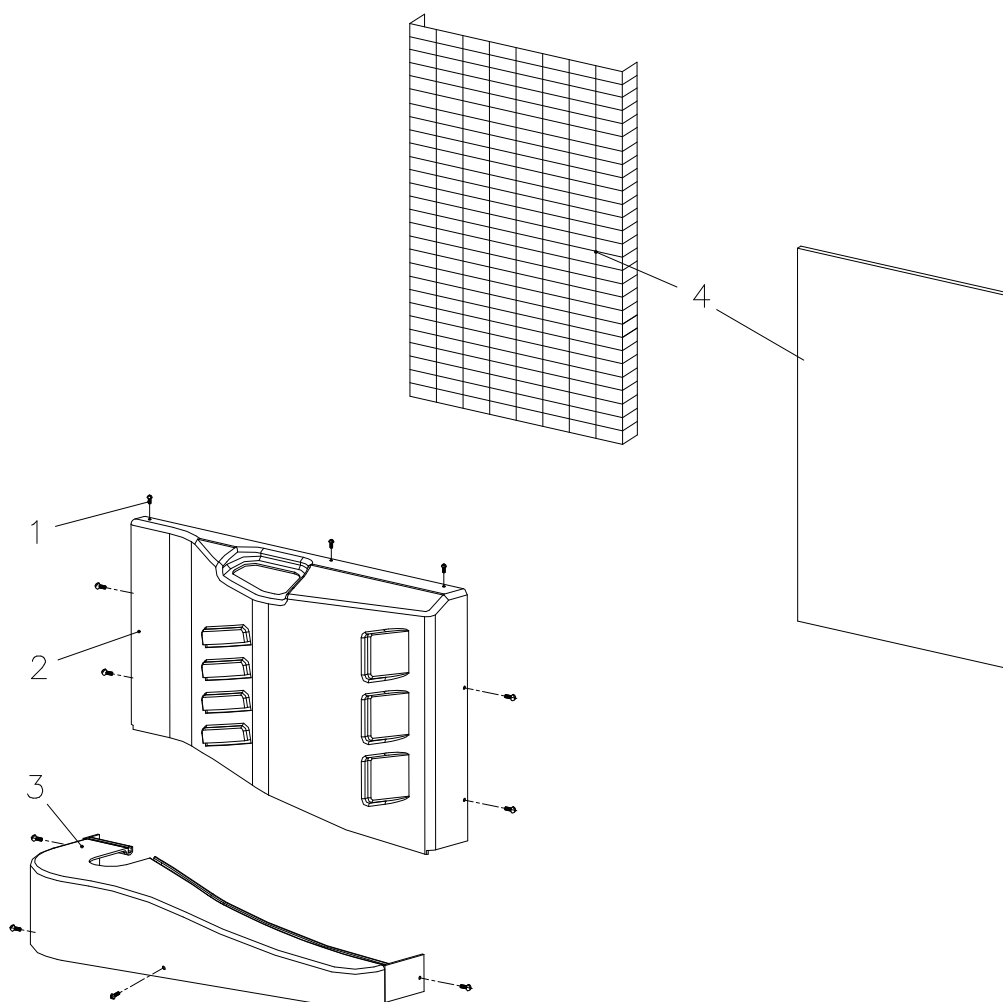


Fig.11 Covers

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10211101	Screw M6*10	10	
2	10211102	Upper cover	1	
3	10211103	Lower cover	1	
4	10211104	Iron net of mast	1	
	10211105	Plastic screen of mast	1	

