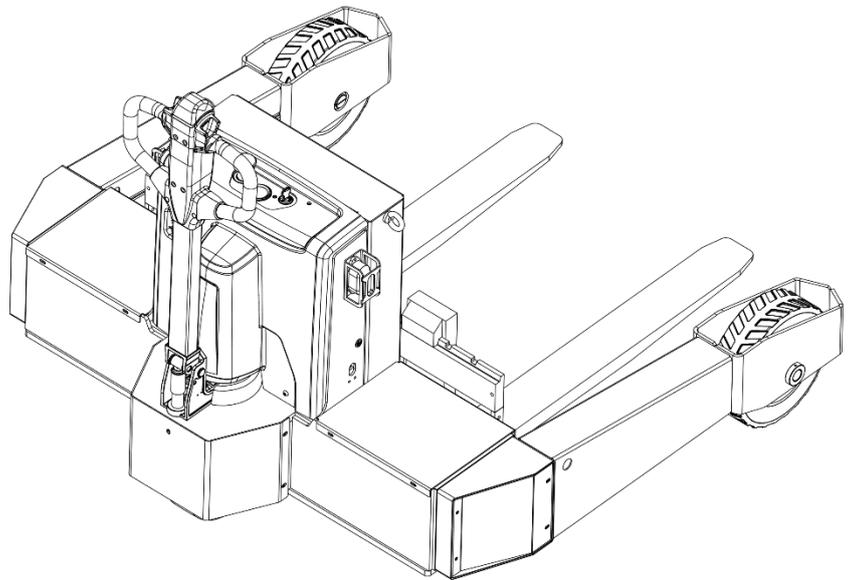


Electric Rough Terrain Pallet Truck PWS-230R

PARTS MANUAL

511146020102



Version V02

Truck Identification Number

From:

Parts Manual

PWS-230R -PM02EN

Please order spare parts from authorized dealers of our company.

In order to avoid wrong delivery, all the orders for spare parts should specify the following items:

- Truck model, identification number and manufacture year.
- Orders for spare parts of mast, hydraulic transmission unit, steering axle, motor, etc. shall indicate the manufacture number of these parts.
- Codes for our company spare parts are shown in the table of parts manual.

Please also pay attention to the description of supply status, order quantity, etc. (check the number listed in "Mark" column of the parts manual).

"Mark" Column:

The unmarked indicates the parts are in short supply cycle.

Number 1: supply as package. Indicating these that parts are small parts and seal parts, which are supplied in package unit and in short supply cycle.

Number 2: supply with constraints. Indicating that these spare parts are not in stock and will be prepared for production after receiving the order from customers, which are in long supply cycle.

Number 3: phasing-out supply. Indicating that these parts will be replaced by new parts due to technical improvements and the current stock will not be available when these parts run out. Please check the description of technical improvements notice.

Number 4: supply as assembly. Indicating that these parts are assembly parts defined by manufacture process, which cannot be supplied as a single part.

Number 5: check other tables.

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Figures in the manual are not limited by the original design. our company reserves the right to improve the products for continuous technology progress.

Print Number:

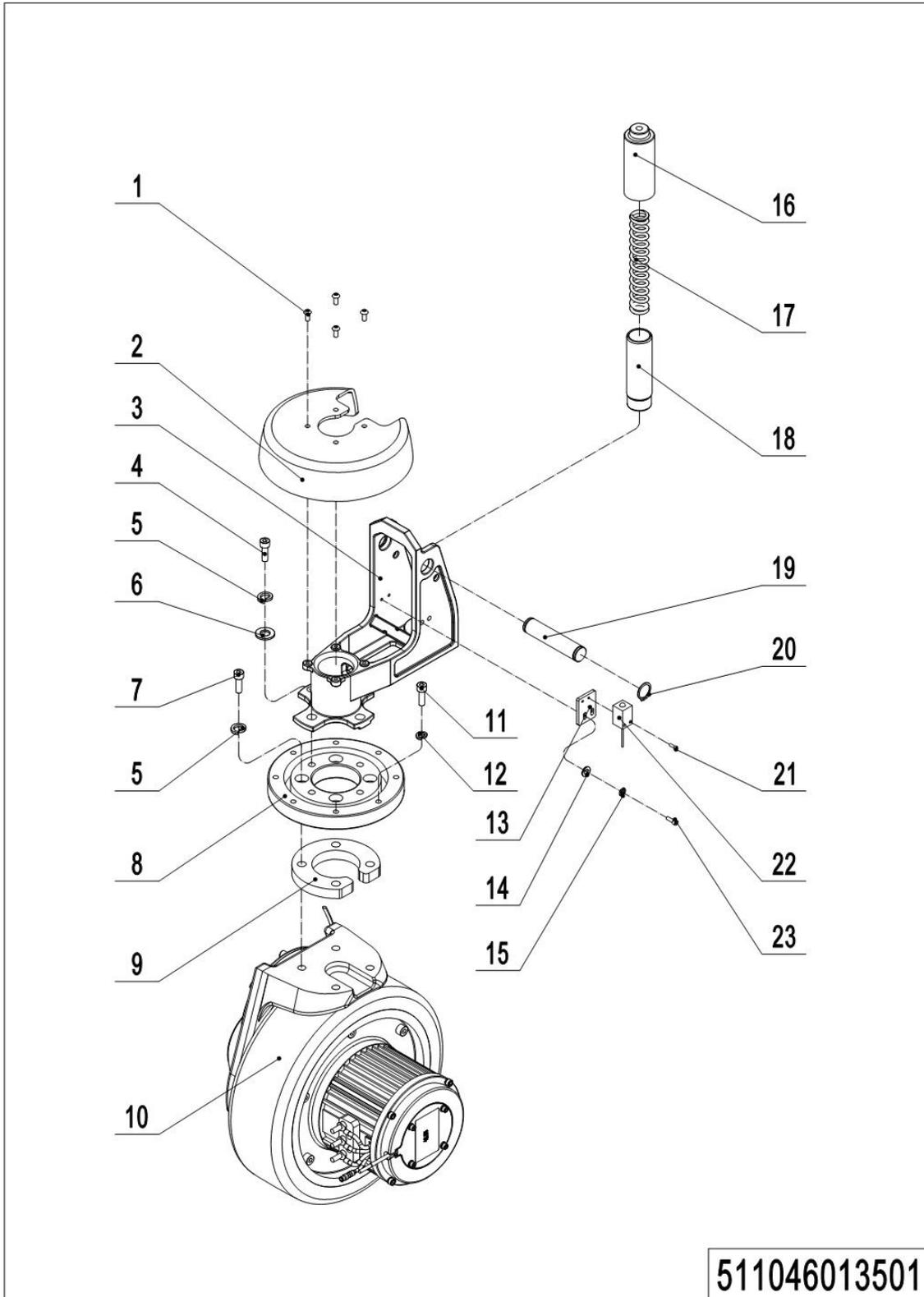
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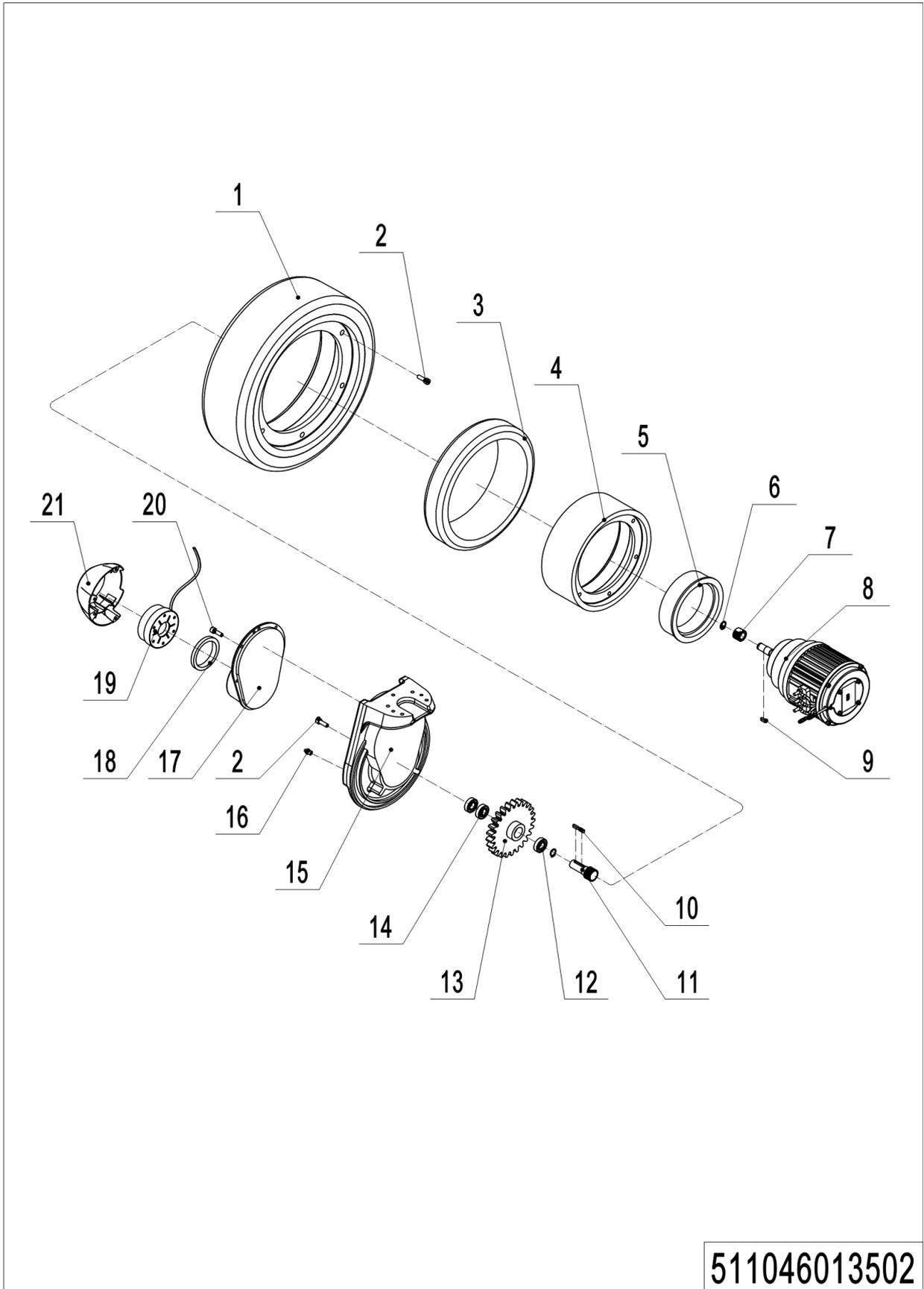
Chapter 1: Drive System

01 Drive Unit (511046013501)



01 Drive Unit (511046013501)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
1	910200300012	1	Screw M5x12	4		
2	511013520007		Guard Cover	1		
3	536613520001		Tiller Bracket	1		
4	910200200077	1	Screw M10x30	4		
5	910400500007	1	Spring Washer	8		
6	910400100007	1	Flat Washer	4		
7	910200200080	1	Screw M10x45	4		
8	532213520001		Slewing Bearing	1		
9	531813520005		Connecting Plate	1		
10	-----	5	Drive Assembly	1		See 511046013502
11	910200200059	1	Screw M8x30	8		
12	910400500006	1	Spring Washer	8		
13	536613520005		Mounting Plate	1		
14	910400100003	1	Flat Washer	2		
15	910400500003	1	Spring Washer	2		
16	536613520004		Footstock	1		
17	511013520006		Spring	1		
18	536613520003		Fixed Base	1		
19	508538520016		Pin Shaft	1		
20	910401300011	1	Circlip(Shaft)	2		
21	941101100001	1	Screw M3x22	2		
22	920200400051		Proximity Switch	1		
23	910200200014	1	Screw M4x12	2		

