

# Illustrated Parts Manual for the EMT 10T F1 embroidery peripheral



- A Complete Illustrated Parts Manual
- Tubular
- **CE**

**Melco**   
Embroidery Systems

A Saurer Group Company

Part Number 15339, Revision B

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# **Table of Contents**

<b>Description</b>	<b>Page Number</b>
Table Top/Machine Covers	1-1
Sewing Head Covers	2-1
Keyboard (1 of 2)	3-1
Keyboard (2 of 2)	4-1
Bobbin Winder	5-1
Light Fixture	6-1
Sewing Head	7-1
Color Change	8-1
Thread Tree	9-1
Needle Case (1 of 2)	10-1
Needle Case (2 of 2)	11-1
Needle Case Linear Drive	12-1
Thread Tensioner	13-1
Arm and Bed	14-1
Reciprocator	15-1
Bobbin Idler	16-1
Take-Up Drive Lever	17-1
Grabber Motor	18-1
Cutter/Picker	19-1
Trimmer Drive	20-1
Electronics Cage (1 of 2)	21-1
Electronics Cage (2 of 2)	22-1
Power Distribution	23-1
X/Y Drive (1 of 7)	24-1
X/Y Drive (2 of 7)	25-1
X/Y Drive (3 of 7)	26-1
X/Y Drive (4 of 7)	27-1
X/Y Drive (5 of 7)	28-1

<b>Description</b>	<b>Page Number</b>
X/Y Drive (6 of 7)	29-1
X/Y Drive (7 of 7)	30-1
Z-Drive/Encoder	31-1
Cap Frame Mounts	32-1
Harnesses (1 of 3)	33-1
Harnesses (2 of 3)	34-1
Harnesses (3 of 3)	35-1
<b>Options</b>	
Cap Frame Drive	36-1
Melco Cap Frame	37-1
Melco Cap Frame Gauge	38-1
Wide-Angle Cap Frame (1 of 7)	39-1
Wide-Angle Cap Frame (2 of 7)	40-1
Wide-Angle Cap Frame (3 of 7)	41-1
Wide-Angle Cap Frame (4 of 7)	42-1
Wide-Angle Cap Frame (5 of 7)	43-1
Wide-Angle Cap Frame (6 of 7)	44-1
Wide-Angle Cap Frame (7 of 7)	45-1
Wide-Angle Cap Frame Gauge	46-1
Tubular Hoop (1 of 2)	47-1
Tubular Hoop (2 of 2)	48-1
Mobile Cart	49-1
Hoop Interface	50-1
Sash Frame	51-1
Sash Hoops (21cm, 25cm)	52-1

**Index**

# INTRODUCTION

## Model and Serial Numbers

The contents of this manual must be understood by the user to ensure that the correct part for the correct machine model is selected.

Some equipment built by Melco containing the same "common" name may be identified by more than one model part number. In some cases, a different serial number sequence is also prevalent between two models of the same machine.

There are two phases of the Melco EMT 10T F1 Sewing Peripheral. This manual represents only the second phase of this product. The part number is 10508 and is for both 115V and 230V.

Determine the model number of your machine before you use this manual to order parts. The machine MODEL number is located on the label that is placed on the lower right front of the chassis, directly above the voltage and signal identification plate.

Remember, although many parts are identical between the various embroidery peripheral models, this manual should only be used for identifying and ordering parts for the machines described above.

## How To Use This Manual

The manual is divided into several sections, each containing a set of parts most common to each other, or to a function of the machine.

### Figures

Accompanying each section is a figure showing the general area of the machine that is represented in that section. Parts are identified with letters and numbers in these figures. Letters contained in circles generally are used to refer the user to a different figure or section of the manual that identifies the assembly with more detail. Part numbers and part identifications of the numbers inside circles are found on the pages adjacent to the figure.

### Item Numbers

All the numbers in circles on a diagram are listed in the first column of the parts listing accompanying that figure. Each item number in each figure is identified independently in hopes to help prevent any confusion that may occur by trying to "cross-reference" part numbers.

### Part Numbers

The Melco part number is found in the second column of the parts list, directly in line with each item number from the first column.

