

Parts Manual
E28 Walk-Behind Scrubber

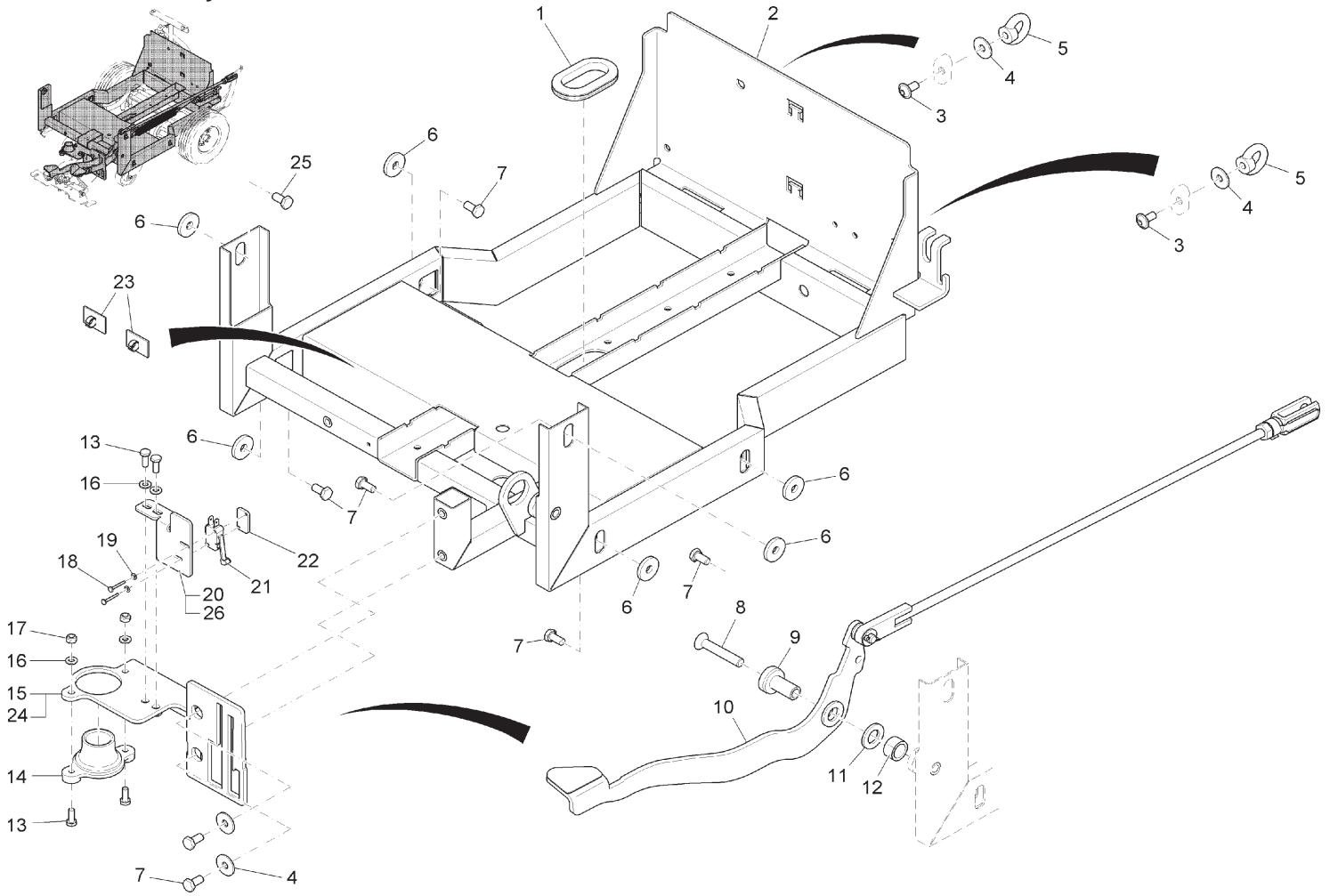
For Safety When Servicing or Maintaining Machine

- Stop on level surface.
- Disconnect the power to the machine by pulling the red Battery Connector located under the recovery tank near the batteries.
- Avoid moving parts. Do not wear loose jackets, shirts, or sleeves when working on machine.
- Avoid contact with battery acid. Battery acid can cause burns. When working on or around batteries, wear protective clothing and safety glasses. Remove metal jewelry. Do not lay tools or metal objects on top of batteries.
- Do not clean machine with a pressure washer.
- Authorized personnel must perform repairs and maintenance. Use Minuteman supplied replacement parts.

Table of Contents

Chassis Assembly I	1
Lift Pedal Subassembly	2
Chassis Assembly II	3
Traction Drive Motor Subassembly	4
Chassis Assembly III	5
Water Supply Subassembly I	6
Water Supply Subassembly II	7
Squeegee Connection Subassembly I	8
Squeegee Connection Subassembly II	9
Battery Tray Assembly	12
Solution Tank Assembly	13
Recovery Tank Assembly	14
Vacuum Motor Assembly	15
Squeegee Lift Handle Assembly	16
Squeegee Lock Assembly	17
Squeegee Assembly I	18
Squeegee Assembly II	19
Control Panel Assembly	20
Console Subassembly	21
Electrical Assembly I	22
Retainer Subassembly	23
Electrical Assembly II	24
Battery Charger Assembly	25
Machine Labels	26
Cylindrical Scrub Deck Assembly	27
Brush Deck Assembly I	28
Dirt Hopper Subassembly	29
Brush Deck Assembly II	30
Carrier Subassembly	31
Brush Deck Assembly III	32

Chassis Assembly I

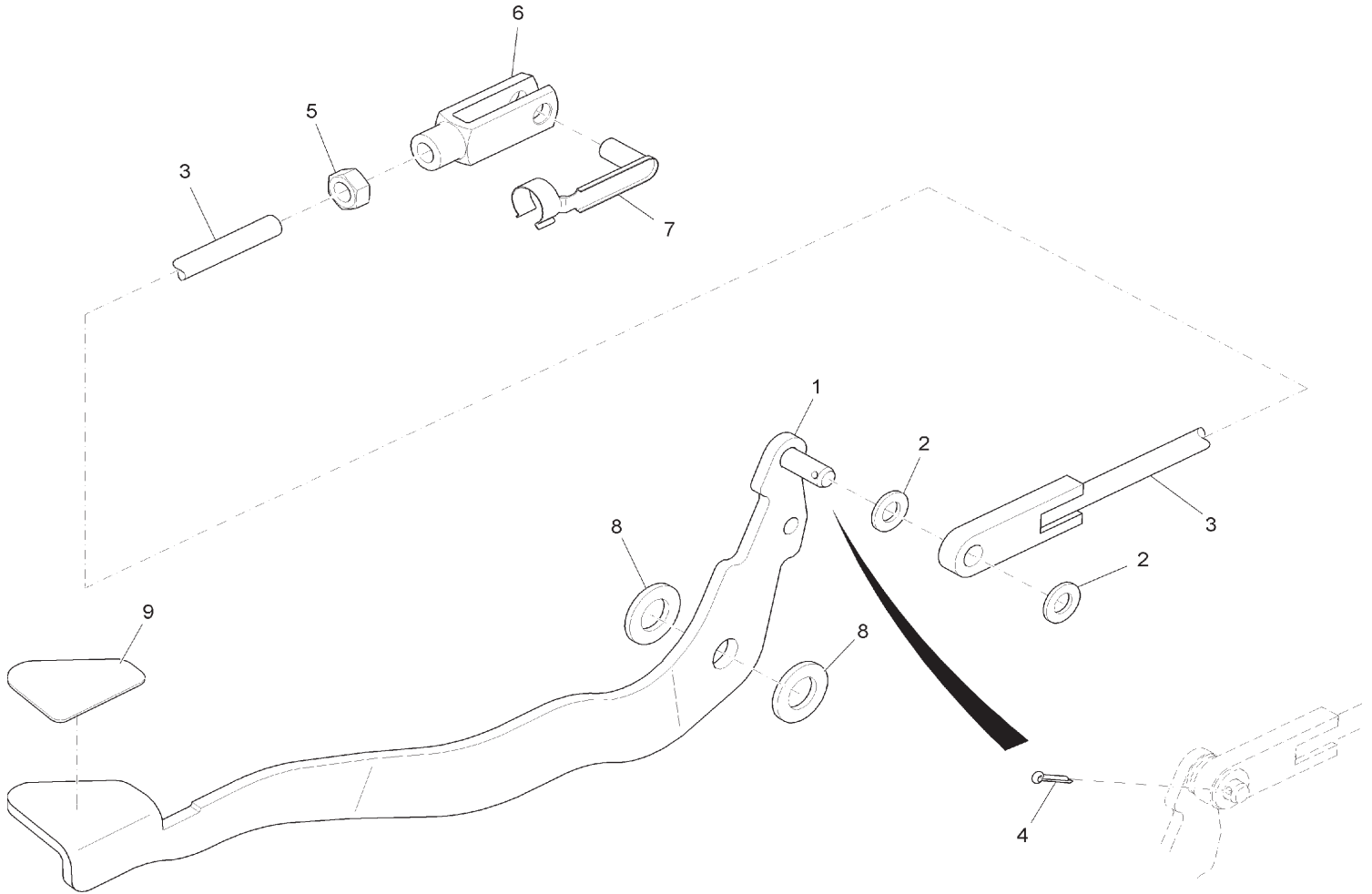


Bill of Material - 97098867-1 (99706212BT10)

Item	Spare part number	Mat. No.	Qty.	Description	Notes
1	01078440	90513367	1	Grommet	
2	03007640	96116405	1	Chassis	
3	01074320	11177187	2	Lens flange screw	
4	00042900	12332029	4	Washer	
5	01078450	12160024	2	Nut	
6	00879170	90209537	6	Washer	
7	00053080	11038197	8	Hexagon screw	
8	01078140	11225620	1	Countersunk screw	
9	01077800	90509522	1	Bushing	
10	97093181		1	Lifting pedal	DO NOT ORDER. ITEM HAS SUBASSEMBLIES.
11	00053790	12310082	1	Washer	
12	01077790	90509027	1	Pipe	
13	00053010	11038072	6	Hex.bolt	
14	01077780	90508391	1	Bushing	
15	01078460	96114327	1	Sheet metal	until aprox. June 2007
16	00053730	12310033	4	Washer	
17	00051520	12040044	2	Hexagon nut	
18	00022180	11039088	2	Hex.bolt	
19	00553740	12310132	2	Washer	
20	01078470	90513359	1	Retainer	until aprox. June 2007
21	00975510	90306002	1	Micro switch	
22	01074840	90471483	1	Thread base plate	
23	01143190	17526070	2	Cable clip	
24	01079680	96117387	1	Sheet metal	from aprox. July 2007
25	00553690	11038635	1	Hex.bolt	
26	01170010	90528787	1	Retainer	from aprox. July 2007

Chassis Assembly I

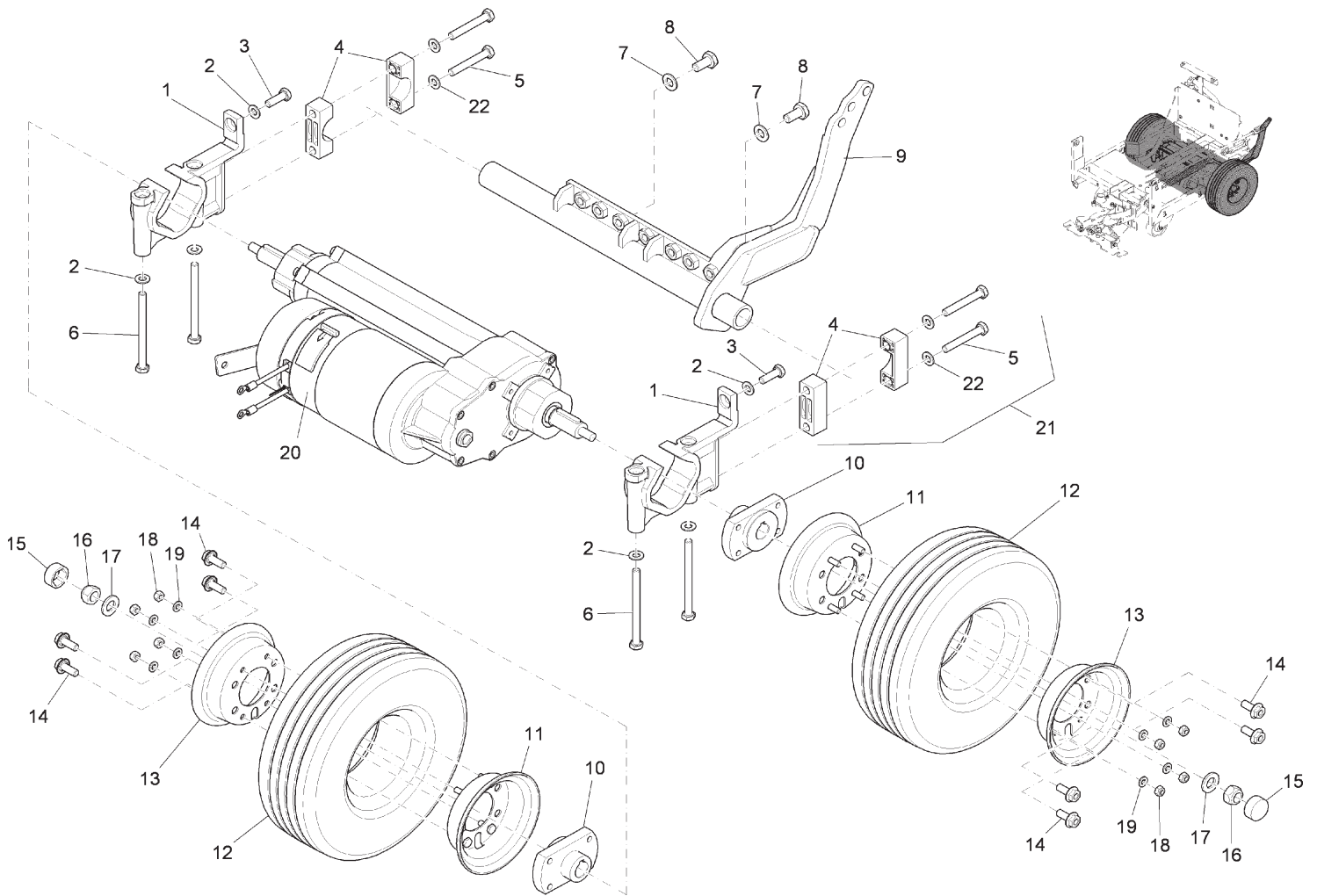
Lift Pedal Subassembly



Bill of Material - 997093181 (99706212BT10-1)

Item	Spare part number	Mat. No.	Qty.	Description
1	01170020	96117361	1	Lifting pedal
2	00053760	12310058	2	Washer
3	01077930	96111877	1	Rod
4	00551410	13280110	1	Cotter pin
5	00053360	12022067	1	Hexagon nut
6	00925430	16055063	1	Fork yoke
7	00925420	13390042	1	Bolt
8	01078240	90510017	2	Washer
9	01078560	90518580	1	Decal

Chassis Assembly II



Bill of Material - 997098867-2 (99706212BT20)

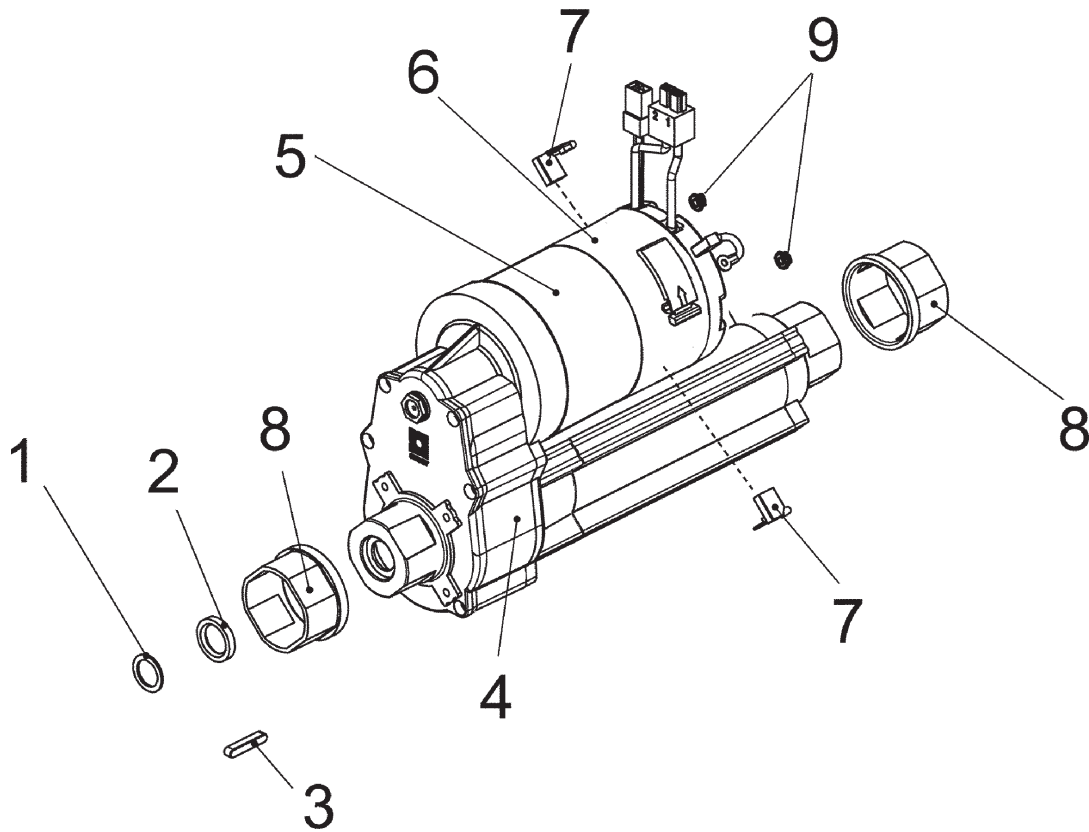
Item	Spare part number	Mat. No.	Qty.	Description	Notes
1	01078480	90512062	2	Bearing AMER	
2	00053750	12310041	10	Washer	
3	00053100	11038247	1	Hexagon screw	
4	01078020	90481664	4	Block	
5	00053260	11038296	4	Hex.bolt	
6	00053140	11032273	4	Hex.bolt	
7	00053760	12310058	2	Washer	
8	00021130	11038353	2	Hex.bolt	
9	01078490	96116009	1	Lever	
10	01078010	90510116	2	Hub	
11	00621690	96057013	2	Rim half	
12	01056130	90398165	2	Tire	
13	00621710	90251869	2	Rim	
14	00959310	11717022	8	Hex.bolt	
15	01031540	15592058	2	protection cap	
16	00051490	12040077	2	Hexagon nut	
17	00053770	12310066	2	Washer	
18	00051520	12040044	8	Hexagon nut	
19	00053730	12310033	8	Washer	
20	01170340	90526021	1	Traction drive AMER	ITEM HAS SUBASSEMBLIES.
21	00008980	97057814	1	Block	Incl. items 11, 29: please order kit. It's necessary to exchange all 4 blocks.
22	00042900	12332029	4	Washer	

From appr. march 2008; If you want to exchange older blocks, please order Item 21.