Fig.12 Hydraulic system

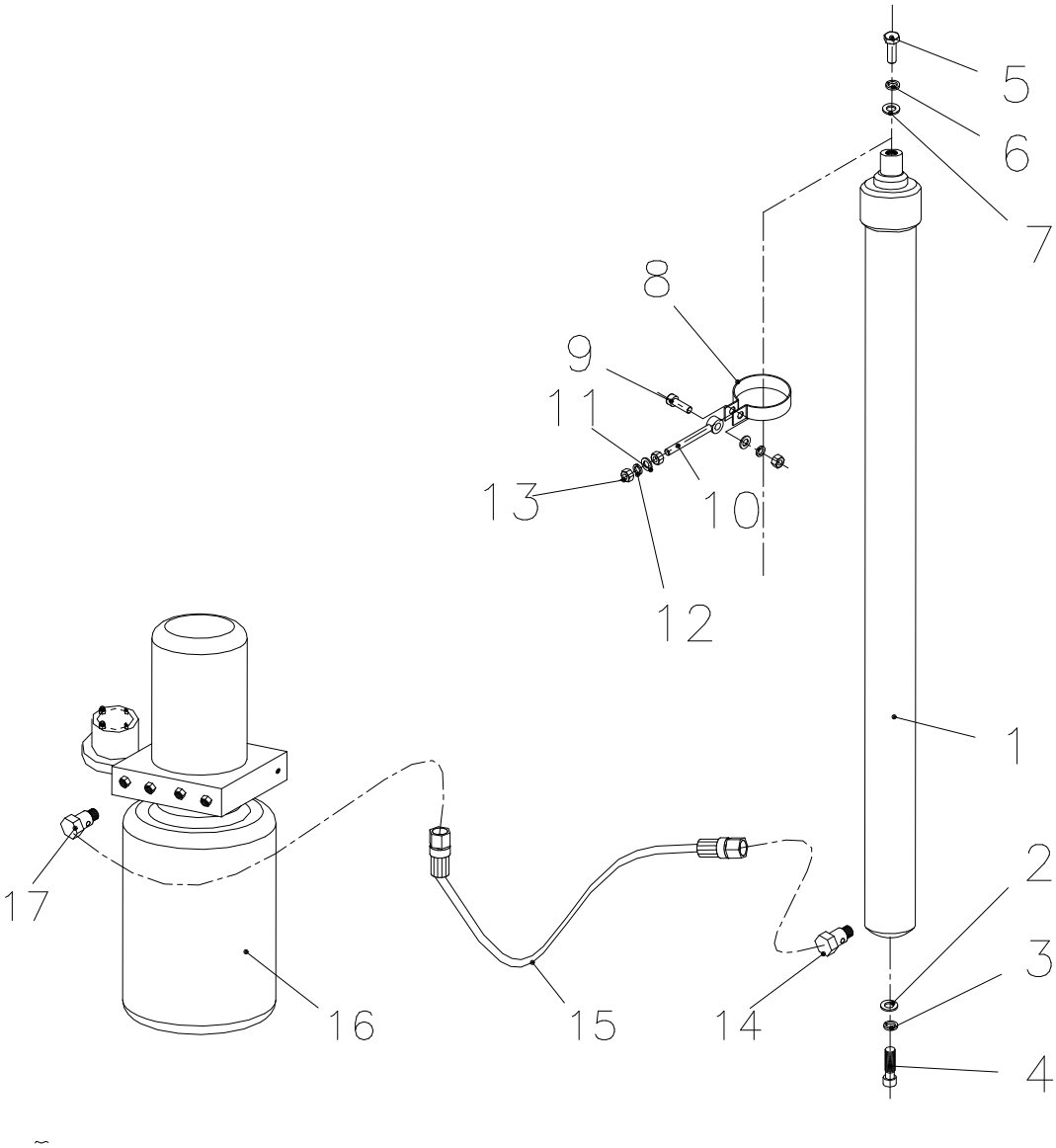


Fig.12 Hydraulic system

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10211201	Cylinder 1T/1.6M	1	WS10S-ei
	10211202	Cylinder 1T/2.0M	(1)	
	10211203	Cylinder 1T/2.5M	(1)	
	10211204	Cylinder 1T/3.0M	(1)	
	10211205	Cylinder 1T/3.3M	(1)	
	10211206	Cylinder 1T/3.5M	(1)	
	10211207	Cylinder 1.5T/1.6M	1	WS15S-ei
	10211208	Cylinder 1.5T/2.0M	(1)	
	10211209	Cylinder 1.5T/2.5M	(1)	
	10211210	Cylinder 1.5T/3.0M	(1)	
	10211211	Cylinder 1.5T/3.3M	(1)	
	10211212	Cylinder 1.5T/3.5M	(1)	
2	10211213	Flat washer $\phi 12$	1	
3	10211214	Spring washer $\phi 12$	1	
4	10211215	Screw M12 $\times$ 35	1	
5	10211216	Screw M10 $\times$ 30	1	
6	10211217	Spring washer $\phi 10$	1	
7	10211218	Flat washer $\phi 10$	1	
8	10211219	Hoop Clamp	1	
9	10211220	Screw M8 $\times$ 25	1	
10	10211221	Connected rod	1	
11	10211222	Flat washer $\phi 10$	3	
12	10211223	Spring washer $\phi 10$	2	
13	10211224	Screw M8	3	
14	10211225	Lower oil pipe connector	1	
15	10211226	Oil pipe	1	
16	10211227	Hydraulic unit assy.	1	
17	10211228	Upper oil pipe connector	1	