02 Drive Assembly (511046013502)

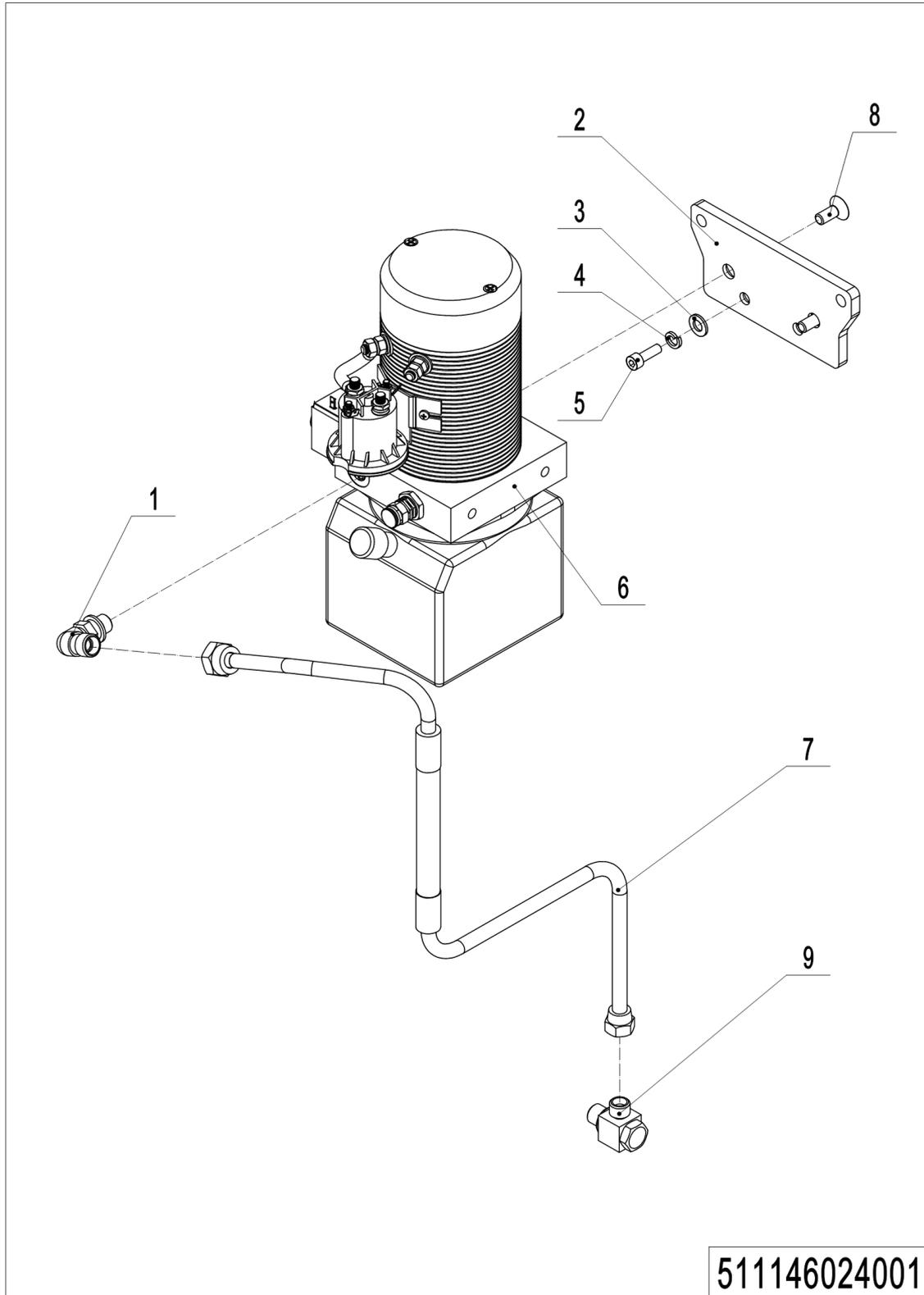
1= Supply as package. 2= Supply with constraints. 3= Phasing-out supply. 4= Supply as assembly. 5= Check other tables.

02 Drive Assembly (511046013502)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
--	940900100050		Drive Assembly	1		
1	511098510100		Drive Wheel	1		
2	511098510101	1	Screw	12		
3	511098510102		Gear Ring	1		
4	511098510103		Bearing	1		
5	511098510104		Sleeve	1		
6	511098510105	1	Circlip	1		
7	511098510106		Gear	2		
8	511098510108		Motor	1		
9	511098510107	1	Feather Key	1		
10	511098510110	1	Feather Key	2		
11	511098510109		Gear	2		
12	511098510111		Bearing	1		
13	511098510112		Gear	1		
14	511098510113		Bearing	2		
15	511098510114		Gearbox	1		
16	511098510115	1	Oil Cup	1		
17	511098510116		Cover	1		
18	511098510117	1	Oil Seal	1		
19	511098510118		Brake	1		
20	511098510119	1	Screw	4		
21	511098510120		Protective Cover	1		

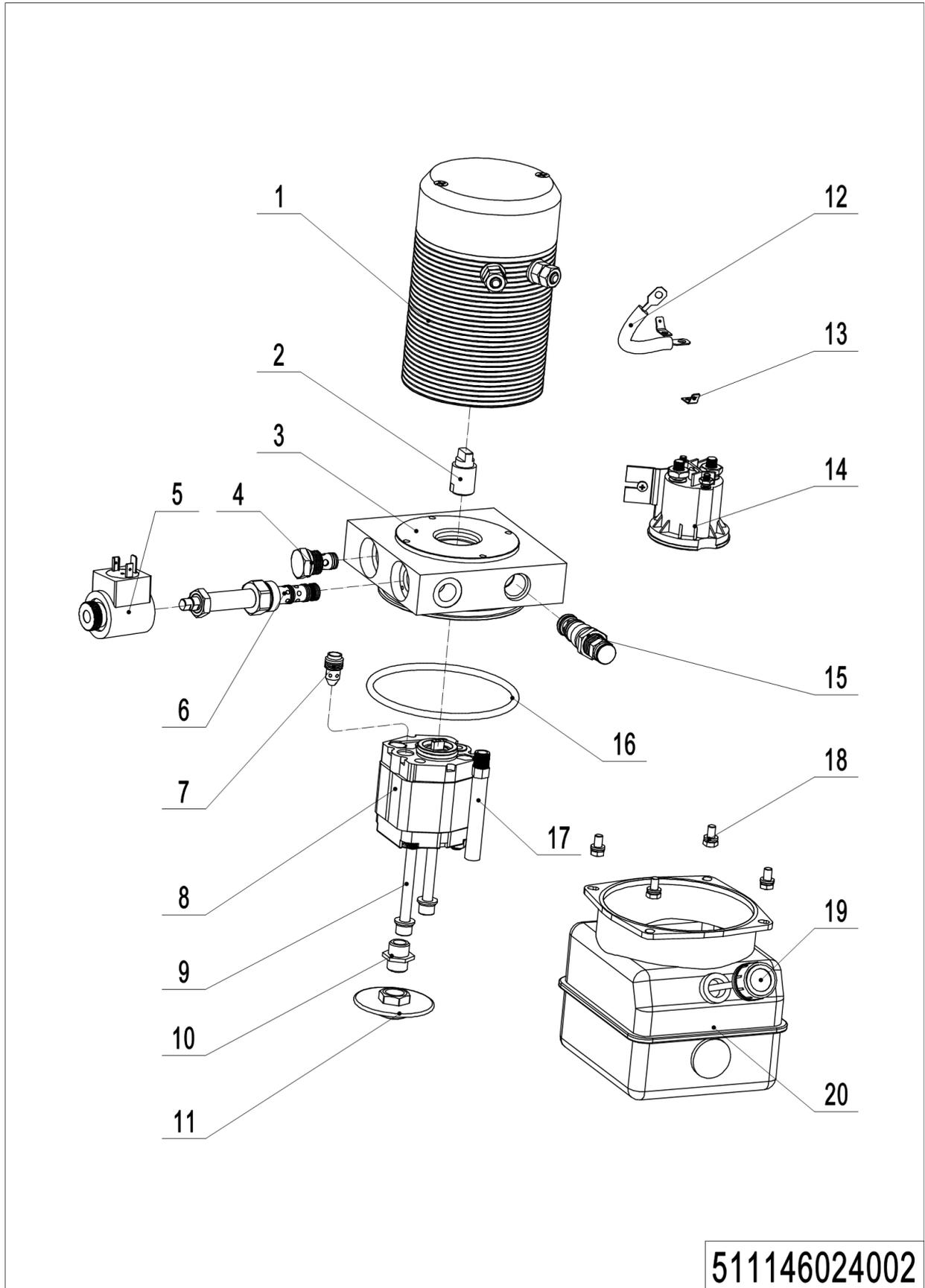
Chapter 2: Hydraulic System

01 Hydraulic Unit (511146024001)



01 Hydraulic Unit (511146024001)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
1	950401100008		Adapter	1		
2	511024020001		Mounting Plate	1		
3	910400100006	1	Flat Washer	2		
4	910400500006	1	Spring Washer	2		
5	910200200057	1	Screw M8x20	2		
6	-----	5	Pump Unit	1		See 511146024002
7	511124010006		Hose Assembly	1		
8	910200400025	1	Screw M8x20	2		
9	950401300004		Adapter	2		