ITEM HAS SUBASSEMBLIES.
Incl. items 11, 29: please order kit. It's necessary to exchange all 4 blocks.

Chassis Assembly II

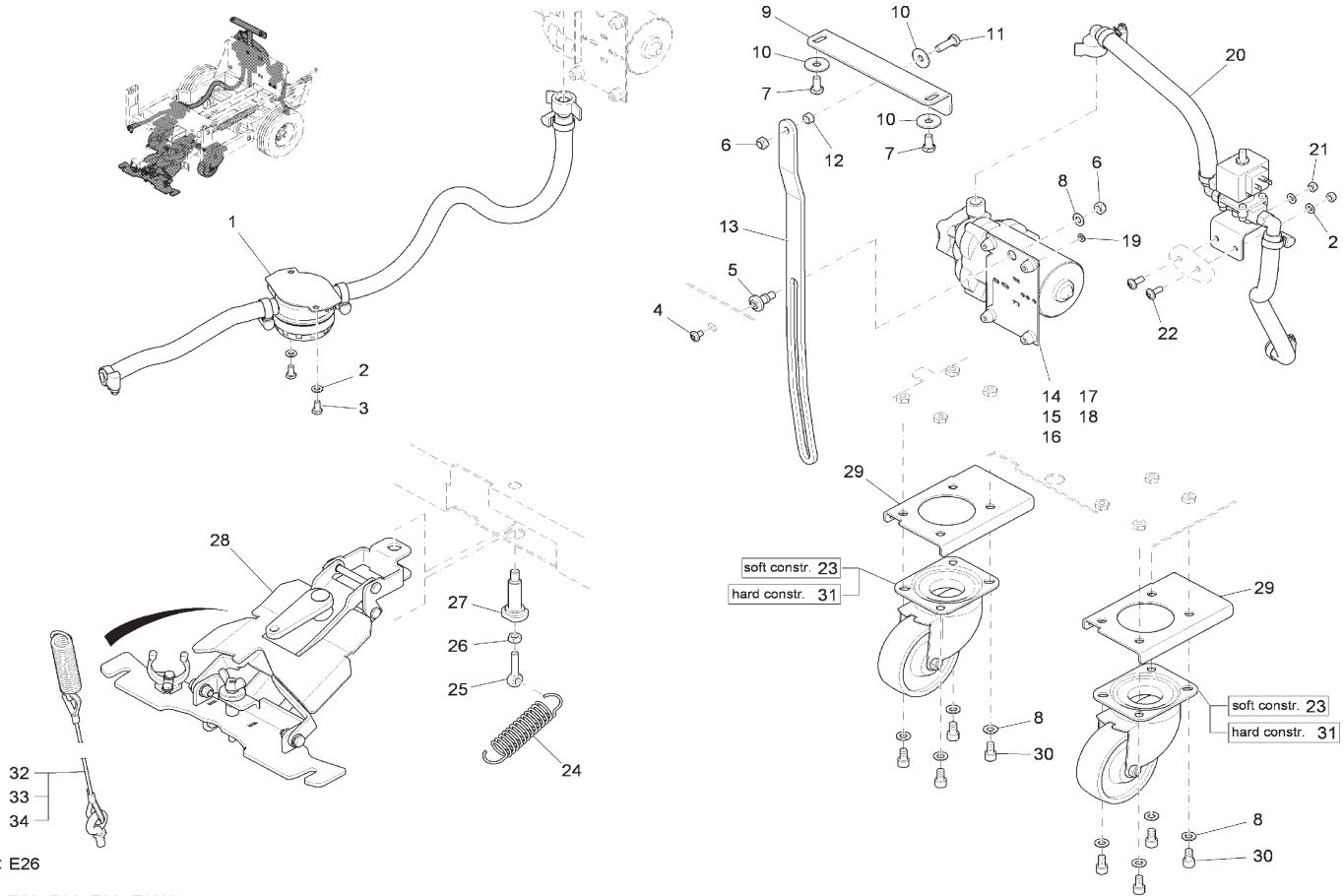
Traction Drive Motor Subassembly



Bill of Material - 901170340

Item	Spare part number	Mat. No.	Qty.	Description
1	01077430	01077430	2	Washer
2	01077420	01077420	3	Gasket
3	01077410	01077410	2	Fitting key
4	01077390	01077390	1	Gear box with shaft
5	01170810	01170810	1	Motor
6	01077360	01077360	1	Covering
7	01077350	01077350	4	Carbon brush
8	01077400	01077400	2	Bushing
9	01077380	01077380	4	Nut

Chassis Assembly III



32: E26

33: E28, E30, E33, E33XL
34: PHOENIX 28, 30

Bill of Material - 997098867-3 (99706212BT30)

Item	Spare part number	Mat. No.	Qty.	Description
1	97094981		1	Water supply
2	00053730	12310033	4	Washer
3	00104500	11038064	2	Hexagon screw
4	01072520	11177179	1	Lens flange screw
5	01077820	90513243	1	Bushing
6	00051510	12040051	2	Hexagon nut
7	00053080	11038197	20	Hexagon screw
8	00053750	12310041	9	Washer
9	01077760	90503160	1	Retainer
10	00042900	12332029	3	Washer
11	00053100	11038247	2	Hexagon screw
12	01077700	90473158	1	Bushing
13	01170260	90521824	1	Sheet metal
14	00543750	90329095	1	Pump
15	00559670	19725035	1	Case
16	00083640	19791029	1	Plastic cover
17	00083650	19791037	1	Plastic cover
18	00903190	19724020	1	Tab
19	00053720	12310025	1	Washer
20	97094999-7062-20		1	Water supply
21	00051520	12040044	2	Hexagon nut
22	01017640	11177060	2	Lens flange screw
23	01079660	90495037	2	Steering roller
24	01078150	90523333	1	Tension spring
25	00735690	11518180	1	Eye bolt
26	00046500	12012019	1	Hex. Nut
27	01077830	90513573	1	Pivot
28	03008100	97099915	1	Squeeze connection
29	01170380	90527532	2	Sheet metal
30	00103300	11126067	8	Socket head screw
31	01079440	90537879	2	Steering roller
32	01077980	96112370	1	Linkage
33	01170560	96115456	1	Linkage
34	01170620	96117510	1	Linkage

Notes
DO NOT ORDER. ITEM HAS SUBASSEMBLIES.

DO NOT ORDER. ITEM HAS SUBASSEMBLIES.

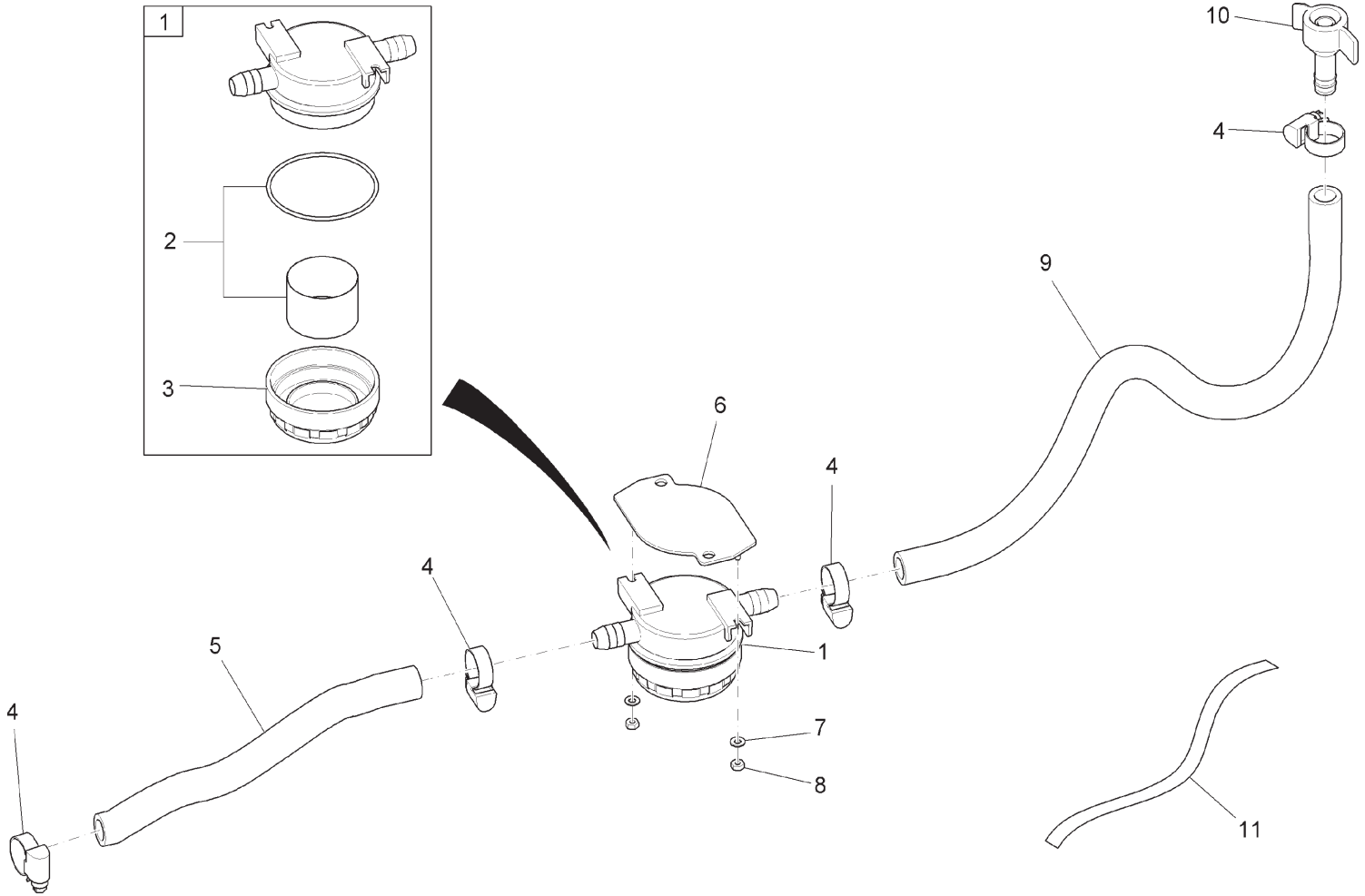
Soft construction

ITEM HAS SUBASSEMBLIES.

Hard construction
E26
E28, 30, 33, 33XL
Phoenix 28, 30

Chassis Assembly III

Water Supply Subassembly I

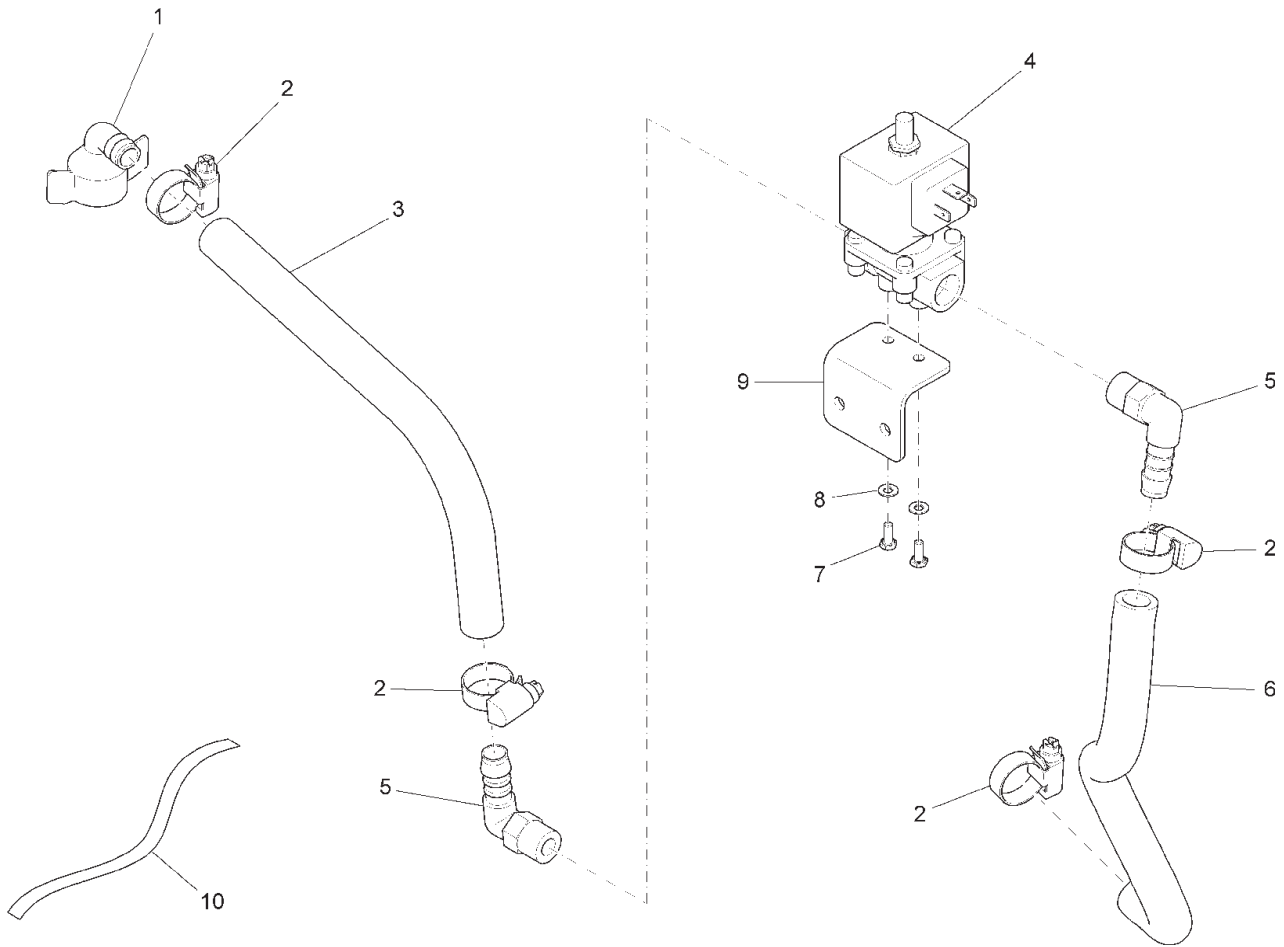


Bill of Material - 997094981 (99706212BT30-1)

Item	Spare part number	Mat. No.	Qty.	Description
1	01077170	90522640	1	Water filter
2	01079170	01079170	1	filter cartridge
3	01076500	01076500	1	Screw cap
4	01015350	17533159	4	Hose clamp
5	00200170	25842055	300mm	PVC hose
6	01078510	96115035	1	Sheet metal
7	00053710	12310017	2	Washer
8	00133830	12040028	2	Hex. Nut
9	00200170	25842055	480mm	PVC hose
10	01071450	90432071	1	Screwing
11	03007630	25743014	1	Sealing band

Notes
cpl. with o-ring

Chassis Assembly III
Water Supply Subassembly II

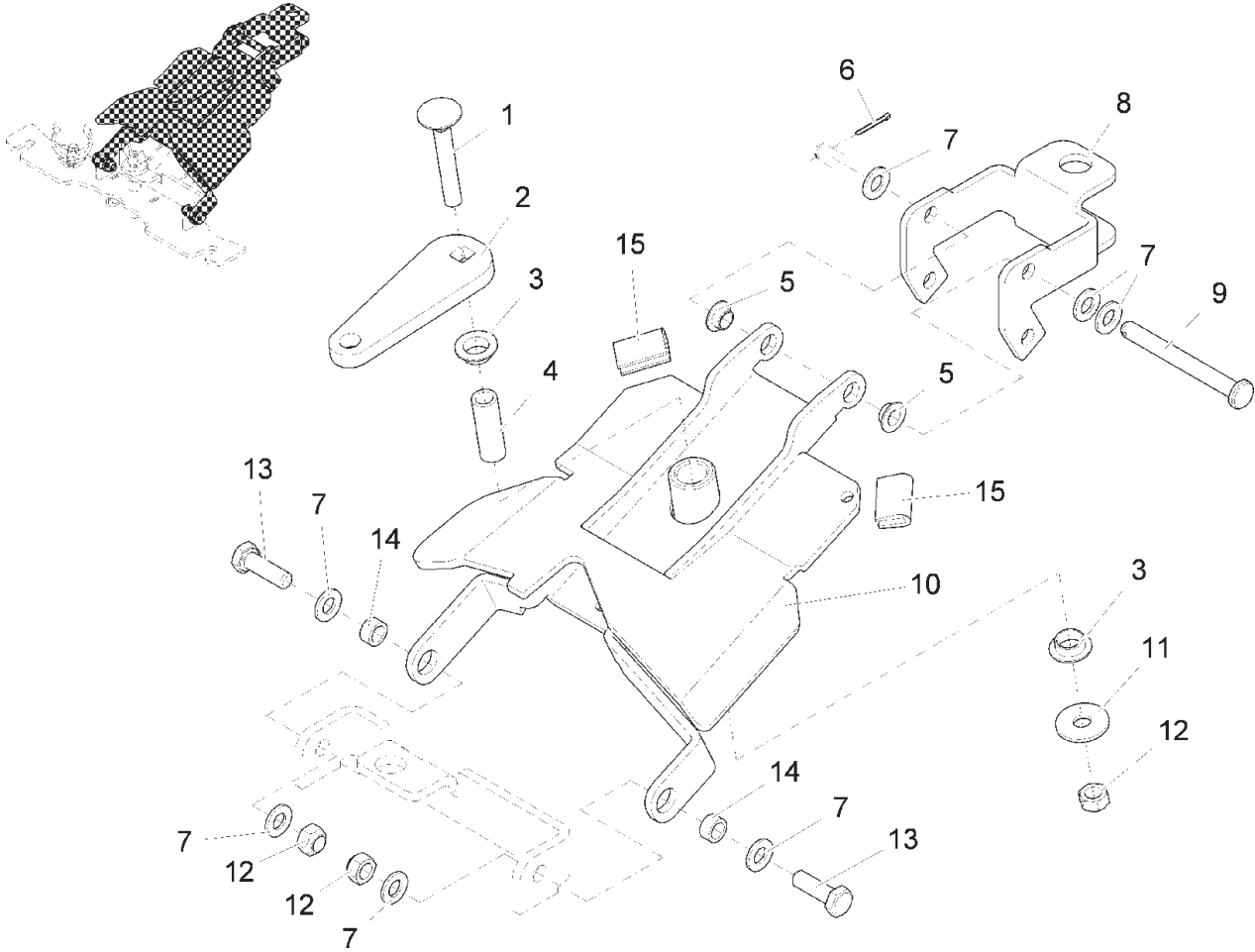


Bill of Material - 997094999-7062-20 (99706212BT30-2)

