

FORMAX[®]

Square iT2
Squareback Booklet Finisher

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SQUAREFOLD TRIMMER

ELECTRICAL COMPONENTS INDEX

Motors

Component name	Description	Page
M1	Infeed motor	PL 7.0
M2	Infeed module positioning motor	PL 7.0
M3	Exit motor	PL 12.0
M4	Align module positioning motor	PL 8.0
M5	Aligning motor	PL 8.0
M6	Lift motor	PL 8.0
M7	Stop gate motor	PL 11.0
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M10	Trimmer module positioning motor	PL 9.2
M11	Trimmer motor right	PL 9.0
M12	Trimmer motor left	PL 9.0
M143	Roller motor	PL 6.0
M156	Stacker motor	PL 5.0
FAN3	Fan motor	PL 9.2
FAN4	Fan Motor	PL 9.3

Sensors and Switches

Component name	Description	Page
Q1	Infeed motor M1 encoder	PL 7.0
Q2	Infeed module positioning M2 encoder	PL 7.0
Q3	Exit motor M3 encoder	PL 12.0
Q4	Align module positioning M4 encoder	PL 8.0
Q5	Aligning motor M5 encoder	PL 8.0
Q6	Lift motor M6 encoder	PL 8.0
Q7	Stop gate motor M7 encoder	PL 11.0
Q9	Clamp motor positioning M9 encoder	PL 10.2
Q10	Trimmer module positioning M10 encoder	PL 9.2
Q11	Trimmer knife position M11 encoder	PL 9.1
Q12	Trimmer knife M11/M12 home position sensor	PL 9.2

Sensors and Switches (continued)

Component name	Description	Page
Q13	Infeed sensor	PL 7.0
Q14	Infeed registration sensor	PL 7.0
Q15	Align module registration sensor	PL87.0
Q16	Clamp sensor	PL 10.0
Q17	Exit sensor	PL 12.0
Q18	Infeed module M2 home position sensor	PL 3.0
Q19	Align module M4 home position sensor	PL 3.0
Q20	Trimmer module M10 home position sensor	PL 3.0
Q21	Stop gate motor M7 home position sensor	PL 11.0
Q22	Lift motor M6 home position sensor	PL 8.0
Q23	Roller motor M143 home position sensor right	PL 3.0
Q24	Roller motor M143 home position sensor left	PL 3.0
Q25	Clamp motor M9 home position sensor	PL 10.2
Q26	Trim bin full sensor	PL 3.0
Q27	Interlock sensor, top cover	PL 3.0
Q186	Roller motor M143 encoder	PL 6.0
Q207	Stacker motor M156 encoder	PL 5.0
Q230	Stacker full sensor	PL 5.0
SW107/103	Interlock switch, top cover	PL 3.0
SW105/101	Interlock switch, trim waste bin	PL 3.0
Power switch	Power switch	PL 3.0

Power Supply units

Component name	Description	Page
PSU-1	Power supply LRS-75-12	PL 2.0
PSU-2	Power supply RSP-750-27	PL 2.0

Continues on next page...

ELECTRICAL COMPONENTS INDEX (CONTINUED)**PCBs**

Component name	Description	Page
PCB A	PCB CPU APP 32	PL 2.0
PCB B	PCB PTC411215	PL 2.0
PCB C	PCB PTC7375	PL 2.0
PCB D	PCB PTC7375	PL 2.0
PCB F	PCB M40LH	PL 2.0
PCB G	PCB M40LH	PL 2.0
PCB H	PCB M40LH	PL 2.0
PCB K	PCB M40LH	PL 2.0

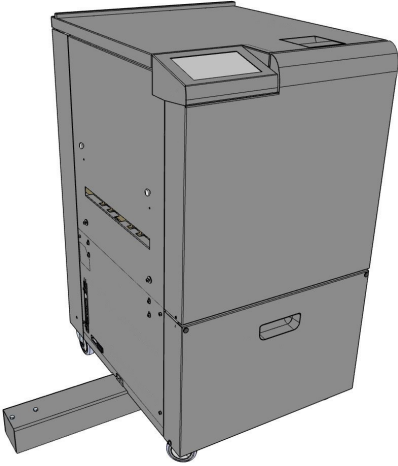
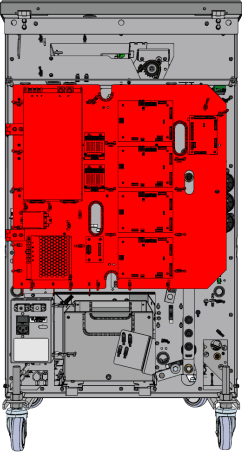
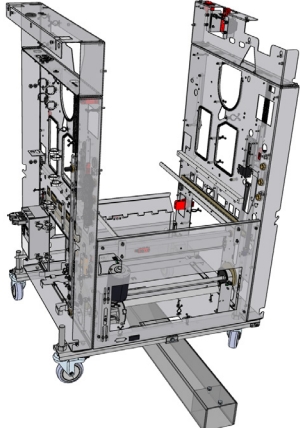
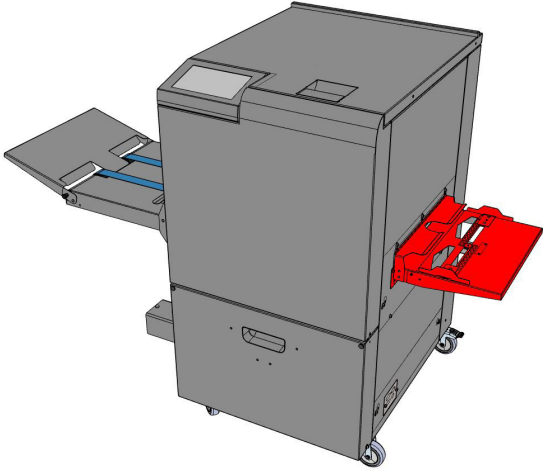
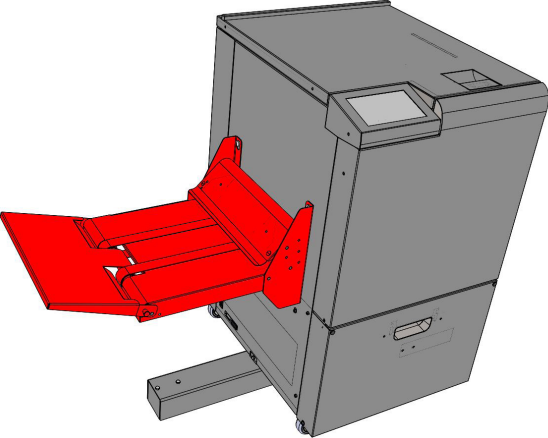
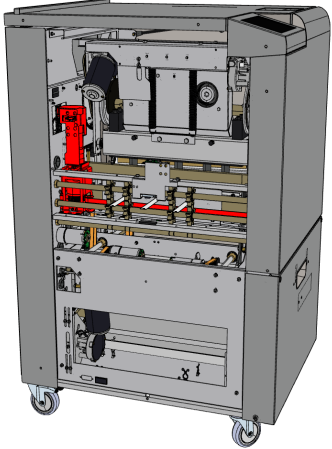
Relay

Component name	Description	Page
REL301	Relay 3mm DPNO 16A/250V 12Vdc	PL 2.0

Counter

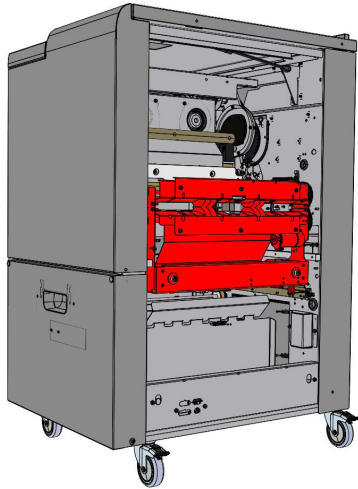
Component name	Description	Page
CNT	COUNTER 12VDC W PCB	PL 3.0

COMPONENTS LOCATOR

<p>Exterior</p>  <p>See PL 1.0</p>	<p>Electrical Panel</p>  <p>See PL 2.0</p>	<p>Sensors and Switches</p>  <p>See PL 3.0</p>
<p>Hand Feed Tray</p>  <p>See PL 4.0</p>	<p>Delivery Belt</p>  <p>See PL 5.0</p>	<p>SquareFolding Assembly</p>  <p>See PL 6.0</p>

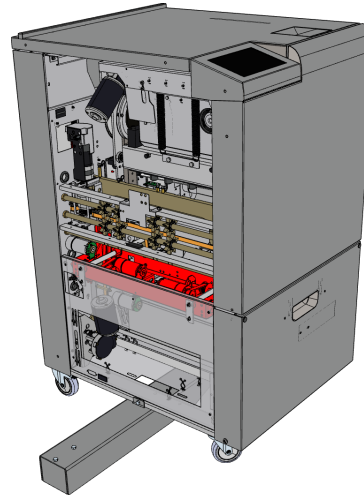
COMPONENTS LOCATOR

Infeed Module



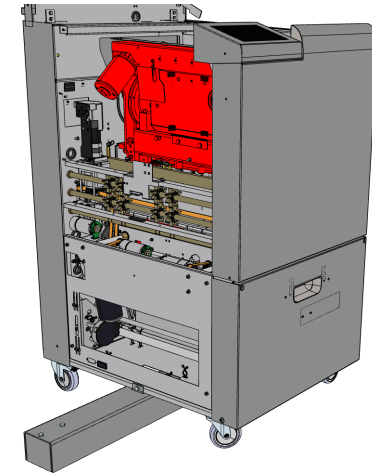
See PL 7.0

Align Module



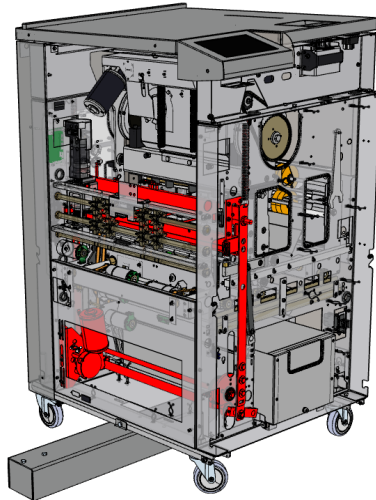
See PL 8.0

Trimmer Module



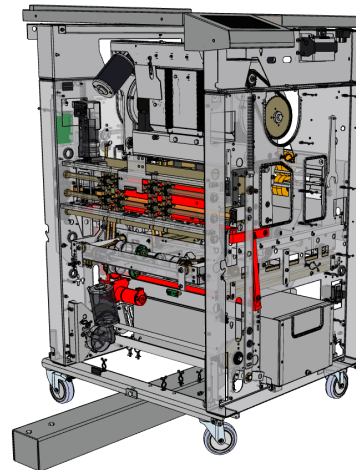
See PL 9.0 to PL 9.3

Set Clamp Mechanism



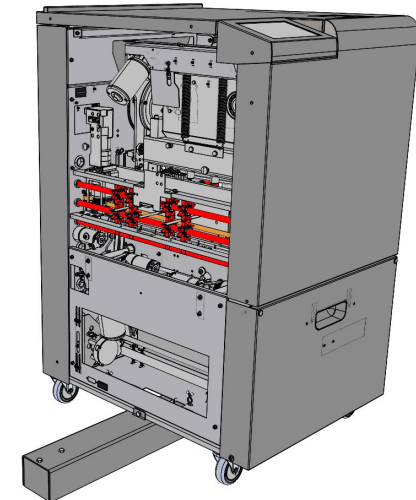
See PL 10.0 to PL 10.2

Stop Gate Mechanism



See PL 11.0

Exit Rollers



See PL 12.0

COMPONENTS LOCATOR

Harness



See PL 13.0

Accessories

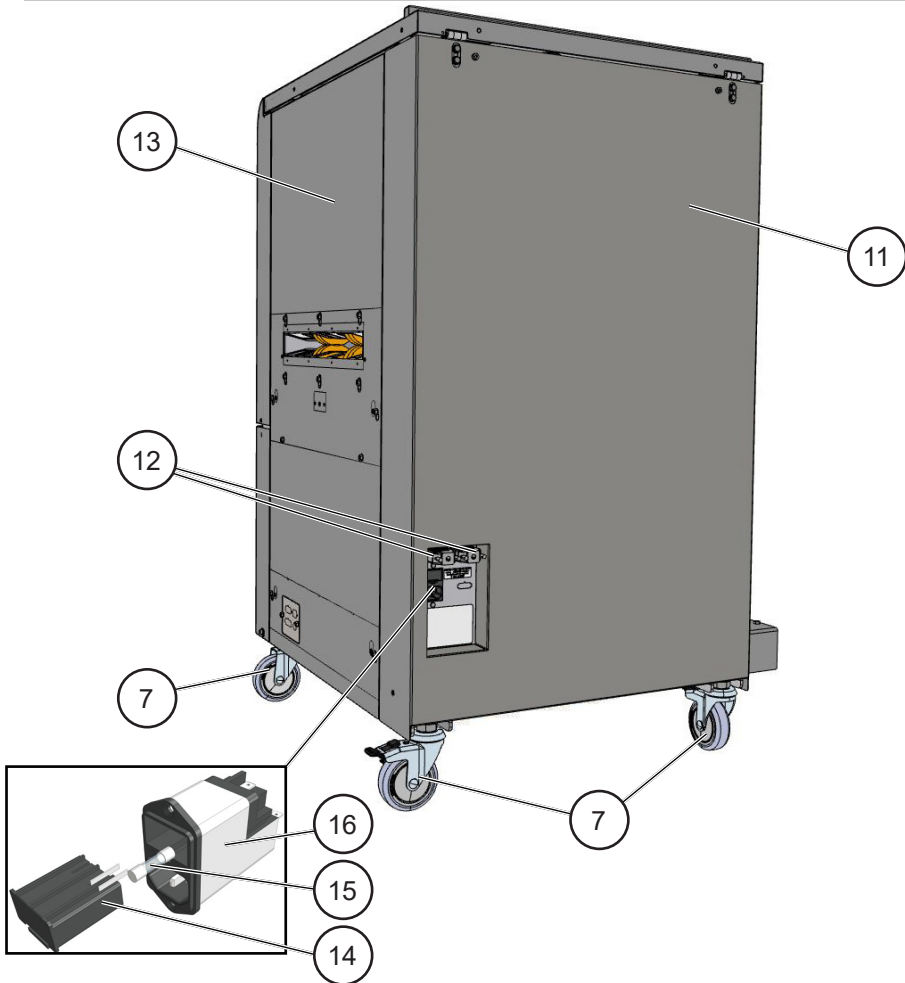
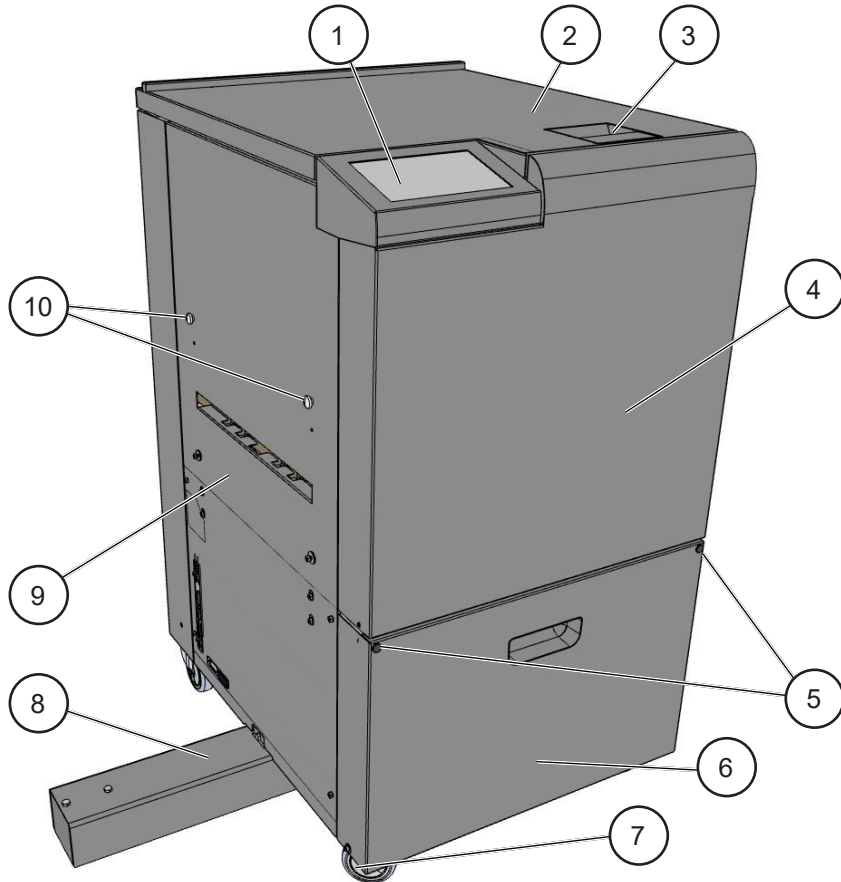