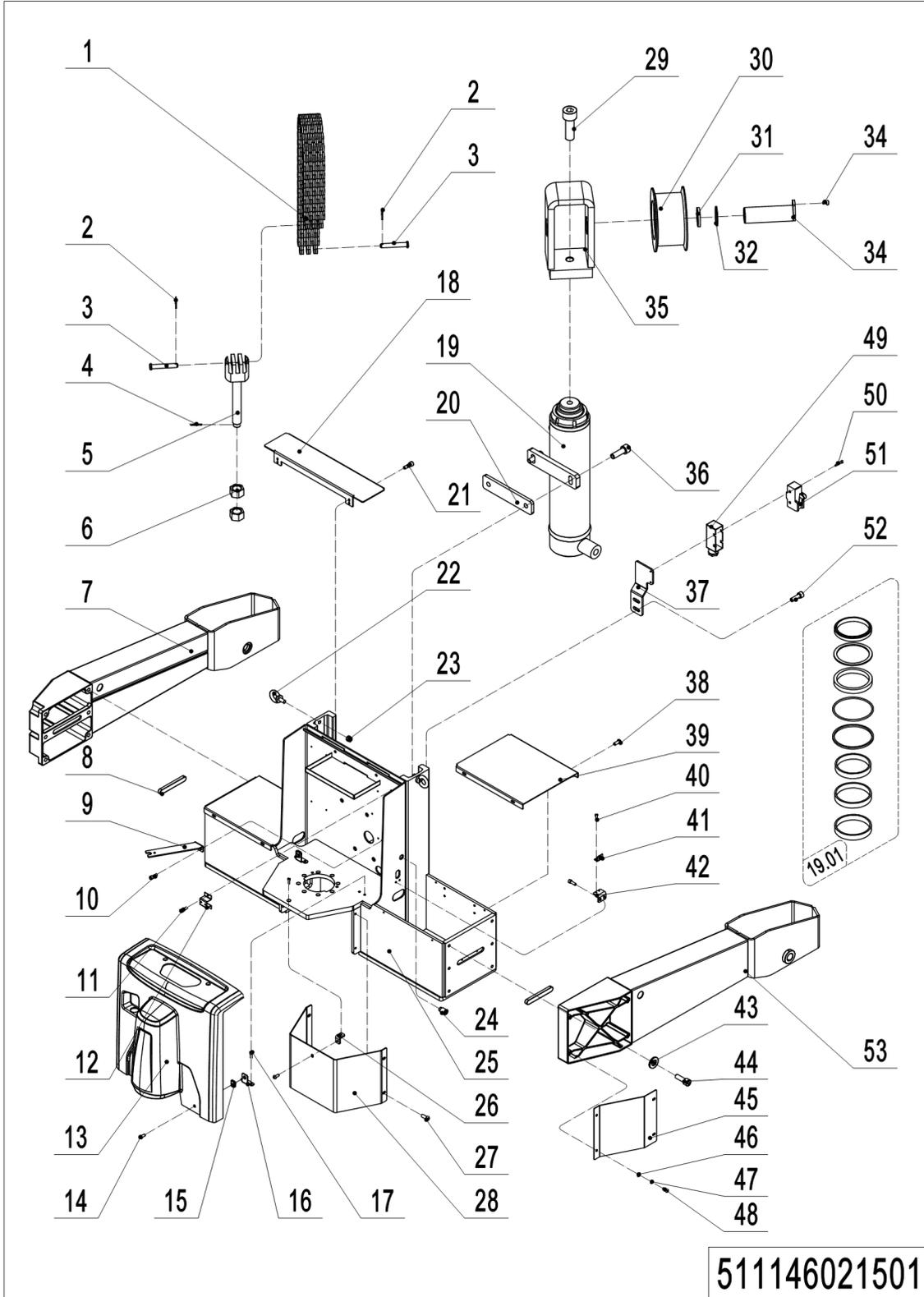
02 Pump Unit (VIBO,2.2KW)(511146024002)

02 Pump Unit (VIBO,2.2KW)(511046024002)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
--	950900100135		Pump Unit	1		
1	511198510001	2	Motor	1		
2	511198510005	2	Coupling	1		
3	511198510006	2	Valve Block	1		
4	511198510009	2	Check Valve	1		
5	511198510010	2	Coil	1		
6	511198510011	2	Magnetic Valve Element	1		
7	511198510008	2	Valve	1		
8	511198510013	2	Gear Pump	1		
9	511198510014	2	Screw	2		
10	511198510015	2	Adapter	1		
11	511198510016	2	Filter	1		
12	511198510002	2	Connection Wire	1		
13	511198510003	2	Start Switch Plug	2		
14	511198510004	2	Switch	1		
15	511198510007	2	Overflow Valve	1		
16	511198510012	2	O-Ring	1		
17	511198510017	2	Return Pipe	1		
18	511198510018	2	Screw	4		
19	511198510019	2	Tank Cover	1		
20	511198510020	2	Tank	1		

Chapter 3: Truck Body

01 Chassis (511146021501)

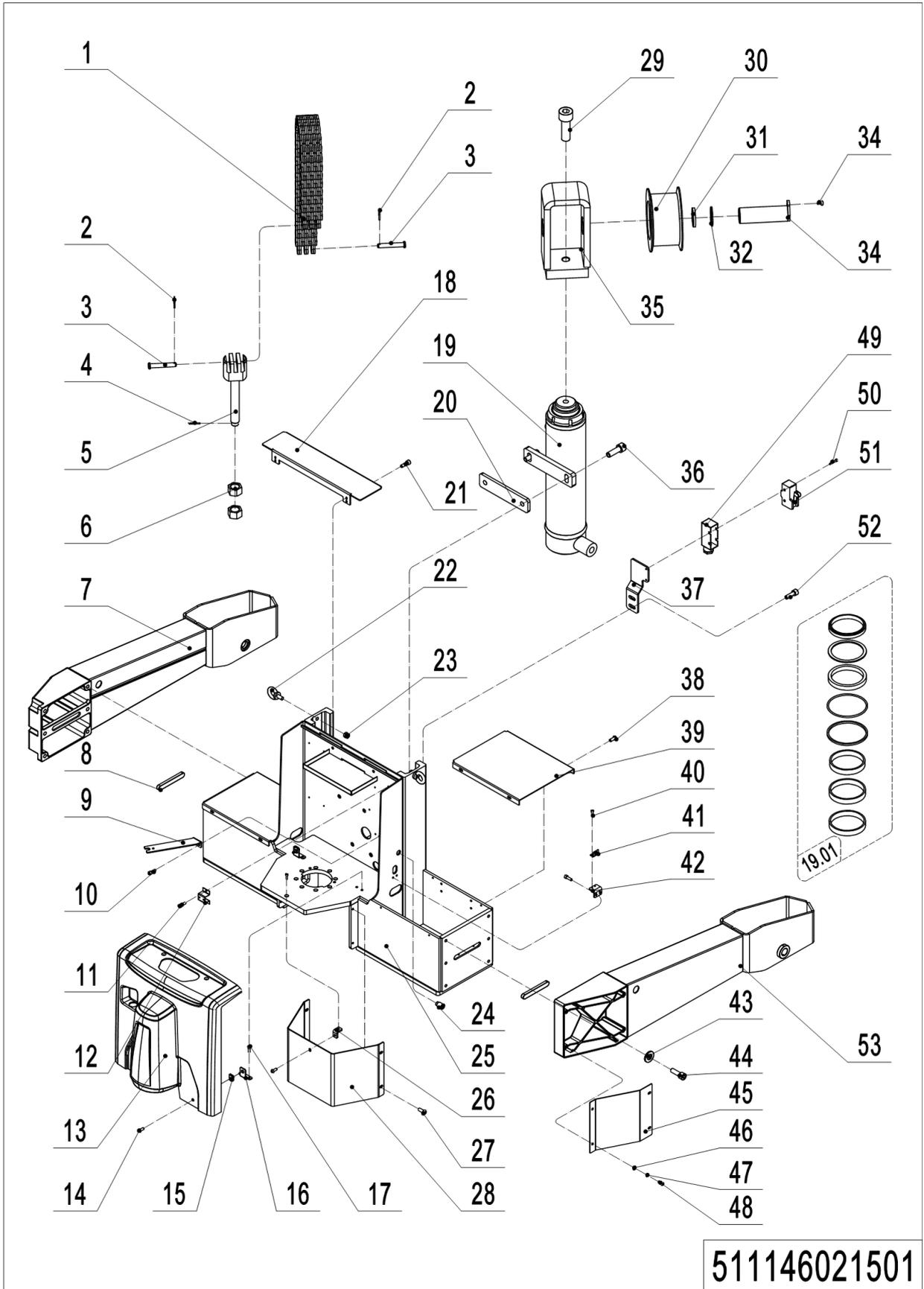


1= Supply as package. 2= Supply with constraints. 3= Phasing-out supply. 4= Supply as assembly. 5= Check other tables.

01 Chassis (511146021501)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
1	511121510004		Chain	1		
2	910600600015		Cotter Pin	2		
3	941100800009		Pin Shaft	2		
4	910600600023		Cotter Pin	1		
5	535045020024		Chain Bolt	1		
6	910300200008	1	Nut	2		
7	511021510002		Fork Legs(Left)	1		
8	910600800049		Flat Key	2		
9	511021520039		Fixed Plate	1		
10	910200300017	1	Screw M6x12	10		
11	910200200021	1	Screw M5x10	2		
12	511021520035		Fixed Plate	1		
13	910200300025	1	Screw M8x20	4		
14	910200300025	1	Screw M8x20	4		
15	940400400002	1	Cage Nut	4		
16	536621520049		Fixed Plate	2		
17	910200200035	1	Screw M6x16	6		
18	511021520040		Guard Plate	1		
19	511121510005		Cylinder	1		
19.01	511098510030	1	Seal Kit	1		
20	511121520003		Subplate	1		
21	910200300011	1	Screw M5x10	4		
22	910201700002	1	Screw M12	2		
23	910300500006		Nut	2		
24	536633010018		Wire Harness	1		
25	511121510001		Chassis	1		
26	536621520050		Fixed Plate	1		
27	910200300024	1	Screw M8x16	5		
28	536621520044		Baffle	1		

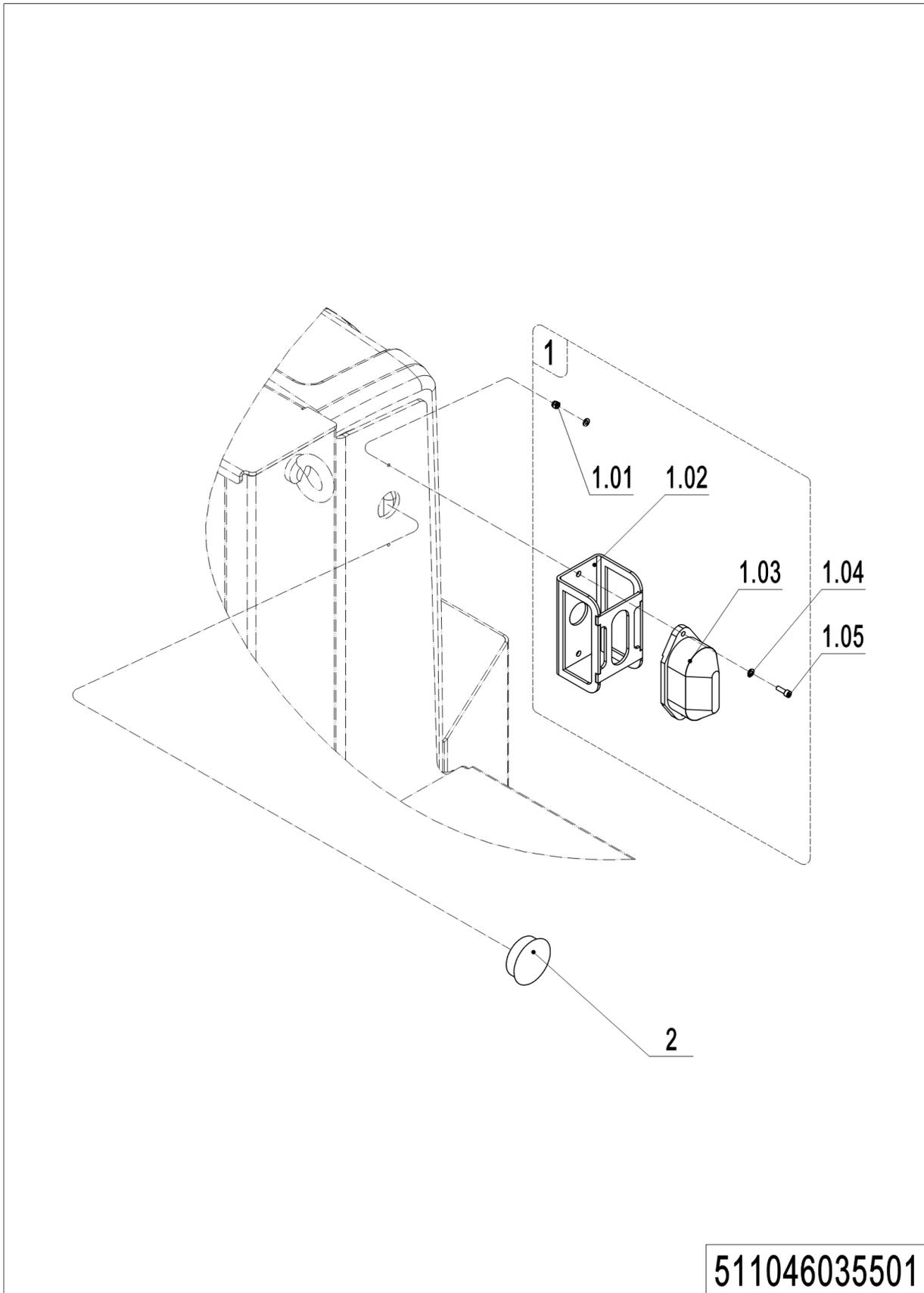
01 Chassis (511146021501) Continuation



1= Supply as package. 2= Supply with constraints. 3= Phasing-out supply. 4= Supply as assembly. 5= Check other tables.