Fig.13 Pump system

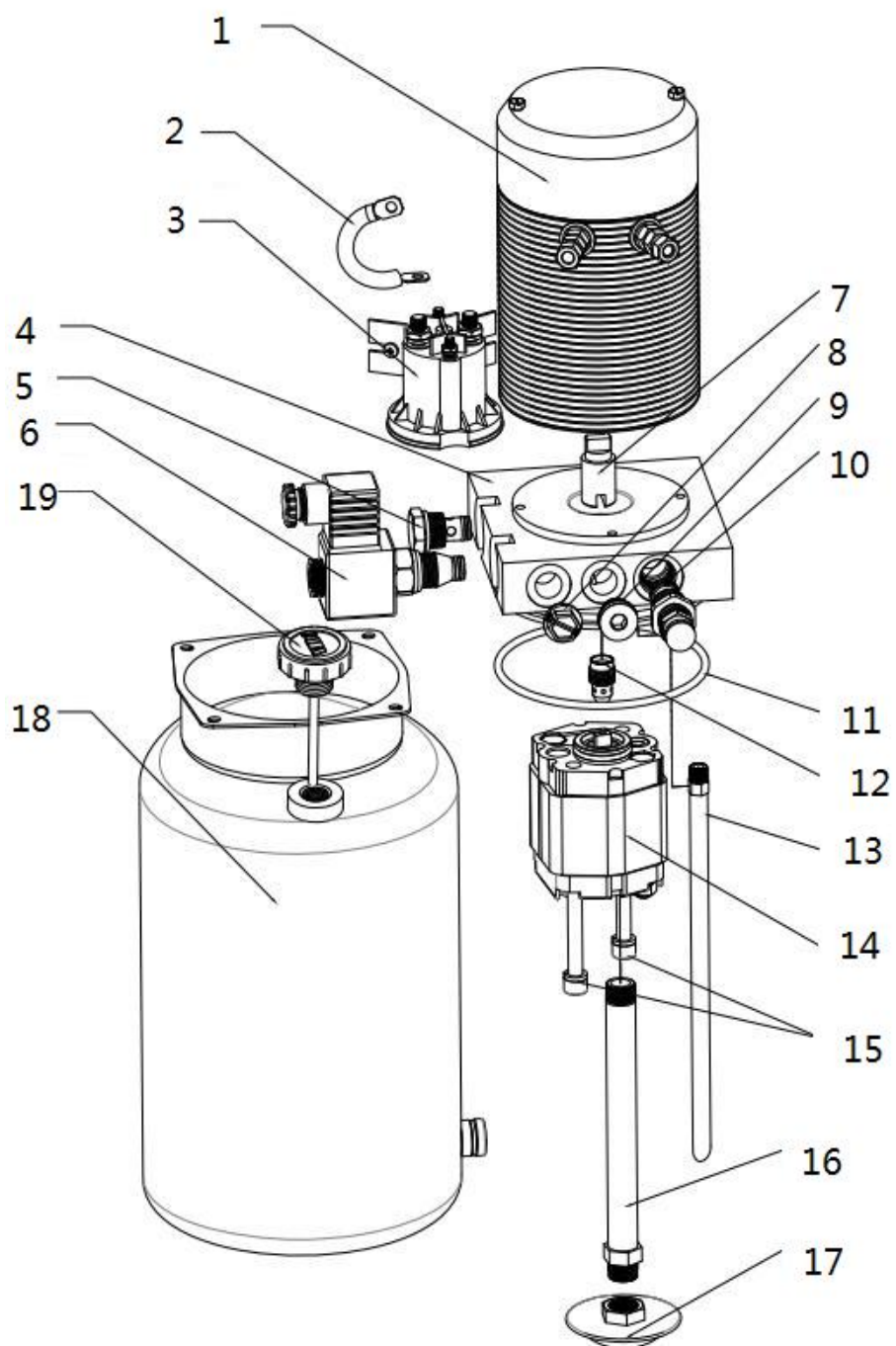


Fig.13 Pump system

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10211301	Lifting Motor	1	
2	10211302	Connecting wire	1	
3	10211303	Lifting contactor	1	
4	10211304	Valve block	1	
5	10211305	Check valve	1	
6	10211306	Magnetic valve	1	
7	10211307	Coupling	1	
8	10211308	Plug	1	
9	10211309	Plug	1	
10	10211310	Over-flow valve	1	
11	10211311	O-ring 112×4.0	1	
12	10211312	Pressure-compensated valve	1	
13	10211313	Oil return pipe	1	
14	10211314	Oil pump	1	
15	10211315	Bolt	2	
16	10211316	Oil suction pipe	1	
17	10211317	Filter mesh	1	
18	10211318	Oil tank	1	
19	10211319	Plug of oil tank	1	