See PL 14.0

PL 1.0 EXTERIOR

Item	Qty	Part	Description
1	1	13390007	UI Assembly (includes Screen, Cover, Bracket and Connectors)
2	1	133-112480-63	Top cover (includes hinges, latch handle, LED)
3	1	102-105866-63	Latch handle
4	1	133-112790-63	Front cover
5	2	91303	Rubber damper
6	1	133-112789	Waste bin cover
7	4	133-113284	Caster with brake (includes screw)
8	1	133-112610	Tilt protection (includes weight)

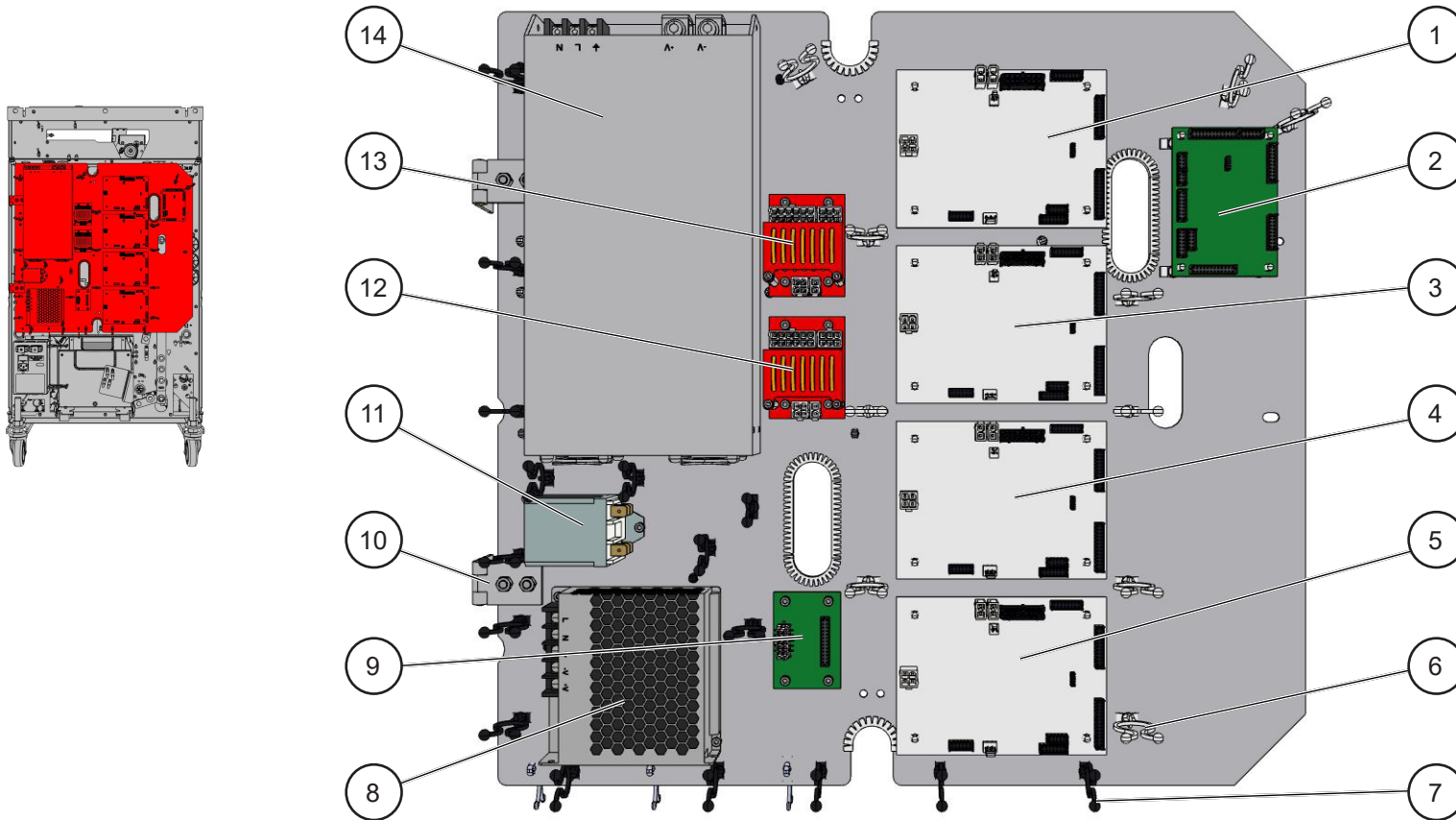
Item	Qty	Part	Description
9	1	133-109306-63	Exit cover
10	2	133-113375	Stud
11	1	133-112274-63	Rear cover
12	2	57398	Termination plug
13	1	133-112174-63	Infeed cover
14	1	88554	Fuse Drawer
15	1	47061	Fuse T 5A 5x20 250V
16	1	101-101444	Power Inlet



PL 2.0 ELECTRICAL PANEL

Item	Qty	Part	Description
1	1	13390004	PCB CPU M40LH (PCB F)
2	1	12590004	PCB CPU APP32 (PCB A)
3	1	13390004	PCB CPU M40LH (PCB G)
4	1	13390004	PCB CPU M40LH (PCB H)
5	1	13390004	PCB CPU M40LH (PCB K)
6	10	960-109471	Cable fastener
7	16	55541	Cable fastener

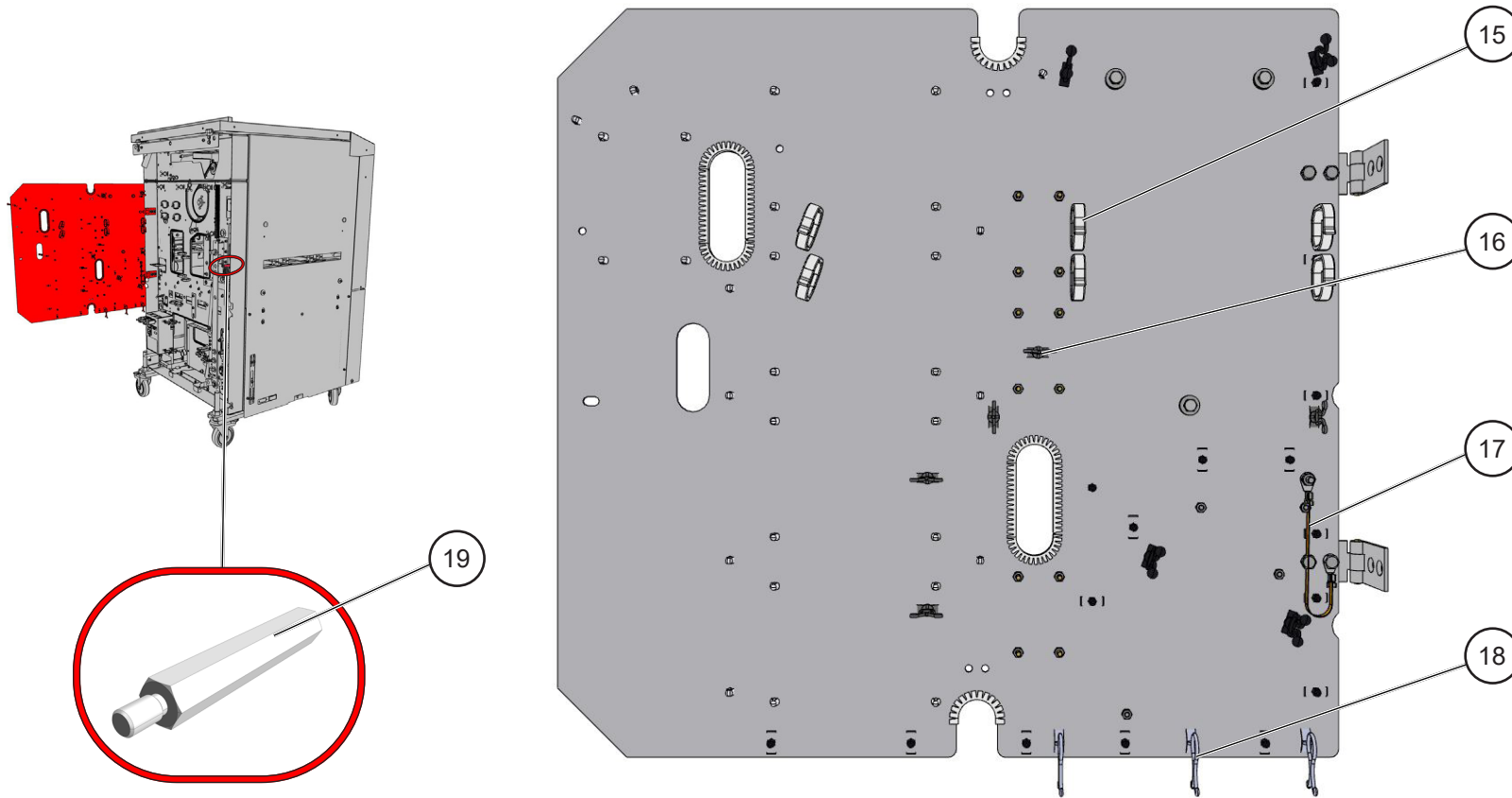
Item	Qty	Part	Description
8	1	960-109882	Power Supply Unit LRS-75-12 (PSU 1)
9	1	12590006	PCB PTC411215 (PCB B)
10	2	88098	Hinge
11	1	172057	Relay (REL301)
12	1	960-108695	PCB PTC7375 (PCB C)
13	1	960-108695	PCB PTC7375 (PCB D)
14	1	960-109883	Power Supply Unit LRS-750-27 (PSU 2)



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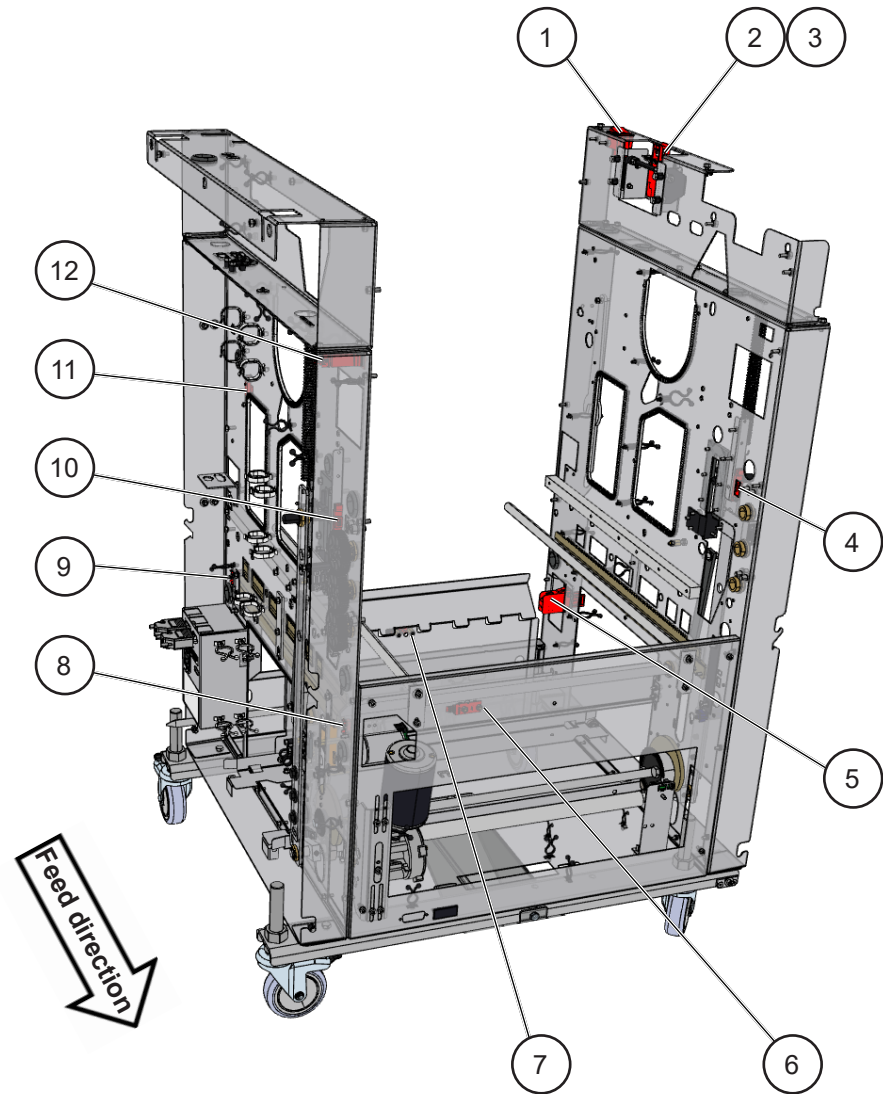
PL 2.0 ELECTRICAL PANEL (CONTINUED)

Item	Qty	Part	Description
15	6	18206	Cable fastener
16	5	55504	Cable fastener
17	1	550247	Earth braid
18	3	58564	Cable fastener
19	1	21579	Electrical Panel Spacer (DSS M4070x45)



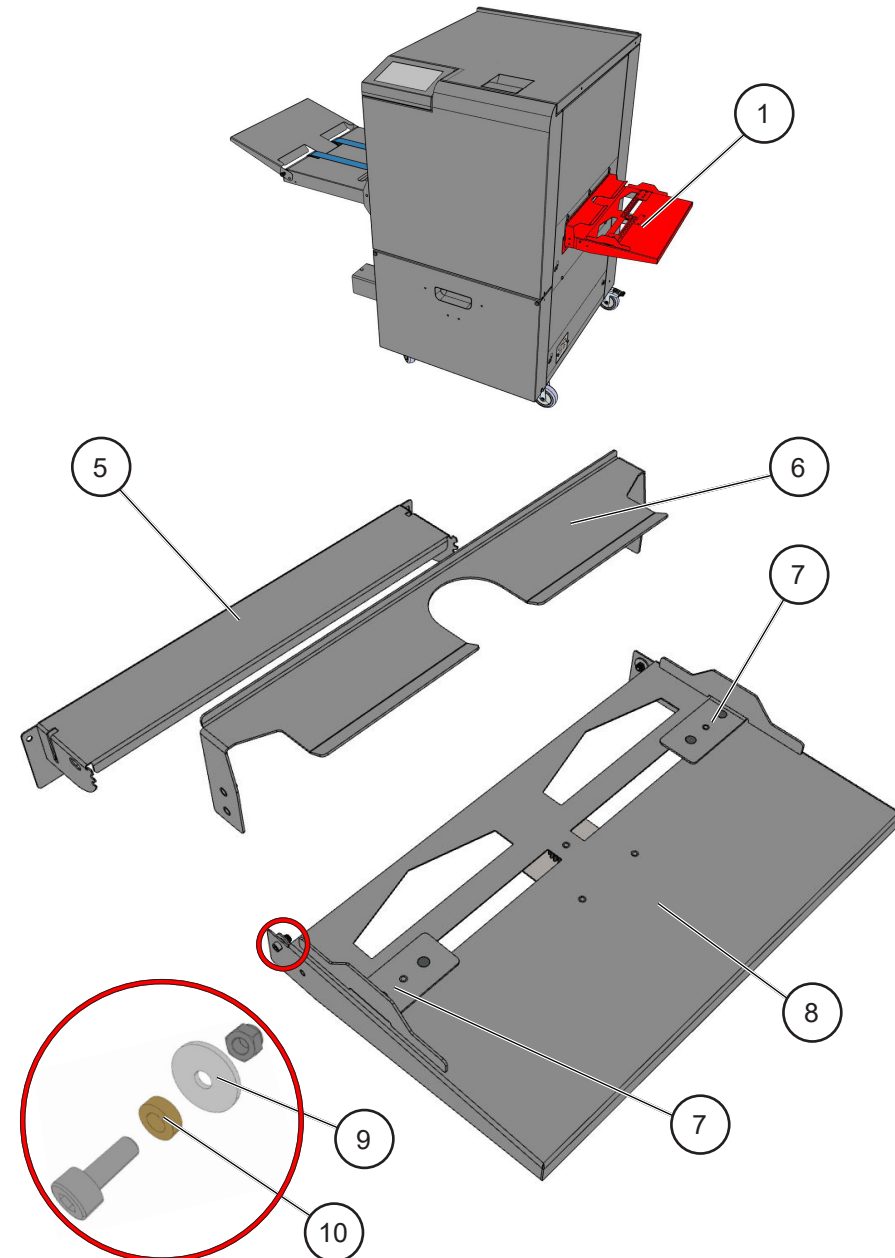
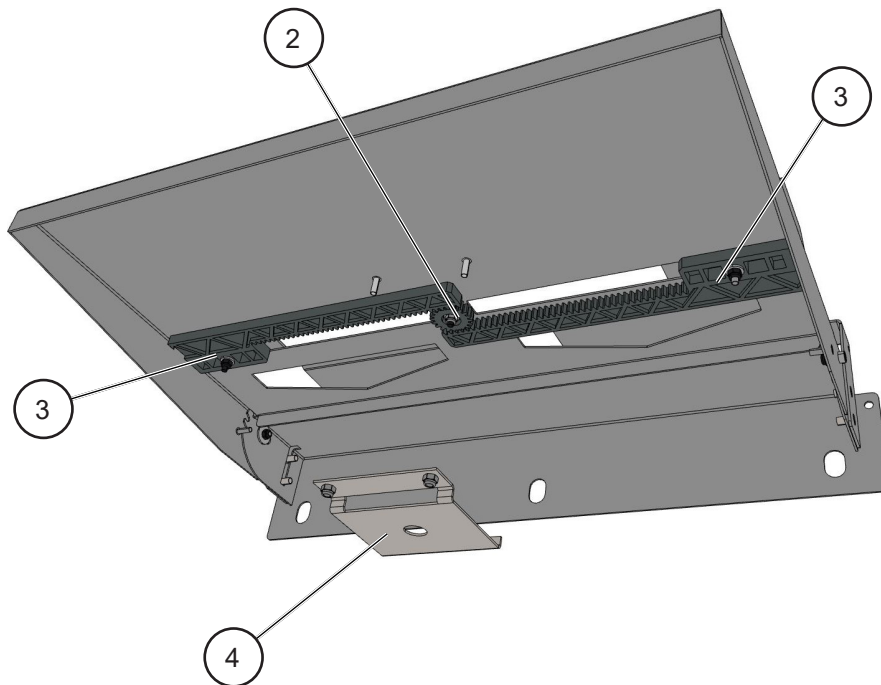
PL 3.0 SENSORS AND SWITCHES