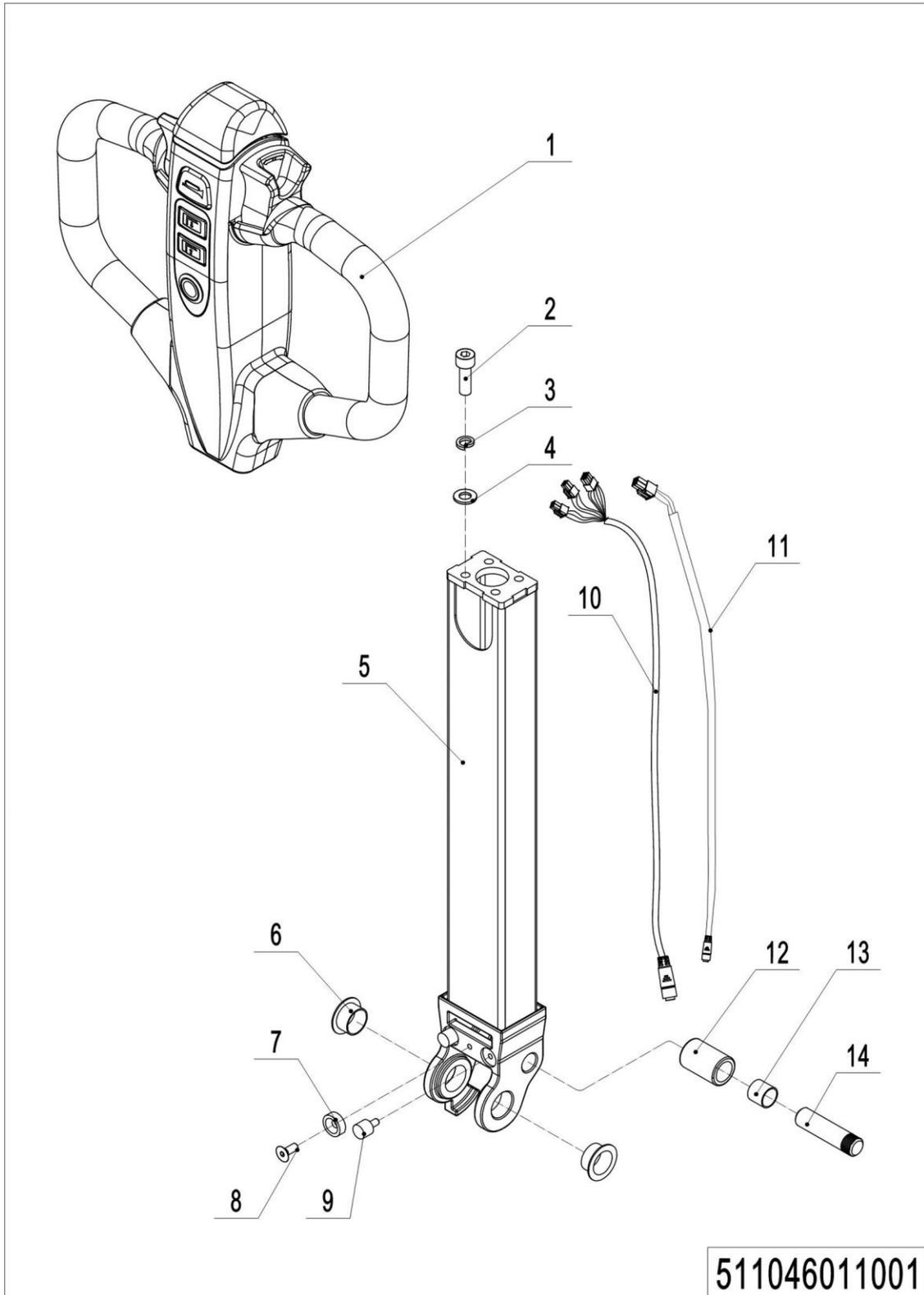
01 Chassis (511146021501) Continuation

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
29	910100300049	1	Bolt M12x25	3		
30	940200500011		Sprocket Bearing	1		
31	940600500009		Washer	2		
32	940600500008		Washer	2		
33	910200400016	1	Screw M6x12	1		
34	535045010008		Trunnion	1		
35	535043510034		Sprocket Base	1		
36	910200200058	1	Screw M8x25	3		
37	511021520033		Mounting Plate	1		
38	910200300017	1	Screw M6x12	8		
39	511021520034		Close Plate	2		
40	910200300011	1	Screw M5x10	4		
41	921300300003		Fixed Bracket	1		
42	531821520031		Mounting Plate	1		
43	910402700002-D05	1	Washer	16		
44	910200200231-D02	1	Screw	16		
45	511021520030		Close Plate	2		
46	910400100005		Flat Washer	14		
47	910400500005		Spring Washer	14		
48	910200300017		Screw M6x12	16		
49	920200300008		Guard Cover	1		
50	941101100001		Screw M3x22	2		
51	920200300001		Microswitch	1		
52	910200200035	1	Screw M6x16	6		
53	511021510003		Fork Legs(Right)	1		

02 Beacon (511046035501)**511046035501**

02 Beacon (511046035501)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
1	511098511001		Warning Light Kits	2		Optional
1.01	910300500001	1	Nut	4		
1.02	511035510001		Lamp Holder	2		
1.03	536633010017		Warning Light	2		
1.04	910400100003	1	Flat Washer	8		
1.05	910200200016	1	Screw M4x20	4		
2	251222021078	1	Hole Plug	2		

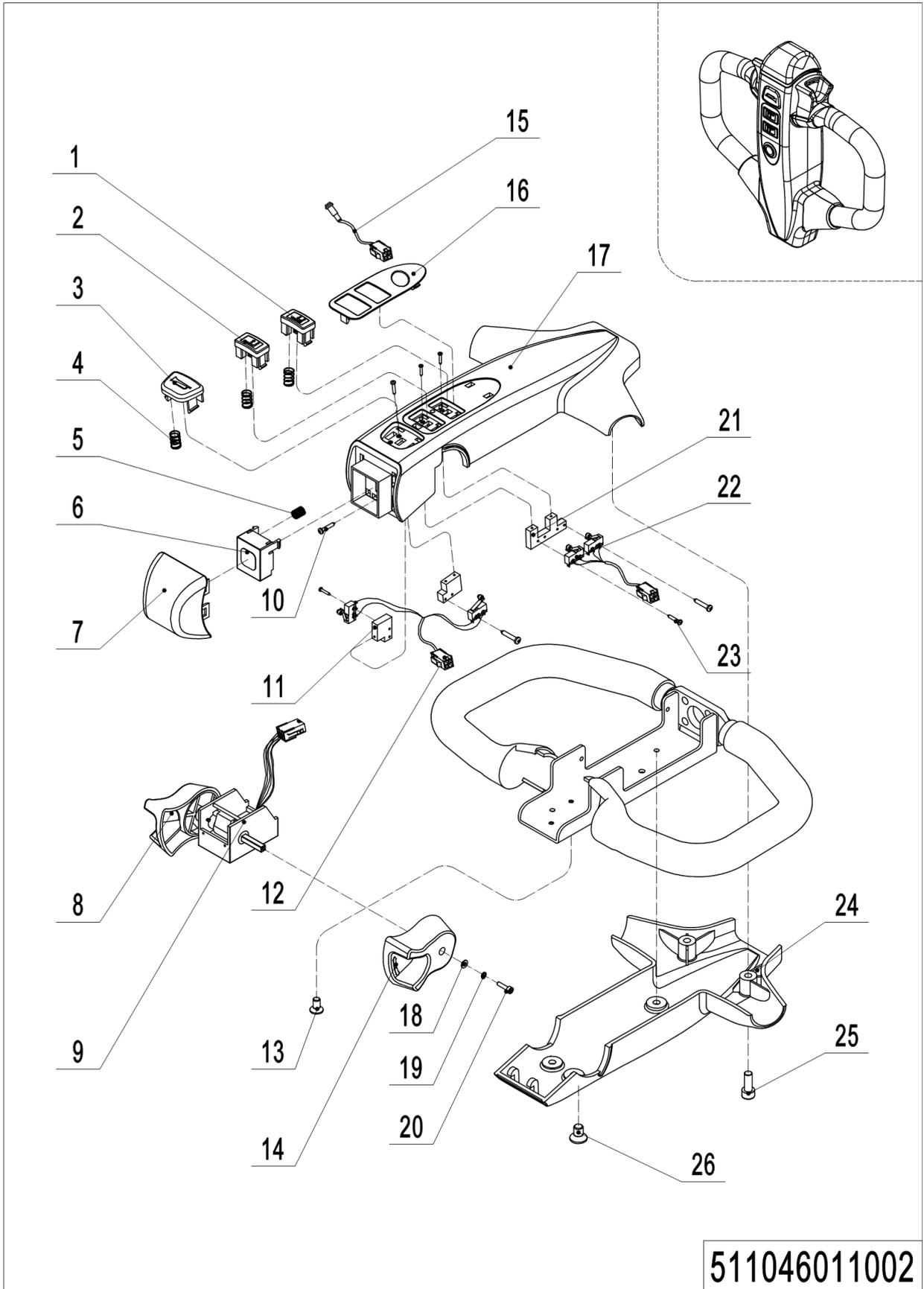
Chapter 4: Steering System, Brake and Wheels**01 Tiller (511046011001)**

1= Supply as package. 2= Supply with constraints. 3= Phasing-out supply. 4= Supply as assembly. 5= Check other tables.