### **Part Descriptions**

Each part listed has a descriptive name in the third column of the parts listing. Hardware (such as screws, washers, etc.) are described by size in order to help the user to identify common hardware items that can be obtained by local sources if desired.

### **Index**

Hardware not listed can be found by identifying a related part and referring to that page.

**CAUTION: When purchasing hardware from a source other than Melco, it is the user's responsibility to ensure that such hardware is of sufficient quality and grade to meet or exceed Melco's original equipment hardware. Melco assumes no liability for the use of inadequate hardware that was purchased by and/or installed by other than an authorized Melco factory representative.**

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# Table Top/Machine Covers

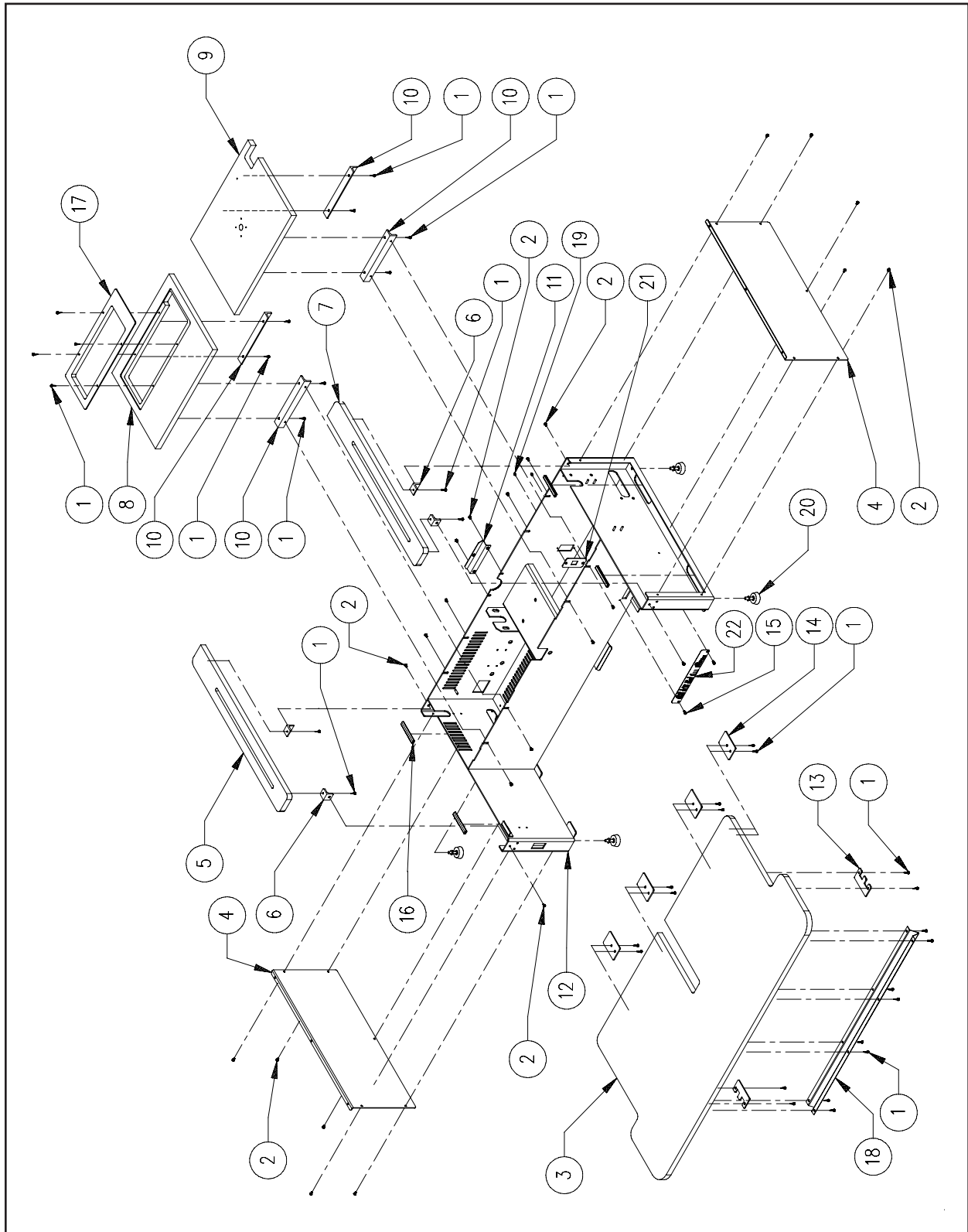


Figure 1

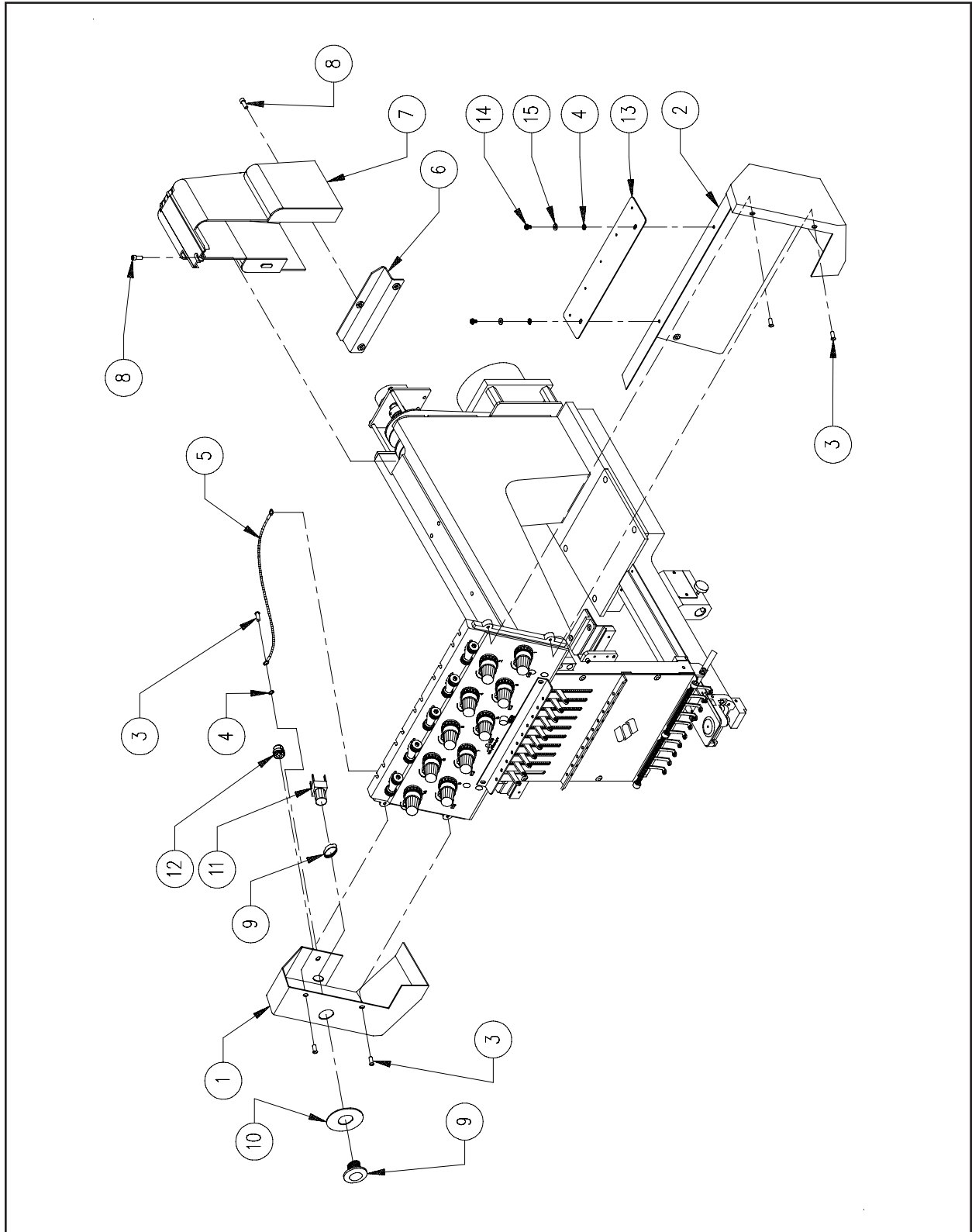