Item	Spare part number	Mat. No.	Qty.	Description
1	00154140	90330168	1	Screwed angle fitting
2	01015350	17533159	4	Hose clamp
3	00200170	25842055	1	PVC hose
4	01071000	90435595	1	Electrovalve
5	00020020	90174970	2	Angle socket
6	00200170	25842055	1	PVC hose
7	00058580	11038965	2	Hex.bolt
8	00053710	12310017	2	Washer
9	01170030	90524885	1	Retainer
10	03007630	25743014	1	Sealing band

Chassis Assembly III

Squeegee Connection Subassembly I

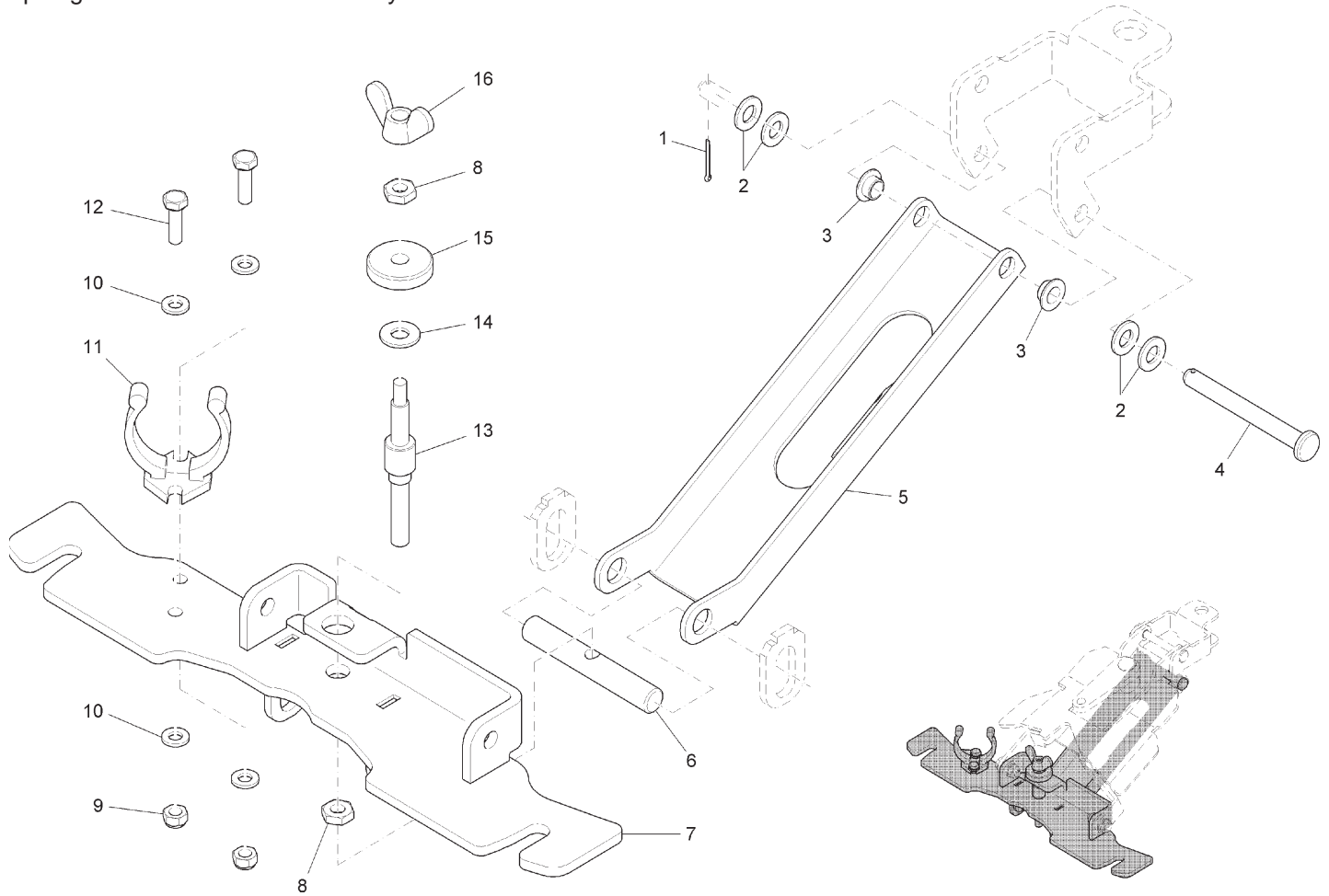


Bill of Material - 997099915-1 (until appr. 15. Apr. 2008)

Item	Spare part number	Mat. No.	Qty.	Description
1	01130940	11620564	1	Cup head square neck bolt
2	01170040	90521790	1	Sheet metal
3	01077510	14895478	2	Slide bearing bush
4	01170160	90204702	1	Pipe
5	01078230	14895460	2	Slide bearing bush
6	00054860	13280078	1	Cotter pin
7	00053750	12310041	5	Washer
8	01079280	90534710	1	Round part
9	01078220	13328810	1	Bolt
10	01079290	96117569	1	Sheet metal
11	00042900	12332029	1	Washer
12	00051510	12040051	3	Hexagon nut
13	00053100	11038247	2	Hexagon screw
14	01077700	90473158	2	Bushing
15	00161240	25582024	1	Edge protection

Chassis Assembly III

Squeegee Connection Subassembly II

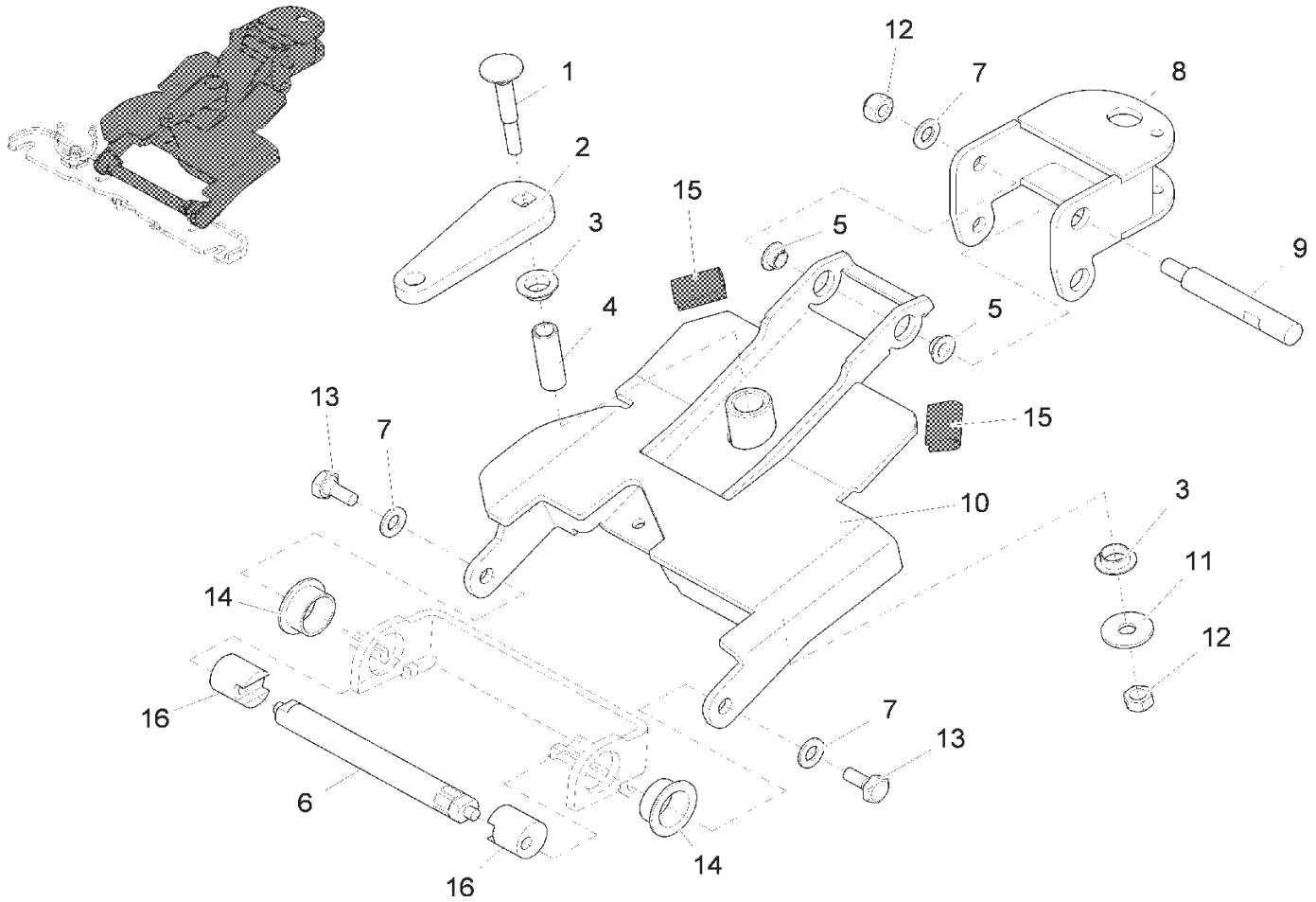


Bill of Material - 997099915-2 (until appr. 15. Apr. 2008)

Item	Spare part number	Mat. No.	Qty.	Description
1	00054860	13280078	1	Cotter pin
2	00053750	12310041	1	Washer
3	01078230	14895460	2	Slide bearing bush
4	01170050	13328935	1	Bolt
5	01079320	90495805	1	Draft link
6	01077680	90467686	1	Bolt
7	01079330	96110242	1	Sheet metal
8	00046500	12012019	2	Hex. Nut
9	00051520	12040044	2	Hexagon nut
10	00053730	12310033	4	Washer
11	01078120	90503251	1	Hose support
12	00053020	11038098	2	Hexagon screw
13	01077850	90515149	1	Threaded pin
14	00042900	12332029	1	Washer
15	00051510	12040051	1	Hexagon nut
16	00054020	12158028	1	Wing nut
17	00053330	12022042	1	Hexagon nut

Chassis Assembly III

Squeegee Connection Subassembly I

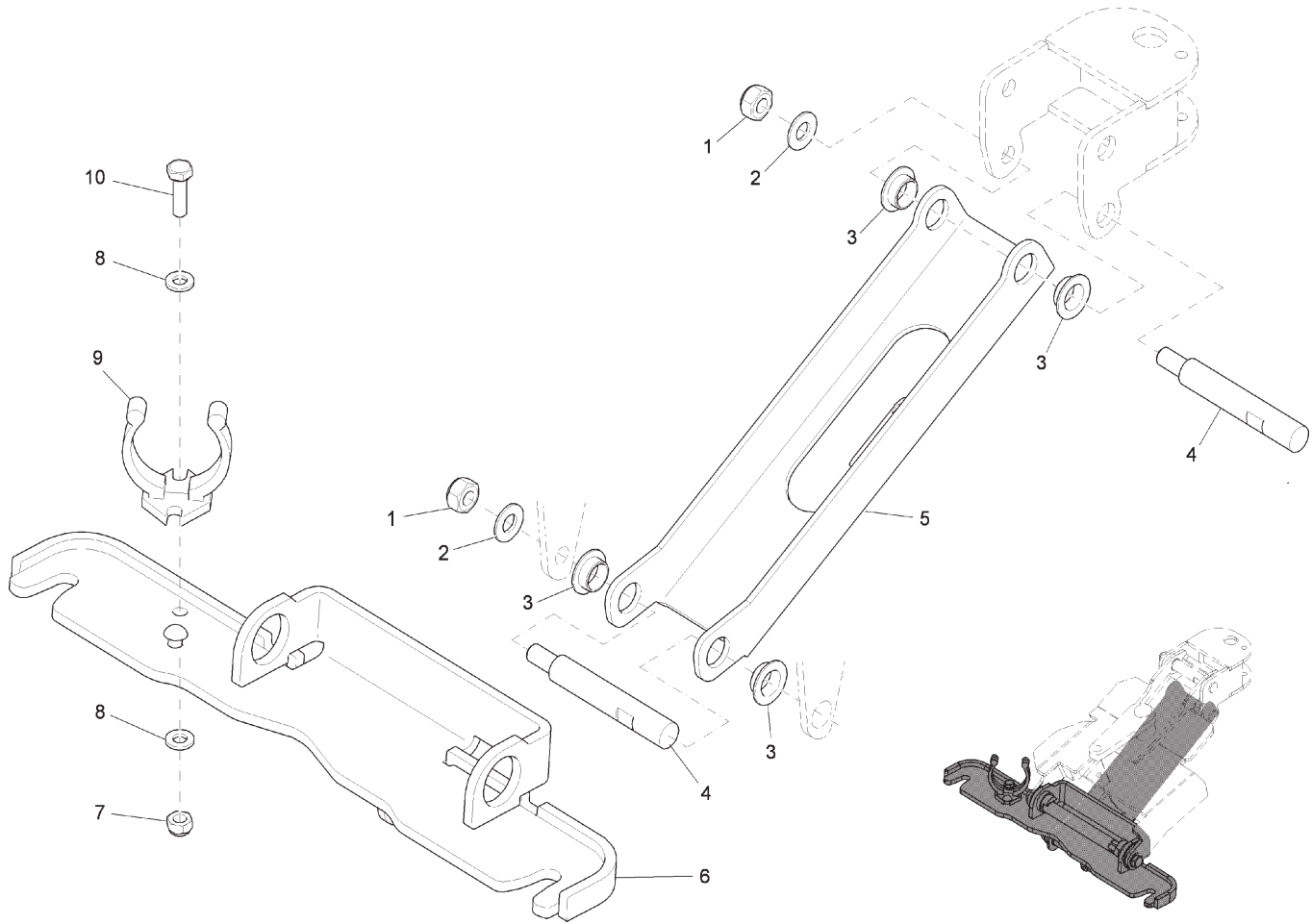


Bill of Material - 903008100BT10 (from appr. 15. Apr. 2008)

Item	Spare part number	Mat. No.	Qty.	Description
1	01130940	11620564	1	Cup head square neck bolt
2	01170040	90521790	1	Sheet metal
3	01077510	14895478	2	Slide bearing bush
4	01171550	90547886	1	Bushing
5	01171330	14895197	2	Slide bearing bush
6	01171360	90546847	1	Shaft
7	00101550	12310264	3	Washer
8	01171290	96119938	1	Round part
9	01171540	90547381	3	Threaded bolt
10	01171300	96120985	1	Sheet metal
11	00042900	12332029	1	Washer
12	00101540	12040259	4	Hexagon nut
13	01071740	11039609	2	Hex.bolt
14	01130470	14895361	2	Slide bearing bush
15	00161240	25582024	60mm	Edge protection
16	01171370	90547399	2	Excentric

Chassis Assembly III

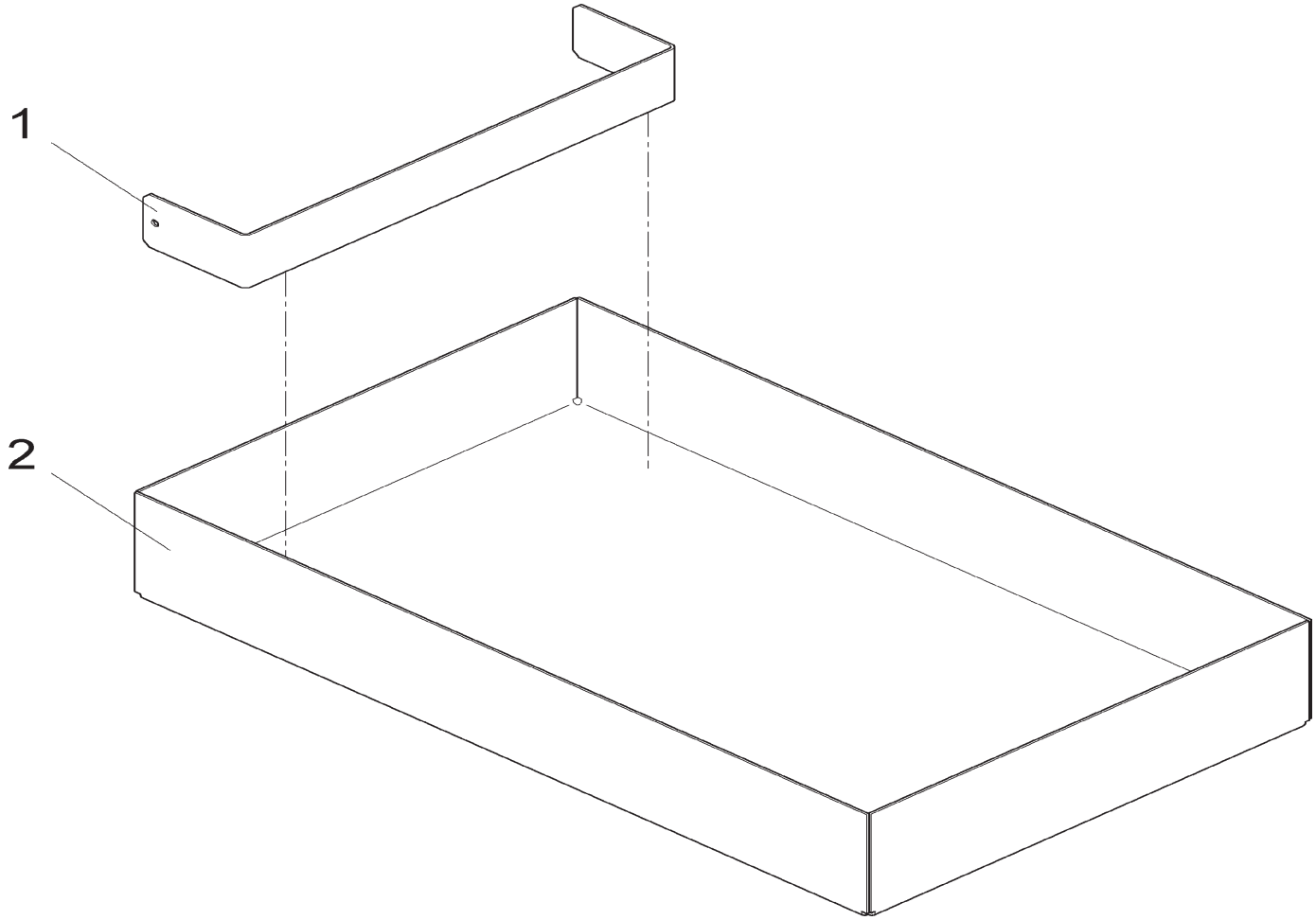
Squeegee Connection Subassembly II



Bill of Material - 903008100BT20 (from appr. 15. Apr. 2008)