01 Tiller (511046011001)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
1	-----	5	Tiller Head	1		See 511046011002
2	910200200058	1	Screw M8x25	4		
3	910400500006	1	Spring Washer	4		
4	910400100006	1	Flat Washer	4		
5	536611010001		Tiller Rod	1		
6	940500200005	1	Bushing	2		
7	536611020004		Stop Pad	1		
8	910200400010	1	Screw M5x10	1		
9	536611010002	1	Crash Screw	2		
10	511133010013		Wire Harness	1		
11	536633010016		Wire Harness	1		
12	300511020001		Roller	1		
13	940500100003	1	Bushing	2		
14	300511020000		Wheel Shaft	1		

02 Tiller (511046011002)

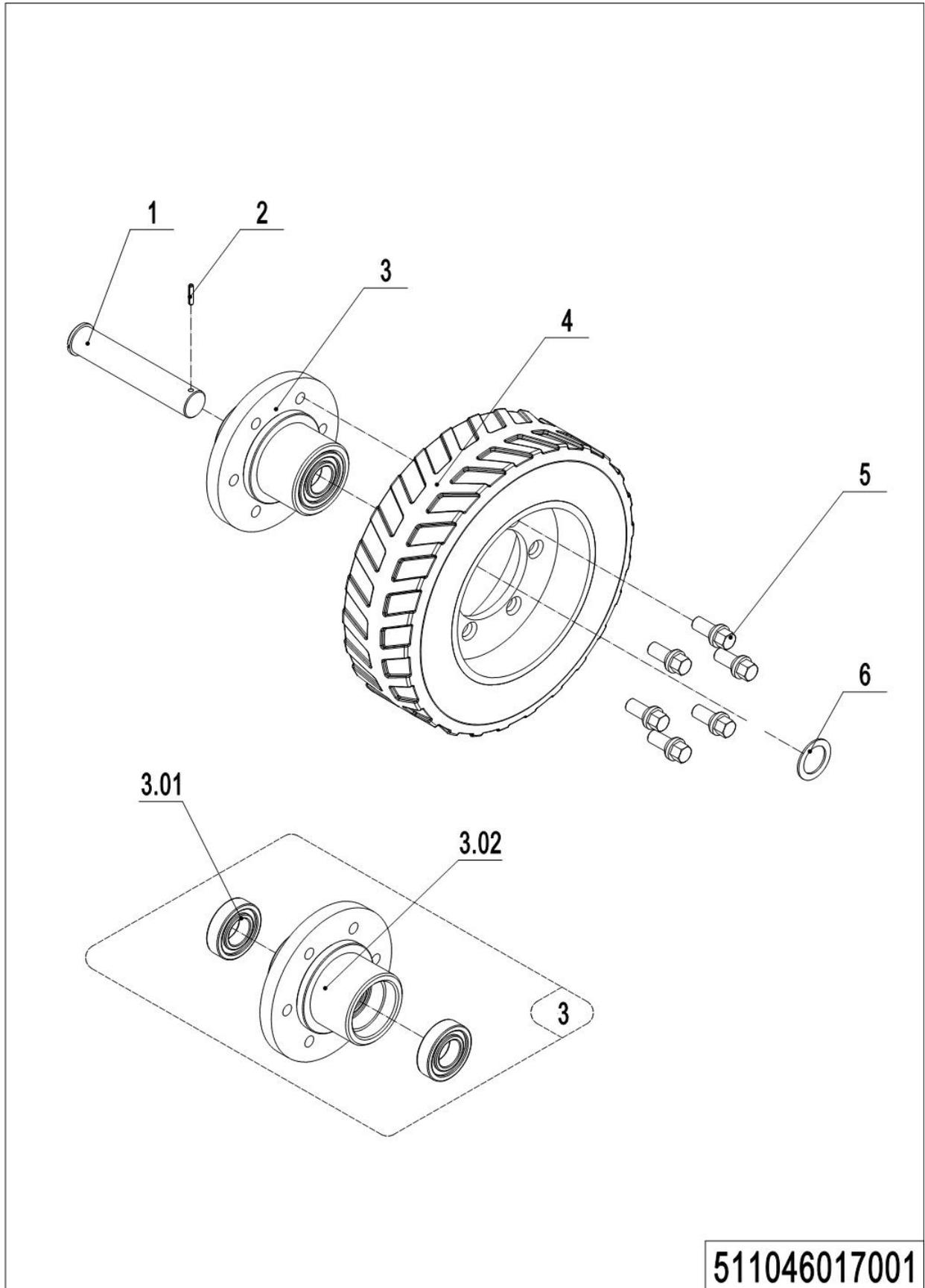


511046011002

1= Supply as package. 2= Supply with constraints. 3= Phasing-out supply. 4= Supply as assembly. 5= Check other tables.

02 Tiller (511046011002)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
--	511111010001		Tiller Head	1		
1	502311020021		Button	1		
2	502311020020		Button	1		
3	502311020019		Button	1		
4	502311020022		Spring	6		
5	502311020018		Spring	4		
6	502311020017		Bracket	1		
7	502311020016		Cap,Break Switch	1		
8	502311020011		Travel Switch	1		
9	921700100018		Accelerator	1		
10	910201400002	1	Screw ST2.2x13	6		
11	502311020014		Bracket	1		
12	502311010007		Microswitch Kits	1		
13	910200600005	1	Screw M4x8	3		
14	502311020012		Travel Switch	1		
15	502911010006		Button Kits	1		
16	502911020018		Label	1		
17	502911020019		Tiller Cap	1		
18	910400100002	1	Flat Washer	2		
19	910400500002	1	Spring Washer	2		
20	910200500012	1	Screw M3x12	2		
21	502311020015		Bracket	1		
22	502311010008		Microswitch Kits	1		
23	910201400001	1	Screw ST2.2x9.5	8		
24	502911020015		Tiller Cap	1		
25	910200200035	1	Screw M6x16	2		
26	910200400015	1	Screw M6x10	4		

03 Load Wheel (511046017001)

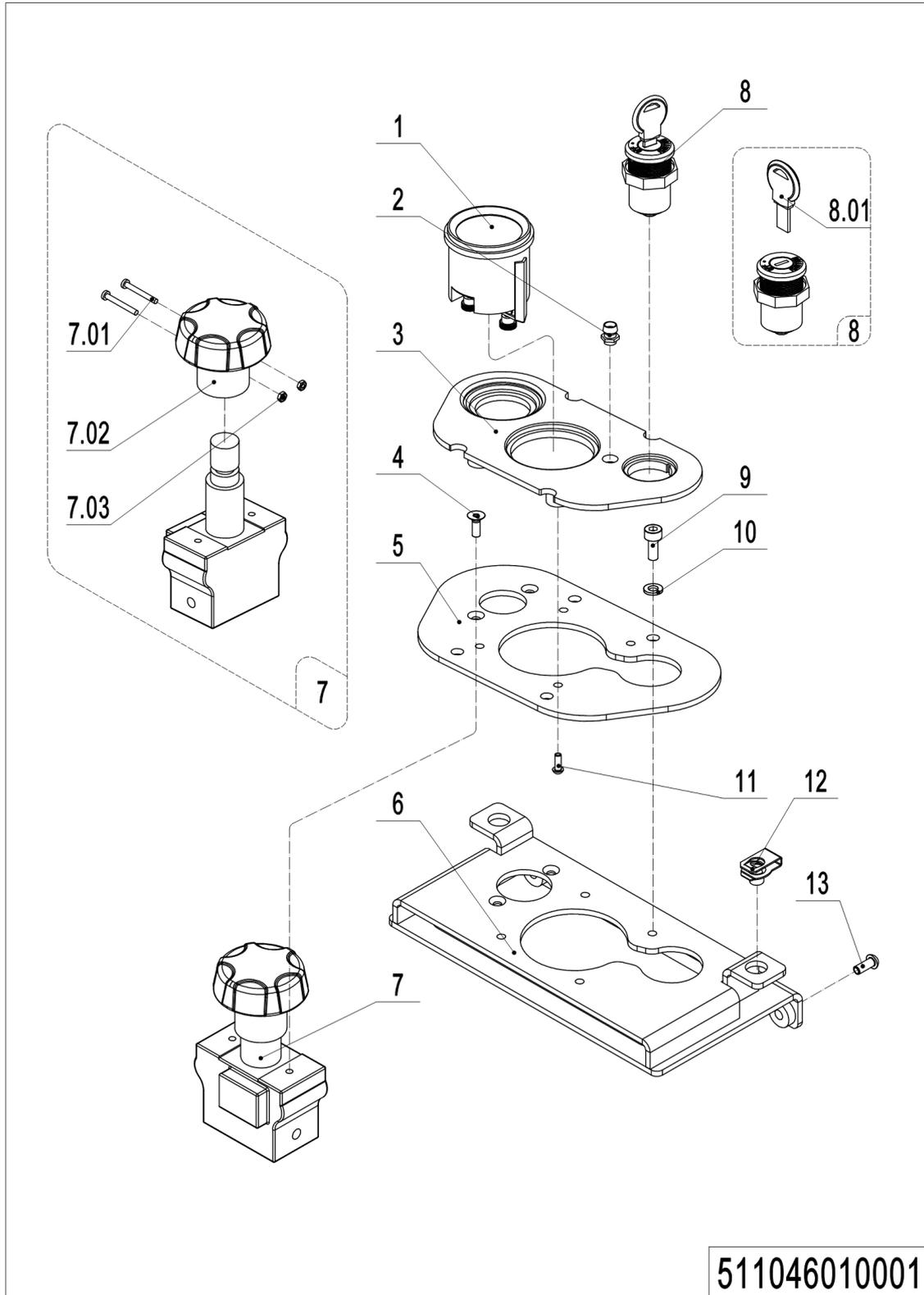
1= Supply as package. 2= Supply with constraints. 3= Phasing-out supply. 4= Supply as assembly. 5= Check other tables.

03 Load Wheel (511046017001)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
1	511017020004		Shaft	2		
2	910600400031	1	Spring Pin	2		
3	511098510001		Shaft Holder	2		
3.01	910700200021-T01		Bearing	4		C&U
3.02	511017010001		Shaft Holder	2		
4	272515512002		WheelAssembly	2		
5	216513020000		Bolt	12		
6	511017020003		Washer	4		