**Table Top/Machine Covers****Reference Figure 1**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	671910-10	Screw, Self-Tapping, Pan Head Phillips, #10 x 5/8"	
2	010309-10	Screw, Truss Head Phillips, M5 x 0.8 x 10mm	
3	009351-02	Table Top, Main	
4	009342-01	Cover, Side	
5	009348-02	Table Top, Side, Right	
6	009344-01	Bracket, Angle, Table Top, Short	
7	010617-02	Table Top, Side, Left	
8	009349-01	Table Top, Rear, Left	
9	009350-02	Table Top, Rear, Right	
10	009346-01	Bracket, Angle, Table Top, Long	
11	009814-02	Bracket, Mounting, Z-Cover	
12	10600	Frame, Assembly	
13	009361-01	Plate, Table Top, Locator, Side	
14	009362-01	Plate, Table Top, Locator, Rear	
15	010172-06	Screw, Socket Head Cap, M5 x 0.8 x 6mm, Zinc Plate	
16	010398-01	Trim, Hand Hold	
17	010437-01	Tray, Table	
18	005340-01	Stiffener, Table Insert	
19	009862-06	Screw, Pan Head Phillips, w/Star, M3 x 0.5 x 6mm	
20*	009533-02	Pad, Leveling	
21	009955-01	Plate, Coupler	
22	009851-01	Cover, LEDs	

Note: \*This item is optional and if used requires a quantity of four

# Sewing Head Covers



**Figure 2**

**Sewing Head Covers****Reference Figure 2**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	010109-02	Cover, Rear, Tensioner, Bracket, Left	
2	006564-02	Cover, Rear, Tensioner, Bracket, Right	
3	010171-06	Screw, Socket Head Cap, M4 x 0.7 x 6mm, Zinc Plate	
4	690713-38	Washer, Lock, External Star, #8	
5	009317-01	Cable, Ground, Pan, 4.75"	
6	009814-02	Bracket, Mounting, Z-Cover	(See Page 1-1)
7	010201-01	Cover, Z-Motor	
8	010171-14	Screw, Socket Head Cap, M4 x 0.7 x 14mm, Zinc Plate	
9	010104-01	Switch, E-Stop, 24mm	
10	010110-01	Plate, E-Stop	
11	010105-01	Switch, E-Stop Block, 24mm	
12	007852-01	Bushing, Strain Relief	
13	010622-02	Bracket, Tube, Thread	
14	003509-06	Screw, Button Head Socket, M4 x 0.7 x 6mm	
15	690439-04	Washer, Flat, M4	