Item	Spare part number	Mat. No.	Qty.	Description
1	00101540	12040259	2	Hexagon nut
2	00101550	12310264	2	Washer
3	01171330	14895197	2	Slide bearing bush
4	01171540	90547381	3	Threaded bolt
5	01171280	90543521	1	Draft link
6	01171310	96120993	1	Sheet metal
7	00051520	12040044	1	Hexagon nut
8	00053730	12310033	2	Washer
9	01078120	90503251	1	Hose support
10	00053020	11038098	1	Hexagon screw

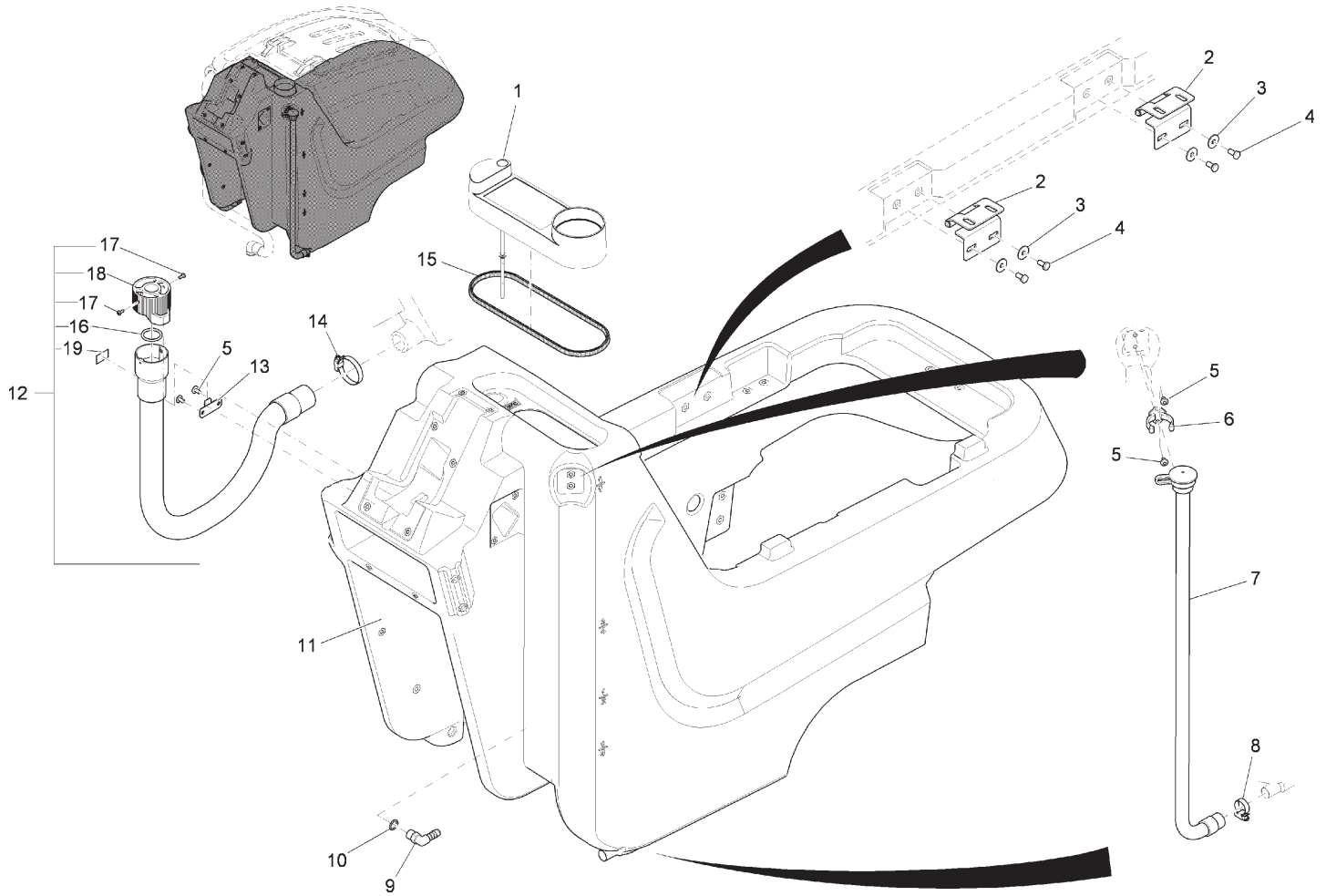
Battery Tray Assembly



Bill of Material - 997099956 (99706212BT40)

Item	Spare part number	Mat. No.	Qty.	Description
1	01170760	90535360	1	Sheet metal
2	03008190	96117171	1	Battery tray

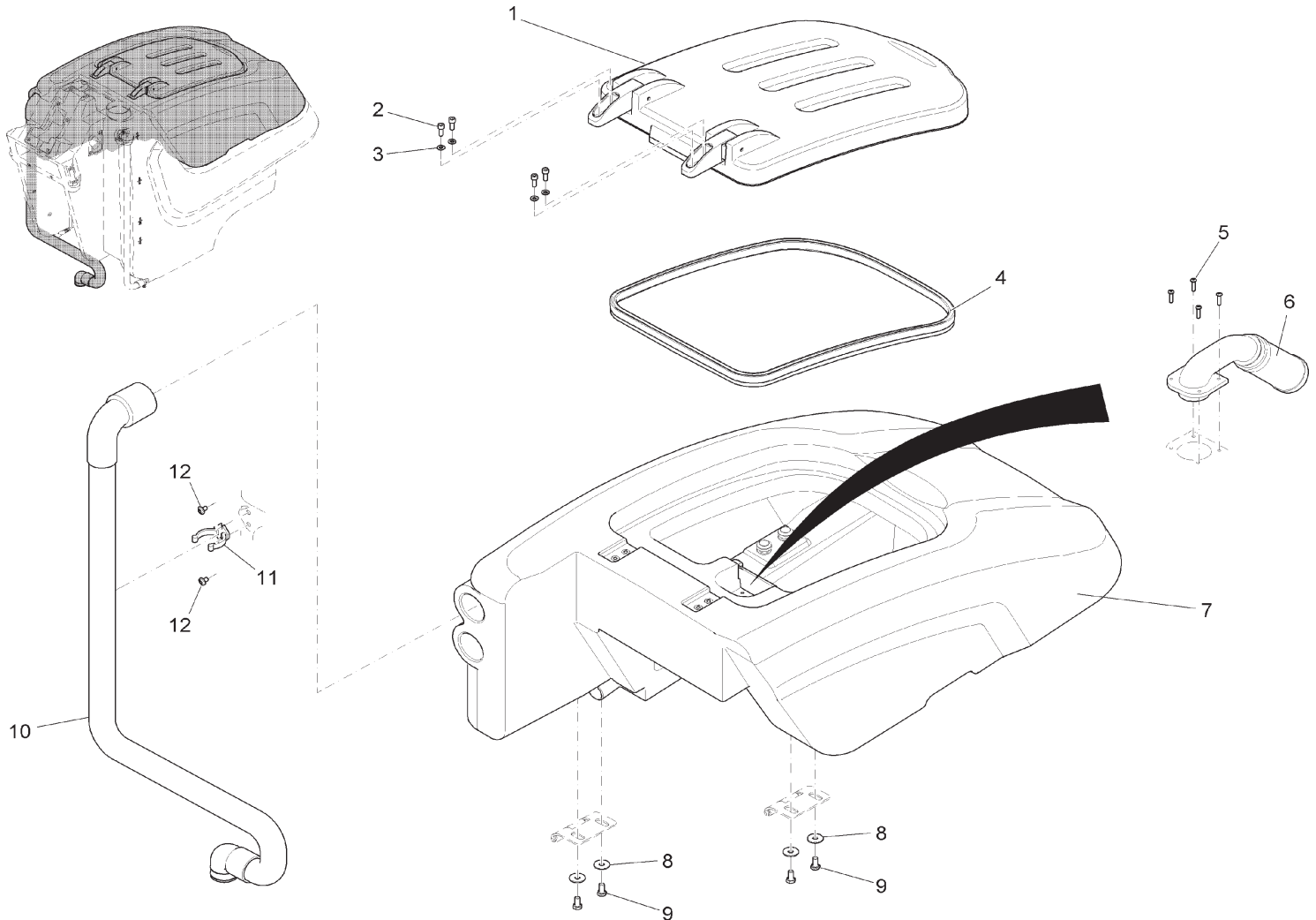
Solution Tank Assembly



Bill of Material - 997094833-1 (99706212BT50)

Item	Spare part number	Mat. No.	Qty.	Description
1	01078100	96114061	1	Fresh water cap
2	01078110	90496910	2	Hinge
3	00047990	12515086	4	Disk wheel
4	00053080	11038197	8	Hexagon screw
5	01072520	11177179	4	Lens flange screw
6	01078120	90503251	1	Hose support
7	01170530	96110622	1	Hose
8	01161690	17533290	1	Clamp
9	00020020	90174970	1	Angle socket
10	00057720	15286149	1	O-ring oil resistant
11	01073820	96116025	1	Fresh water tank
12	01077960	97090096	1	Foul water hose
13	01077860	90517574	1	Hook
14	00751160	17533043	1	Hose clamp
15	00721090	25583022	710mm	Edge protection
16	01079300	15282072	1	O-Ring
17	00906100	11175395	2	Fillister-head screw
18	00906110	90304528	1	Cover
19	01170060	17264888	1	Decal FOUL WATER

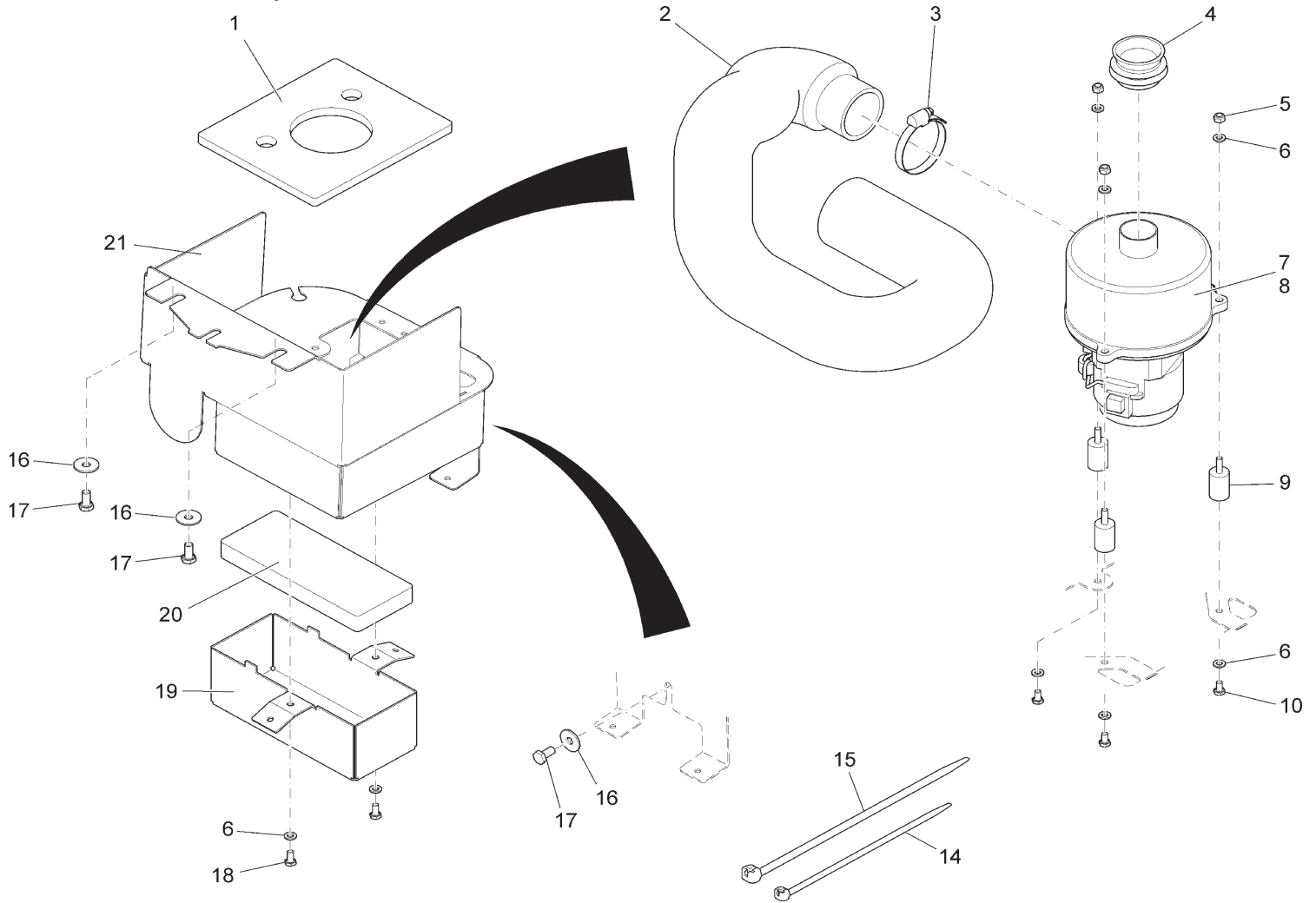
Recovery Tank Assembly



Bill of Material - 997094833-2 (99706212BT60)

Item	Spare part number	Mat. No.	Qty.	Description
1	01077990	97092951	1	Cover
2	00136910	11126166	4	Cylinder head screw
3	00053730	12310033	4	Washer
4	01071770	25510512	1	1580mm Sealing profile
5	01078160	11709151	4	Screw
6	01078250	97093843	1	Filter unit
7	01170770	96116017	1	Foul water tank
8	00047990	12515086	4	Disk wheel
9	00053080	11038197	4	Hexagon screw
10	01077920	96111349	1	Suction hose
11	01078120	90503251	1	Hose support
12	01072520	11177179	2	Lens flange screw

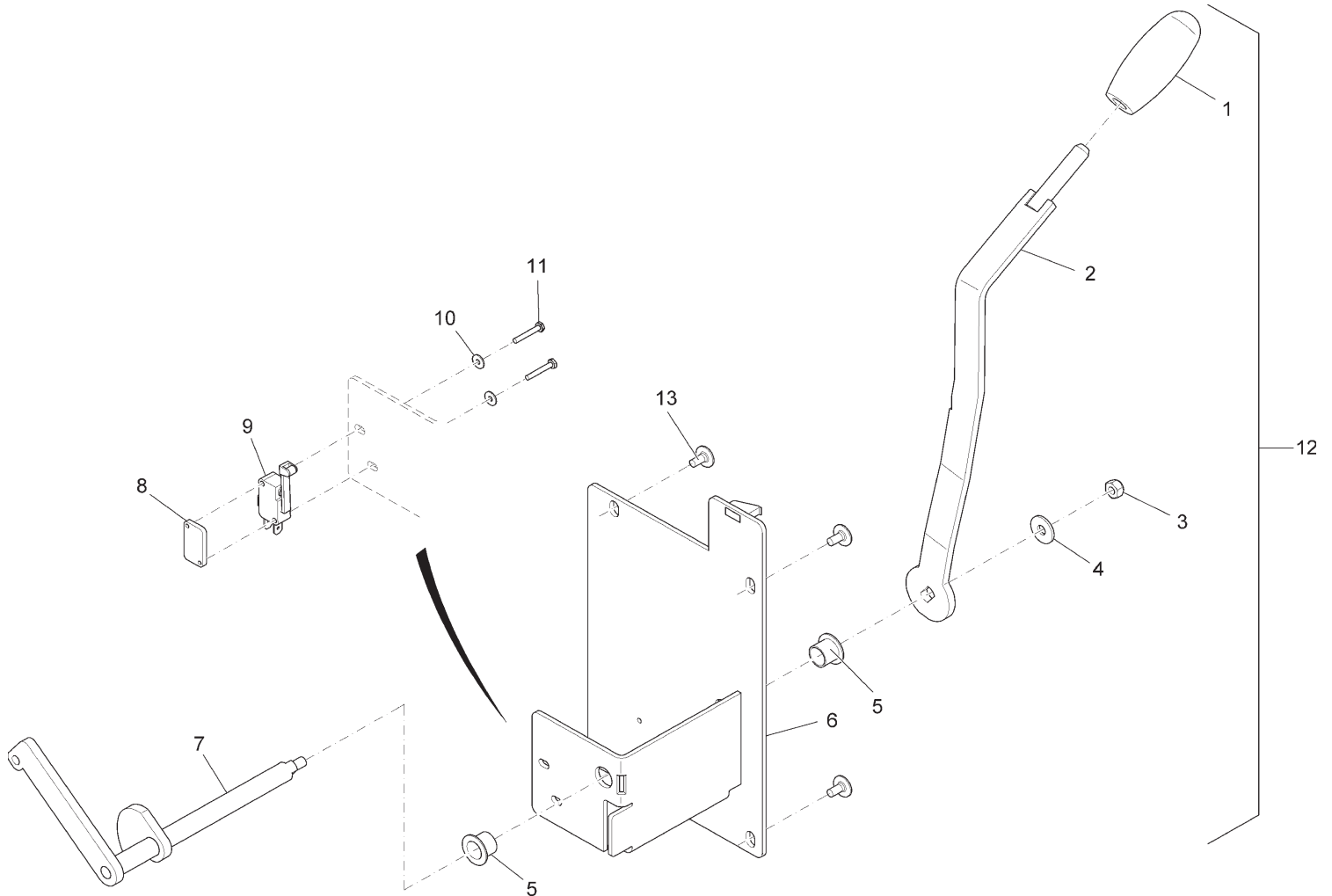
Vacuum Motor Assembly



Bill of Material - 997092811 (99706212BT70)

Item	Spare part number	Mat. No.	Qty.	Description
1	01079740	90523945	1	Insulation mat
2	01077900	90519737	1	Hose
3	00732130	17533027	1	Hose clamp
4	01078180	90503657	1	Connection
5	00051520	12040044	3	Hexagon nut
6	00053730	12310033	8	Washer
7	01079350	97096200	1	Suction motor
8	01074610	01074610	4	Carbon brush
9	01078190	90518457	3	Buffer
10	00025260	11038056	3	Hexagon screw
14	00121150	90114810	1	Cable tie
15	00967760	90156688	4	Cable tie
16	00042900	12332029	3	Washer
17	00053080	11038197	3	Hexagon screw
18	00104500	11038064	2	Hexagon screw
19	01079750	90519653	1	Cover
20	01079730	90519745	1	Insulation mat
21	03007810	96114301	1	Sheet metal