Item	Qty	Part	Description
1	1	60976	Power switch
2	1	122-105331	Interlock switch, top cover (SW107/103)
3	1	96997	Top cover interlock sensor (Q27)
4	1	96133	Home position sensor SquareFold right (Q24)
5	1	122-105331	Interlock switch, waste bin (SW105/101)
6	1	10690028	Trim bin full sensor (Q26)
7	1	960-109182	Trim bin full sensor (Q26)
8	1	101-102822	Align module M4 home position sensor (Q19)
9	1	101-102822	Infeed module M2 home position sensor (Q18)
10	1	96133	Home position sensor SquareFold left (Q23)
11	1	96133	Home position sensor Trimmer module (Q20)
12	1	960-108513	Counter 12VDC W PCB



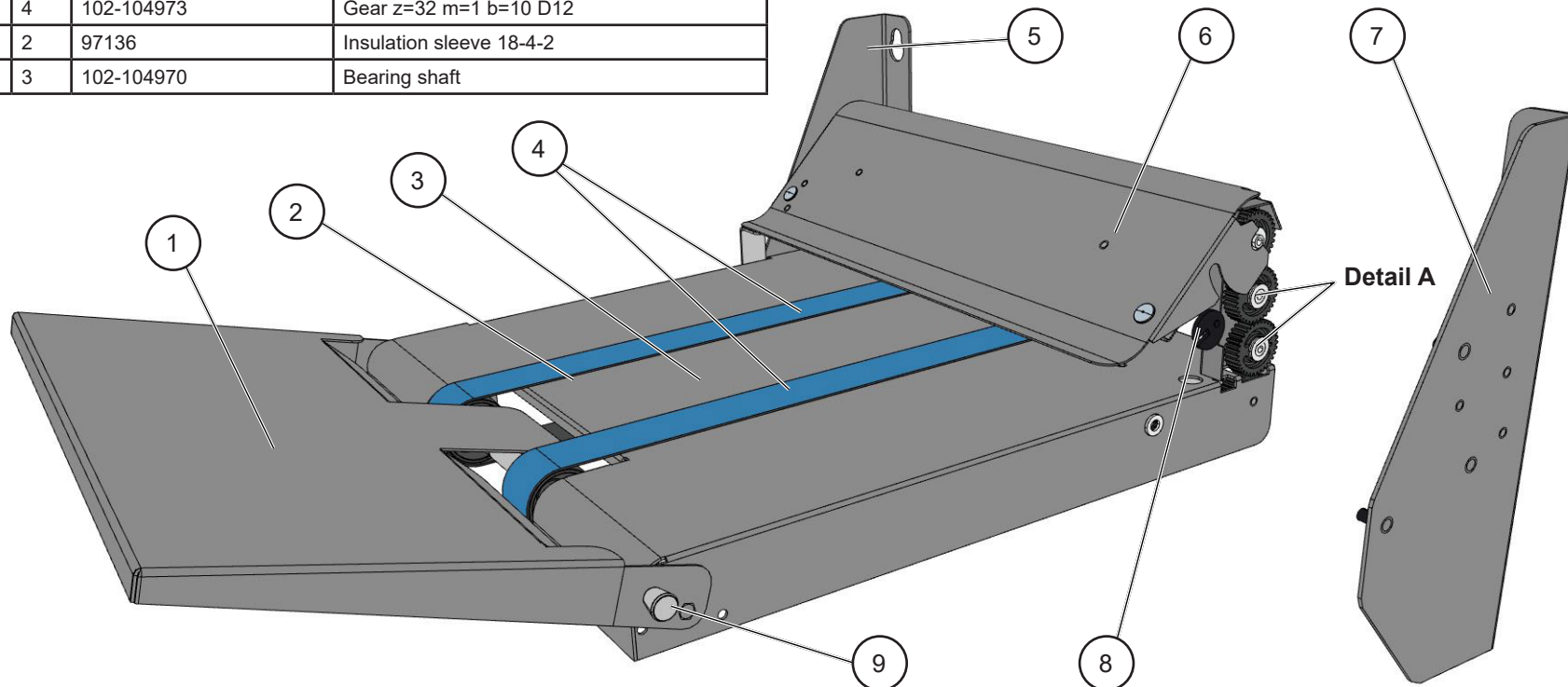
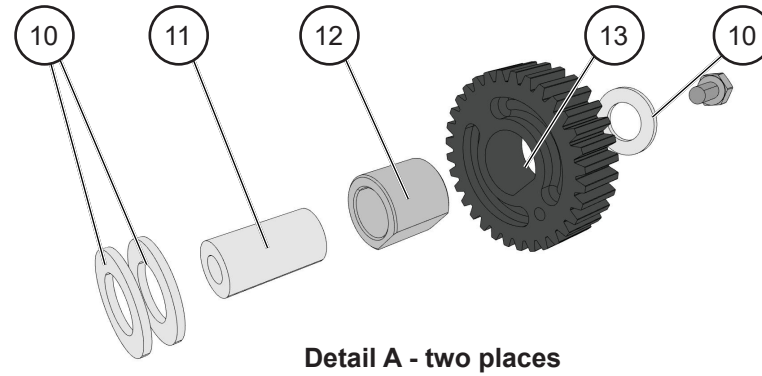
PL 4.0 HAND FEED TRAY

Item	Qty	Part	Description
1	1	133-114402	Manual Feed Tray (complete assembly)
2	1	20602	Gear z=20 m=1 b=5,3
3	2	90810	Gear rack 178.6 mm
4	1	113-111524-63	Gear plate
5	1	133-114403-63	Bracket manual feed tray
6	1	133-114405-63	Safety Guard
7	2	133-114406-63	Paper guide
8	1	133-114404-63	Tray
9	2	97030	Washer BRB 3.2x12x1
10	2	87217	Spacer DRM 3260x2



PL 5.0 DELIVERY BELT

Item	Qty	Part	Description
1	1	102-104986-63	End plate
2	1	133-113190-63	Belt stacker (entire assembly)
3	1	133-113191-63	Chassis
4	2	102-113427	Transport belt 840 x 32
5	1	102-104967-63	Right frame
6	1	133-113352-63	Safety cover
7	1	102-104965-63	Left frame
8	2	102-104969	Eccenter Ø22
9	1	75474	Knob
10	6	97153	Washer BRB 8,1x14x1
11	2	12633	Spacer
12	2	102-104974	Shaft gear
13	4	102-104973	Gear z=32 m=1 b=10 D12
14	2	97136	Insulation sleeve 18-4-2
15	3	102-104970	Bearing shaft

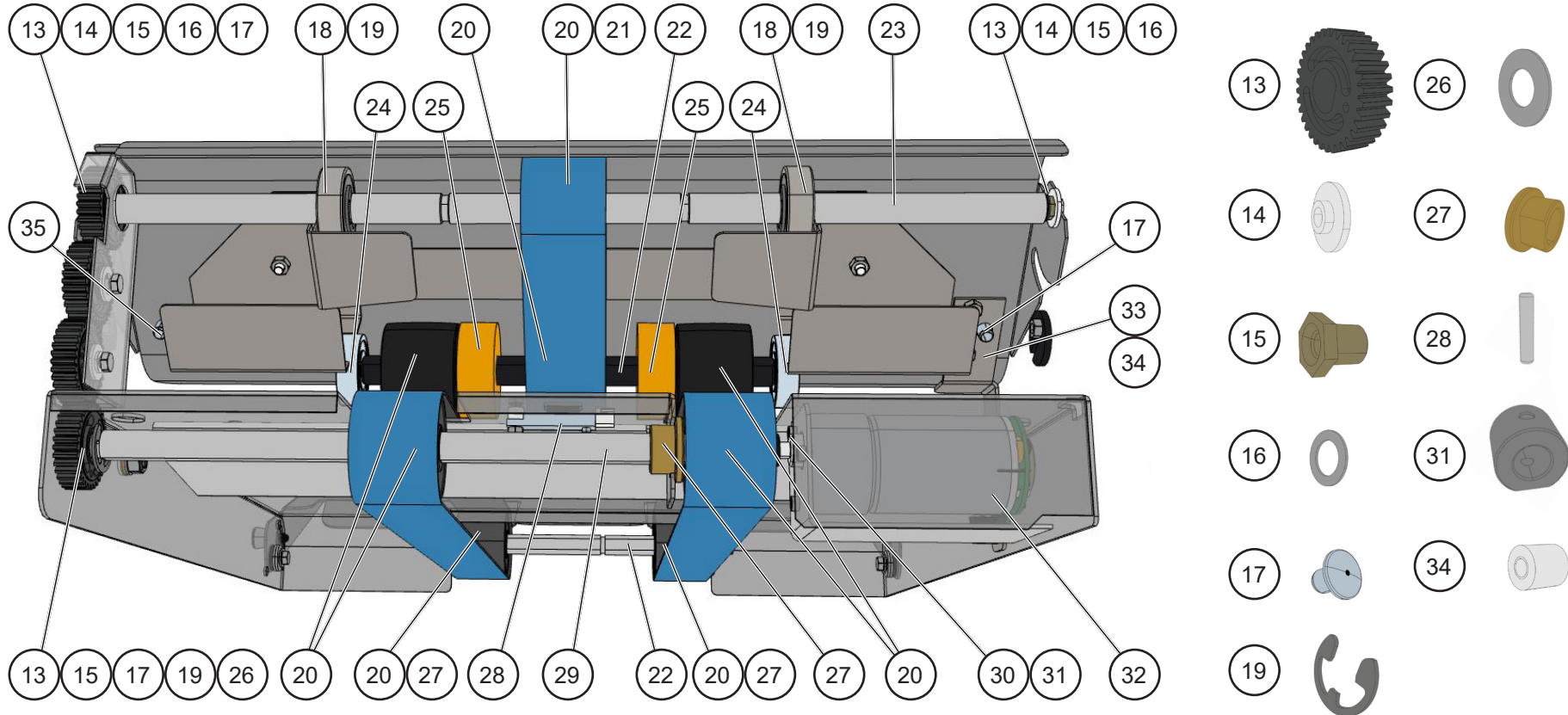


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PL 5.0 DELIVERY BELT (CONTINUED)

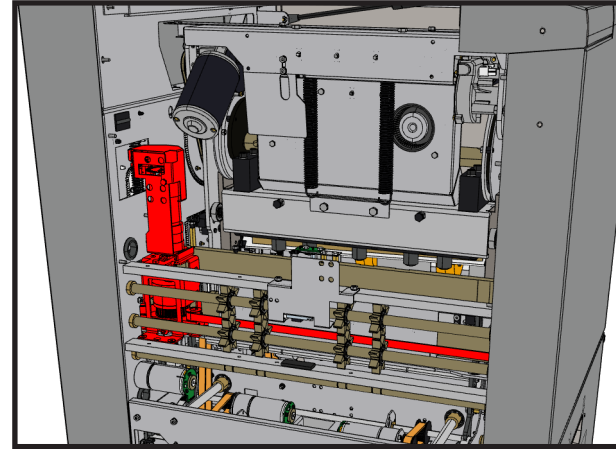
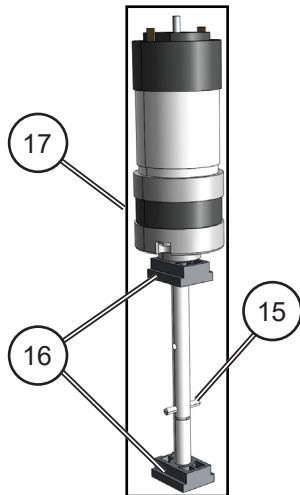
Item	Qty	Part	Description
16	2	97020	Washer BRB 6,4x10x0,5
17	2	88932	Plug
18	2	30651	Ball bearing 12/32x10 6201-2Z
19	3	23722	Retaining ring E-clip RS 10
20	8	102-104979	Roller 12D/40Bx30
21	1	102-113426	Transport belt 261x32 TA12
22	2	102-104981	Shaft D12x186
23	1	102-104982	Shaft D12x367
24	2	88247	Ball bearing 10/30x9 6200-2Z
25	2	18341	Foam roller Ø6/40x15

Item	Qty	Part	Description
26	1	97102	Spacer DB 6x12x0,5
27	3	103-104892	Sintered bearing D 12/18x12-24x3
28	1	96997	Stacker full Sensor (Q230)
29	1	102-104983	Shaft D12x253
30	1	22530	Pin ø2x10
31	1	102-104963	Sleeve motor shaft
32	1	781057	Motor (M156) and sensor (Q207)
33	1	133-113354-63	Safety bracket
34	1	58556	Spacer

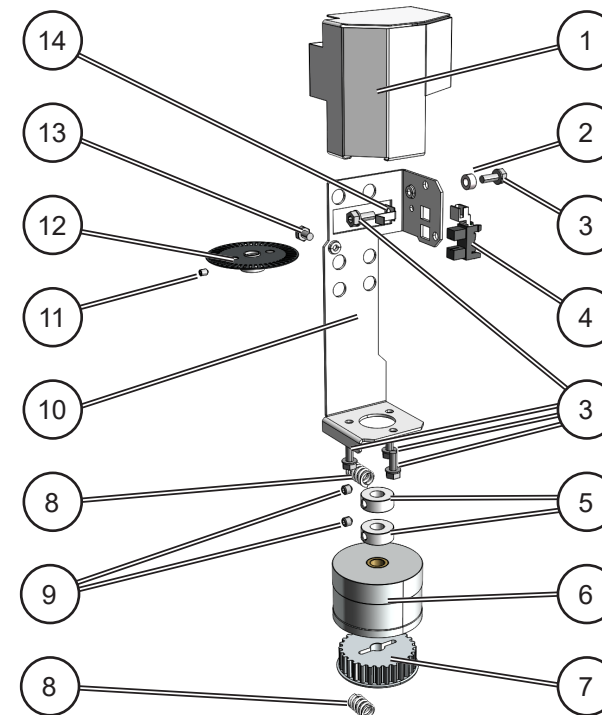


PL 6.0 SQUARE FOLDING ASSEMBLY

Item	Qty	Part	Description
1	1	105-104101	Cover, protection
2	1	45184	Spacer DRM 4380x4
3	5	99471	Screw M6SF+T20 M4x10
4	1	101-102822	Roller motor M143 encoder (Q186)
5	2	102-104235	Collar $\varnothing 8/18 \times 7$ M5
6	1	173008	Pressure roll including bearings
7	1	105-106888	Timing pulley 28T5 $\varnothing 8$
8	2	105-106750	Compression spring 1,6x8Dmx14,5
9	2	99012	Set screw SK6SS M5x5
10	1	105-103301	Bracket, motor
11	1	99376	Set screw SK6SS M3x4
12	1	105-105069	Encoder disc 45 slot $\varnothing 3$
13	1	99412	Screw M6S M4x6
14	1	101-102822	Clamp, sensor
15	1	105-106892	Pin RPD 3x20
16	1	90086	Bearing block
17	1	172052	Motor (M143) with harness, bearing blocks and pin.