# Keyboard (1 of 2)

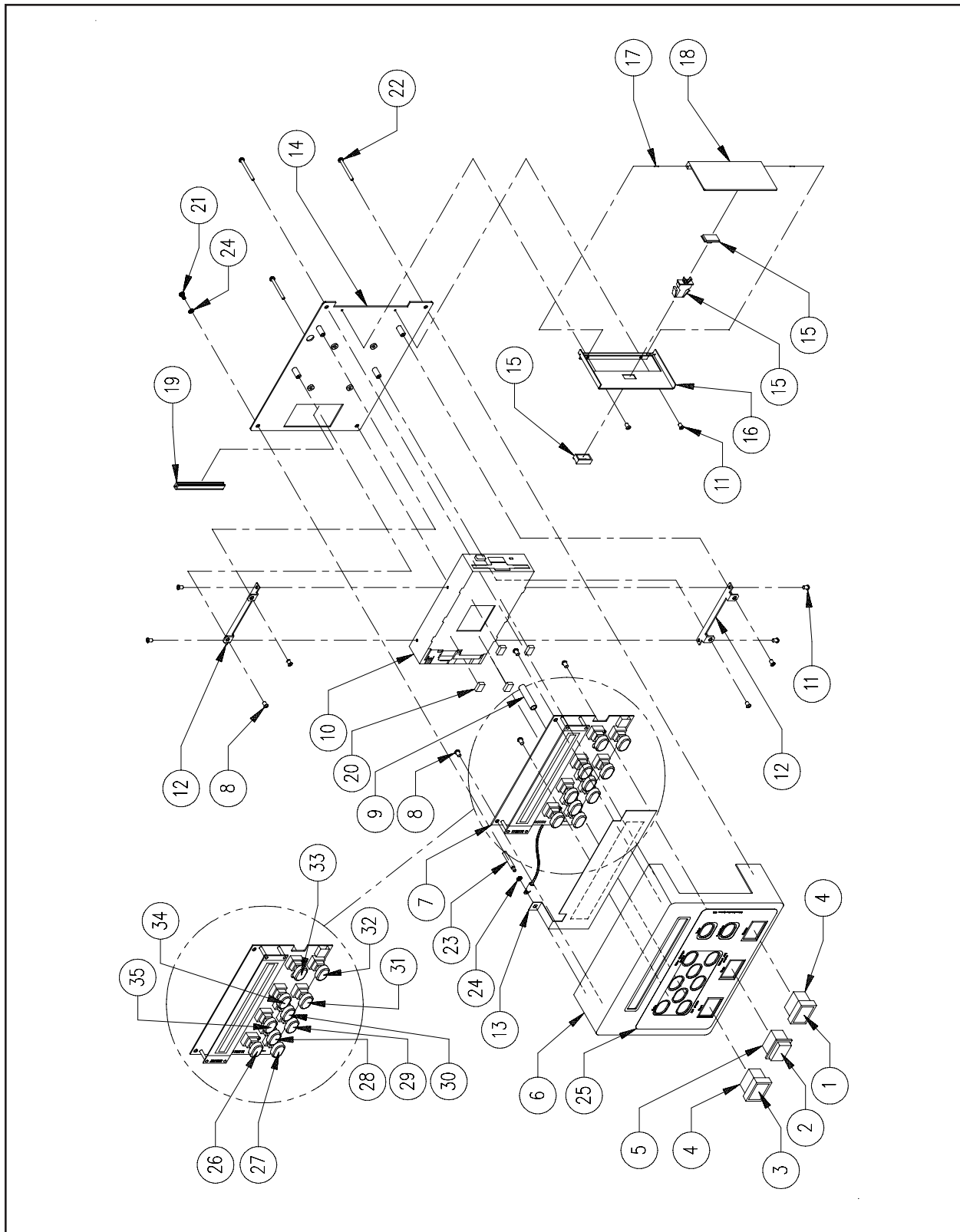


Figure 3

**Keyboard (1 of 2) (\*010612-01)****Reference Figure 3**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	009081-03	Lens, Pushbutton, Grey w/Legend	
2	009081-02	Lens, Pushbutton, Black w/Legend	
3	009081-01	Lens, Pushbutton, White w/Legend	
4	010339-01	Switch, Momentary, w/Full Guard	
5	010338-01	Switch, Pushbutton, Momentary	
6	010153-02	Cover, Operator Interface	
7	009448-04	PCB, EMT Operator Interface, Assembly	
8	004262-06	Screw, Pan Head Phillips, M4 x 0.7 x 6mm	
9	009878-01	Knob, Extension, Pot	
10	004243-01	Drive, Disk, 3-1/2"	
11	675310-01	Screw, Pan Head Phillips, M3 x 0.5 x 6mm	
12	009391-01	Bracket, Mounting, Disk Drive	
13	011126-01	Tape, Static, LCD	
14	010348-02	Plate, Base, Operator Interface	
15	009389-01	Latch, Touch	
16	010349-01	Bracket, Enclosure, Disk Drive	
17	009390-01	Pin, Pivot, Door	
18	010199-01	Door, Disk Drive	
19	862294-01	Grommet, 3.3"	
20	005004-01	Pad, Cushion, Disk Drive	
21	004262-25	Screw, Pan Head Phillips, M4 x 0.7 x 25mm	
22	004262-08	Screw, Pan Head Phillips, M4 x 0.7 x 8mm	
23	009894-31	Standoff, M/F, M4 x 0.7 x 31mm	
24	010167-04	Washer, Lock, External Star, M4	
25	010918-01	Template, Panel	
26	009017-03	Keycap, Menu	
27	009017-04	Keycap, Alt	
28	009017-01	Keycap, Horizontal Arrow, Left	
29	009017-02	Keycap, Vertical Arrow, Down	
30	009017-01	Keycap, Horizontal Arrow, Right	
31	009017-05	Keycap, Jog	
32	009017-07	Keycap, Fast/Slow	
33	009017-08	Keycap, Enter	
34	009017-06	Keycap, Color Change	
35	009017-02	Keycap, Vertical Arrow, Up	

Note:

\*The keyboard as a unit (part number 010612-01) is shown on pages 3-1 and 4-1. On this page only item 25 is excluded.