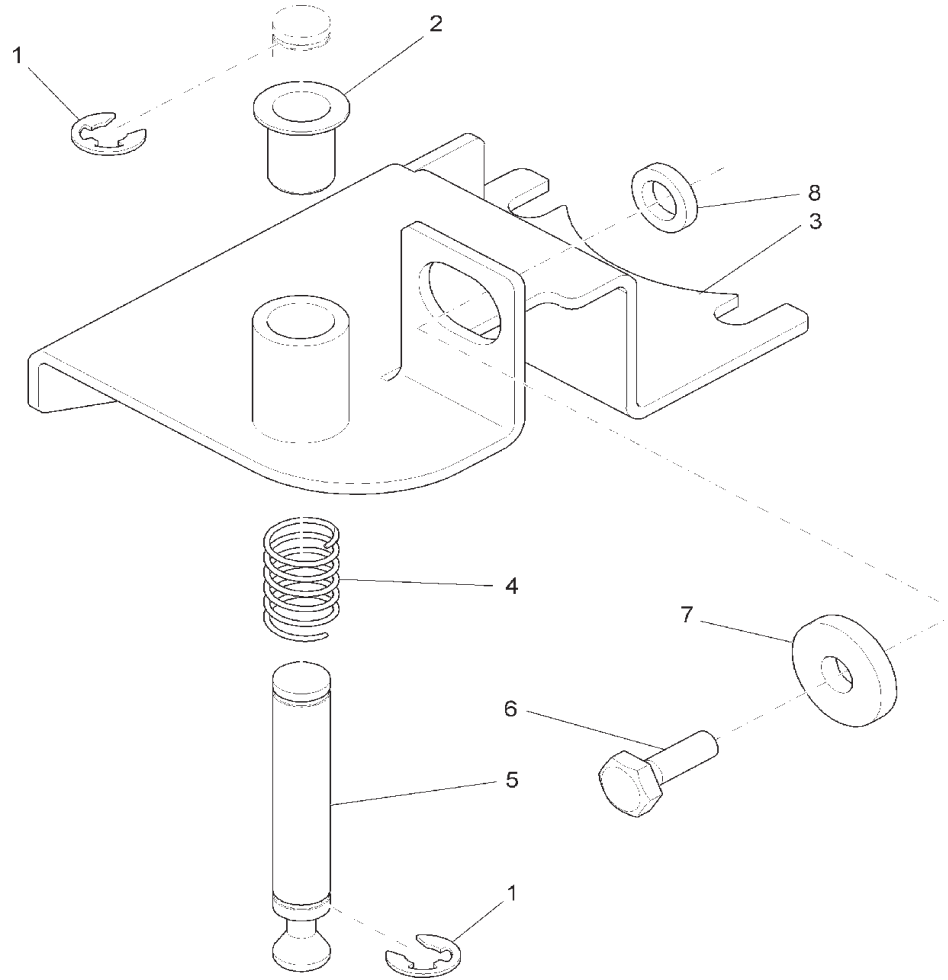
Squeegee Lift Handle Assembly



Bill of Material - 997102479 (99706212BT80)

Item	Spare part number	Mat. No.	Qty.	Description
1	00705560	17143025	1	Handle
2	01079160	96113493	1	Lever
3	00051520	12040044	1	Hexagon nut
4	00135120	12332011	1	Washer
5	01071440	14895288	2	Plain bearing bush
6	01079710	96110804	1	Support plate
7	01079720	96110705	1	Shaft with cam
8	01074840	90471483	1	Thread base plate
9	00975510	90306002	1	Micro switch
10	00747400	12332110	2	Washer
11	00022180	11039088	2	Hex.bolt
12	00009000	97092340	1	Lifting suction unit
13	01072520	11177179	4	Lens flange screw

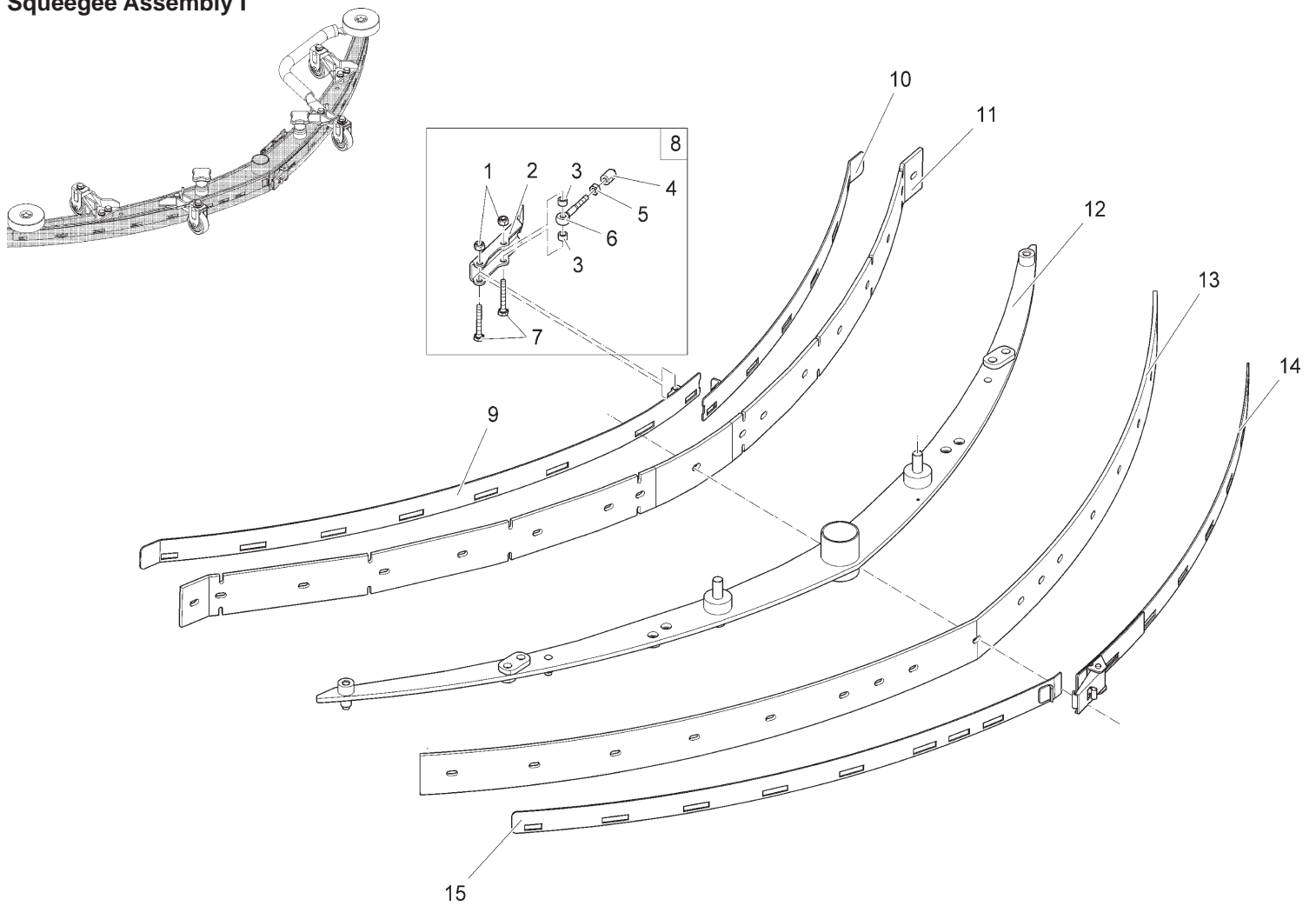
Squeegee Lock Assembly



Bill of Material - 997099931 (99706212BT90)

Item	Spare part number	Mat. No.	Qty.	Description
1	00046280	12640033	2	Thrust washer
2	00041400	14895122	1	Plain bearing bush
3	01170730	96115076	1	Folding plate
4	01170280	90523325	1	Cyl.compression spring
5	01170270	90523036	1	Pin
6	00053090	11038213	1	Hexagon screw
7	00047990	12515086	1	Disk wheel
8	01079670	90525692	1	Spacer sleeve

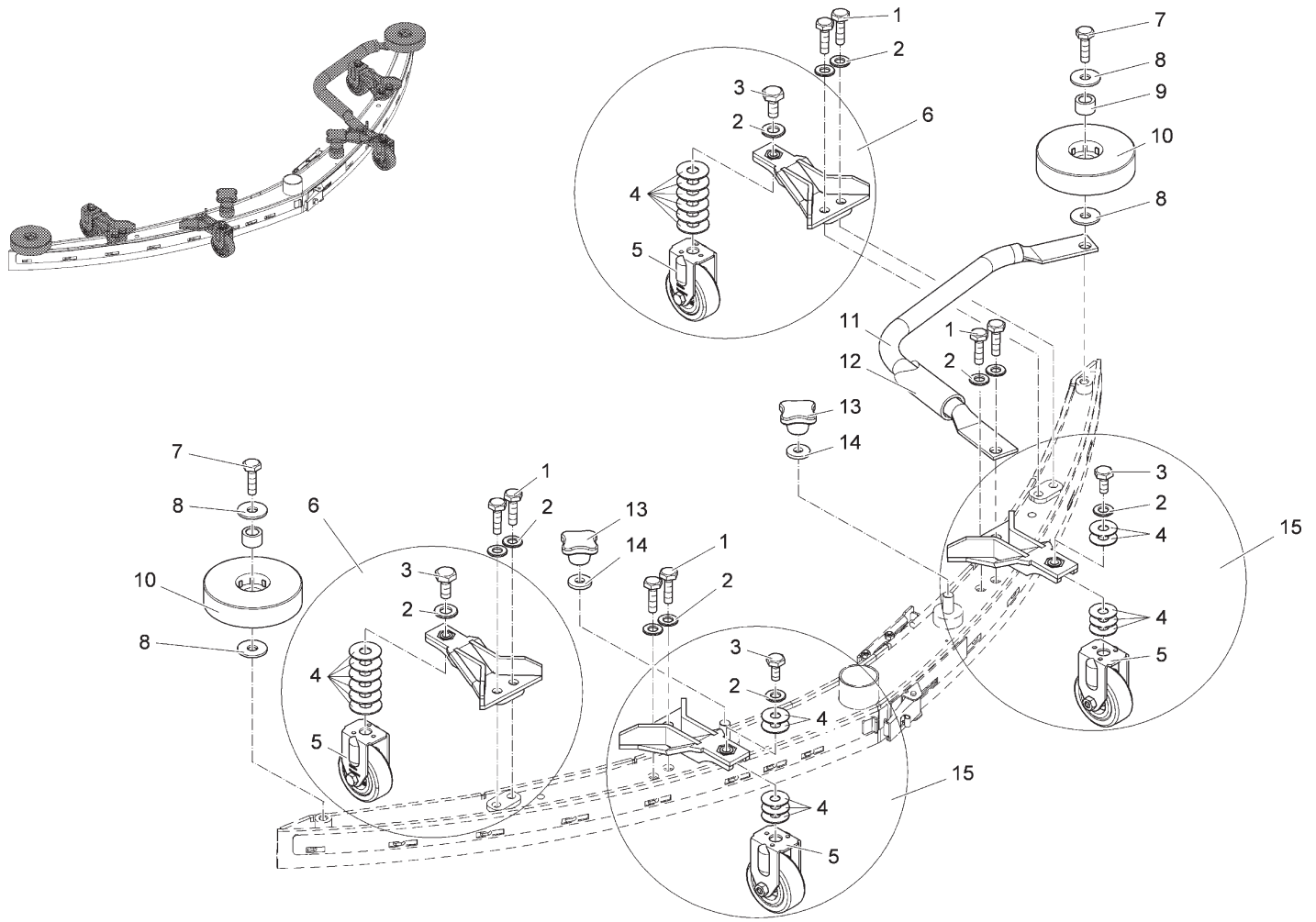
Squeegee Assembly I



Bill of Material - 997096234-1 (99706212BT100)

Item	Spare part number	Mat. No.	Qty.	Description
1	01017660	12040283	2	Hex. Nut
2	01077580	90535758	1	Lever
3	01077590	90514506	2	Bushing
4	01078090	90513631	1	Pressure piece
5	00902250	12022430	1	Hex. Nut
6	01077500	11518313	1	Eye bolt
7	01079890	11039765	2	Hexagon screw
8	00009010	97057459	1	Lock suction unit
9	01079880	96114830	1	Front tension band
10	01079870	96114822	1	Front tension band
11	01079790	90522251	1	Slot strip
12	01079900	96114814	1	Suction unit 1110mm
13	01079780	90522269	1	Sealing strip
14	01079910	96114855	1	Rear tension band
15	01079920	96114848	1	Rear tension band

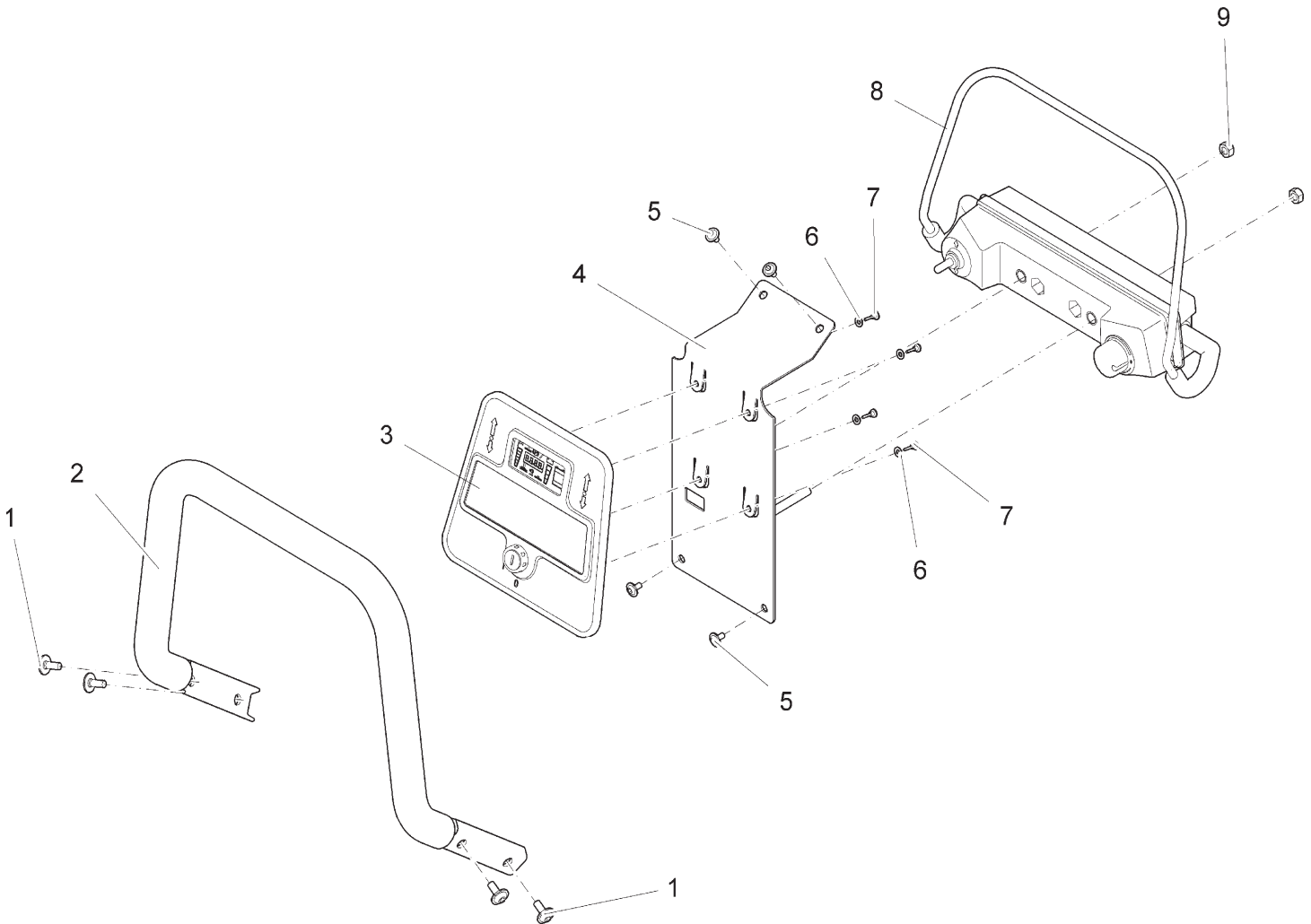
Squeegee Assembly II



Bill of Material - 997096234-2 (99706212BT110)

Item	Spare part number	Mat. No.	Qty.	Description
1	01078690	11038924	4	Hexagon screw
2	00101550	12310264	12	Washer
3	01071740	11039609	4	Hex.bolt
4	01079080	90531112	22	Spacer
5	01077810	90513094	4	Fixed castor
6	XXXXXXXX	97099121	2	Fixed castor
7	01059530	11039567	2	Hexagon screw
8	00902280	12332136	4	Washer
9	00879030	90199019	2	Pipe
10	00924810	90336637	2	Deflector roller
11	01079930	90522566	1	Bracket
12	00911270	25842105	305 mm	Hose
13	00866720	17133026	2	Star handle
14	00972060	12515094	2	Disk wheel
15	01079070	97098842	2	Fixed castor

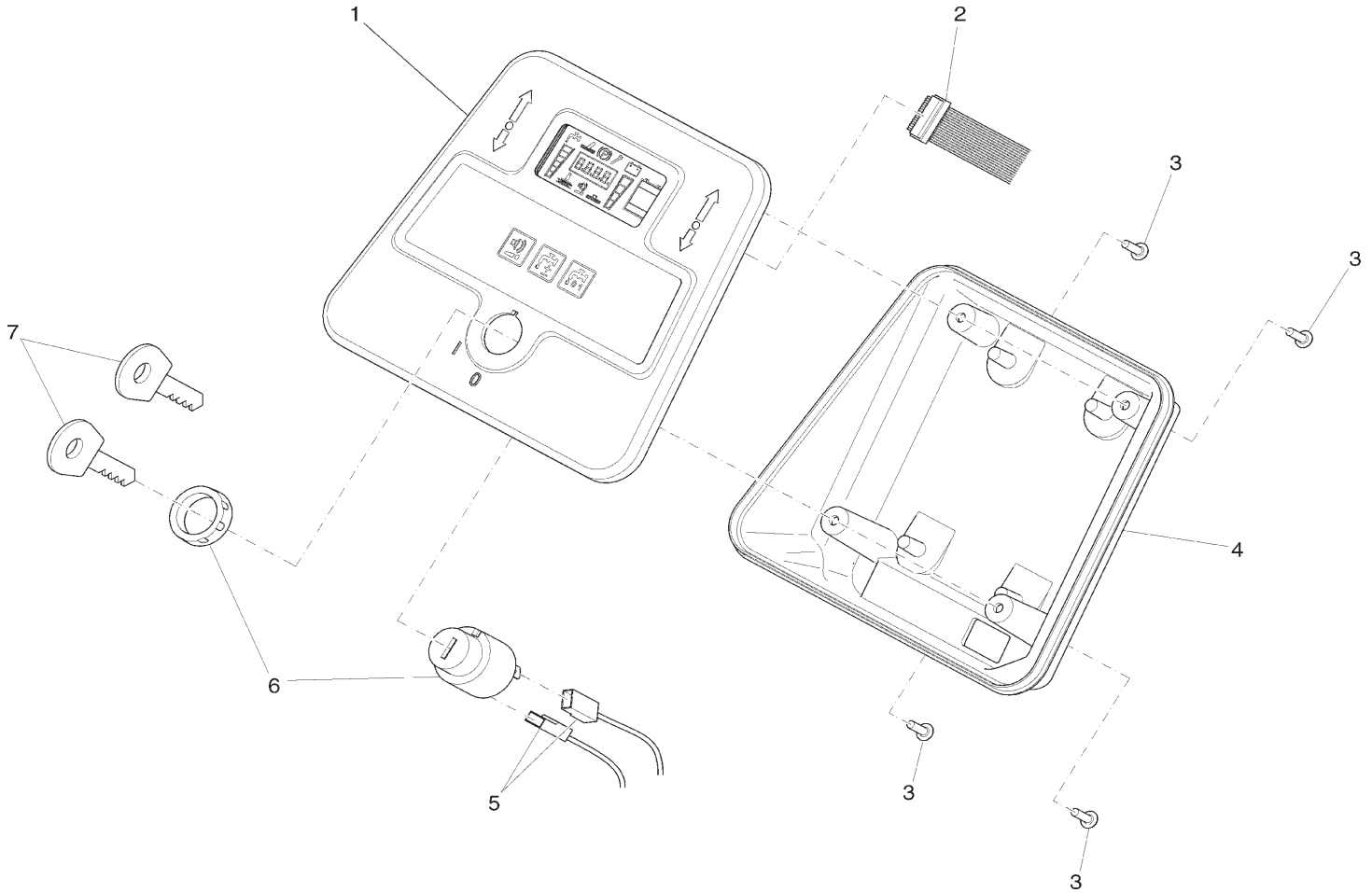
Control Panel Assembly



Bill of Material - 997096523 (99706212BT120)