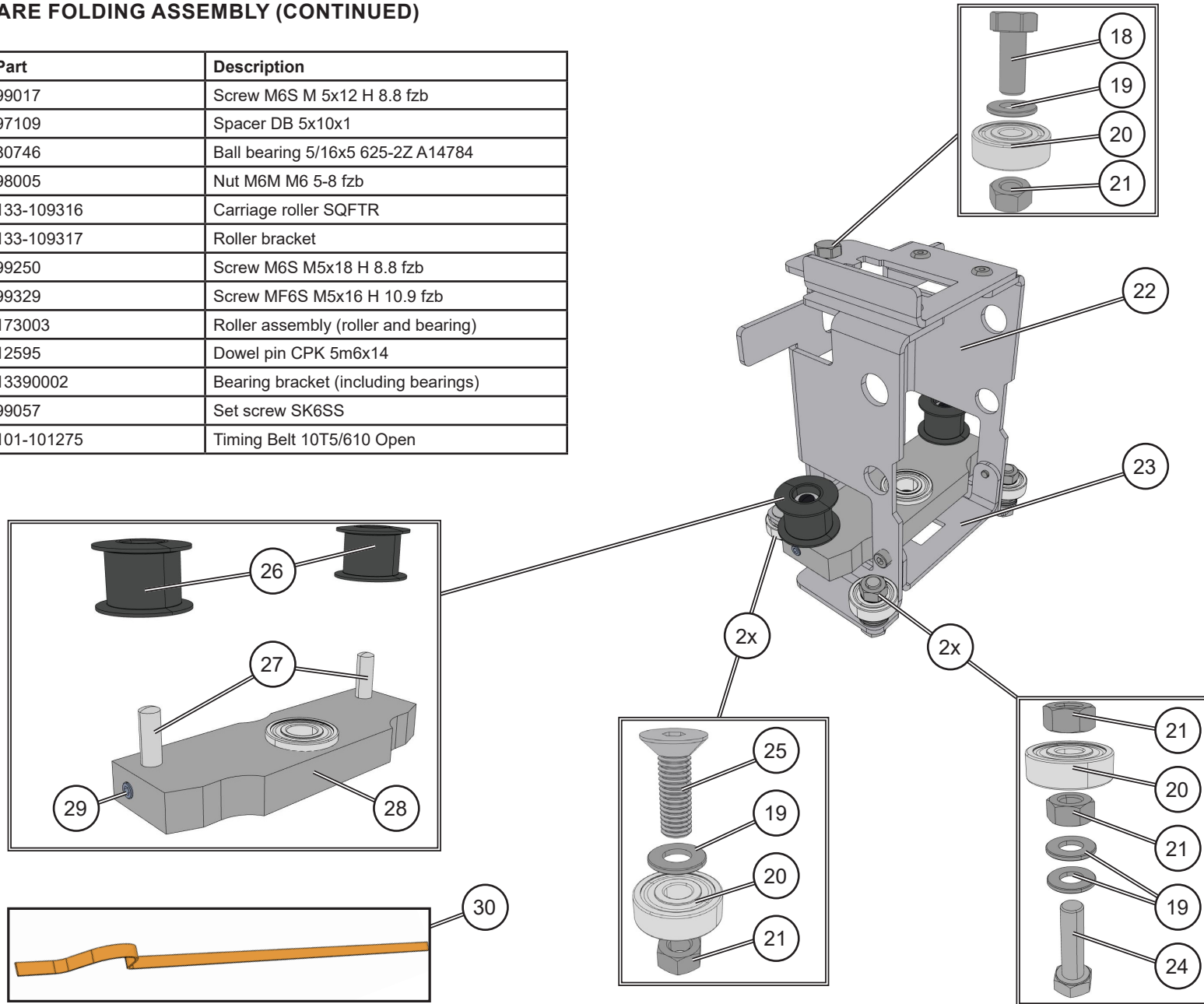
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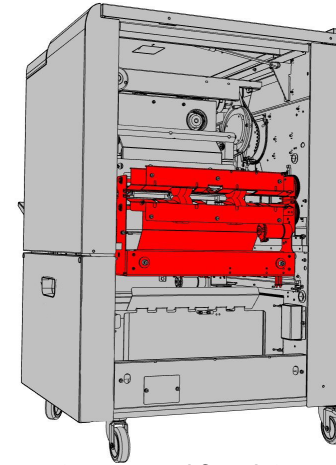
PL 6.0 SQUARE FOLDING ASSEMBLY (CONTINUED)

Item	Qty	Part	Description
18	1	99017	Screw M6S M 5x12 H 8.8 fzb
19	4	97109	Spacer DB 5x10x1
20	3	80746	Ball bearing 5/16x5 625-2Z A14784
21	4	98005	Nut M6M M6 5-8 fzb
22	1	133-109316	Carriage roller SQFTR
23	1	133-109317	Roller bracket
24	1	99250	Screw M6S M5x18 H 8.8 fzb
25	1	99329	Screw MF6S M5x16 H 10.9 fzb
26	2	173003	Roller assembly (roller and bearing)
27	2	12595	Dowel pin CPK 5m6x14
28	1	13390002	Bearing bracket (including bearings)
29	2	99057	Set screw SK6SS
30	1	101-101275	Timing Belt 10T5/610 Open

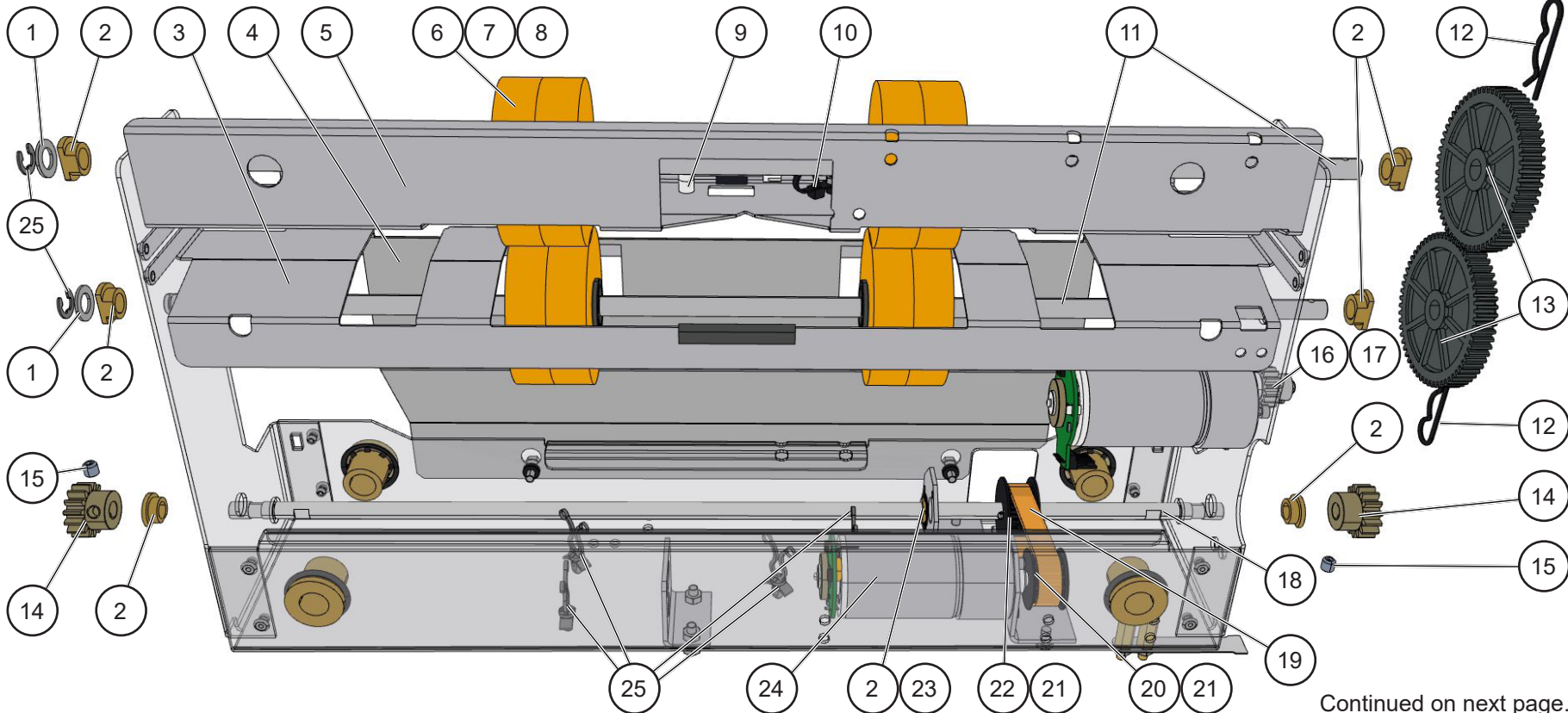


PL 7.0 INFEED MODULE

Item	Qty	Part	Description
-	1	133-109343	Infeed Module (entire assembly excluding paper infeed lower, paper infeed upper and sensor Q13)
1	2	97056	Spacer DB 8x14x1
2	7	103-104623	Sintered bearing
3	1	133-111720	Paper guide lower
4	1	133-109347	Waste guide
5	1	133-109346	Paper guide upper
6	8	133-113350	Foam roller
7	4	90079	Plastic hub
8	4	90124	Pin



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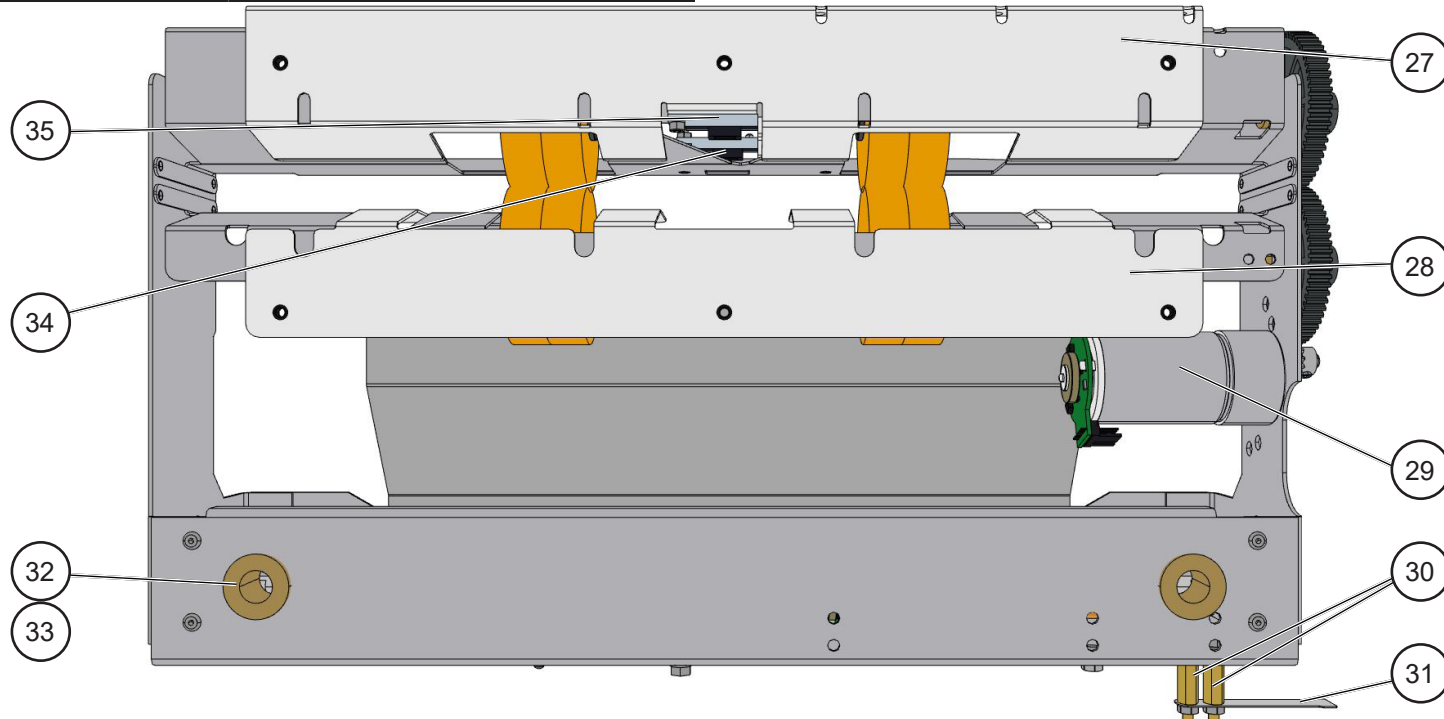


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PL 7.0 INFEED MODULE (CONTINUED)