Fig .14 Cylinder (1T) for WS10S-ei

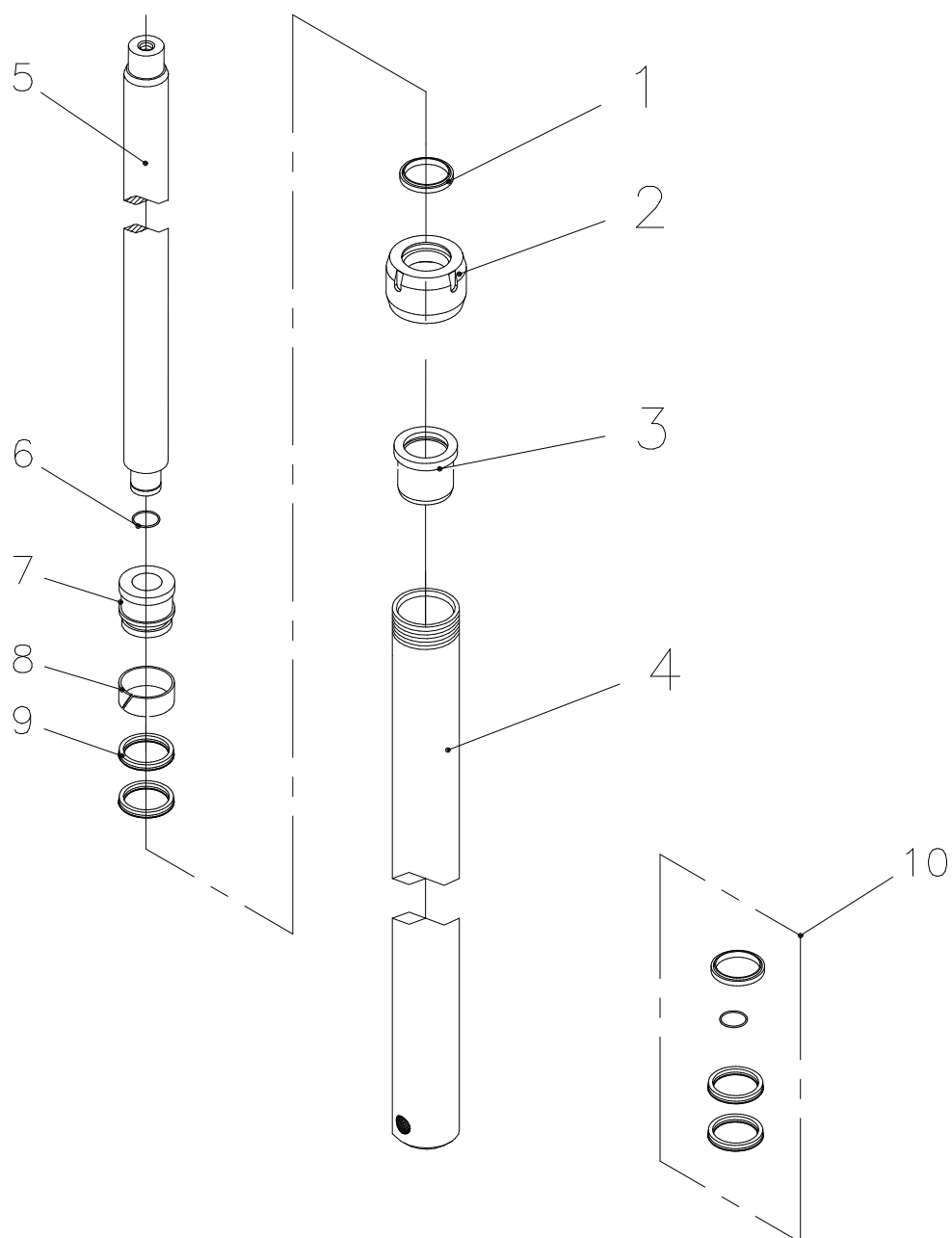


Fig .14 Cylinder (1T) for WS10S-ei

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10211401	Dust ring $\Phi 38 \times \Phi 46 \times 5/6$	1	
2	10211402	Top cover	1	
3	10211403	Guide sleeve	1	
4	10211404	Cylinder body 1T/1.6M	1	
	10211405	Cylinder body 1T/2.0M	1	
	10211406	Cylinder body 1T/2.5M	1	
	10211407	Cylinder body 1T/3.0M	1	
	10211408	Cylinder body 1T/3.3M	1	
	10211409	Cylinder body 1T/3.5M	1	
5	10211410	Piston rod 1T/1.6M	1	
	10211411	Piston rod 1T/2.0M	1	
	10211412	Piston rod 1T/2.5M	1	
	10211413	Piston rod 1T/3.0M	1	
	10211414	Piston rod 1T/3.3M	1	
	10211415	Piston rod 1T/3.5M	1	
6	10211416	O-ring $\Phi 30 \times 3.1$	1	
7	10211417	Piston rod head	1	
8	10211418	Support ring $\Phi 45 \times \Phi 40 \times 10$	1	
9	10211419	Seal washer $\Phi 35 \times \Phi 45 \times 6$	1	
10	10211420	Seal kits for WS10S-ei	1	