Item	Spare part number	Mat. No.	Qty.	Description	Notes
1	01171380	11177253	4	Lens flange screw	DO NOT ORDER. ITEM HAS SUBASSEMBLIES.
2	01079760	90494501	1	Handle bar	
3	97091839		1	Console cpl.	
4	01079770	96117585	1	Sheet metal	
5	01072520	11177179	4	Lens flange screw	
6	00874720	12310272	4	Washer	
7	00961490	11709011	4	Self tapping screw	
8	01079950	97096069	1	Bail system	
9	00051510	12040051	2	Hexagon nut	

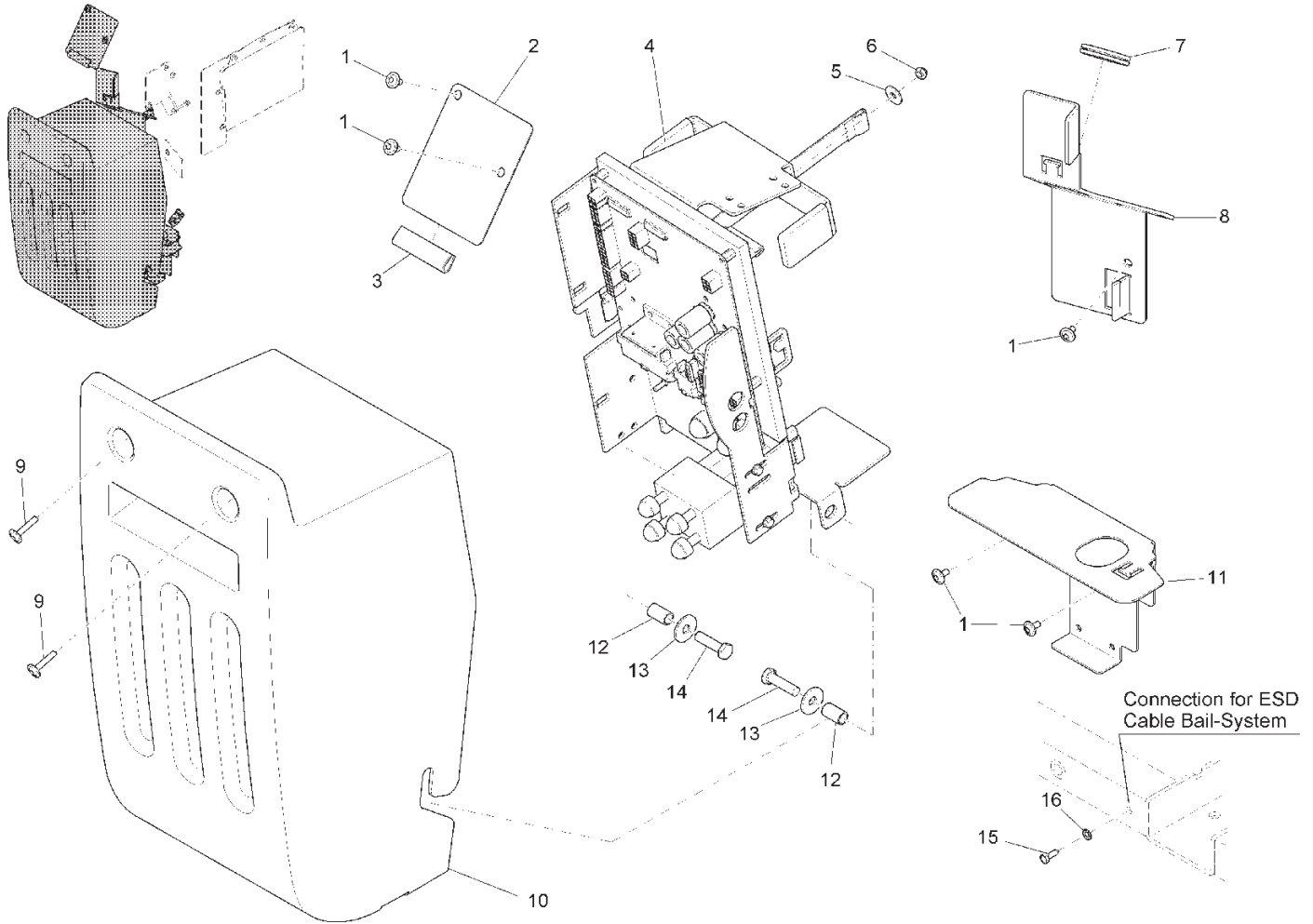
Control Panel Assembly
 Console Subassembly



Bill of Material - 997091839 (99706212BT121)

Item	Spare part number	Mat. No.	Qty.	Description
1	01079090	97057160	1	Console
2	01078930	90511130	1	Ribbon cable
3	01078860	11702123	4	Screw
4	01078940	90499492	1	Console
5	01078950	90518150	1	Cable key switch
6	00021710	90323437	1	Key switch
7	00745890	00745890	1	Set (2pc.) key

Electrical Assembly I



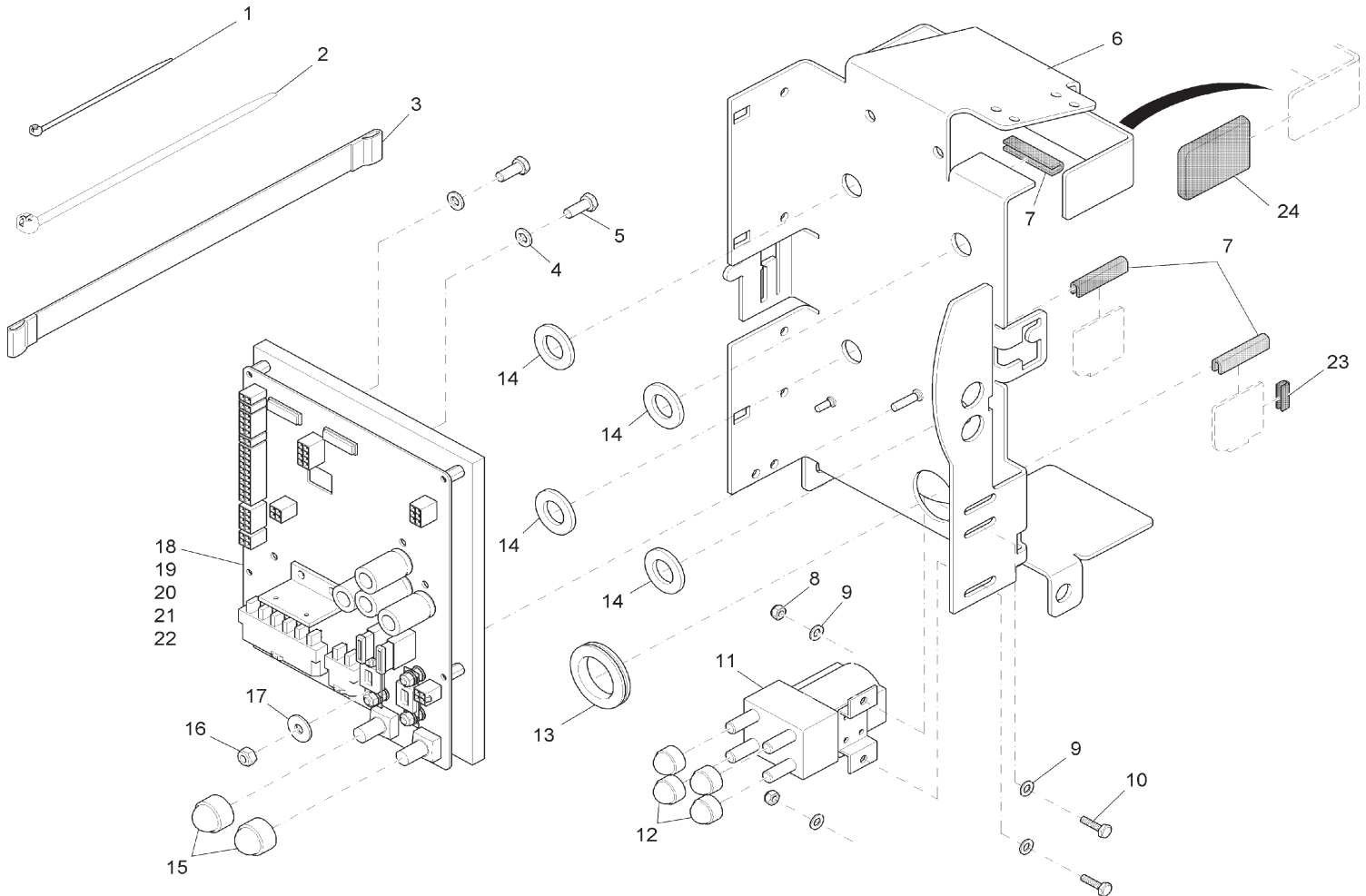
Bill of Material - 997100515-1 (99706212BT30)

Item	Spare part number	Mat. No.	Qty.	Description	Notes
1	01072520	11177179	5	Lens flange screw	
2	01078570	90509803	1	Sheet metal	
3	00161240	25582024	60mm	Edge protection	
4	97100523		1	Retainer cpl.	
5	00153200	12347027	1	Washer	
6	00051520	12040044	1	Hexagon nut	
7	01079690	15595259	1	Bushing	
8	01078580	90511338	1	Sheet metal	
9	01082530	11177161	2	Lens flange screw	
10	01078270	96114996	1	Covering	
11	01078590	90513912	1	Clamping plate	
12	01078260	90499377	2	Bushing	
13	00042900	12332029	2	Washer	
14	00053110	11038254	2	Hexagon screw	
15	01073850	11412046	1	Tapping screw	
16	00857150	12518080	1	Lock washer	

DO NOT ORDER. ITEM HAS SUBASSEMBLIES.

Electrical Assembly I

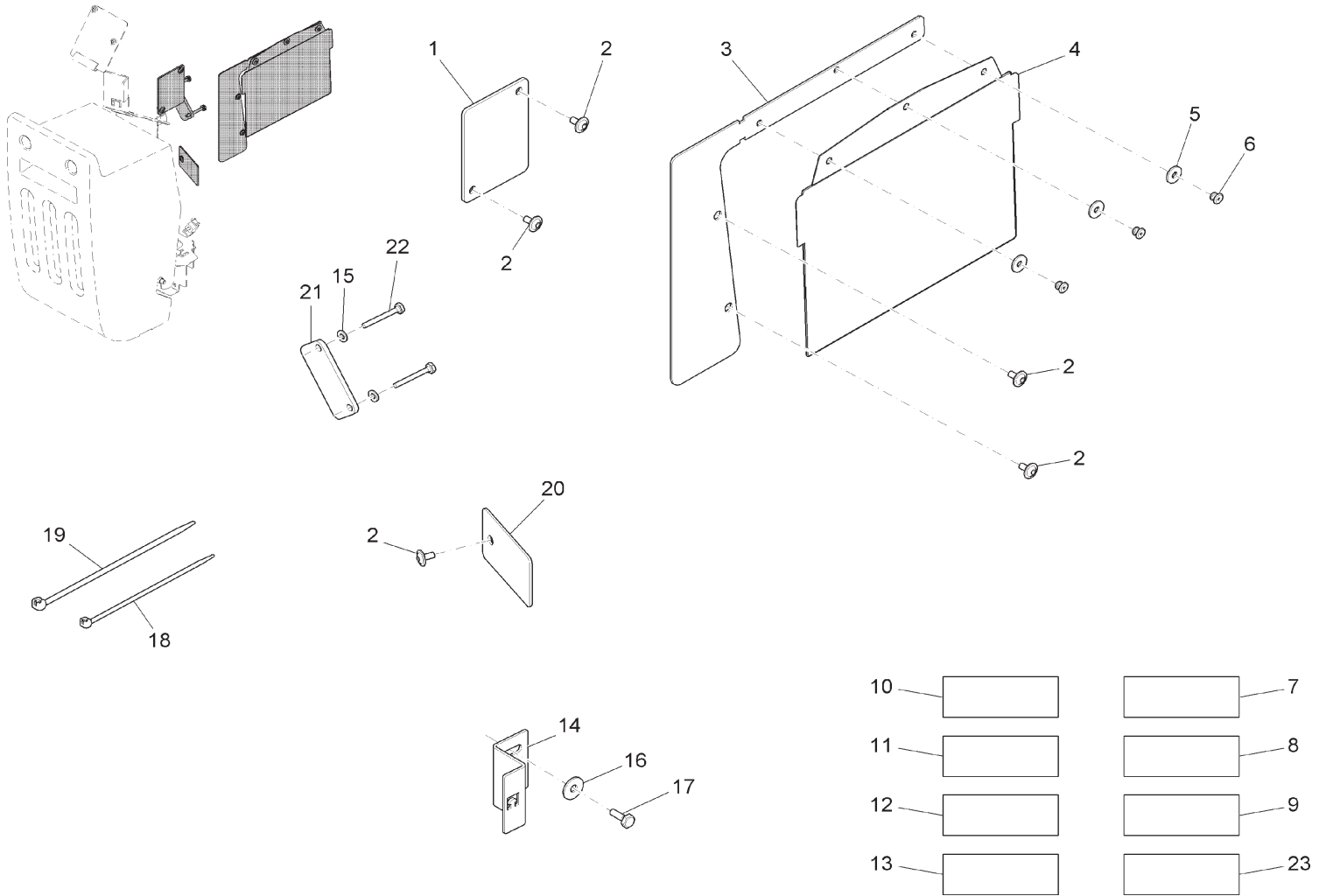
Retainer Subassembly



Bill of Material - 997100523 (99706212BT131)

Item	Spare part number	Mat. No.	Qty.	Description
1	00967760	90156688	4	Cable tie
2	00121150	90114810	8	Cable tie
3	01077880	90517699	1	Webbing
4	00053730	12310033	2	Washer
5	00053010	11038072	2	Hex.bolt
6	01078640	96117668	1	Retainer
7	00721090	25583022	120mm	Edge protection
8	00051340	12040036	2	Hexagon nut
9	00053720	12310025	4	Washer
10	00054410	11038049	2	Hex.bolt
11	01170460	90529942	1	Contactor
12	00131610	15592033	4	Lens cap
13	01079690	15595259	1	Bushing
14	01078240	90510017	4	Washer
15	00747210	15592041	2	Lens cap
16	00051520	12040044	1	Hexagon nut
17	00135120	12332011	1	Washer
18	01171100	97057764	1	Controller HIGH 8-fet BAIL-KUD
19	00972420	00972420	0	Strip fuse
20	00902440	00902440	0	Strip fuse
21	00733630	19731082	0	Fuse
22	00972430	00972430	0	Fuse
23	00721090	25583022	30mm	Edge protection
24	01074240	90463746	2	Cap

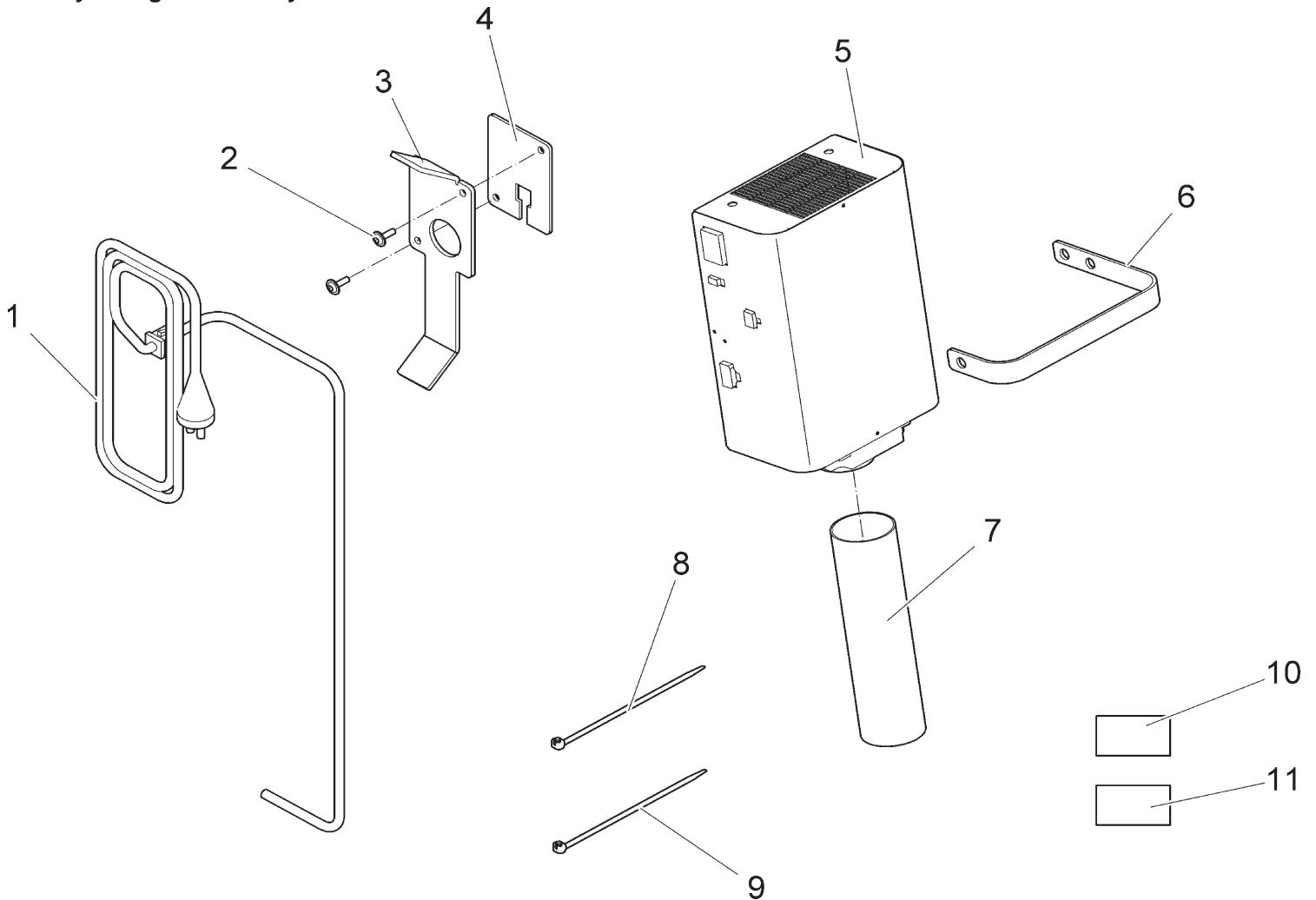
Electrical Assembly II



Bill of Material - 997100515-2 (99706212BT140)