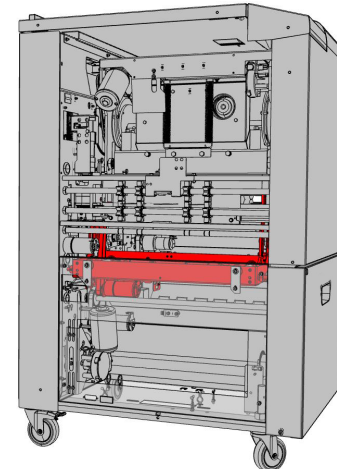
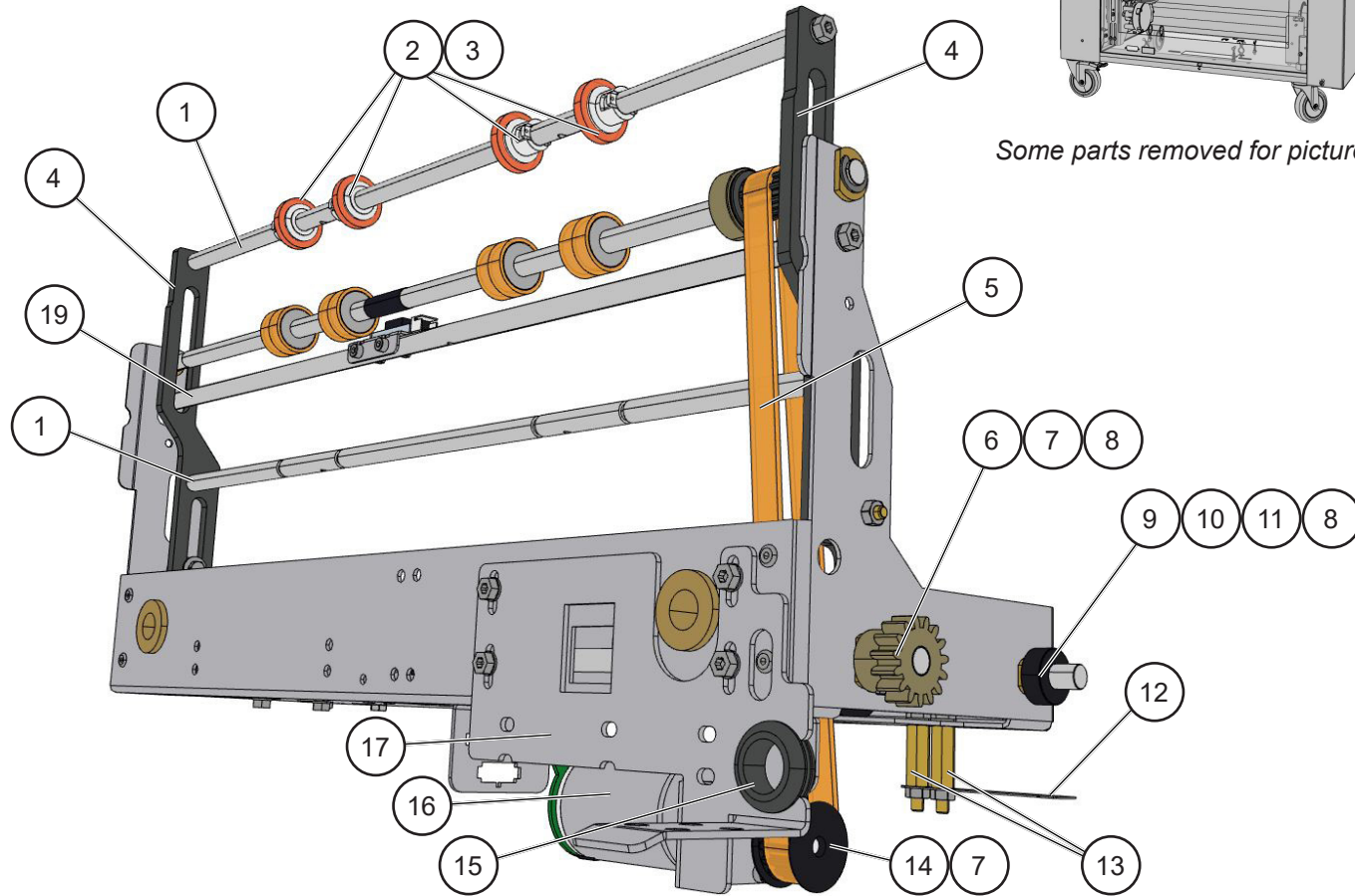
Item	Qty	Part	Description
9	2	40514	Spacer
10	1	80505	Cable tie
11	2	133-109345	Shaft Ø8x455.8
12	2	105-104378	R-clip 1.8mm o=15-20mm
13	2	107-102410	Gear M=1 Z=60
14	2	133-111733	Gear M=1,5 Z=15
15	2	99001	Set screw
16	1	86132	Gear M=1 Z=15
17	1	99057	Set screw
18	1	133-109326	Shaft Ø8x466
19	1	101-100360	Timing belt 10T5/200 Z=14/16
20	1	101-100595	Pulley 15T5/14-2
21	2	99085	Set screw
22	1	101-101310	Pulley 15T5/16-2 o=8

Item	Qty	Part	Description
23	1	88236	Retaining ring
24	1	13390005	Infeed module positioning motor and sensor (M2) (Q2)
25	4	55504	Cable fastener
26	2	60608	Retaining ring E-circlip RS6
27	1	133-111722	Paper guide infeed upper
28	1	133-111723	Paper guide infeed lower
29	1	13390005	Infeed motor and sensor (M1) (Q1)
30	2	89695	Spacer
31	1	133-109330	Leaf spring
32	4	88244	Sintered bearing
33	4	88237	Retaining ring
34	1	96997	Infeed registration Sensor (Q14)
35	1	96997	Infeed Sensor (Q13)



PL 8.0 ALIGN MODULE

Item	Qty	Part	Description
-	1	133-109322	Align module (entire assembly)
1	2	133-109327	Shaft Ø8x393 M4
2	4	55252	Tyre foam roller ø22,5/10x3,7
3	4	55215	Foam wheel hub



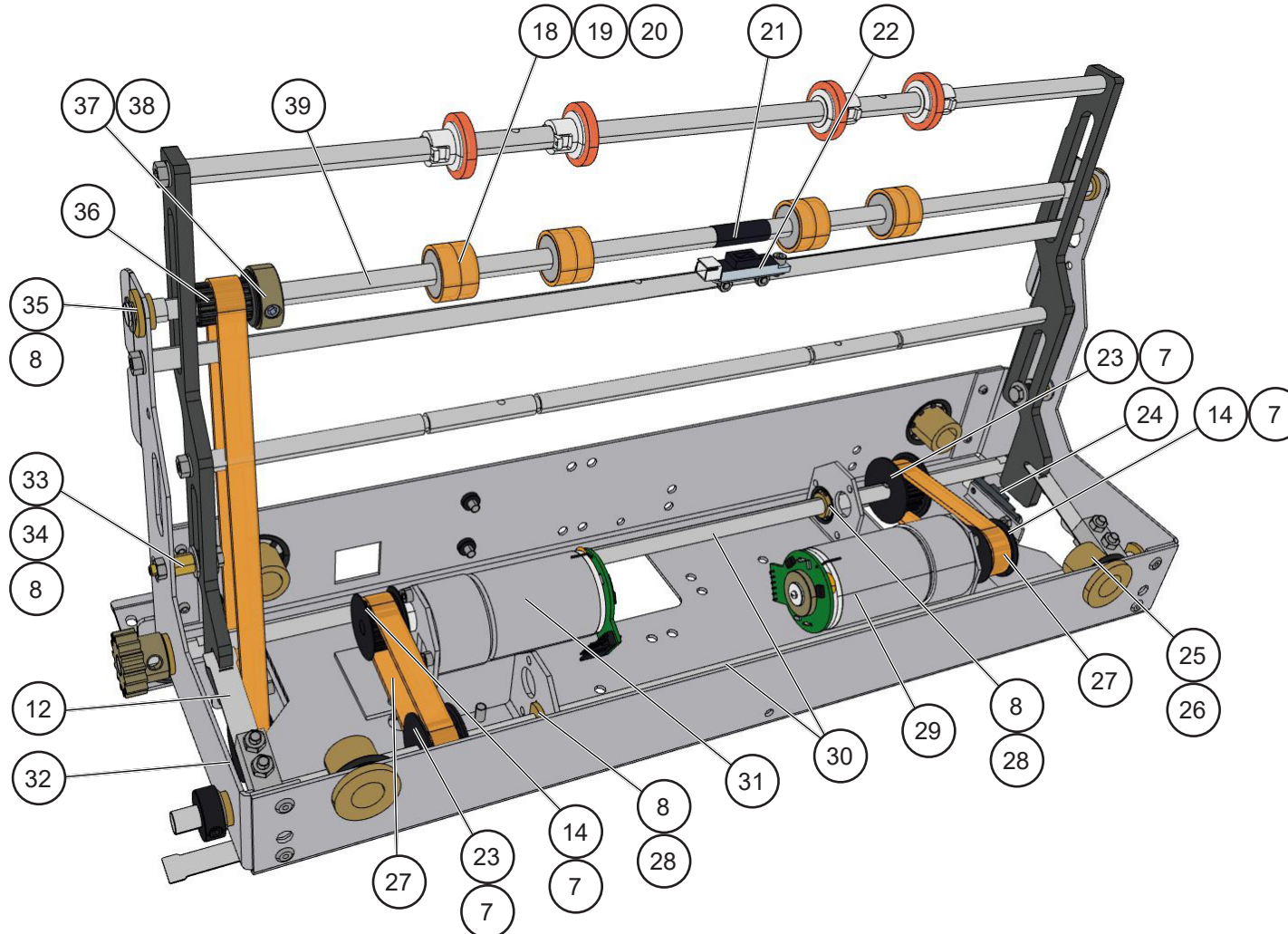
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PL 8.0 ALIGN MODULE (CONTINUED)

Item	Qty	Part	Description
4	2	133-109328	Lift bracket
5	1	76335	Timing belt 10T5/455
6	2	133-111733	Gear z=15 m=1,5
7	5	99001	Set crew SK6SS M6x6

Item	Qty	Part	Description
8	8	103-104623	Sint. bearing D 8/12x6-16x2
9	2	102-104235	Set collar Ø8/18x7 M5
10	2	99085	Set screw SK6SS M5x6
11	2	97056	Washer



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PL 8.0 ALIGN MODULE (CONTINUED)

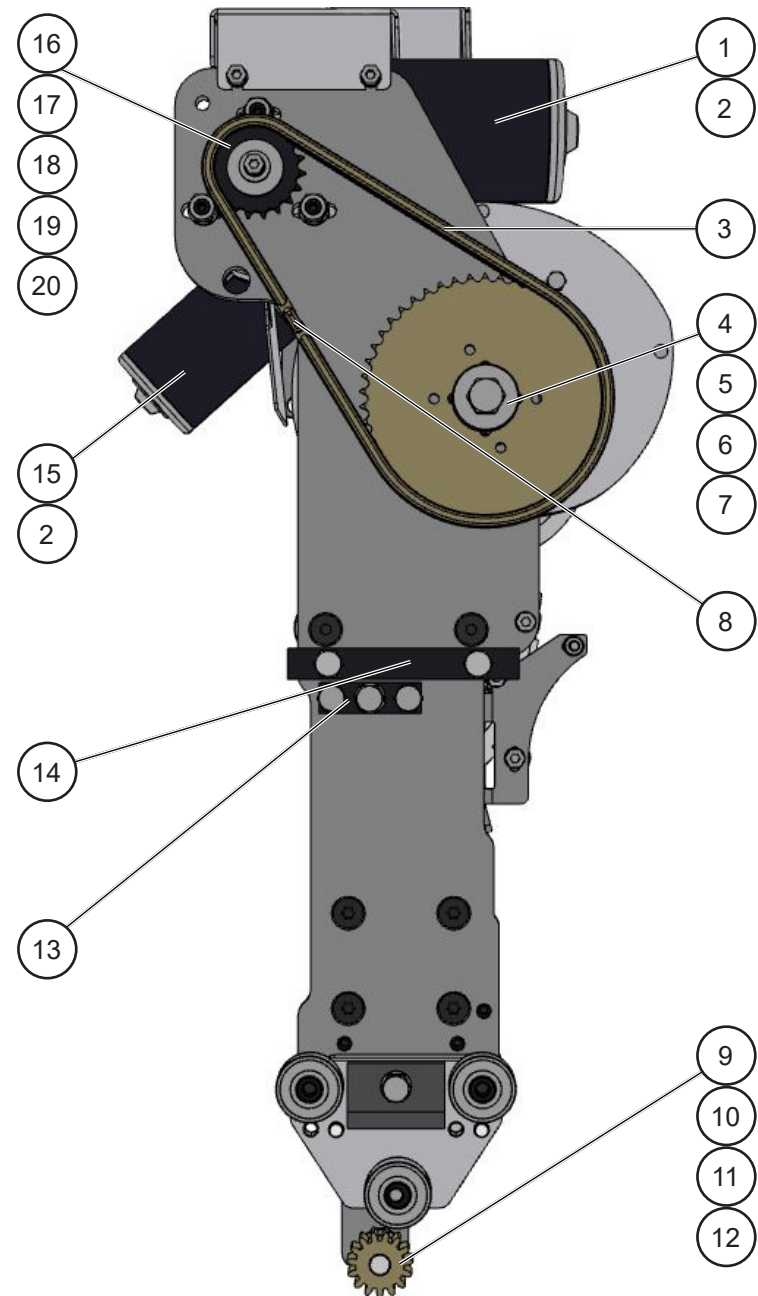
Item	Qty	Part	Description
12	3	133-109330	Leaf spring
13	2	89695	Spacer DSS M4070x20
14	3	101-100595	Pulley 15T5/14
15	1	80513	Grommet
16	1	781057	Motor and sensor (M5) (Q5)
17	1	133-112655	Bracket - cable and motor
18	4	133-109325	Hub ø8/18
19	4	99057	Set screw SK6SS M4x4
20	8	133-113193	Rubber ring 16/20,5x6,2
21	1	133-112603	Shrink tube Ø 9,5-4,8
22	1	96997	Align Module registration sensor (Q15)
23	2	101-101310	Pulley 15T5/16-2 ø=8 Al
24	1	96133	Lift motor M6 home position sensor (Q22)
25	4	88244	Sintered bearing
26	4	88237	Retaining ring
27	2	101-100360	Timing belt 10T5/200 Z=14/16
28	2	88236	Retaining ring ZA 12
29	1	13390005	Align Module positioning motor and sensor (M4) (Q4)
30	2	133-109326	Shaft Ø8x466
31	1	781057	Lift motor and sensor (M6) (Q6)
32	2	133-109329	Link Ø8 10x10
33	2	56637	Spacer DSS M4070x8
34	6	97026	Washer BRB 4,3x12x1
35	2	60608	Retaining ring E-circlip RS 6
36	1	55689	Pulley z=10 t=5 ø8
37	1	55127	Set collar Ø14/22x8 M6
38	1	99465	Set screw P6SS M6x6
39	1	133-109324	Shaft Ø8x436

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PL 9.0 TRIMMER MODULE - OPERATOR SIDE

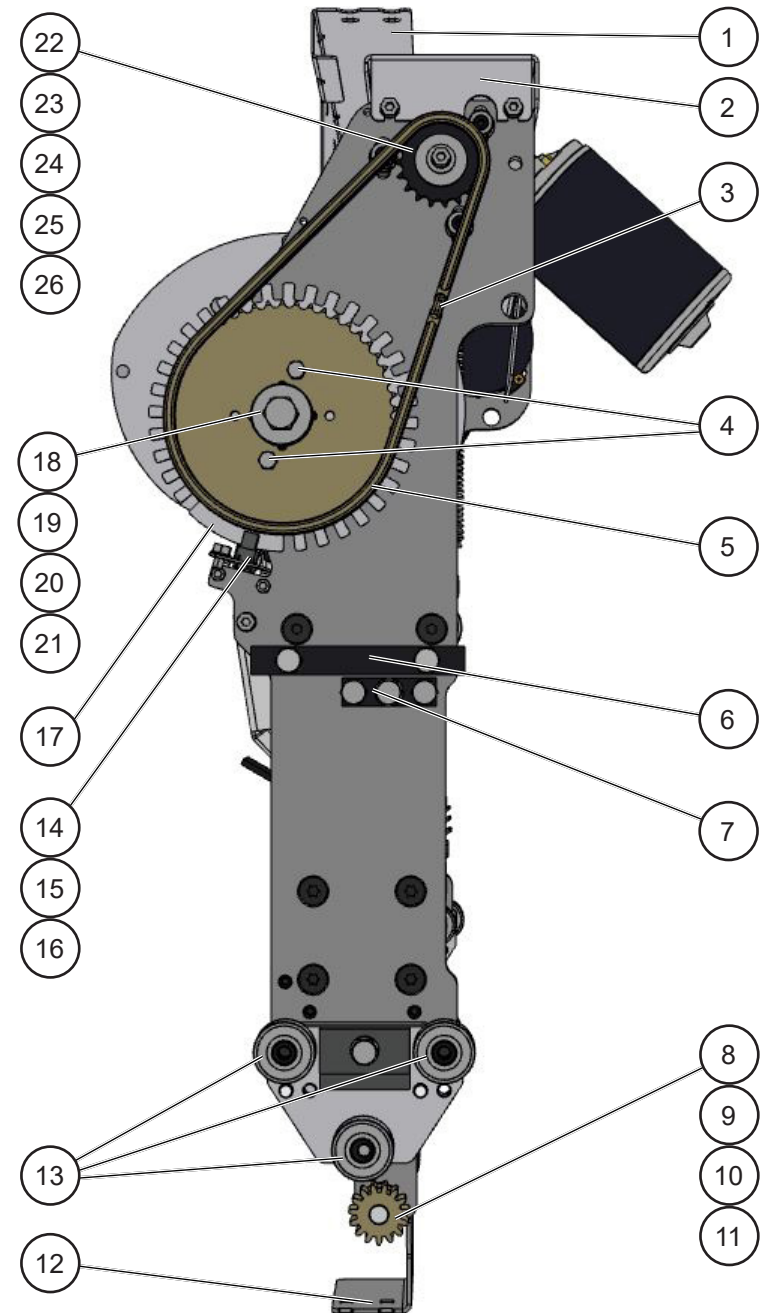
Item	Qty	Part	Description
1	1	782044	Trimmer motor left with connector (M12) (includes Woodruff key (item 2) and Retaining Ring (item 17))
2	2	89758	Woodruff key WK3x10
3	1	89632	Chain ISO 04 78 rolls
4	1	97123	Washer TBRSB 8,4x26x5
5	1	10390001	Hub and Sprocket 6mm 50T D14
6	1	12534	Ball bearing 15/35x11 6202-2Z
7	1	103-104642	Pivot camshaft front
8	1	80615	Master link ISO 04 6mm
9	1	133-111733	Gear z=15 m=1,5
10	1	99001	Set screw
11	1	60608	Retaining ring E-clip RS6
12	1	60508	Sintered bearing
13	1	103-104810	Holder - guide knife
14	1	103-104626	Guide reinforcement
15	1	782044	Trimmer motor right with connector (M11)
16	1	80548	Retaining ring
17	1	97048	Washer BRB 4,3x12x1,5
18	1	97041	Washer BRB 10,5 2x22x2
19	1	103-104883	Sprocket 6mm 19T Ø10
20	1	97087	Spacer DB 10x16x1