Chapter 5: Electrical components

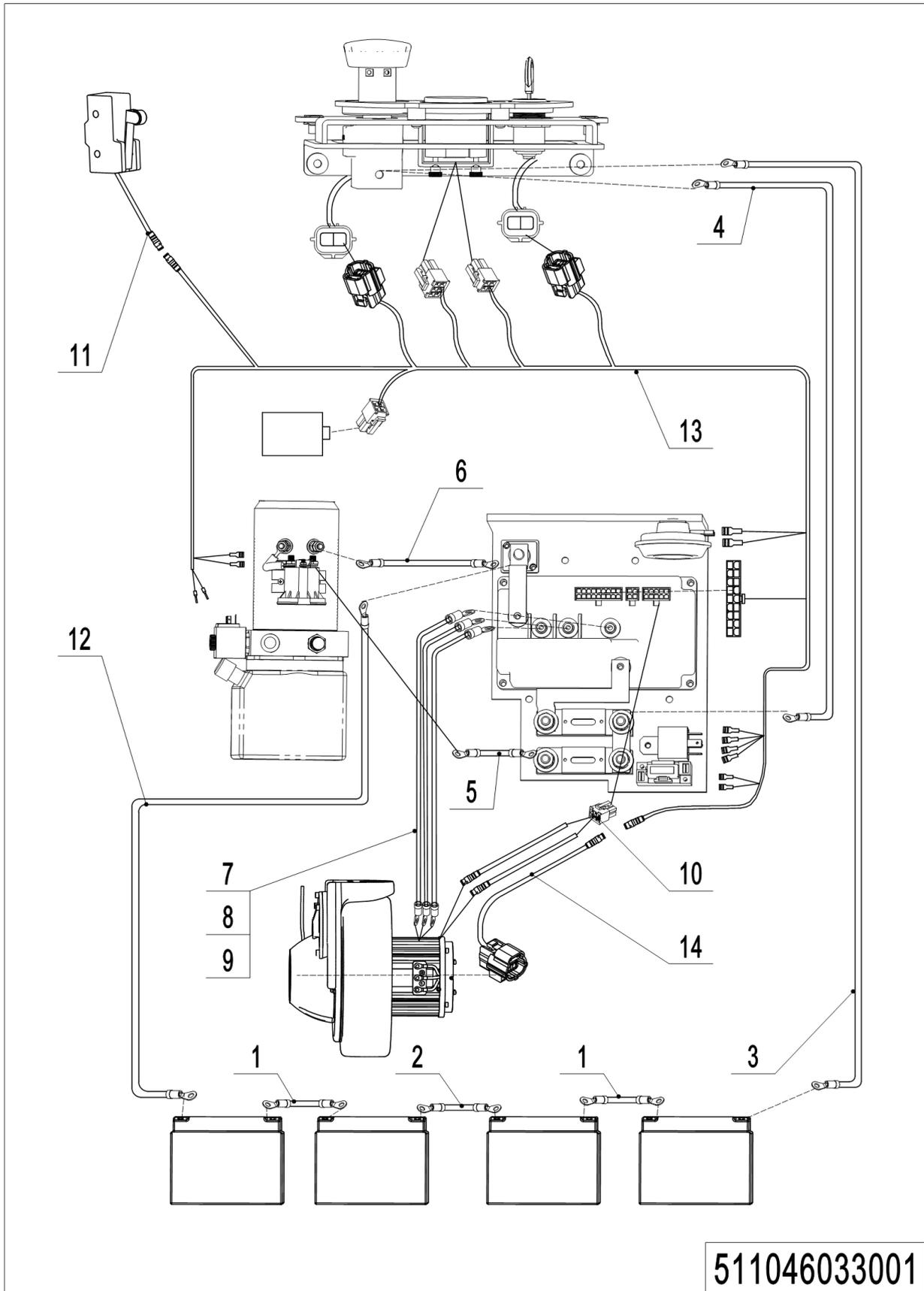
01 Display Unit (511046010001)



01 Display Unit (511046010001)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
1	921100100147		Battery Indicator	1		
2	922000100024	1	Lamp Holder	1		
3	536810020002		Panel	1		
4	910200400011	1	Screw M5x12	2		
5	534710020005		Fixed Base	1		
6	511010010000		Mounting Plate	1		
7	920200100031		Emergency Switch	1		
7.01	910200500016		Screw M3x25	2		
7.02	505698520029		Emergency Button	1		
7.03	910300100002		Nut	2		
8	505634010000		Key Switch	1		
8.01	505698520031		Key	1		
9	910200200033	1	Screw M6x12	4		
10	910400100005	1	Flat Washer	4		
11	910201300001	1	Screw M4x12	4		
12	940400400002	1	Cage Nut	2		
13	910200300025	1	Screw M8x20	2		

02 Wire Harness (511046033001)

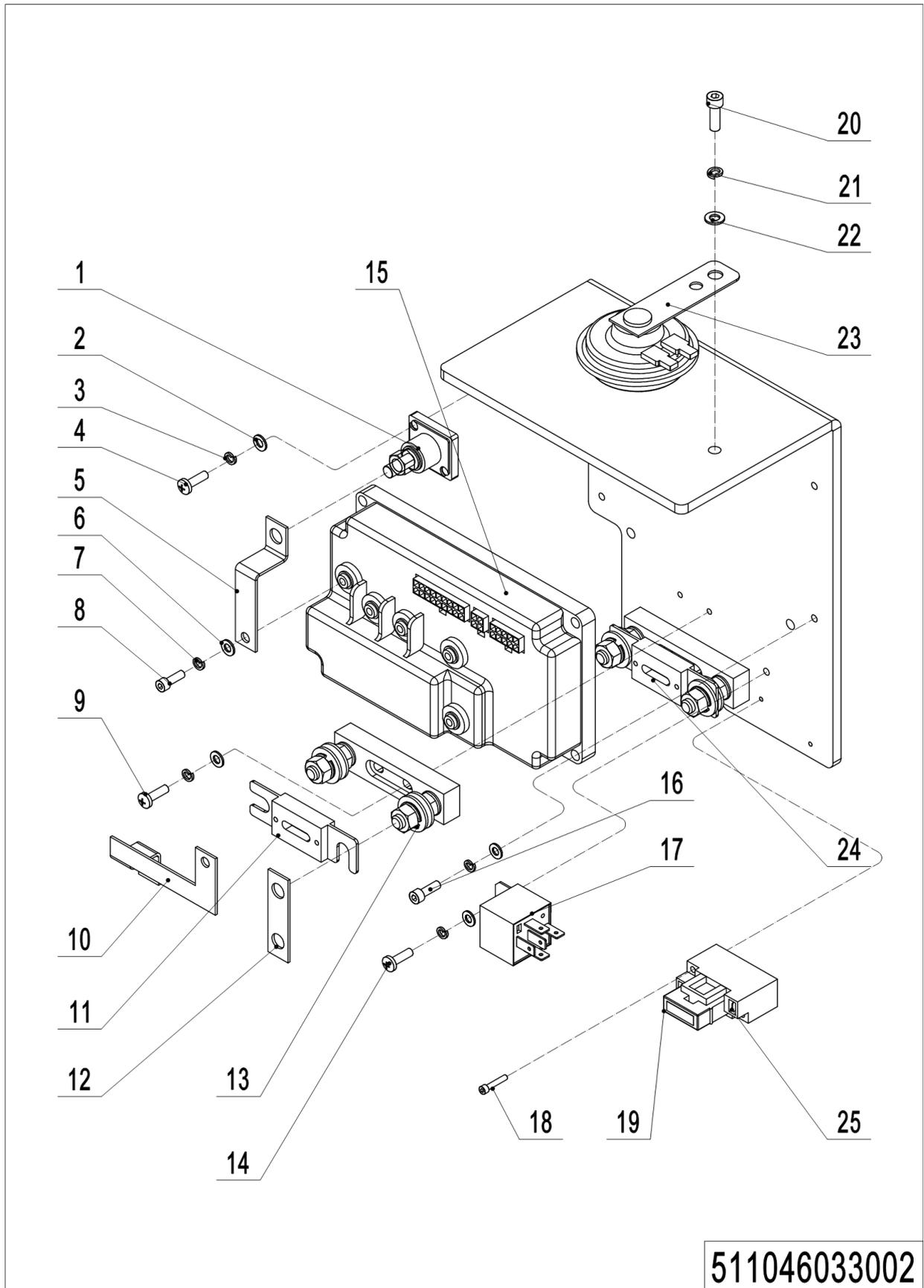


1= Supply as package. 2= Supply with constraints. 3= Phasing-out supply. 4= Supply as assembly. 5= Check other tables.

02 Wire Harness (511046033001)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
1	511133010001		Connection Wire	2		
2	511133010002		Connection Wire	1		
3	511133010003		Connection Wire	1		
4	511133010004		Connection Wire	1		
5	511133010005		Connection Wire	1		
6	511133010006		Connection Wire	1		
7	511133010007		Connection Wire	1		
8	511133010008		Connection Wire	1		
9	511133010009		Connection Wire	1		
10	511133010010		Wire Harness	1		
11	511133010011		Wire Harness	1		
12	511133010012		Wire Harness	1		
13	511133010000		Wire Harness	1		
14	536633010019		Wire Harness	1		

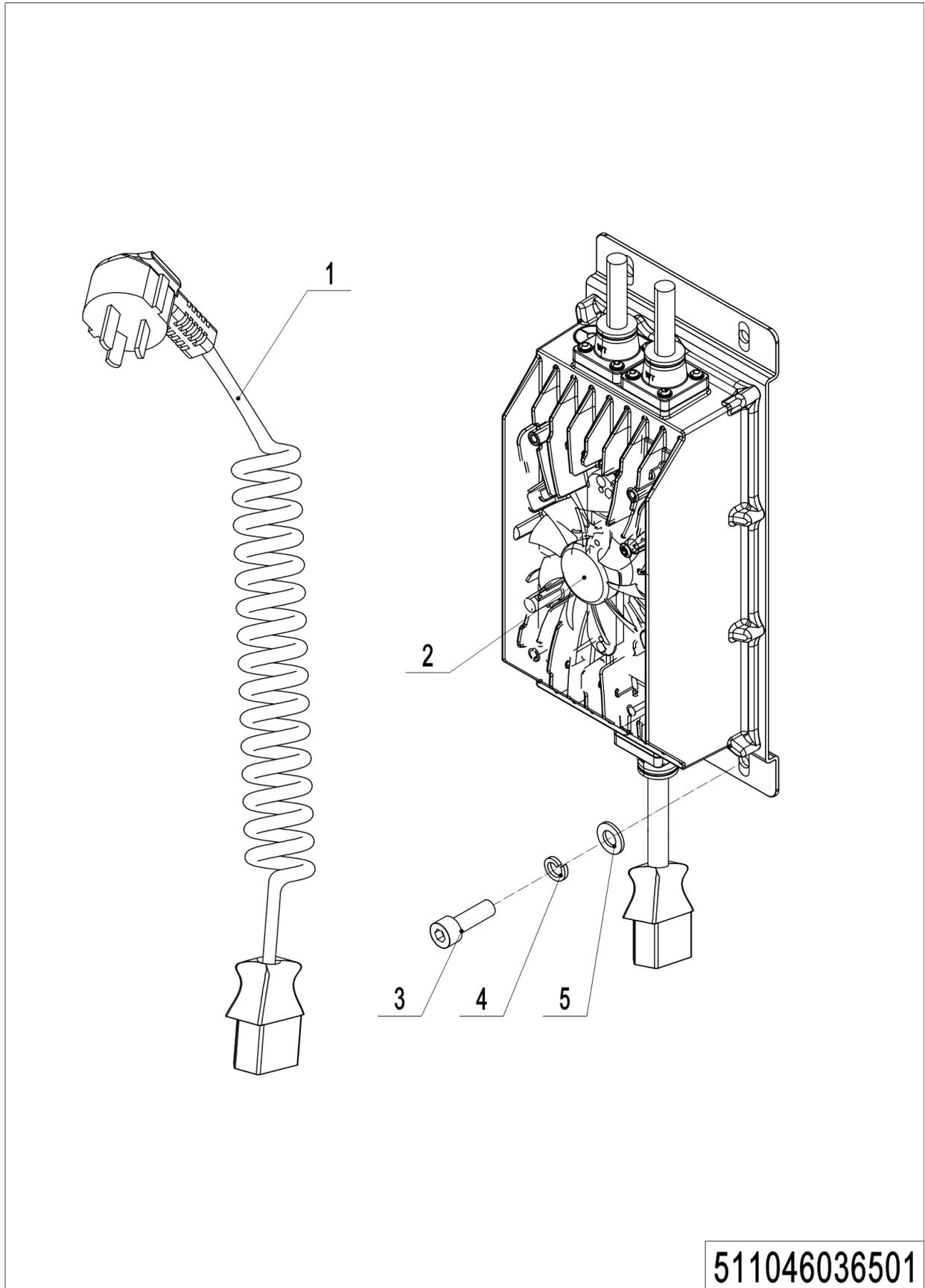
03 Controller (511046033002)