Fig .15 Cylinder (1.5T) for WS15S-ei

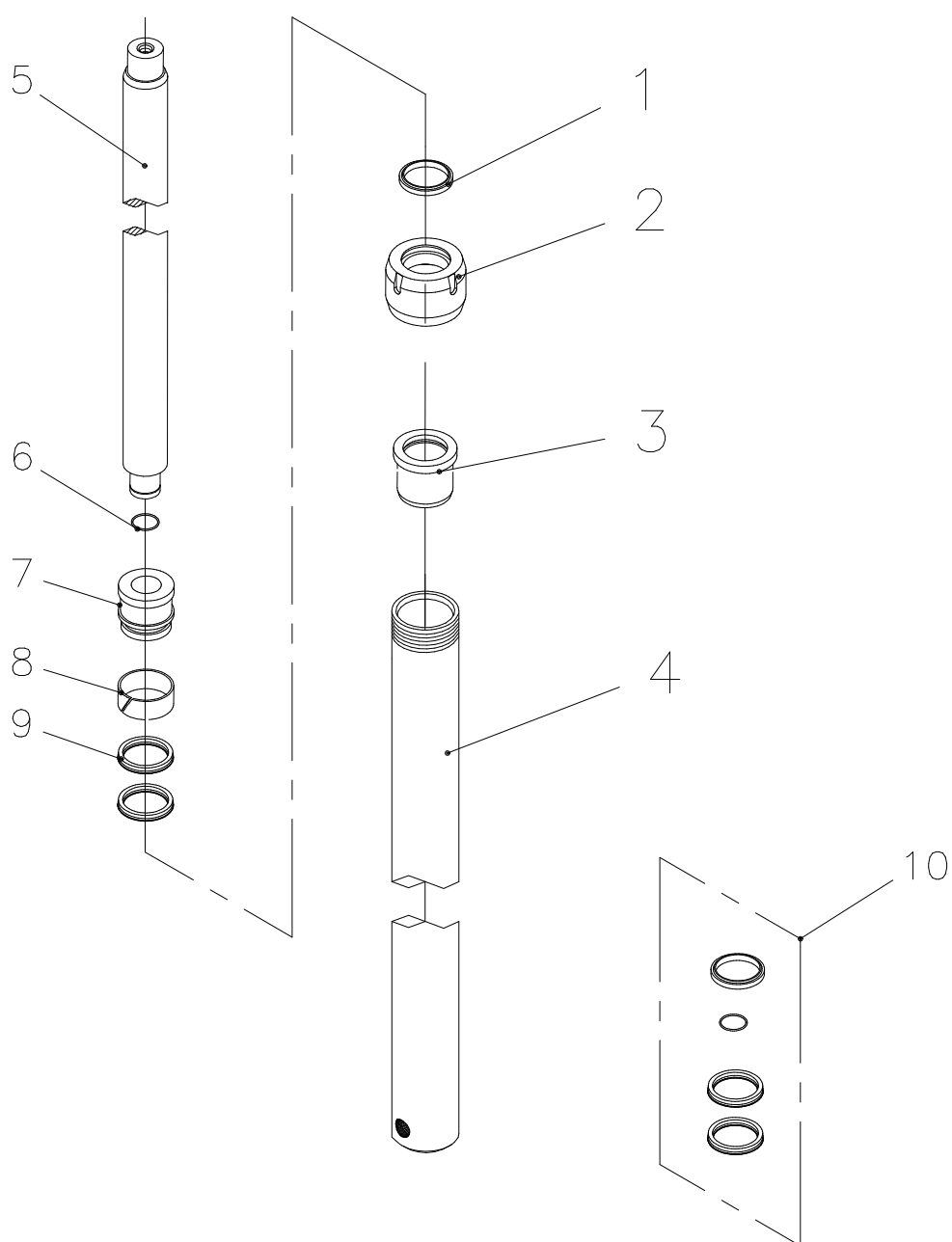


Fig .15 Cylinder (1.5T) for WS15S-ei

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10211501	Dust ring $\Phi 38 \times \Phi 46 \times 5/6$	1	
2	10211502	Top cover	1	
3	10211503	Guide sleeve	1	
4	10211504	Cylinder body 1.5T/1.6M	1	
	10211505	Cylinder body 1.5T/2.0M	1	
	10211506	Cylinder body 1.5T/2.5M	1	
	10211507	Cylinder body 1.5T/3.0M	1	
	10211508	Cylinder body 1.5T/3.3M	1	
	10211509	Cylinder body 1.5T/3.5M	1	
5	10211510	Piston rod 1.5T/1.6M	1	
	10211511	Piston rod 1.5T/2.0M	1	
	10211512	Piston rod 1.5T/2.5M	1	
	10211513	Piston rod 1.5T/3.0M	1	
	10211514	Piston rod 1.5T/3.3M	1	
	10211515	Piston rod 1.5T/3.5M	1	
6	10211516	O-ring $\Phi 30 \times 3.1$	1	
7	10211517	Piston rod head	1	
8	10211518	Support ring $\Phi 55 \times \Phi 50 \times 10$	1	
9	10211519	Seal washer $\Phi 45 \times \Phi 55 \times 6$	1	
10	10211520	Seal kits for WS15S-ei	1	