# Keyboard (2 of 2)

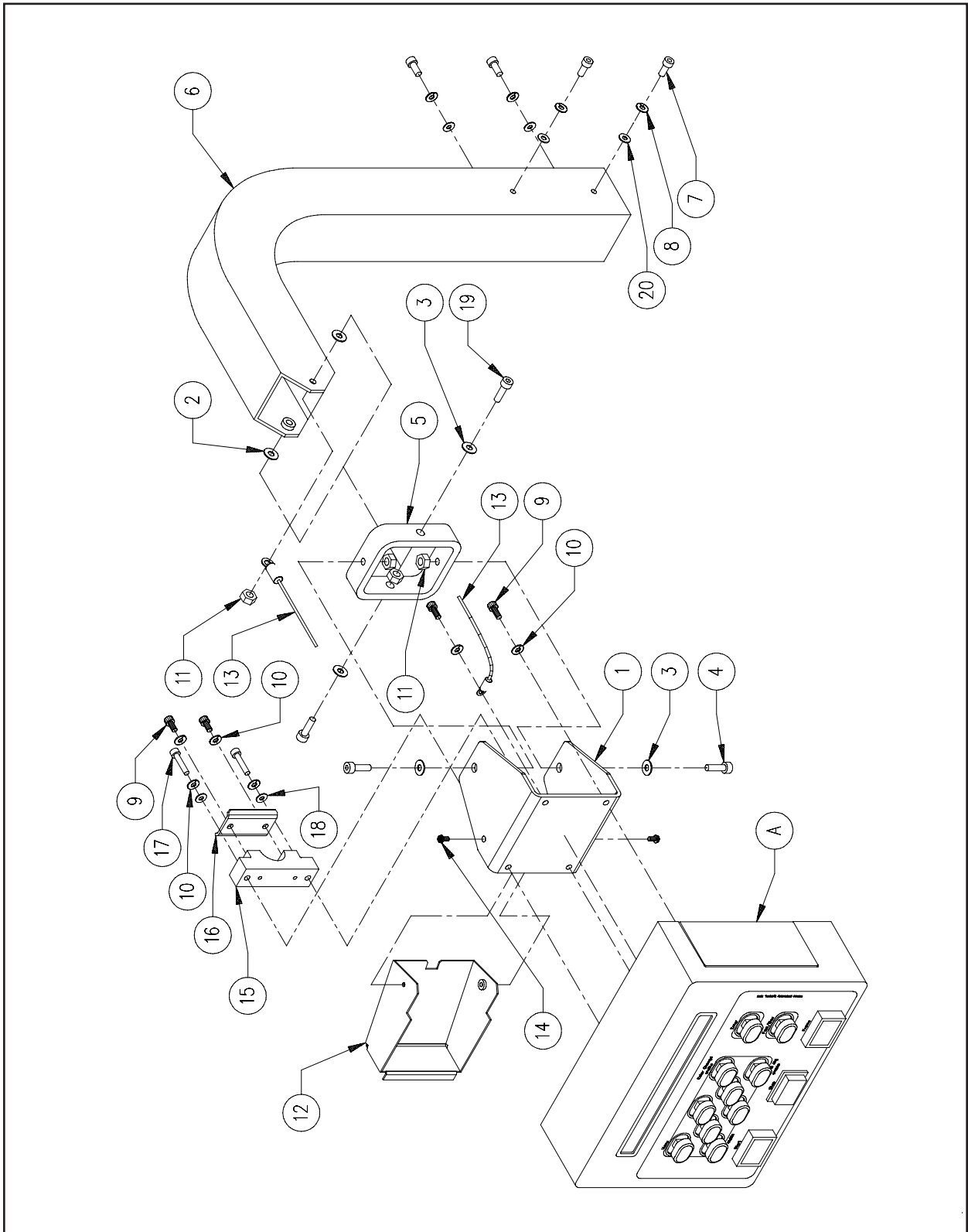


Figure 4

**Keyboard (2 of 2) (\*010612-01)****Reference Figure 4**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
A	-----	Keyboard	See Page 3-1
1	009392-01	Bracket, Mounting, Display	
2	690439-06	Washer, Flat, M6	
3	010535-01	Washer, Bellville, M6	
4	010173-16	Screw, Socket Head Cap, M6 x 1.0 x 16mm, Zinc Plate	
5	009393-01	Bracket, Pivot, Display	
6	009343-02	Pedestal, Control Interface	
7	010172-10	Screw, Socket Head Cap, M5 x 0.8 x 10mm, Zinc Plate	
8	690427-05	Washer, Lock, Split, M5	
9	010171-12	Screw, Socket Head Cap, M4 x 0.7 x 12mm, Zinc Plate	
10	690427-04	Washer, Lock, Split, M4	
11	010627-06	Nut, Hex, Low Profile, M6	
12	010721-01	Cover, Cable, Operator I/F	
13	011006-01	Cable, Ground, Braid, 6.5"	
14	004262-06	Screw, Pan Head Phillips, M4 x 0.7 x 6mm	
15	010928-01	Base, Strain Relief, Operator I/F	
16	010929-01	Plate, Strain Relief, Operator I/F	
17	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
18	690439-04	Washer, Flat, M4	
19	010173-20	Screw, Socket Head Cap, M6 x 1.0 x 20mm, Zinc Plate	
20	690439-05	Washer, Flat, M5	

Note: \*The keyboard as a unit (part number 010612-01) is shown on pages 3-1 and 4-1. On this page only items 7, 8 and 20 are excluded.