511046033002

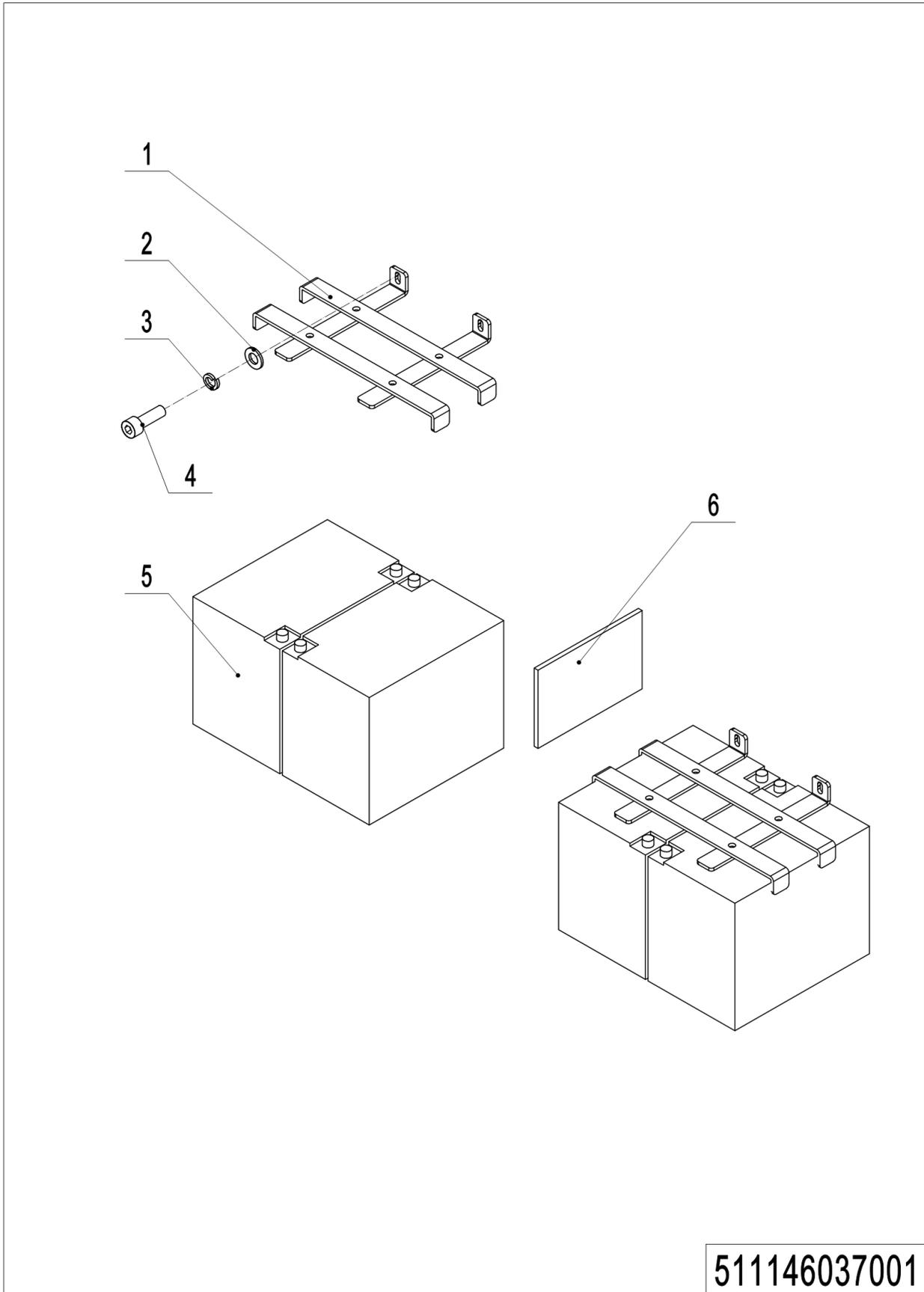
03 Controller (511046033002)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
1	920100400001		Fuse Holder	1		
2	910400100003	1	Flat Washer	7		
3	910400500003	1	Spring Washer	7		
4	910200500022	1	Screw M4x12	2		
5	511133020002		Copper Busbar	1		
6	910400100004	1	Washer	9		
7	910400500004	1	Spring Washer	9		
8	910200200022	1	Screw M5x12	5		
9	910200500024	1	Screw M4x16	4		
10	511133020001		Copper Busbar	1		
11	920100100007		Fuse	1		
12	505633020003		Copper Busbar	1		
13	920100400002		Fuse Holder	2		
14	910200500034	1	Screw M4x8	1		
15	921400100202		Controller	1		
16	910200200023	1	Screw M5x16	4		
17	920800100005		Relay	1		
18	910200200008	1	Screw M3x30	2		
19	920100200002		Fuse	1		
20	910200200053	1	Screw M8x12	1		
21	910400500006	1	Spring Washer	1		
22	910400100006	1	Flat Washer	1		
23	920500100011		Horn	1		
24	920100100008		Fuse	1		
25	920100400006		Fuse Holder	1		

04 Charger (511046036501)**511046036501**

04 Charger (511046036501)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
1	921500200008		Spring Cable(Asia)	1		
1	921500200002		Spring Cable(USA)	1		
2	921000100121		Charger 48V12A	1		WHTL
3	910200200020	1	Screw M5x8	4		
4	910400100004	1	Washer	4		
5	910400500004	1	Spring Washer	4		

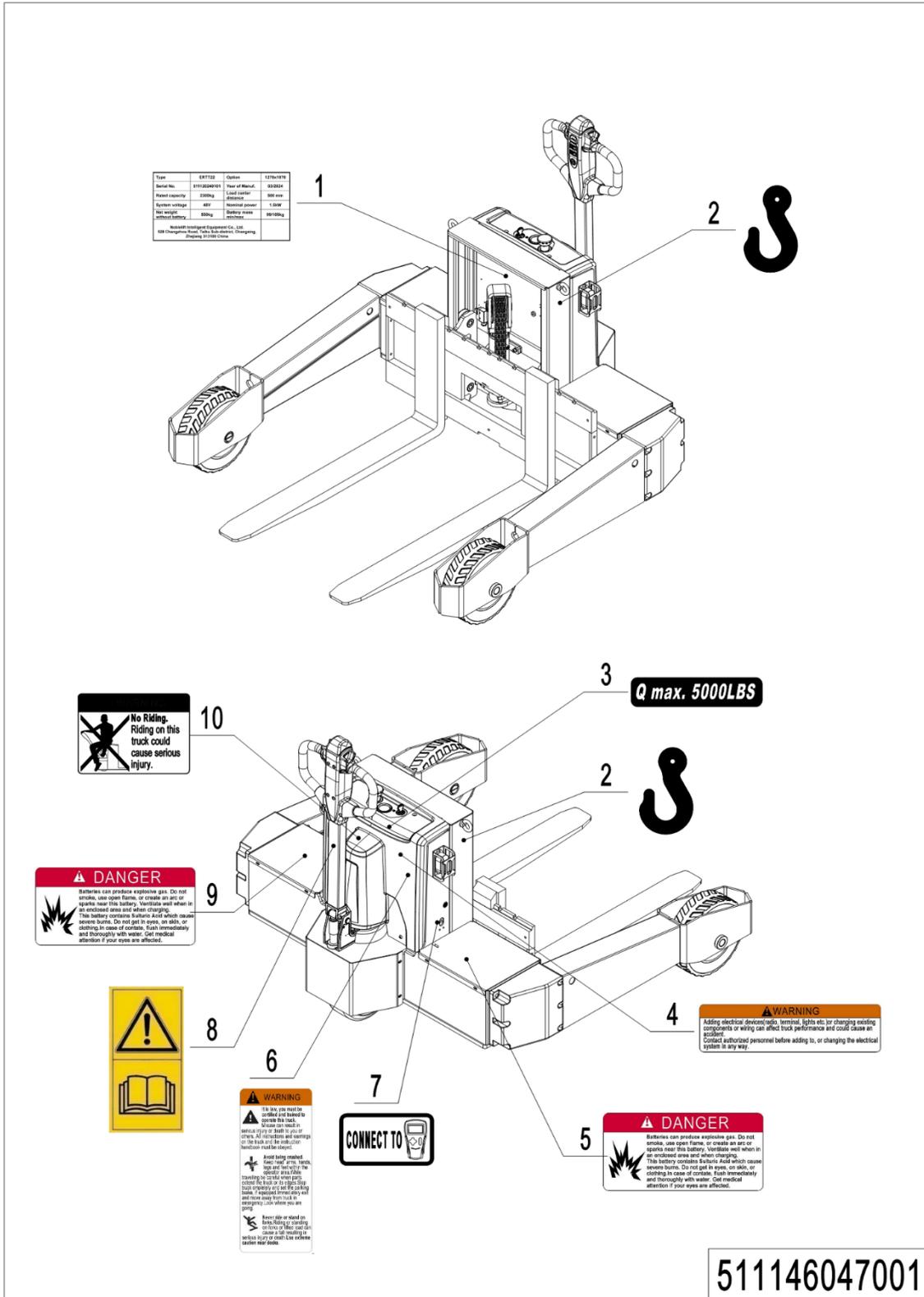
05 Traction Battery (511146037001)

05 Traction Battery (511146037001)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
1	511037010001		Press Plate	2		
2	910400100006	1	Flat Washer	4		
3	910400500006	1	Spring Washer	4		
4	910200200055	1	Screw M8x16	4		
5	920600100001		Battery12V85Ah	4		
6	531837020011		Crash Pad	2		