← Feed direction

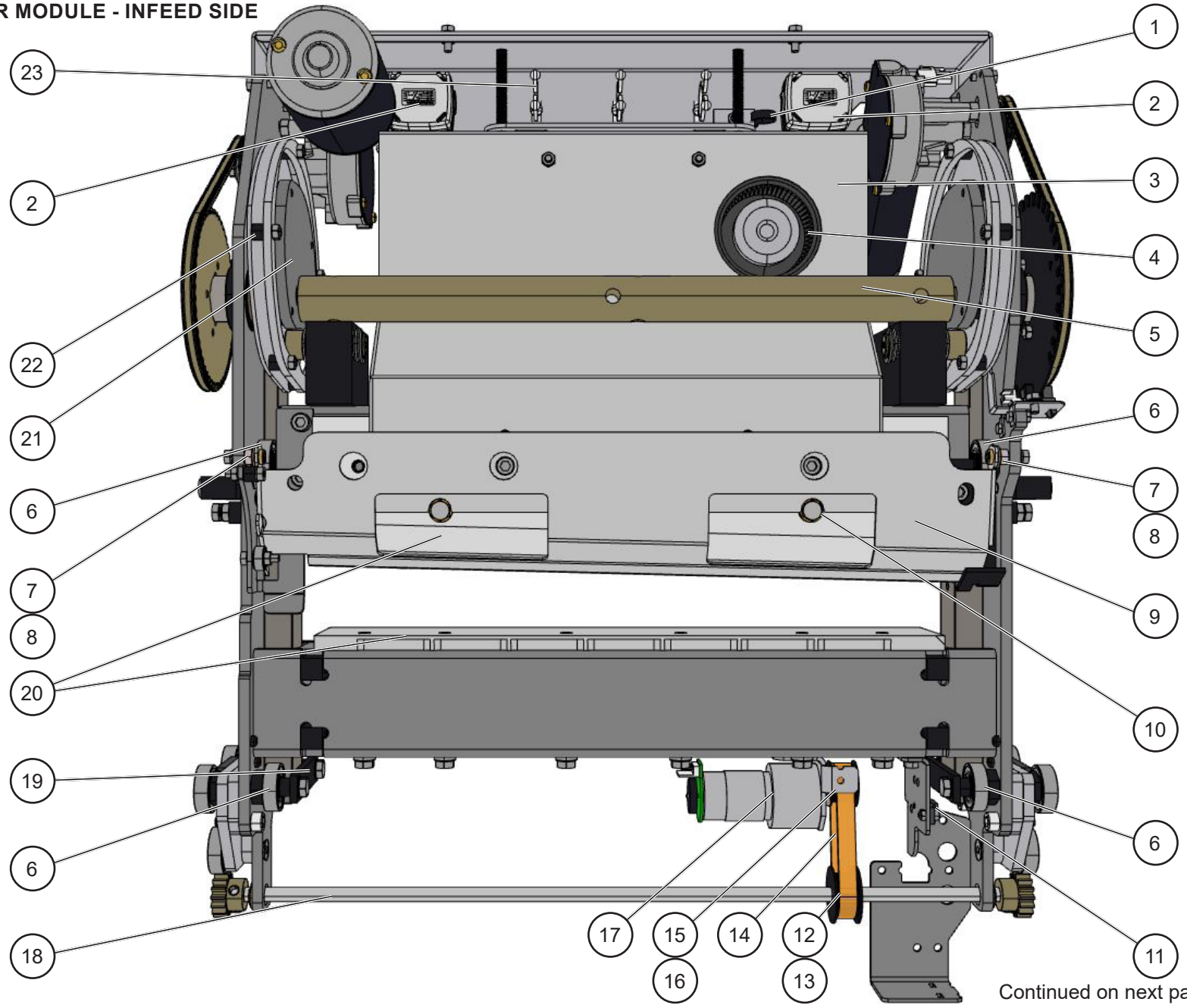


PL 9.1 TRIMMER MODULE - NON-OPERATOR SIDE

Item	Qty	Part	Description
1	1	133-112602	Cable Guide
2	1	133-112487	Bracket - harness
3	1	80615	Master link ISO 04 6mm
4	4	97048	Washer BRB 4,3x12x1,5
5	1	89632	Chain ISO 04 78 rolls
6	1	103-104626	Guide reinforcement
7	1	103-104810	Holder - guide knife
8	1	103-104800	Sprocket 6mm 50T D14
9	1	133-111733	Gear z=15 m=1,5
10	1	99001	Set screw
11	1	60608	Retaining ring E-circlip RS6
12	1	133-109374	Sensor bracket
14	1	101-102822	Trimmer knife position M11 encoder (Q11)
15	1	102-107137	Sensor clamp
16	1	133-109342	Sensor bracket
17	1	103-107954	Encoder disc
18	1	97123	Washer TBRBSB 8,4x26x5
19	1	10390001	Hub and Sprocket 6mm 50T D14
20	1	12534	Ball bearing 15/35x11 6202-2Z
21	1	103-104642	Pivot camshaft front
22	1	97048	Washer BRB 4,3x12x1,5
23	1	97041	Washer BRB 10,5 2x22x2
24	1	103-104883	Sprocket 6mm 19T Ø10
25	1	97087	Spacer DB 10x16x1
26	1	80548	Retaining ring



PL 9.2 TRIMMER MODULE - INFEED SIDE



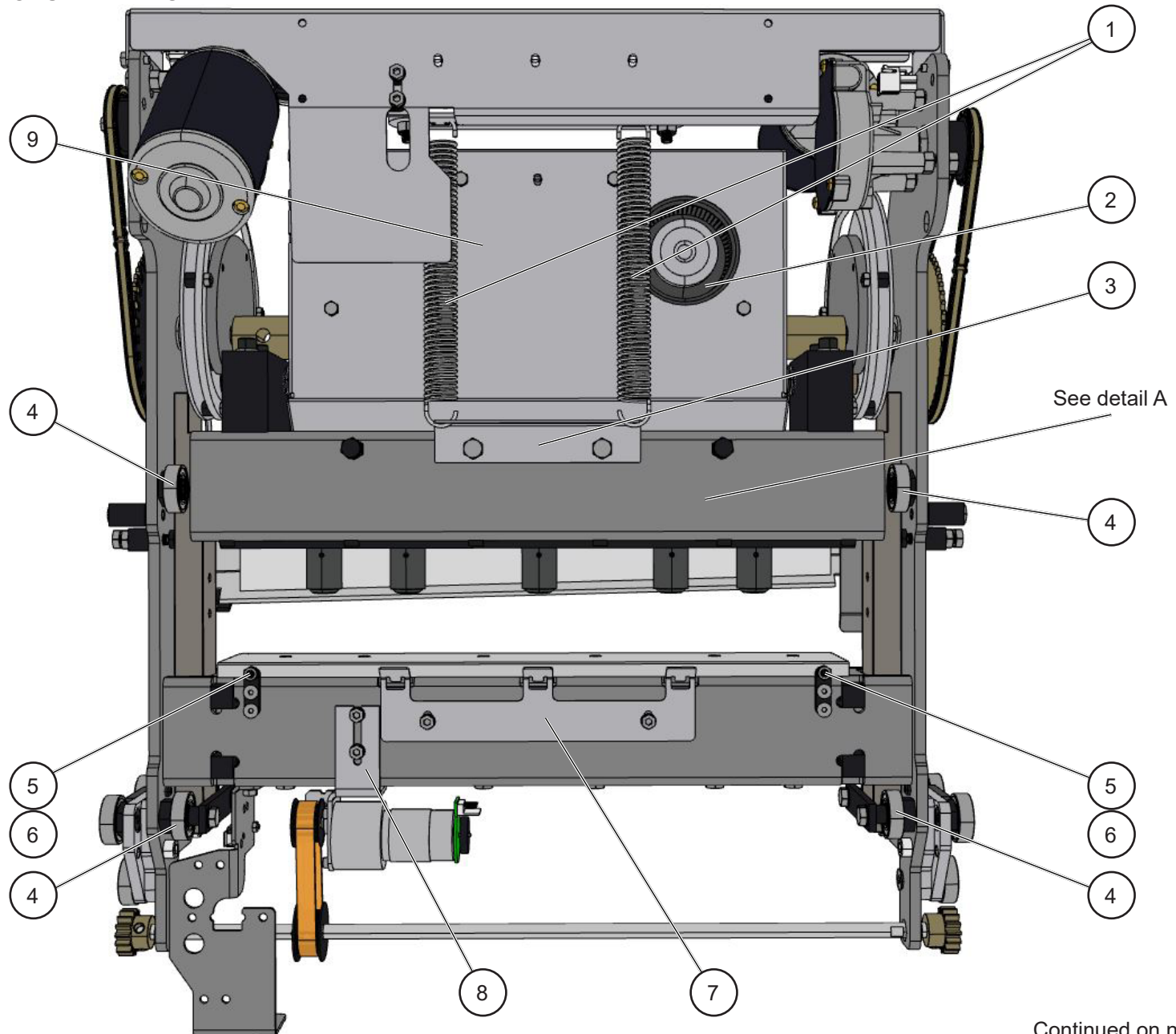
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PL 9.2 TRIMMER MODULE - INFEED SIDE (CONTINUED)

Item	Qty	Part	Description
1	2	30541	Cable tie 200x4,7 eye screw
2	2	101-101456	Ferrite
3	1	103-107097	Fan bracket
4	1	12590009	Blower fan (FAN3)
5	1	103-104827	Camshaft
6	4	60827	Ball bearing 10/26x8
7	2	45184	Spacer DRM 4380x4
8	2	56639	Sintered bearing 4/8x6-12x2
9	1	133-112124	Knife guard
10	30	89629	Disc spring 12,5x6,2x0,7
11	1	96133	Sensor refl. GP2A25 (Q12)
12	1	101-101310	Pulley 15T5/16-2 o=8 Al
13	1	99085	Set Screw SK6SS M 5x 6
14	1	101-100360	Timing belt 10T5/200 Z=14/16
15	1	101-100595	Pulley 15T5/14-2 0=6 Al
16	1	99085	Set Screw SK6SS M 5x 6
17	1	181007	Trimmer module positioning motor and sensor (M10) (Q10)
18	1	133-109326	Shaft Ø8x466
19	2	103-104605	Reinforcing plate
20	1	892002	Knife Kit (upper and lower)
21	1	892006	Cams (right and left assembly)
22	10	86150	Spacer DRM 4380x6
23	3	960-109471	Cable fastener

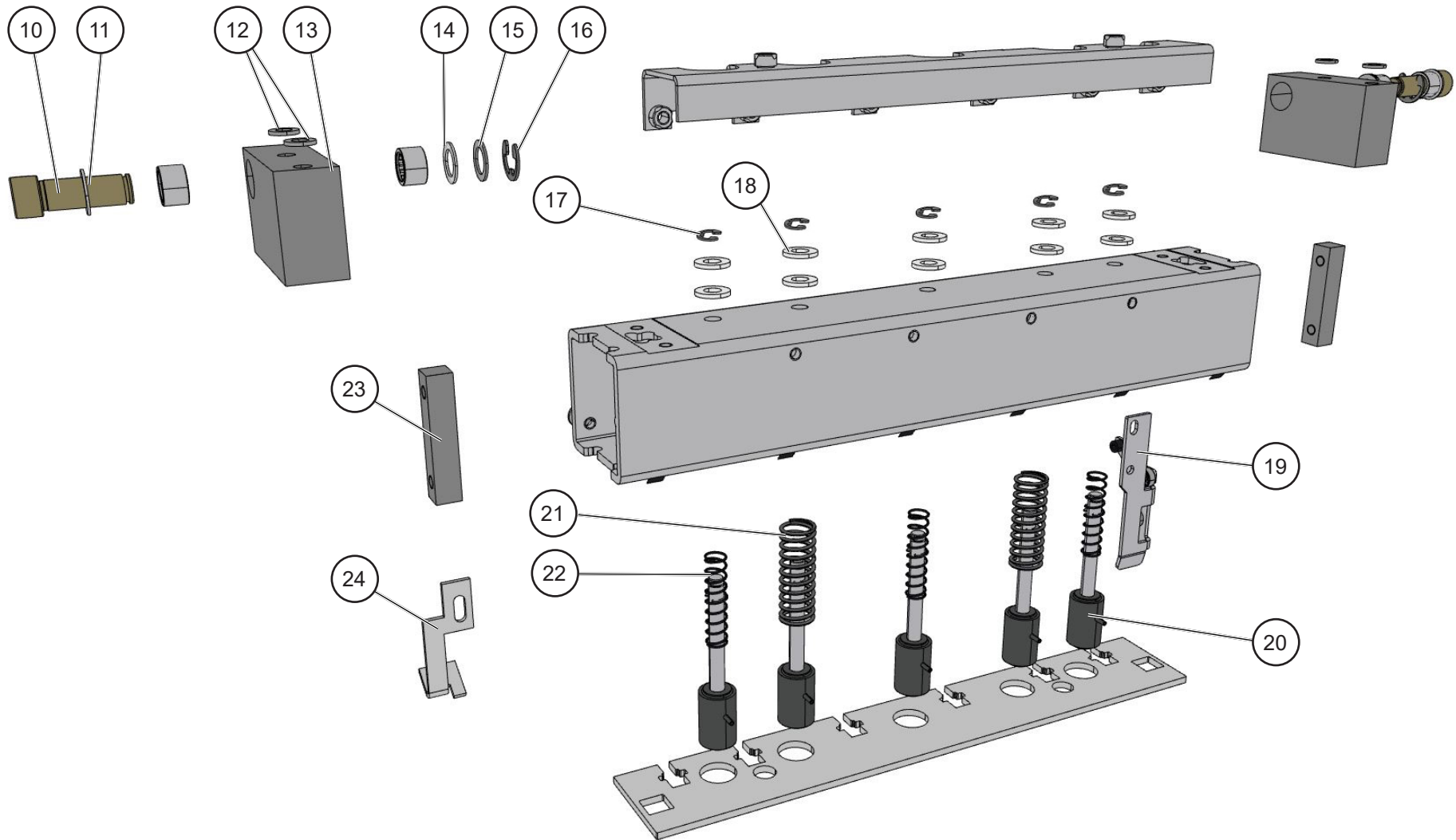
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PL 9.3 TRIMMER MODULE - EXIT SIDE



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PL 9.3 TRIMMER MODULE - EXIT SIDE(CONTINUED)