Item	Spare part number	Mat. No.	Qty.	Description
1	01078600	90518119	1	Covering
2	01072520	11177179	7	Lens flange screw
3	01078610	90511346	1	Sheet metal
4	01078280	90465774	1	Bag
5	00555520	12332052	3	Washer
6	01078290	13165196	3	Blind rivet
7	03008120	97096986	1	Wiring harness W1
8	03008130	97096994	1	Wiring harness W2
9	03008200	97101547	1	Wiring harness W3
10	03007790	97099063	1	Wiring harness
11	03008160	97098511	1	Wiring harness W11
12	03008170	97095129	1	Cable loom
13	03008180	97098529	1	Cable loom
14	01170450	90529876	1	Clamping plate
15	00053730	12310033	2	Washer
16	00042900	12332029	1	Washer
17	00053090	11038213	1	Hexagon screw
18	00121150	90114810	10	Cable tie
19	00967760	90156688	2	Cable tie
20	01078630	90511320	1	Sheet metal
21	01170500	90538125	1	Distance plate
22	00535110	11038817	2	Hex.bolt
23	03007780	97099048	1	Cable loom

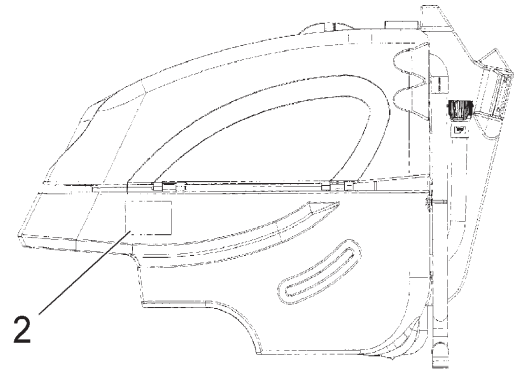
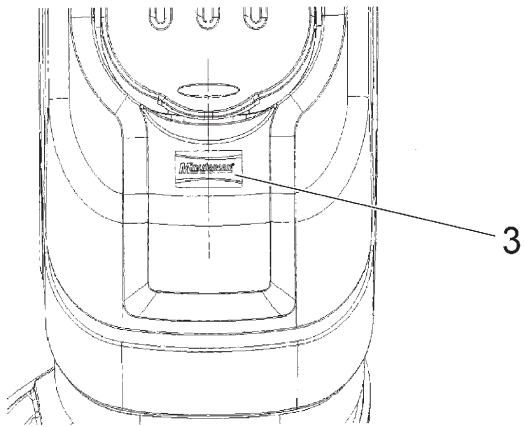
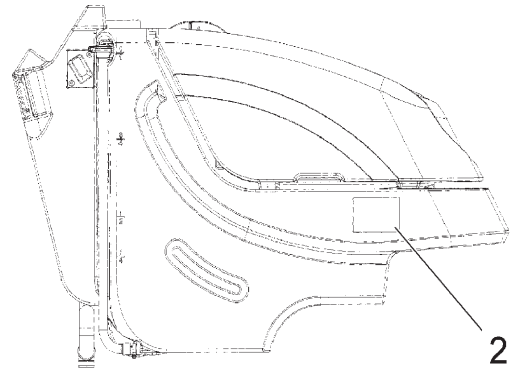
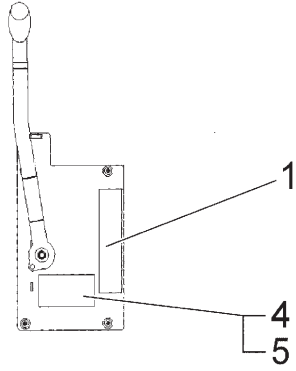
Battery Charger Assembly



Bill of Material - 997099436 (99706212BT150)

Item	Spare part number	Mat. No.	Qty.	Description
1	01079380	90532987	1	Power cable
2	01017640	11177060	2	Lens flange screw
3	01074240	90463746	2	Cap
4	01079360	90533266	1	Covering
5	01079370	96117197	1	On-board charger
6	01077870	90517665	1	Tension band
7	01078320	90512575	3	Hose
8	00121150	90114810	8	Cable tie
9	00967760	90156688	1	Cable tie
10	03006770	97094304	1	Wire harness W6
11	03006840	97094346	1	Wiring harness W8
12	01079390	90533258	1	Cable retainer

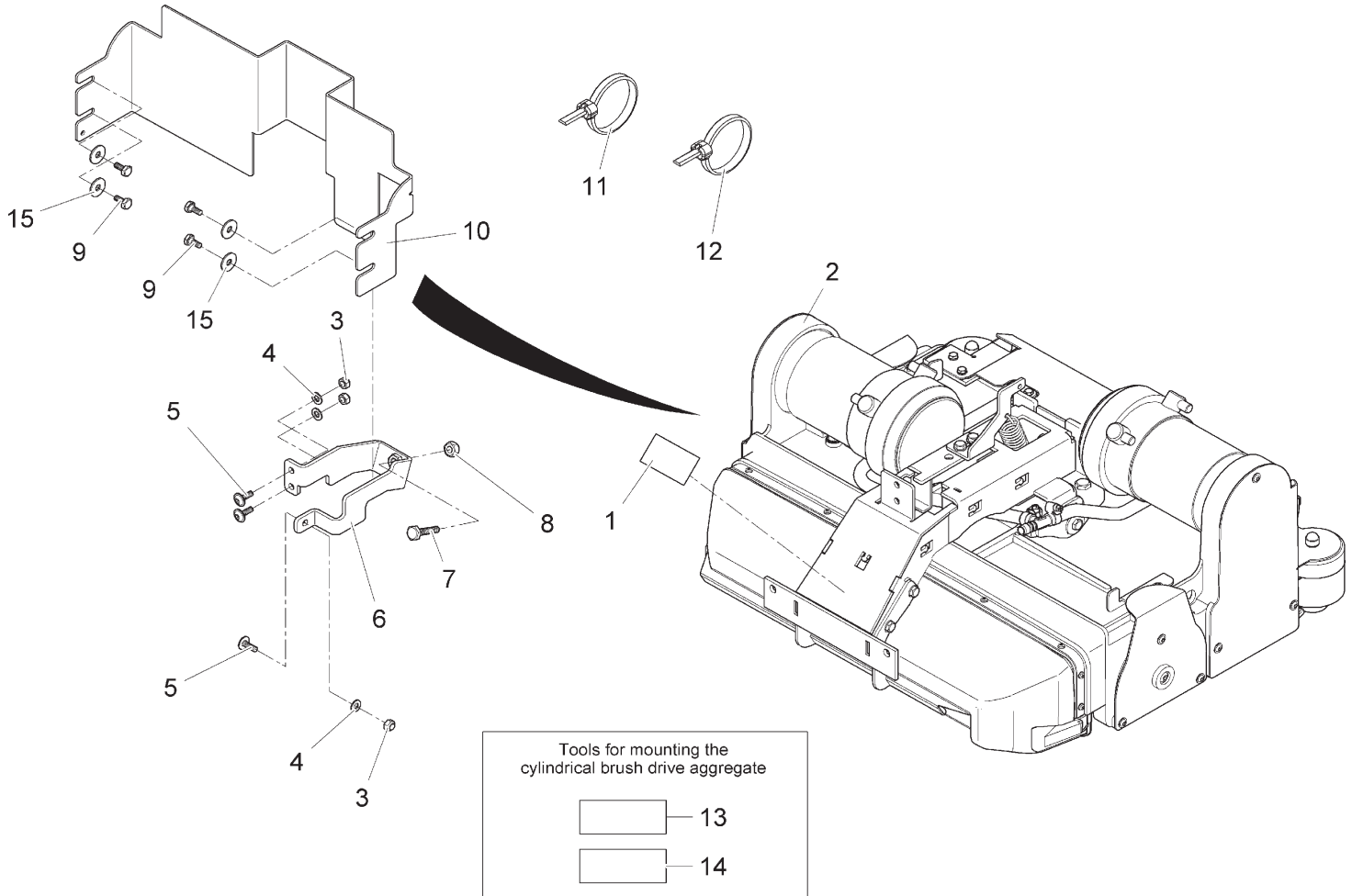
Machine Labels



Bill of Material - 997100481 (99706212BT160)

Item	Spare part number	Mat. No.	Qty.	Description
1	01077440	17267212	1	Decal DETAILS
2	03008210	17205253	2	Decal E28
3	03007820	17201145	1	Decal MINUTEMAN
4	03008630	17212178	1	Type plate MINUTEMAN
5	00504370	13165014	2	Blind rivet

Cylindrical Scrub Deck Assembly



Tools for mounting the
cylindrical brush drive aggregate

13

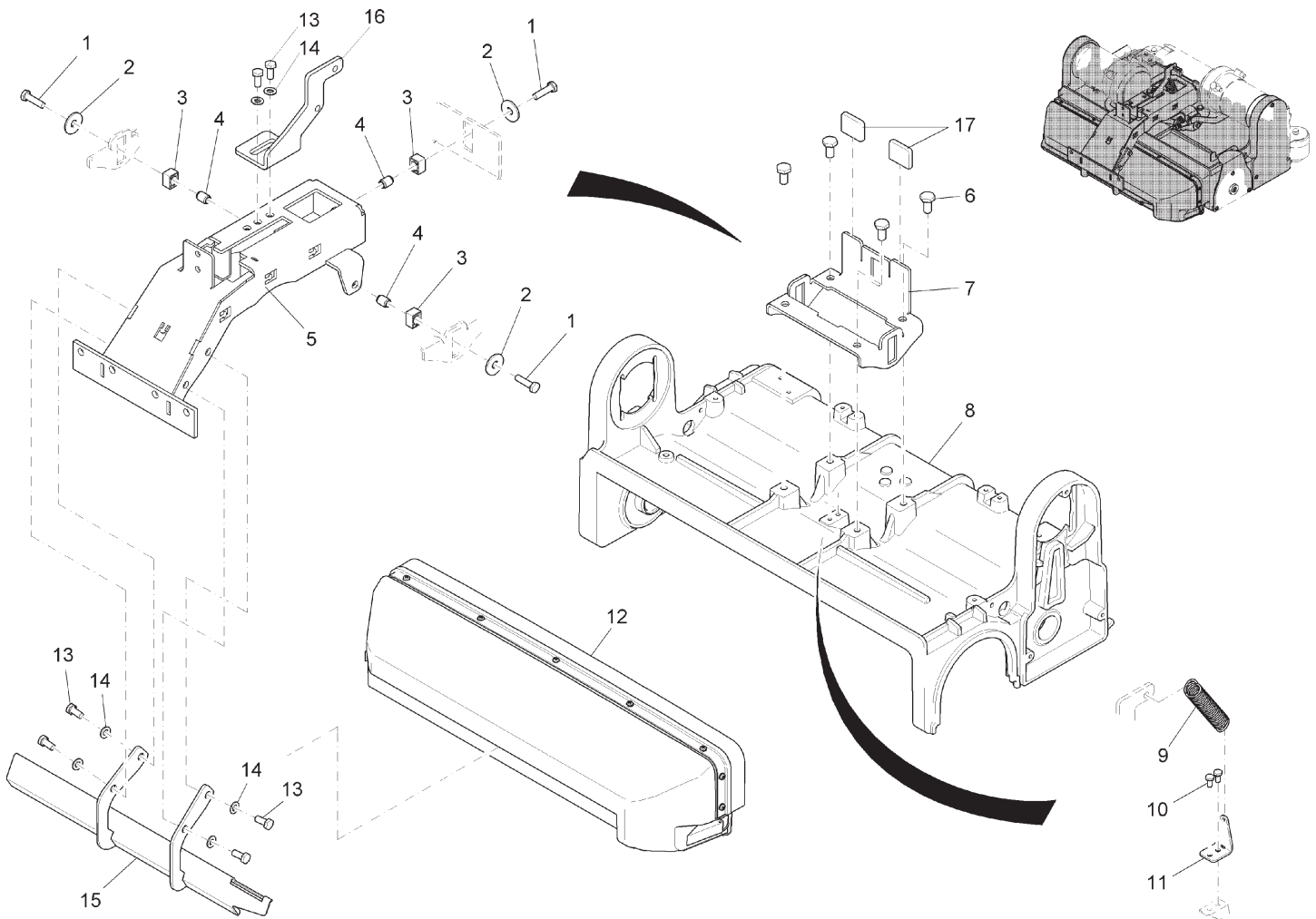
14

Bill of Material - 997099576

Item	Spare part number	Mat. No.	Qty.	Description
1	01073530	17220013	1	Transparency
2	97090021		1	Cylindrical brush drive head cpl.
3	00051510	12040051	2	Hexagon nut
4	00053750	12310041	3	Washer
5	01000670	11177136	3	Lens flange screw
6	01170070	96115324	1	Retainer
7	00053170	11038395	1	Hexagon screw
8	00051500	12040069	1	Hexagon nut
9	00053080	11038197	4	Hexagon screw
10	01170080	90532870	1	Sheet metal
11	00121150	90114810	6	Cable tie
12	00967760	90156688	4	Cable tie
13	03006790	97097737	1	Wiring harness to error reset
14	01078870	97057103	1	Adjusting kit BRUSHES AGGREGATE
15	00042900	12332029	4	Washer

Notes
DO NOT ORDER. ITEM HAS SUBASSEMBLIES. 97090021-1+2+3.

Brush Deck Assembly I

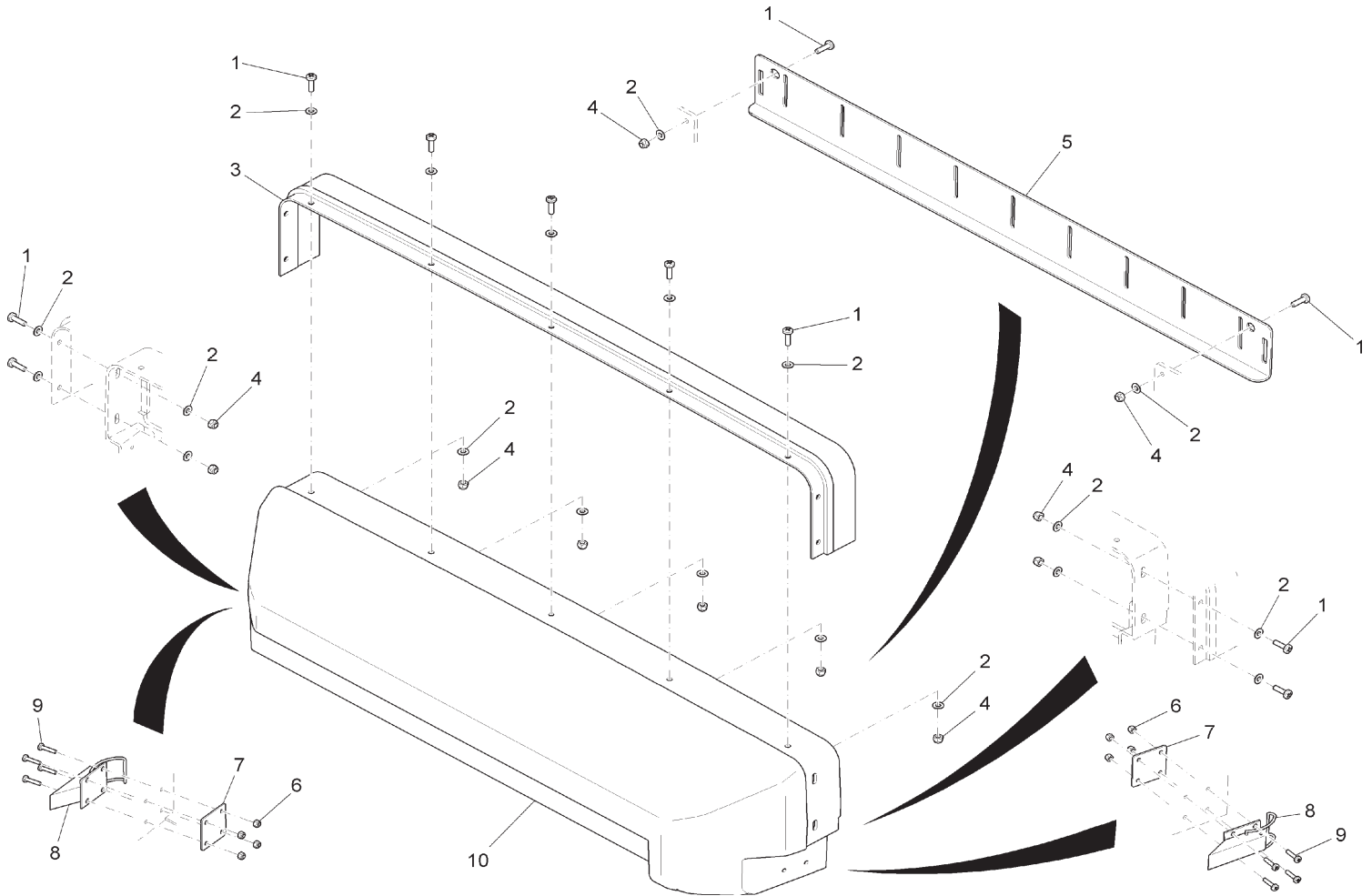


Bill of Material - 997090021-1 (99706212BT170)

Item	Spare part number	Mat. No.	Qty.	Description	Notes
1	01078690	11038924	3	Hexagon screw	
2	01161070	12332152	3	Washer	
3	01078700	90492851	3	Slide block	
4	01077730	90492869	3	Bushing	
5	03007970	96112453	1	Rocker cylindrical brush	
6	01078720	11039542	4	Hexagon screw	
7	01170090	90532649	1	Retainer	
8	01170780	90507815	1	Housing	
9	01072680	90441577	1	Tension spring	
10	01071750	11038742	2	Hexagon screw	
11	01077890	90529777	1	Angle	
12	97079578		1	Dirt hopper cpl.	
13	00553690	11038635	6	Hex.bolt	
14	00053750	12310041	6	Washer	
15	01170540	96112271	1	Guide bar	
16	01170100	90529595	1	Spring holder	
17	01074240	90463746	2	Cap	

DO NOT ORDER. ITEM HAS SUBASSEMBLIES.