# Bobbin Winder

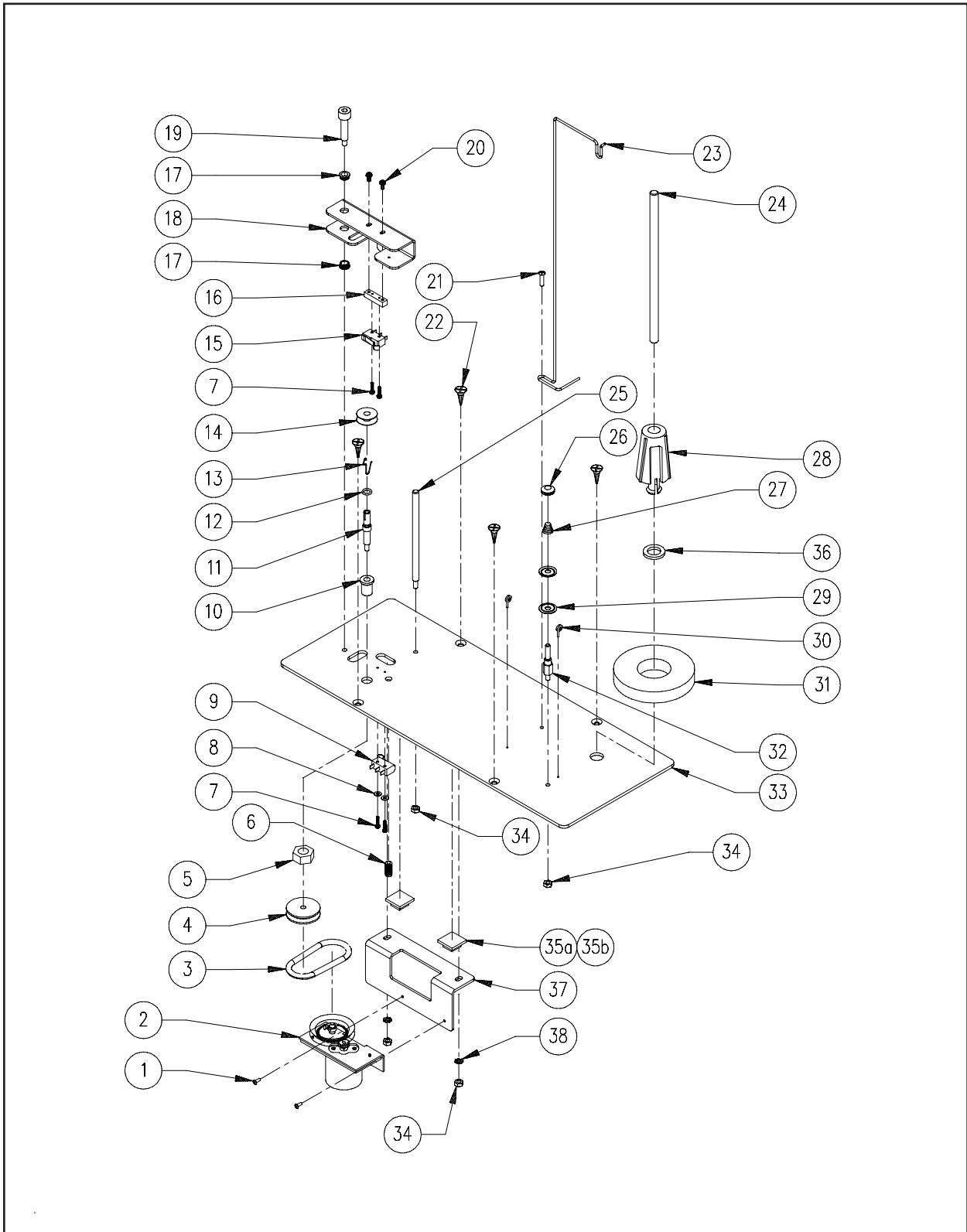


Figure 5



**Bobbin Winder****Reference Figure 5**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	006558-04	Screw, Pan Head Phillips, M3 x 0.5 x 4mm	
2	011022-01	Motor, Modified, Winder	
3	010625-04	O-Ring, 2-7/16" ID x 3/16" Dia.	
4	009686-01	Hub, Shaft, Arm, Winder	
5	010627-08	Nut, Hex, Low Profile, M10	
6	005875-02	Plunger, Ball, 1/4-20, 7lbs.	
7	003122-10	Screw, Pan Head Phillips, M2 x 0.4 x 10mm	
8	690034-32	Washer, Flat, #2	
9	010630-01	Switch, Winder, On/Off, Assembly	
10	010628-01	Bushing, Shaft, Bobbin Winder	
11	10856	Shaft, Arm, Winder	
12	005738-08	O-Ring, 3/16" ID x 5/16" OD x 1/16" Thick	
13	009688-01	Spring, Shaft, Arm, Winder	
14	008499-01	Bobbin, Aluminum	
15	010371-01	Switch, Full, Bobbin, Assembly	
16	009821-01	Block, Mounting, Switch	
17	007905-01	Grommet, Actuator Lever	