Fig .16 Electrical system

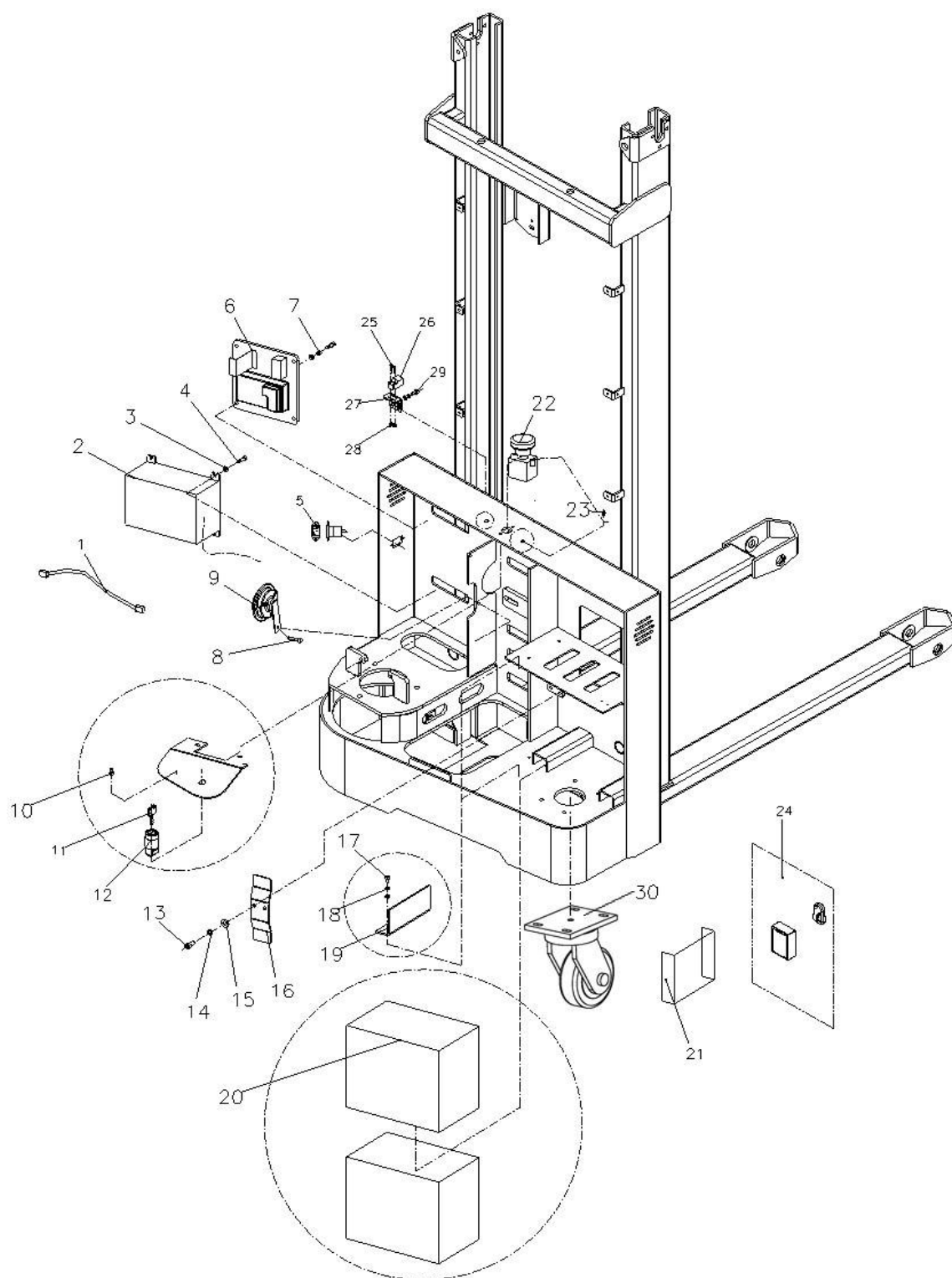
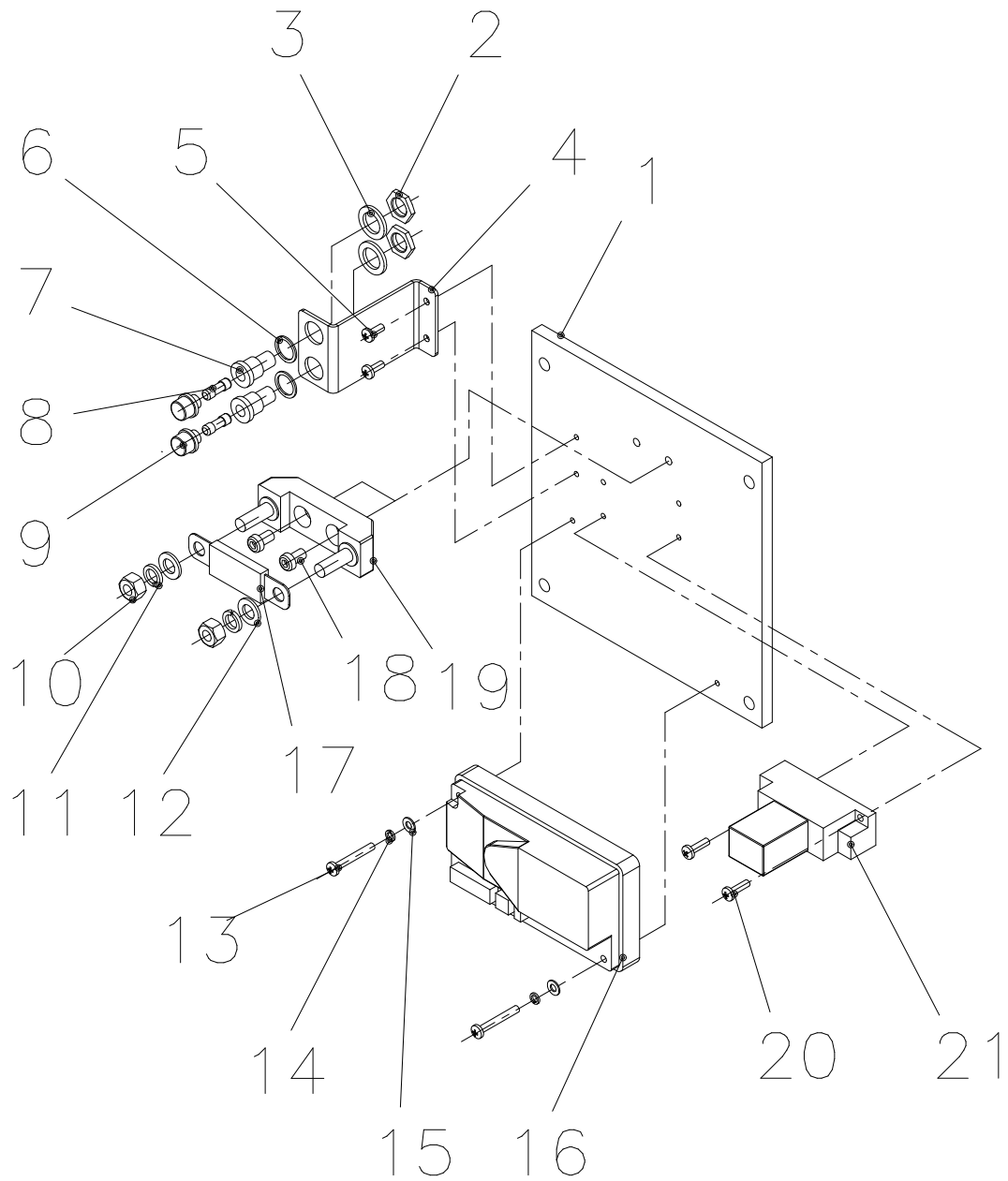