Detail A

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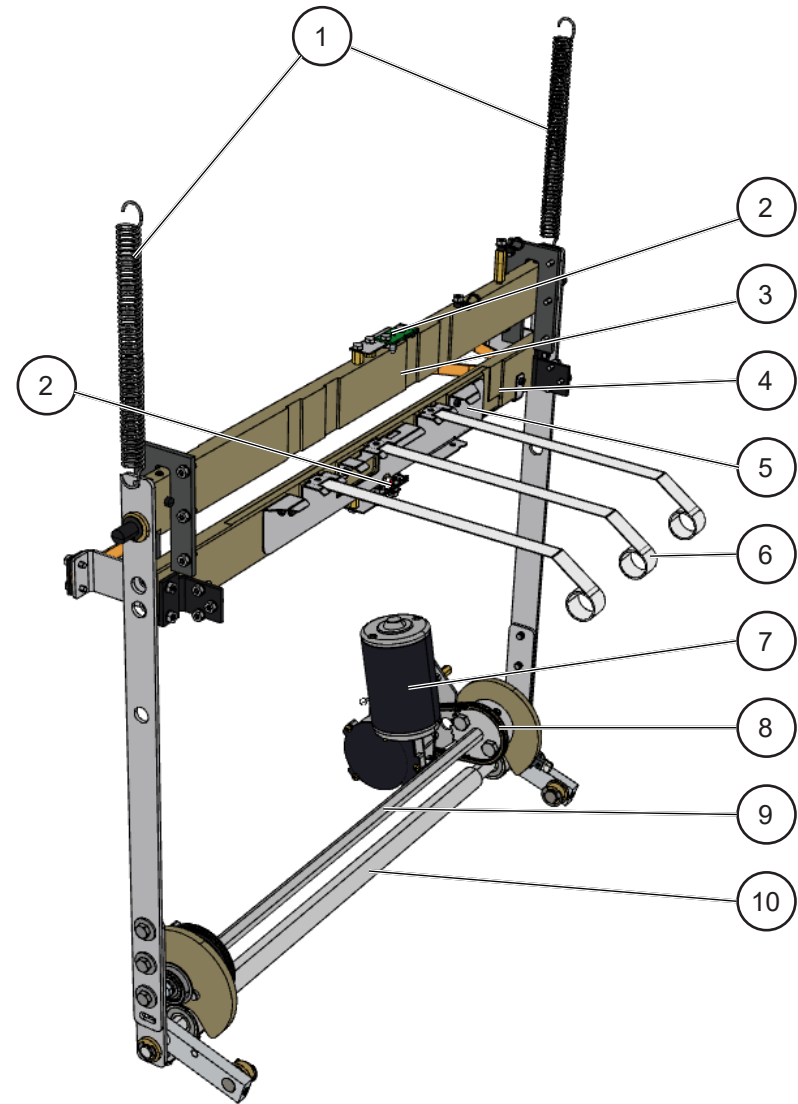
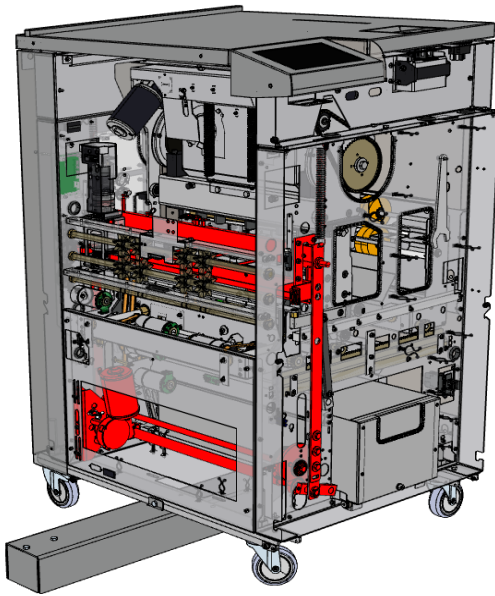
PL 9.3 TRIMMER MODULE - EXIT SIDE (CONTINUED)

Item	Qty	Part	Description
1	2	57860	Extension spring, 2x18Dox120
2	1	12590009	Blower fan (FAN4)
3	1	133-113286	Springs Bracket
4	4	60827	Ball bearing
5	2	103-106806	Stop knife
6	2	99346	Screw, P6SS M4x10
7	1	133-109385	Support paper guides
8	1	133-109333	Motor bracket
9	1	138-111074	Fan assembly
10	2	103-106788	Roller Ø16
11	4	97098	Washer BRB 12x18x1
12	4	97006	Washer BRB 6,4x12x1,5
13	2	892005	Bearing bracket (includes bearings)
14	2	97098	Spacer, DRB12x18x1
15	2	97115	Spacer, DB12x18x1
16		23722	Retaining ring E-circlip RS 10
17	5	60608	Retaining ring E-circlip RS 10
18	10	97060	Washer, BRB 8,4x17x2
19	1	103-104033	Latch plate
20	5	103-108790	Plunger assembly TR50
21	2	103-108784	Spring Compression, 1.9x15.2Dix80
22	3	103-107364	Spring Compression, 1.1x8,2Dix70
23	2	103-104807	Pull Rod Knife
24	1	133-109381	Guide Knife Guard

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PL 10.0 SET CLAMP MECHANISM

Item	Qty	Part	Description
1	2	61052	Spring, 1.5x15Dox100
2	1	10690028	Clamp sensor, Phototransistor Type-2 Black (Q16)
3	1	133-109308	Beam Upper
4	1	133-109309	Beam Lower
5	1	133-109313	Paper Guide, Set Clamp
6	3	133-109314	Support Spring
7	1	782044	Clamp motor & Connector (M9) (includes woodruff key, item 14)
8	1	133-112794	Drive Chain, ISO 04 46 Rolls
9	1	133-109360	Drive Shaft, D12x490 M6
10	1	133-109358	Transfer Shaft Assembly



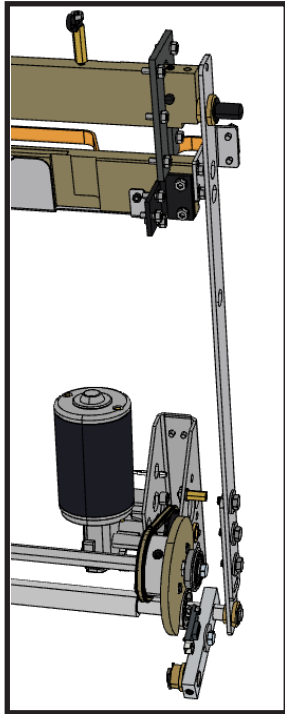
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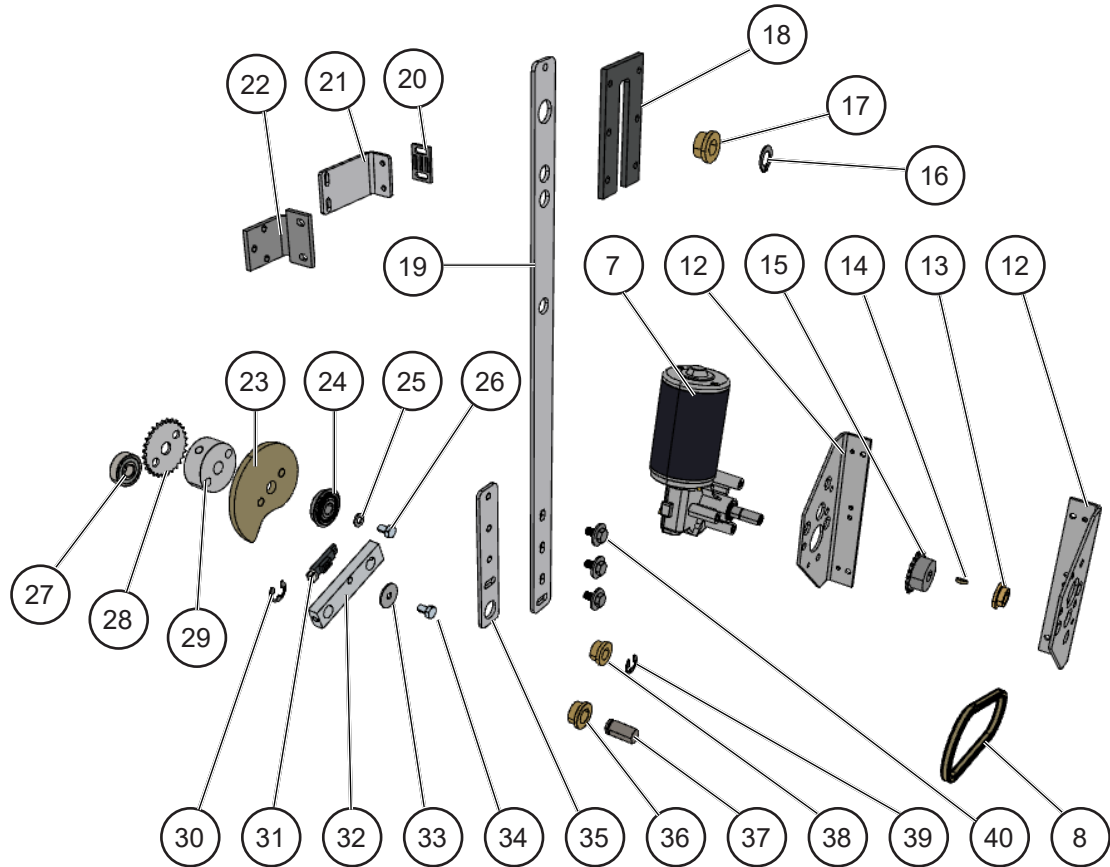
PL 10.1 SET CLAMP MECHANISM - NON-OPERATOR SIDE

Item	Qty	Part	Description
12	1	133-109365	Motor Bracket Outer
13	1	60853	Bearing, 10/16x8-22x3
14	1	89758	Woodruff Key, WK3x10
15	1	103-104883	Sprocket, 6mm 19T Ø10
16	1	80585	Retaining ring, G10
17	2	24747	Bearing, 10/16x10-20x3
18	2	133-109315	Guide Beam
19	2	133-109398	Connecting Rod, Ø16 426mm

Item	Qty	Part	Description
20	2	105-106891	Lock Plate
21	2	133-111736	Belt Bracket
22	2	133-109397	Bracket
23	2	133-109364	Cam
24	2	90131	Bearing, 10/30x9 6200-2ZNR
25	2	97006	Washer, 6.4x12x1.5
26	2	99015	Bolt, M6x10
27	2	30651	Bearing, 12/32x10 6201-2Z



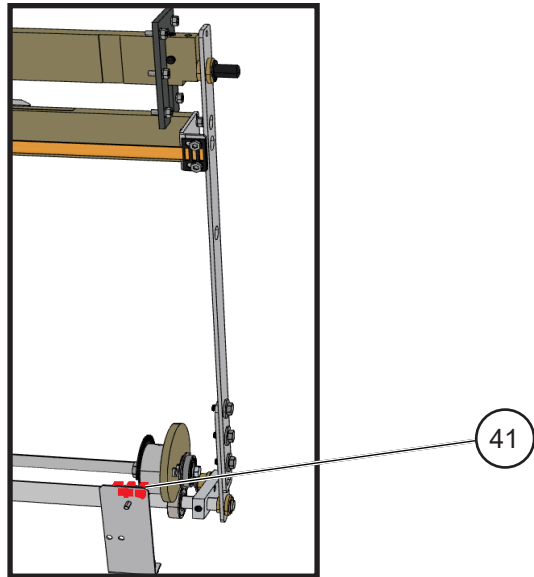
Mechanism isolated for picture clarity



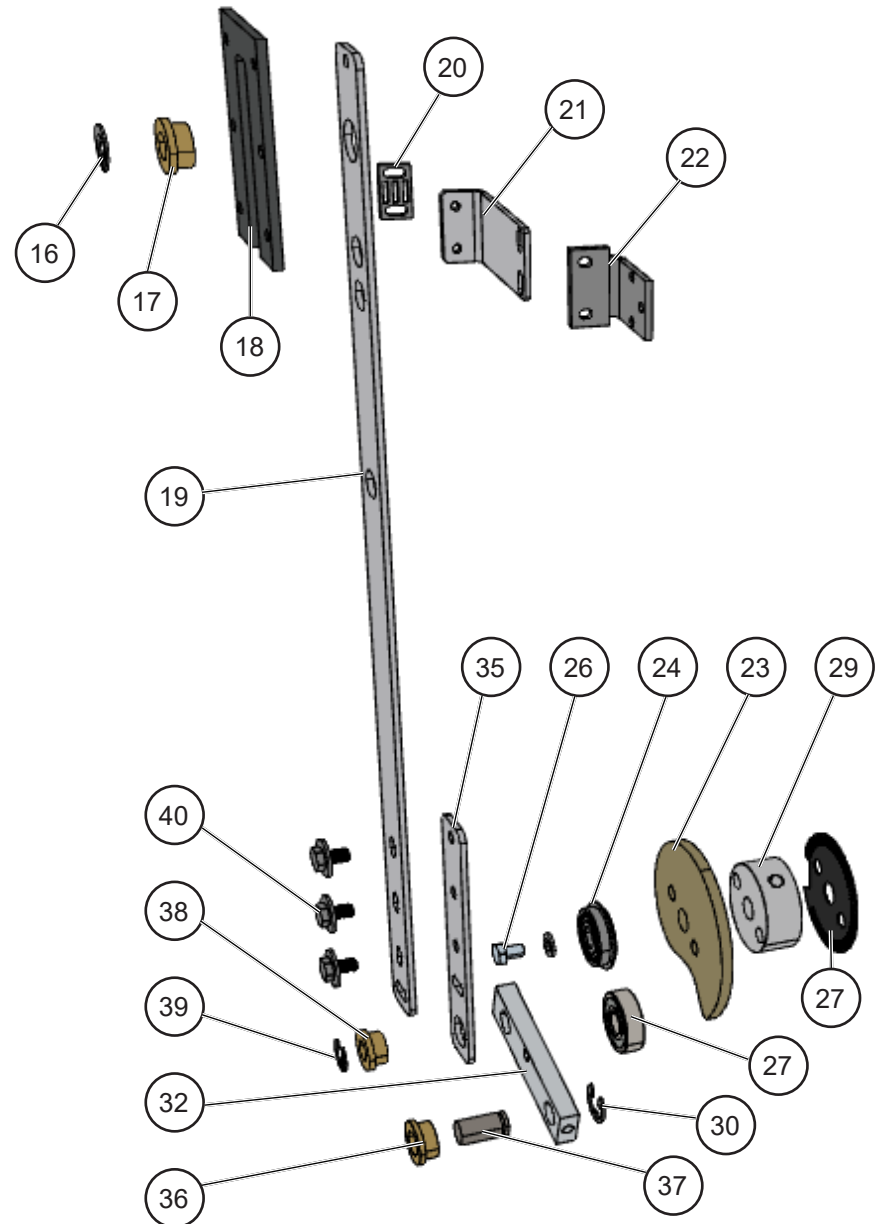
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PL 10.2 SET CLAMP MECHANISM - OPERATOR SIDE

Item	Qty	Part	Description
28	1	133-109362	Sprocket, 6mm 28T
29	2	133-109361	Hub, Ø12
30	2	23722	Retaining ring, RS10
31	1	96133	Set Clamp Home Sensor (Q25)
32	2	133-109356	Link Arm, 8/12 62mm
33	1	97127	Washer, 6x22x1.5
34	1	99015	Screw, M6x10
35	2	133-109399	Connecting Rod 2
36	2	60529	Bearing, 12/18x10-22x3
37	2	133-109352	Shaft, M12x24
38	2	24747	Bearing, 10/16x10-20x3
39	2	80557	Retaining ring, RS8
40	6	99400	Screw, M6x12
41	1	101-102822	Clamp motor positioning M9 encoder, EE-SX4235A-P2-P2 (Q9)

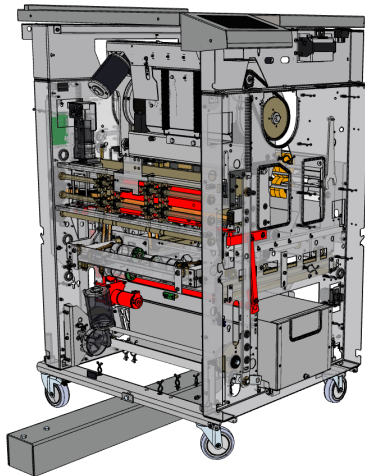
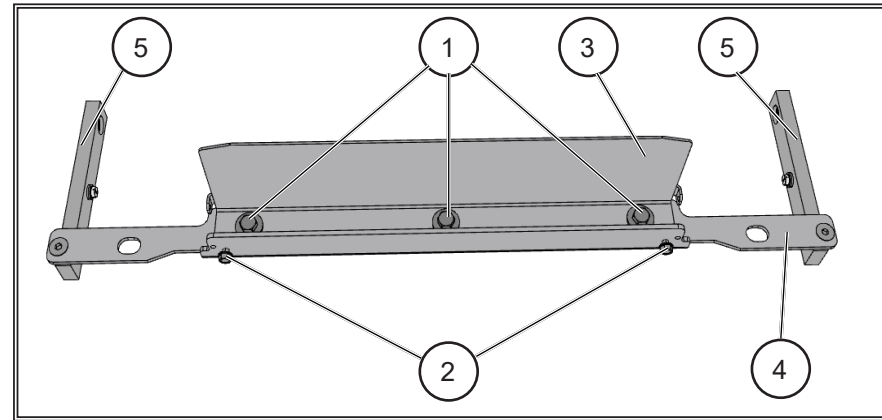