Chapter 6: Others

01 Stickers (US) (511146047001)

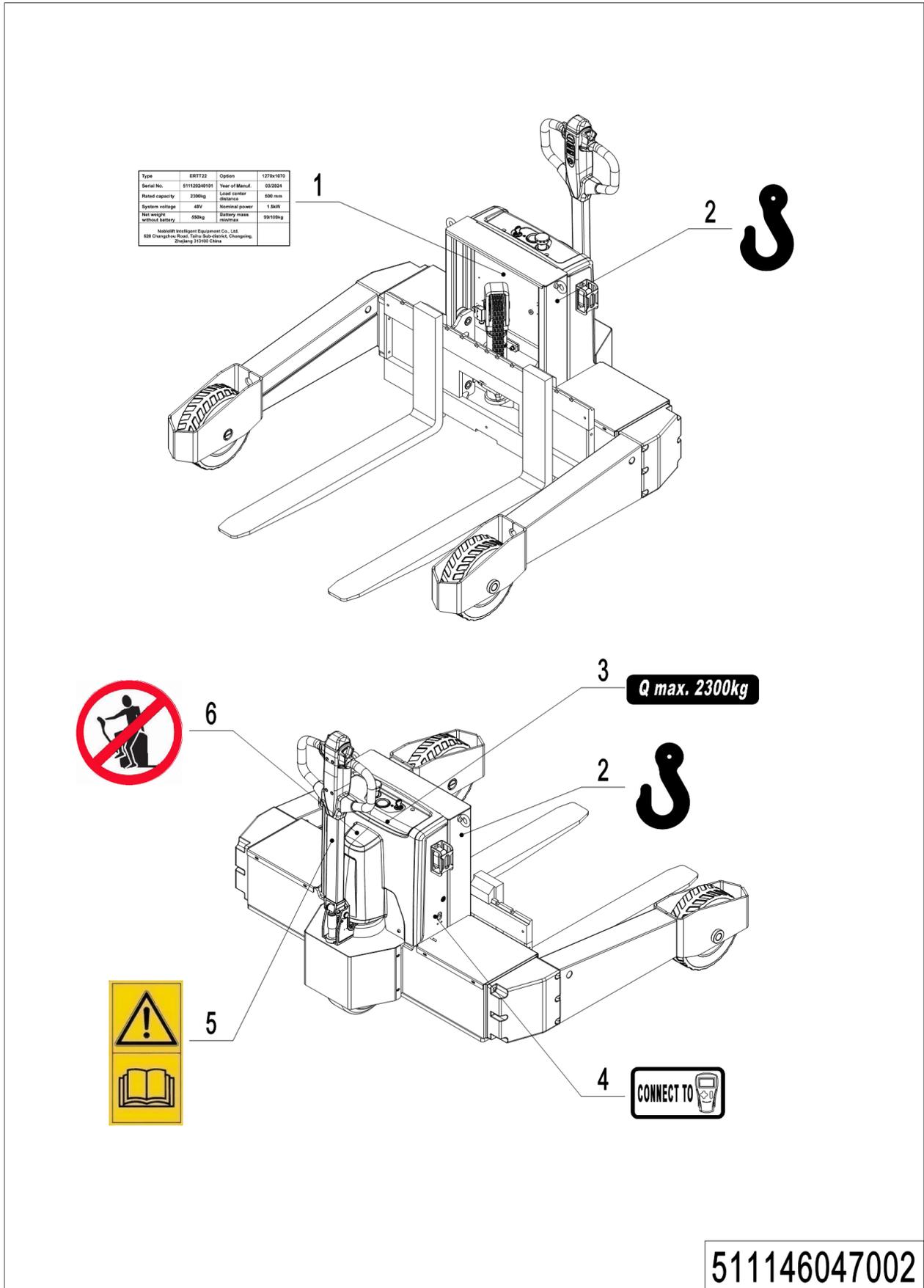


1= Supply as package. 2= Supply with constraints. 3= Phasing-out supply. 4= Supply as assembly. 5= Check other tables.

01 Stickers (US) (511146047001)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
1	511147520002	1	Identification Plate	1		
2	941200300001	1	Label	2		
3	941200200064	1	Label	1		
4	941200100010	1	Label	1		
5	941200100013	1	Label	2		
6	941200100009	1	Label	1		
7	941200300019	1	Label	1		
8	941200300002	1	Label	1		
9	941200100011	1	Label	1		

02 Stickers (EU) (511146047002)



511146047002

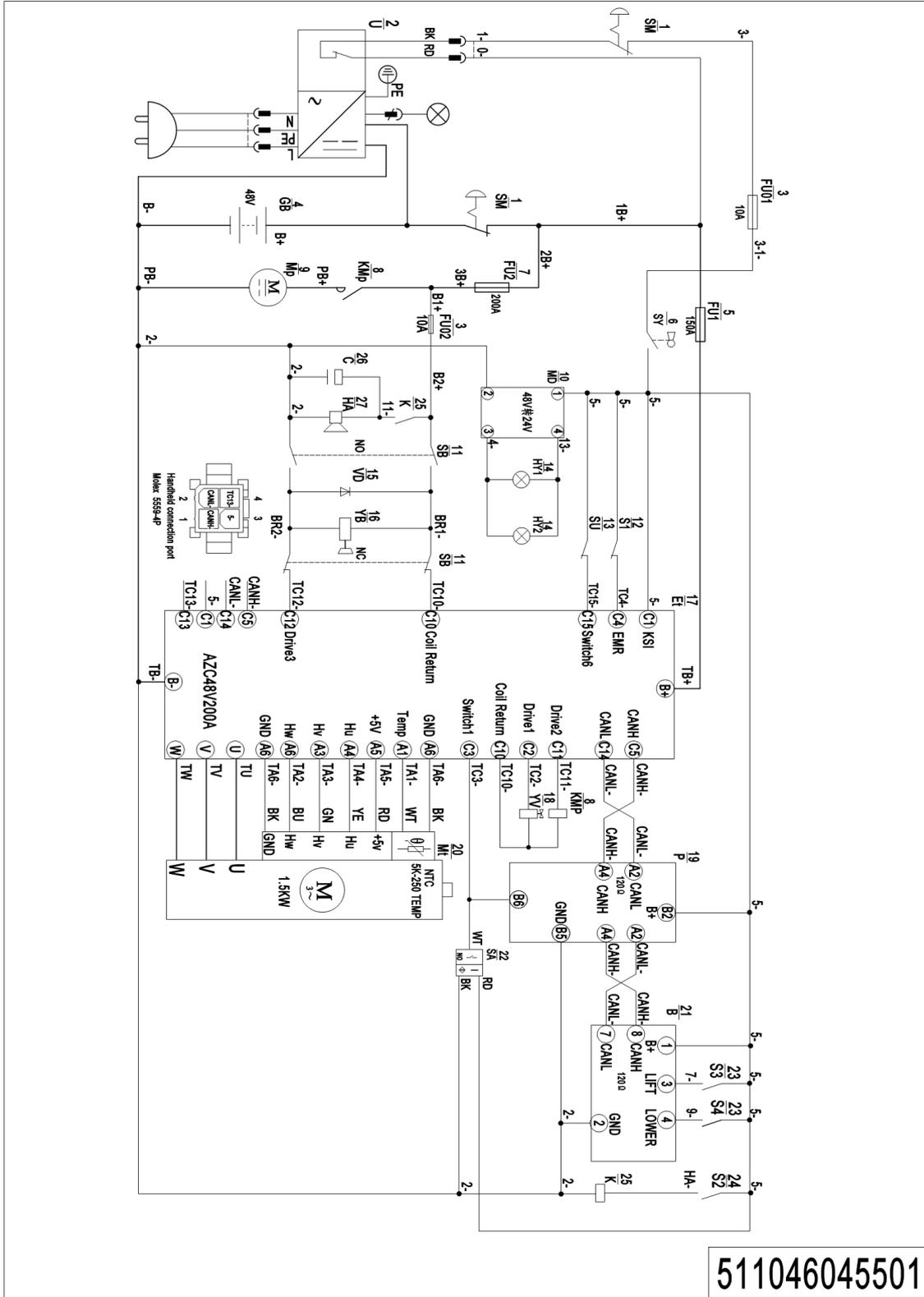
1= Supply as package. 2= Supply with constraints. 3= Phasing-out supply. 4= Supply as assembly. 5= Check other tables.

02 Stickers (EU) (511146047002)

No.	Item Code	Mark	Item Description	Qty.	Substitute	Note
1	511147520001	1	Identification Plate	1		
2	941200300001	1	Label	2		
3	941200200063	1	Label	1		
4	941200300019	1	Label	1		
5	941200300002	1	Label	1		
6	941200100003	1	Label	1		

Appendix

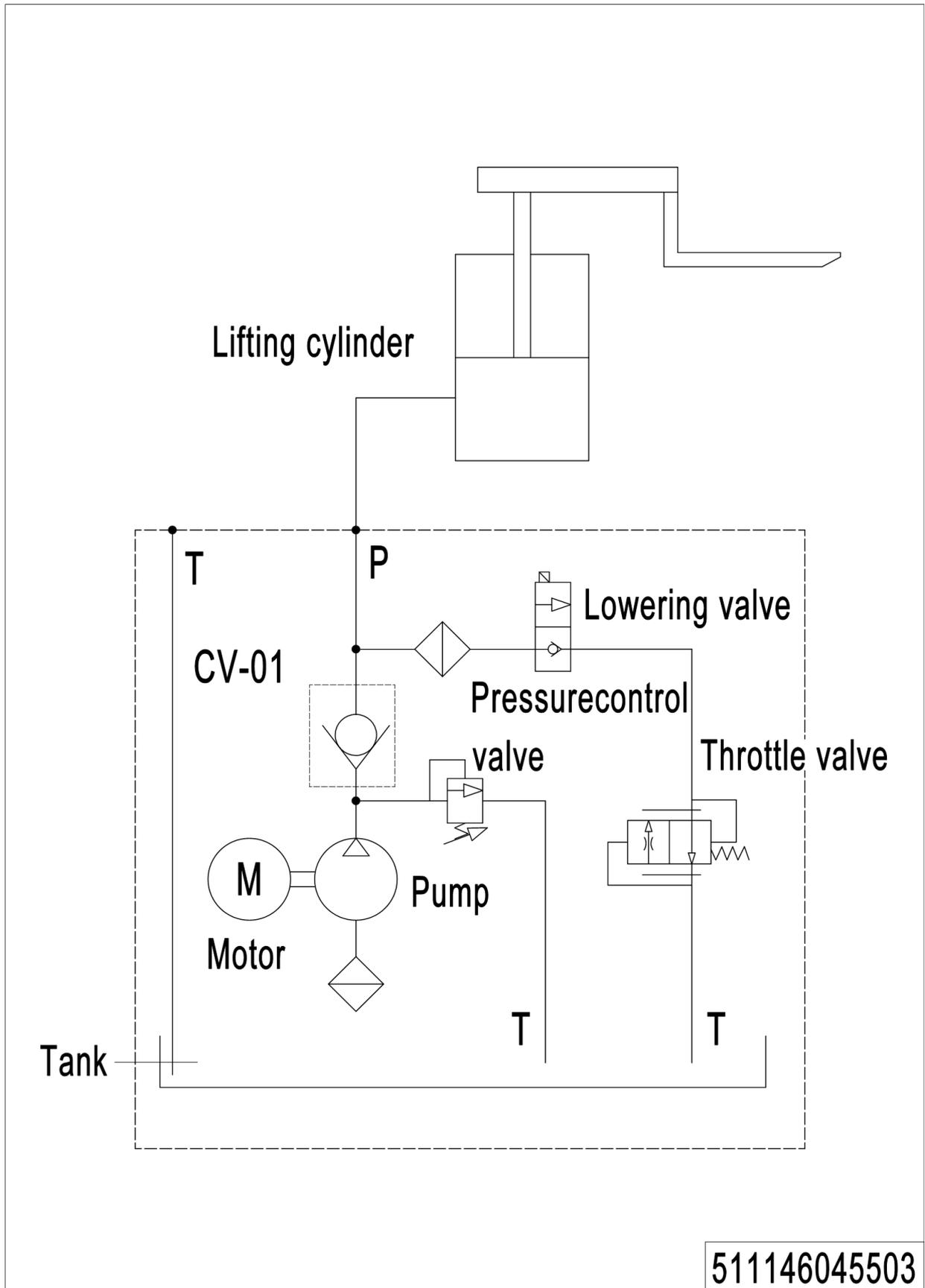
01 Electrical Diagram



511046045501

1= Supply as package. 2= Supply with constraints. 3= Phasing-out supply. 4= Supply as assembly. 5= Check other tables.

02 Hydraulic Diagram



03 Consumable Parts List

No.	Item Code	Item Description	Qty.	Chapter/ Section/ Number
1	511013520006	Spring	1	Chapter 1/01/17
2	511098510030	Seal Kit	1	Chapter 1/01/19.01
3	940500200005	Bushing	2	Chapter 4/01/6
4	940500100003	Bushing	2	Chapter 4/01/13
5	920100100007	Fuse	1	Chapter 5/03/11
6	920100200002	Fuse	1	Chapter 5/03/19
7	920100100008	Fuse	1	Chapter 5/03/24