Fig .16 Electrical system

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10211601	Charging line	1	
2	10211602	24V/10A charger	1	
	10211603	24V/15A charger(Optional)	1	
3	10211604	Flat Washer $\phi 6$	8	
4	10211605	Screw M6*50	8	
5	10211606	10A Plug socket	1	
6	10211607	Electronic control system	1	
7	10211608	Nut M6*1.25	25	
8	10211609	Screw M6*20	1	
9	10211610	Horn	1	
10	10211611	Electricity indicator lamp	1	
11	10211612	Key	1	
12	10211613	Key switch assy.	1	
13	10211614	Screw M8*20	2	
14	10211615	Spring washer $\phi 8$	2	
15	10211616	Flat washer $\phi 8$	2	
16	10211617	Baffle	1	
17	10211618	Screw M6*10	4	
18	10211619	Spring washer $\phi 6$	10	
19	10211620	Battery baffle-1	2	
20	10211621	75Ah battery	2	
21	10211622	Battery baffle-2	2	
22	10211623	Emergency stop button	1	
23	10211624	Screw M5*16	2	
24	10211625	Remote control signal box assy.	1	
25	10211626	Screw M3*20	2	
26	10211627	Lifting speed limitation switch	1	
27	10211628	Installation plate	1	
28	10211629	Nut M3	2	
29	10211630	Screw M6*16	4	
30	10211631	Balance wheel assy.	1	