Mechanism isolated for picture clarity

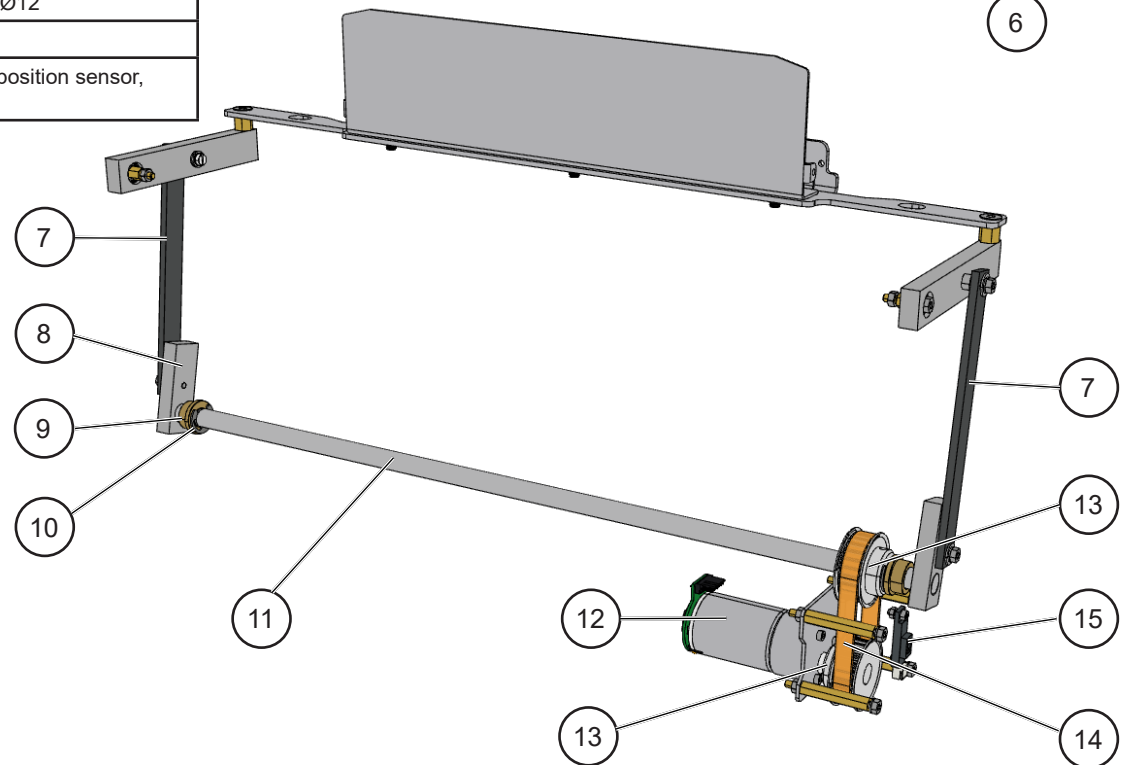


PL 11.0 STOP GATE MECHANISM

Item	Qty	Part	Description
1	3	99400	Screw, M6x12
2	2	99364	Screw, M4x10
3	1	133-109395	Stop Gate
4	1	133-109394	Stop Gate Support
5	2	133-109393	Linkage
6	1	133-109396	Stop Gate Assembly
7	2	133-109350	Connecting Rod
8	2	133-109349	Crank
9	2	60529	Bearing, 12/18x10-22x3
10	2	23722	Retaining ring, RS10
11	1	133-109348	Shaft, 12x527
12	1	781057	Stop Gate Motor (M7) and sensor (Q7)
13	2	122-108666	Timing Pulley, z=24 T5-SE Ø12
14	1	106-101967	Timing Belt, 10T5/245
15	1	96133	Stop gate motor M7 home position sensor, GP2A25 (Q21)



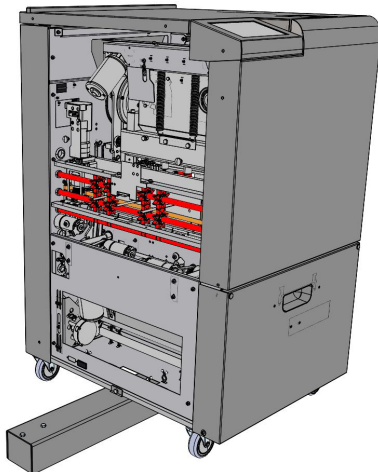
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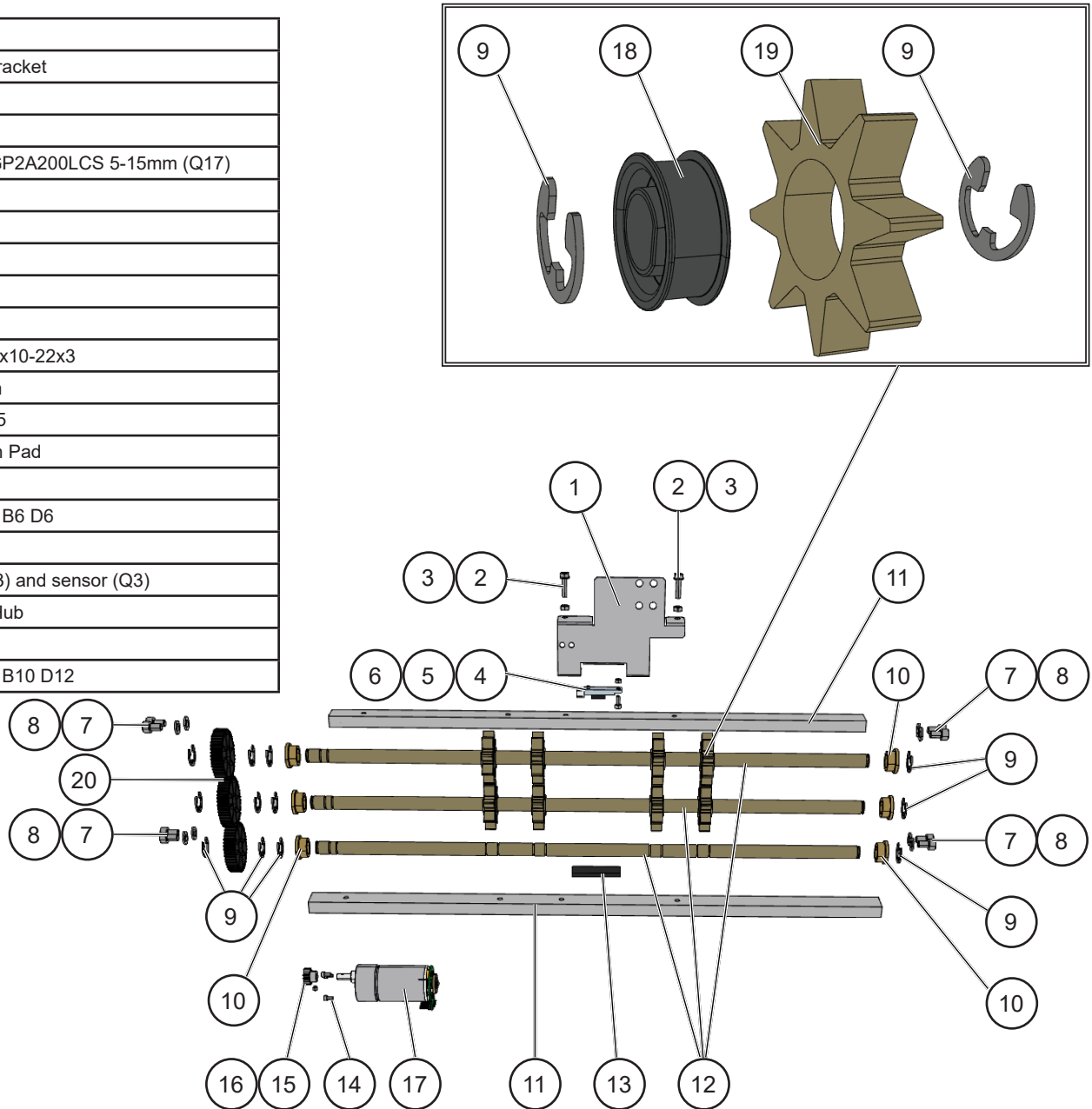
2 October 2020

PL 12.0 EXIT ROLLERS

Item	Qty	Part	Description
1	1	133-109376	Exit Sensor Bracket
2	2	99472	Screw, M4x16
3	2	98003	Nut, M4
4	1	96997	Exit Sensor, GP2A200LCS 5-15mm (Q17)
5	1	99241	Screw ,M3x8
6	1	98002	Nut, M3
7	8	99154	Screw, M6x10
8	8	97006	Washer, M6
9	12	23722	Retaining ring
10	6	60529	Bearing 12/18x10-22x3
11	2	133-109318	Support Beam
12	3	133-109319	Shaft D12x515
13	1	122-105610	Anti Reflection Pad
14	3	99385	Screw, M3
15	1	86132	Gear, Z15 M1 B6 D6
16	1	99057	Screw, M4x4
17	1	781058	Exit motor (M3) and sensor (Q3)
18	8	103-107085	Foam Roller Hub
19	8	133-109320	Foam Roller
20	3	133-113268	Gear, Z45 M1 B10 D12



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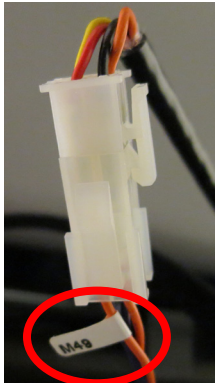
PL 13.0 HARNESS - MAIN MODULE

This section lists the machine's harnesses and their relative part numbers.

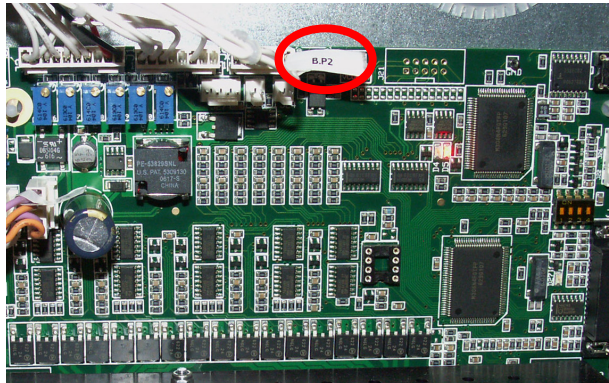
Harnesses are connected to several components of the machine, therefore, even if a harness is damaged in one place only, it still needs to be replaced entirely. To identify the part number of a broken harness, check the labels (typically found close to the components to which the harnesses attach to) and compare them with the table below.

Note! The table below might not include all the connectors. Use the table below only to identify the part number of a harness, do not use it as a guide for how to replace the harness. When replacing a harness, make a note of which components the harness was attached to.

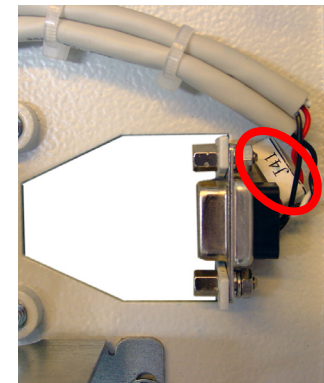
Label examples:



Example of a harness connected to a motor "M49".



Example of a harness connected to a PCB "B", connector "P2".



Example of a harness connected to a chassis connector "J41".

Index	Qty	Harness Part No.	Description	Connections / Reference Numbers
1	1	133-113011A-UL	Harness Align module	Chassis connectors (J32), (J34), (J44); Motors (M4), (M6); Sensors (Q4), (Q6), (Q15), (Q22).
2	1	133-113012A-UL	HARNESS Align module	Chassis connectors (P31), (P32), (P33), (P34), (P44); Motor (M5); Sensor (Q5).
3	1	133-113008A-UL	HARNESS 4P MnF TO 3P 320mm	-
4	1	133-113017A-UL	HARNESS PRIMARY	Ground (GND); Power inlet (POW, 1), (POW, 2), (POW, 3), (POW, 4); PSU inputs (L), (N); Relay (REL 301,11), (REL 301,31); Switches (SW1,1), (SW1,2), (SW1,4), (SW1,5).

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PL 13.0 HARNESS - MAIN MODULE (CONTINUED)

Index	Qty	Harness Part No.	Description	Connections / Reference Numbers
5	1	133-113016A-UL	HARNESS MOTOR	Chassis connectors (P27), (J31), (J36), (J40), (J41), (J42); Motors (M3), (M5), (M7), (M9), (M143); PCB C (P1), (P2), (P3), (P4); PCB D (P1), (P2), (P3), (P4); PCB F (P8), (P9), (P12), (P13); PCB G (P8), (P9), (P12), (P13); PCB H (P8), (P9), (P11), (P12), (P13); PCB K (P8), (P9), (P11), (P13); PSU (+V), (-V).
6	1	133-113018B-UL	HARNESS SENSOR	Chassis connectors (J28), (J45); Counter (CNT); PCB A (P1), (P2), (P3), (P4), (P5); PCB F (P1), (P3); PCB G (P1), (P3); PCB H (P1), (P3); PCB K (P1), (P3); Relays (REL301 (A1, A2)); Sensors (Q3), (Q7), (Q9), (Q13), (Q17), (Q18), (Q19), (Q20), (Q21), (Q23), (Q24), (Q25), (Q27), (Q16LED), (Q16PHT), (Q26LED), (Q26PHT); Switches (SW101,3), (SW101,4), (SW103,3), (SW103,4), (SW105,1), (SW105,2), (SW107,2).
7	1	133-113023A-UL	HARNESS XCAN	Chassis connectors (J23), (J307), (P24), (P351); PCB A (P6), (P7), (P8), (P10); PCB B (P2); PCB F (P5), (P6); PCB G (P5), (P6); PCB H (P5), (P6); PCB K (P6); Switch (SW107,1).
8	1	133-113014A-UL	HARNESS IN	Chassis connectors (J28), (J29); Motors (M1), (M2); Sensors (Q1), (Q2), (Q14).
9	1	133-113015A-UL	HARNESS IN FLEX	Chassis connectors (J27), (J30), (P28), (P29).

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PL 13.0 HARNESS - MAIN MODULE (CONTINUED)

Index	Qty	Harness Part No.	Description	Connections / Reference Numbers
10	1	137-112647B-UL	HARNESS 12V PSU 330mm	PCB B (P1); PCB DD (P1); PSU (-V), (+12V).
11	1	133-113013A-UL	HARNESS IL TO 26V PSU	PSU (L), (N); Relays ((REL301 (14), (34)).
12	1	133-113215B-UL	HARNESS NS FAN3 AND FAN 4	Chassis connector (P88); FANs (3), (4).
13	1	133-113019A-UL	HARNESS TR LOWER FLEX	Chassis connectors (P36), (P37); Motor (M10); Sensor (Q10), (Q12).
14	1	133-113020A-UL	HARNESS TR UPPER FLEX	Chassis connectors (J88), (P42), (P43); Motor (M11), (M12); Sensor (Q11).
15	1	133-113251B-UL	HARNESS STACKER Q230	Chassis connector (P99); Sensor (Q230).
16	1	138-113223A-UL	HARNESS NS OR STACKER	Chassis connector (J99); Motor (M156); Sensor (Q207).
17	1	133-113325A-UL	HARNESS OR TOP COVER	Chassis connector (P45); LED (LAMP101).
18	1	102-108432D-UL	HARNESS COLOUR UI 5050	Chassis connector (J107); PCB V (P6), (P7).

PL 14.0 ACCESSORIES

Item	Qty	Part No.	Description
1	1	14090017	Power cord EUR/IEC 1.0mm ² 80mm*
2	1	14090016	Power cord USA/IEC AWG-14 80mm*
3	1	14090021	Power cord UK/IEC 1.0mm ² 80mm*
4	1	14090019	Power cord AUS/IEC 1.0mm ² 80mm*
5	1	14090020	Power cord Swiss/IEC 1.0mm ² 80mm*
6	1	14090018	Power cord Denmark IEC 1.0mm ² 80mm*
7	1	770042	Power Cord Kit
8	1	92508	Termination Plug, Female
9	1	95196	Spanner 24mm
10	1	960108436	USB to STM32F Dongle
11	1	95177	Interlock Cheater

*Also includes extension cord.