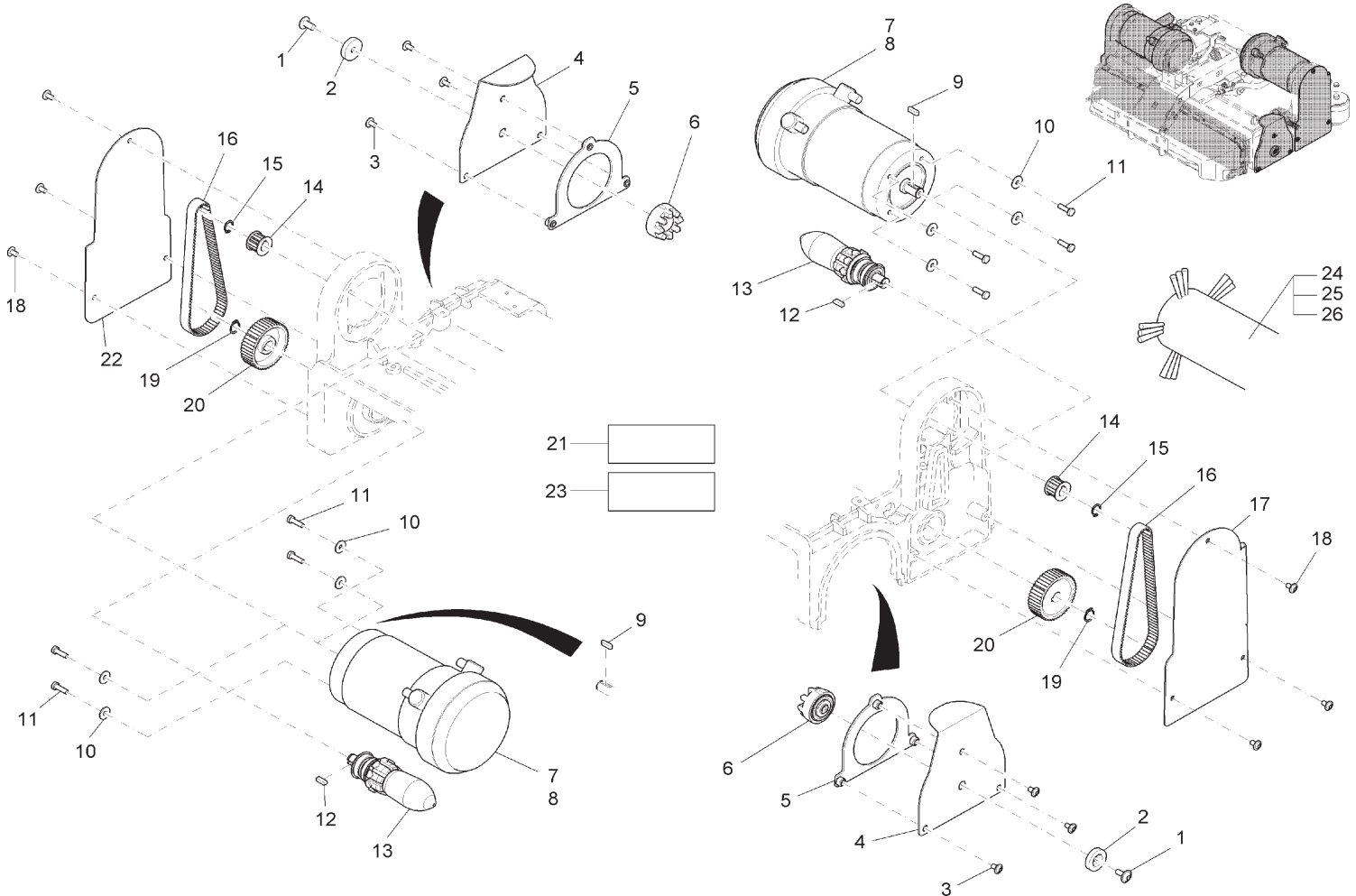
Brush Deck Assembly I
Dirt Hopper Subassembly



Bill of Material - 997079578 (99706212BT170-1)

Item	Spare part number	Mat. No.	Qty.	Description
1	01072260	11175445	11	Fillister-head screw
2	00874720	12310272	20	Washer
3	01072240	90436007	1	Brush rails
4	00970190	12040234	11	Hexagon nut
5	01072250	90435868	1	Panel apron
6	01072270	12040374	8	Hex. Nut
7	01076250	90435884	2	Plate
8	01072220	17383191	2	Lock
9	01072230	11175452	8	Fillister-head screw
10	01072210	96097886	1	Dirt hopper, cpl.

Brush Deck Assembly II



Bill of Material - 997090021-2 (99706212BT180)

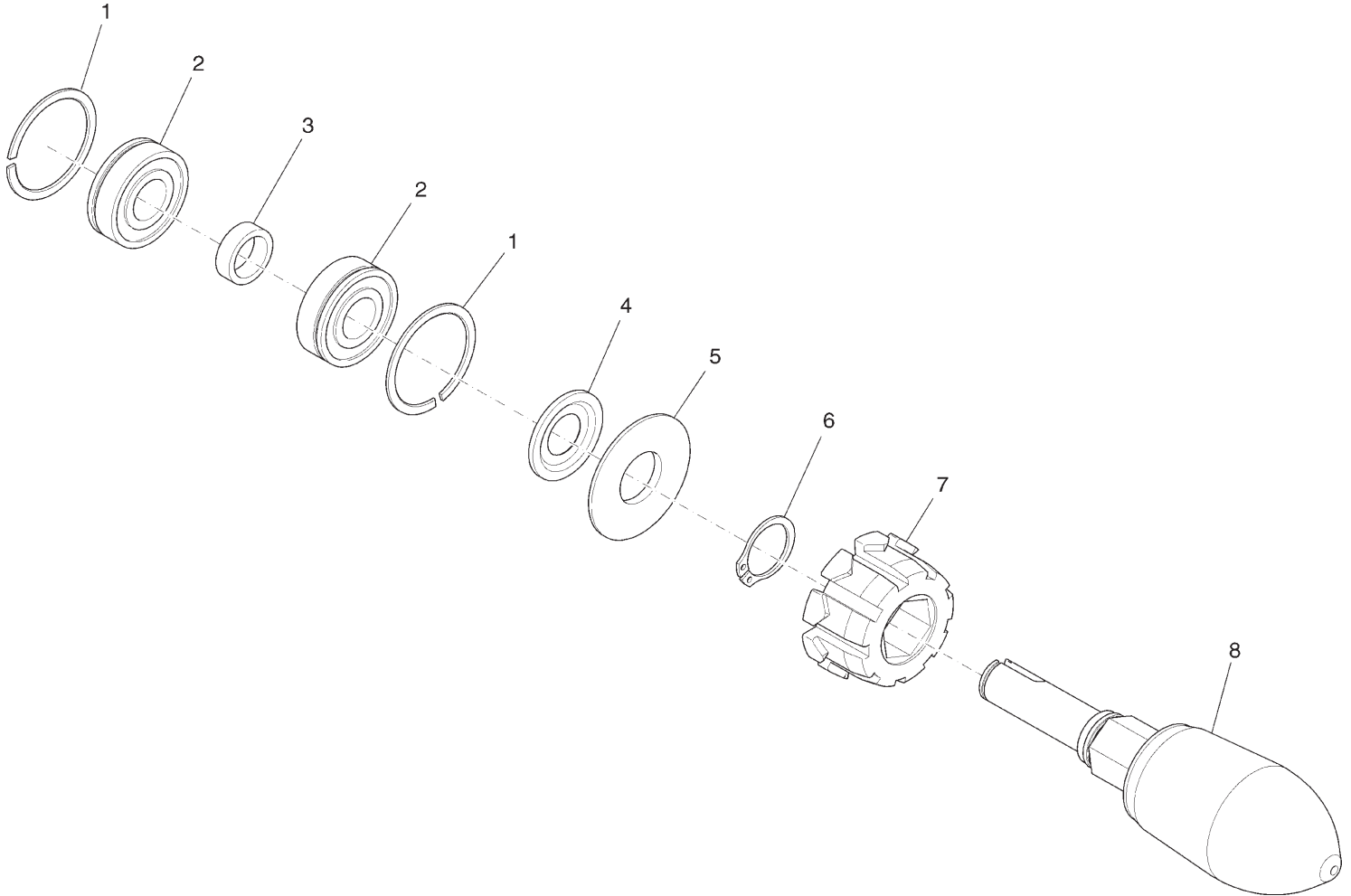
Item	Spare part number	Mat. No.	Qty.	Description
1	01074320	11177187	2	Lens flange screw
2	01074330	90464058	2	Washer
3	01072520	11177179	6	Lens flange screw
4	01078760	90454117	2	Side cover
5	01078770	96098264	2	Centering bend
6	01074340	96101985	2	Bearing
7	01072450	90529371	2	Motor
8	00553060	00553060	4	Set (4pc.) carbon brush
9	00022430	13540208	2	Feather key
10	00135120	12332011	8	Washer
11	00053020	11038098	8	Hexagon screw
12	01072580	13540549	2	Feather key
13	01072560	97080014	1	Carrier, cpl.
14	01072460	90409210	2	Toothed belt pulley
15	00022440	12610234	2	Retaining ring
16	01072540	16423055	2	Toothed belt
17	01170510	90532888	1	Sheet metal R.H.
18	01072520	11177179	6	Lens flange screw
19	00022340	12610069	2	Retaining ring
20	01072570	90409244	2	Toothed belt pulley
21	03007980	97098503	1	Wiring harness W13
22	01078790	90463340	1	Sheet metal L.H.
23	03007990	97097786	1	Wiring harness W14
24	99709600	99709600	1	Set cyl. brushes
25	99709900	99709900	1	set cyl brush
26	99709400	99709400	1	Set of cylindrical brushes

Notes

ITEM HAS SUBASSEMBLIES.

Light to medium, PA 6 - 0,7
 Medium to heavy, structured flooring, SIC PA 6. 12, Kom 500
 Very heavy and basic cleaning, SIC PA 6. 12, Kom 180

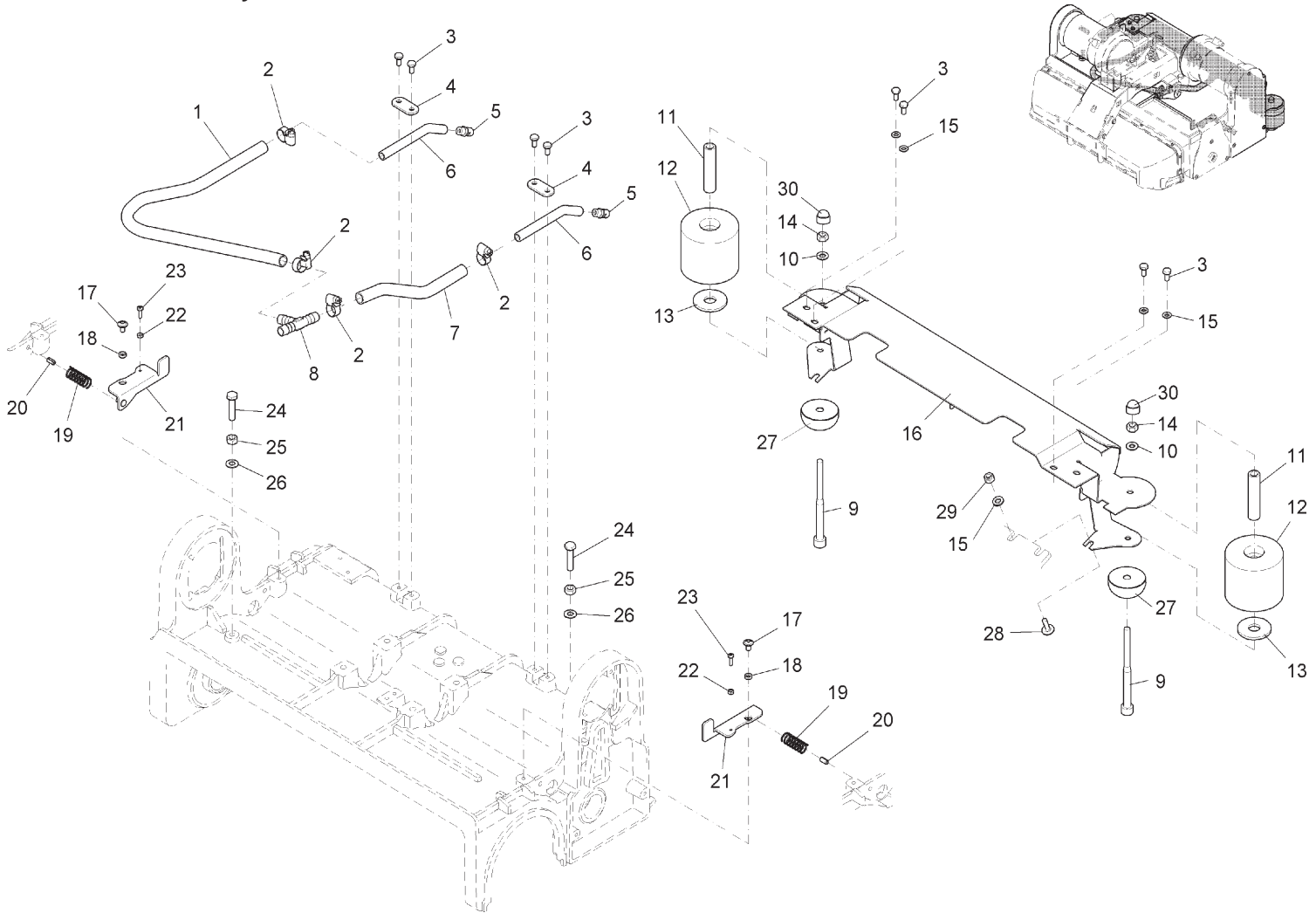
Brush Deck Assembly II
 Carrier Subassembly



Bill of Material - 901072560

Item	Spare part number	Mat. No.	Qty.	Description
1	01078820	12561031	2	Circlip
2	01076560	14110853	2	Grooved ball bearing
3	01077520	90409665	1	Bushing
4	00124220	14678064	1	Ring
5	01077550	90436817	1	Bushing
6	00054310	12610093	1	Retaining ring
7	01077540	90423666	1	Bushing
8	01077530	90416777	1	Retainer

Brush Deck Assembly III



Bill of Material - 997090021-3 (99706212BT190)

Item	Spare part number	Mat. No.	Qty.	Description
1	00171030	25842097	520mm	Hose
2	00074300	17533100	4	Hose clamp
3	01071750	11038742	8	Hexagon screw
4	01072500	90430885	2	Clamping sheet metal
5	01072640	90429952	2	Jet
6	01072630	90440884	2	Pipe
7	00171030	25842097	240mm	Hose
8	00976160	90310681	1	T-piece
9	01170110	11126505	2	Socket head screw
10	00053750	12310041	4	Washer
11	01078800	90519828	2	Pipe
12	00976590	90315334	2	Roller
13	00132610	12332045	2	Washer
14	00051510	12040051	2	Hexagon nut
15	00102150	12310256	6	Washer
16	01170600	96116520	1	Cross beam
17	01072520	11177179	2	Lens flange screw
18	01073360	90437450	2	Bushing
19	00550870	90232372	2	Pressure spring
20	00107140	13050299	2	Dowel pin
21	01072620	96098611	2	Lever, cpl.
22	01072510	12022570	2	Hex. Nut
23	01072260	11175445	2	Fillister-head screw
24	00523810	11039500	2	Hex.bolt
25	00971400	12022455	2	Hexagon nut
26	00101550	12310264	2	Washer
27	01170120	90533696	2	Stop
28	01015340	11177011	2	Lens flange screw
29	00051520	12040044	2	Hexagon nut
30	00131610	15592033	2	Lens cap

Minuteman International Made Simple Commercial Limited Warranty

**REVISION D
EFFECTIVE 7/1/2008**

Minuteman International, Inc. warrants to the original purchaser/user that the product is free from defects in workmanship and materials under normal use. Minuteman will, at its option, repair or replace without charge, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals. All warranty claims must be submitted through and approved by factory authorized repair stations.

This warranty does not apply to normal wear, or to items whose life is dependent on their use and care, such as belts, cords, switches, hoses, rubber parts, electrical motor components or adjustments. Parts manufactured by Minuteman are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman for procedures in warranty claims against these manufacturers.

Special warning to purchaser – Use of replacement filters and/or prefilters not manufactured by Minuteman or its designated licensees, will void all warranties expressed or implied. A potential health hazard exists without original equipment replacement.

All warranted items become the sole property of Minuteman or its original manufacturer, whichever the case may be.

Minuteman disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. Minuteman assumes no responsibility for any special, incidental or consequential damages.

This limited warranty is applicable only in the U.S.A. and Canada, and is extended only to the original user/purchaser of this product. Customers outside the U.S.A. and Canada should contact their local distributor for export warranty policies. Minuteman is not responsible for costs or repairs performed by persons other than those specifically authorized by Minuteman. This warranty does not apply to damage from transportation, alterations by unauthorized persons, misuse or abuse of the equipment, use of non-compatible chemicals, or damage to property, or loss of income due to malfunctions of the product.

If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

Cord Electric Group..... Three years parts, two years labor, ninety days travel (Not to exceed two hours)
Exceptions..... Port-A-Scrub, one year parts, six months labor
MPV 13, one year parts
V-14, One year parts, one year labor
MPV 14 and 18, two years parts, one year labor
RapidAir blower, one year parts, one year labor
Explosion-Proof Vacuum, one year parts, one year labor
Pneumatic Vacuums, three years parts, one year labor
EX 12 and EX12H, one year parts, one year labor
TRS 14, one year parts, one year labor

Battery Operated Group..... Three years parts, two years labor, ninety days travel
(Not to exceed two hours)
Exceptions..... Sweepers, one year parts, one year labor, ninety days travel
(Not to exceed two hours)

Internal Combustion Group....One year parts, one year labor, ninety day travel
(Not to exceed two hours)

Battery Chargers.....One year replacement
Replacement Parts.....Ninety days
Batteries.....0-3 months replacement, 4-12 months pro-rate
Polypropylene Plastic Tanks...Ten years, no additional labor