Fig.17 Electrical control system



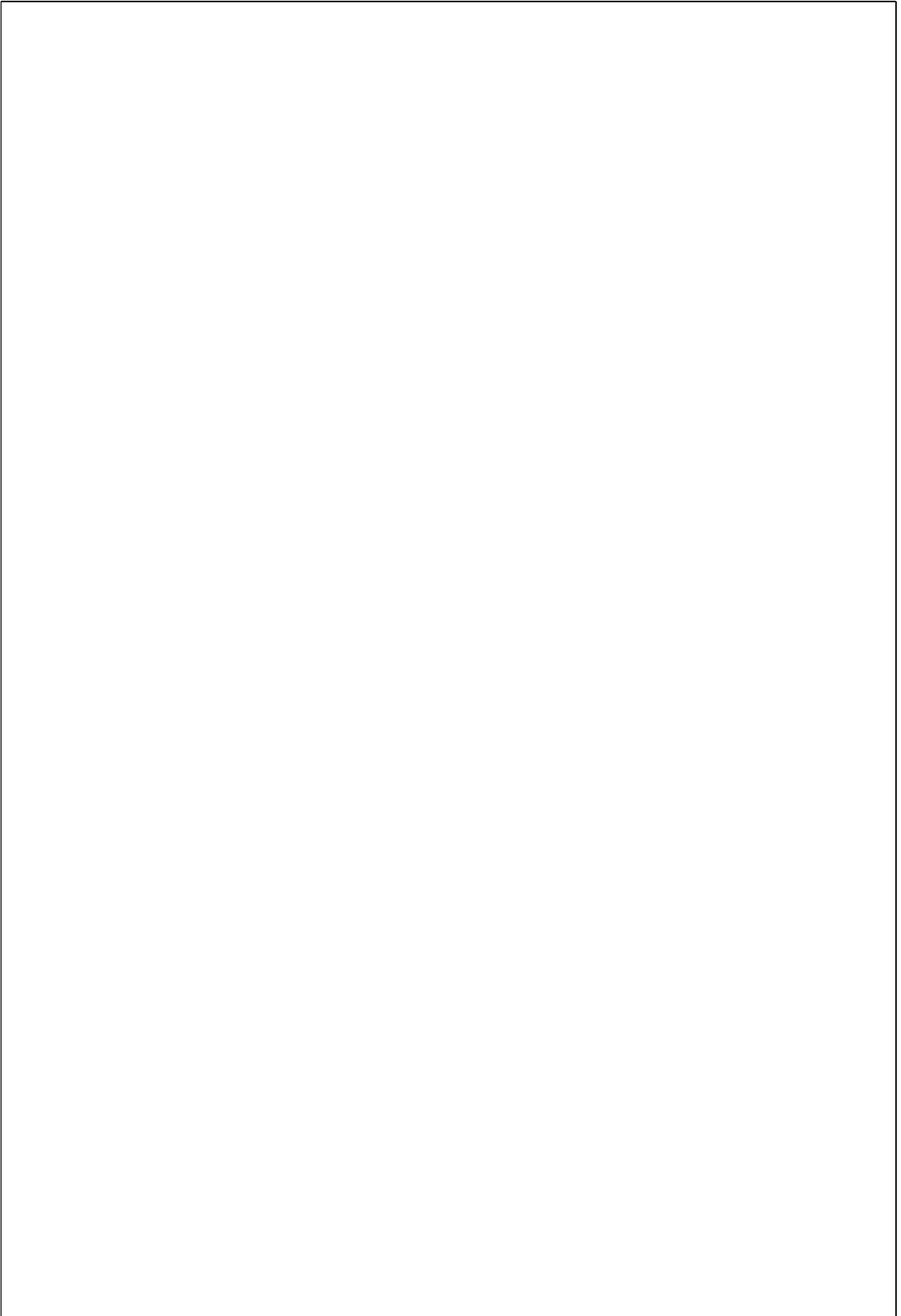


Fig.17 Electrical control system

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10211701	Installing plate	1	
2	10211702	Nut M12×1.0	1	
3	10211703	Flat washer 12	1	
4	10211704	Fuse bracket	1	
5	10211705	Screw M4×10	2	
6	10211706	Insulation pad of control circuit	1	
7	10211707	Fuse holder	1	
8	10211708	Fuse	1	
9	10211709	Fuse cap	1	
10	10211710	Flat washer 8	1	
11	10211711	Spring washer 8	1	
12	10211712	Nut M8	1	
13	10211713	Flat washer 4	1	
14	10211714	Spring washer 4	1	
15	10211715	Screw M4×30	2	
16	10211716	STAXX Controller A6101	1	
17	10211717	Fuse	1	
18	10211718	Screw	1	
19	10211719	Fuse holder	1	
20	10211720	Screw M4×10	2	
21	10211721	Electric relay	1	

Fig.18 Wire harness

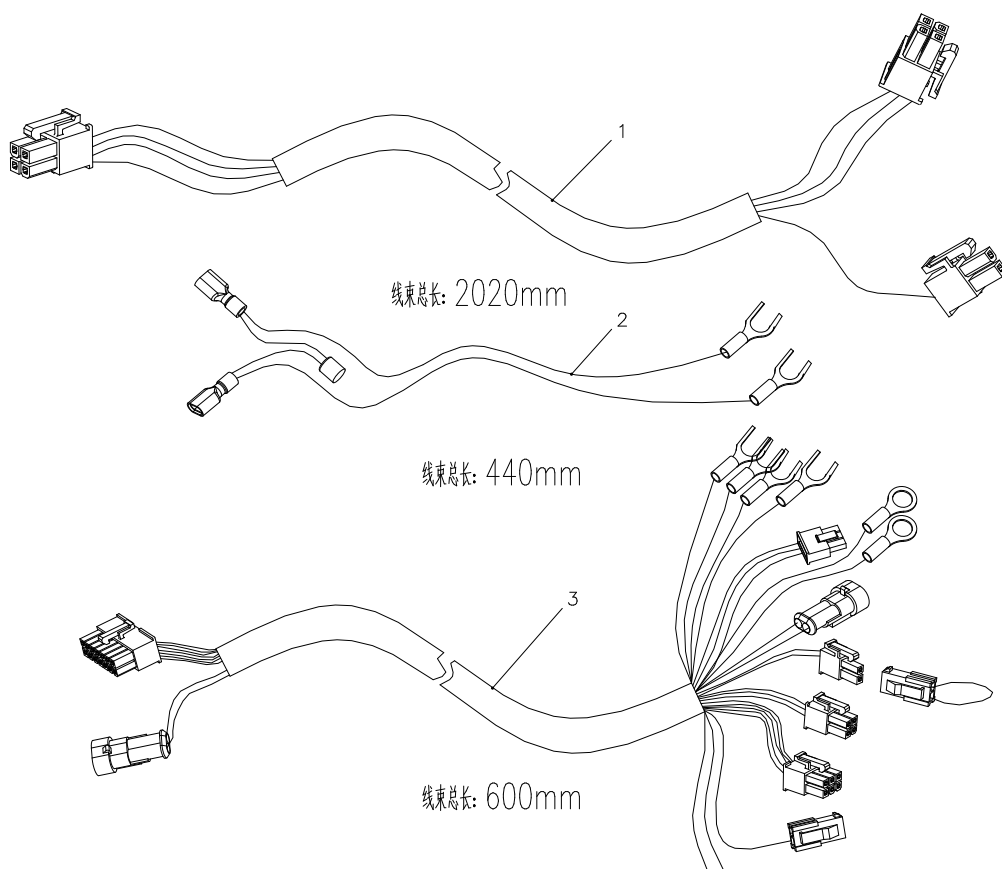


Fig.18 Wire harness

Item No.	Part No.	Parts details	Qty/truck	Remark
1	10211801	Handle cables	1	
2	10211802	Horn cables	1	
3	10211803	Main cable harness	1	