18	010626-02	Lever, Actuator, Bobbin Winder	
19	674395-16	Screw, Shoulder, Hex Socket, 1/4" Dia. x 1.00"	
20	006558-06	Screw, Pan Head Phillips, M3 x 0.5 x 6mm	
21	004262-06	Screw, Pan Head Phillips, M4 x 0.7 x 6mm	
22	010281-04	Screw, Flat Head Phillips, Wood, #10 x 1/2"	
23	009372-01	Guide, Thread, Winder	
24	009373-01	Post, Thread, Winder	
25	009380-01	Post, Bobbin, Storage	
26	007080-01	Knob, Adjust, Pretensioner, Plastic	
27	010735-01	Spring, Tensioner	
28	005701-01	Seat, Cone, Thread	
29	006385-01	Disc, Tensioner	
30	002897-01	Post, Guide	
31	009379-01	Pad, Cone, Thread	
32	009376-01	Post, Tensioner, Winder	
33	009374-02	Plate, Base, Winder	
34	001963-05	Nut, Hex, M4	
35a	340138-01	Holder, Cable Tie, .75" Square	
35b	340139-01	Tie, Cable, 3.1"	(not shown)
36	011112-01	Washer, Neoprene	
37	009375-01	Bracket, Base, Winder	
38	010167-04	Washer, External Star, M4	

# Light Fixture

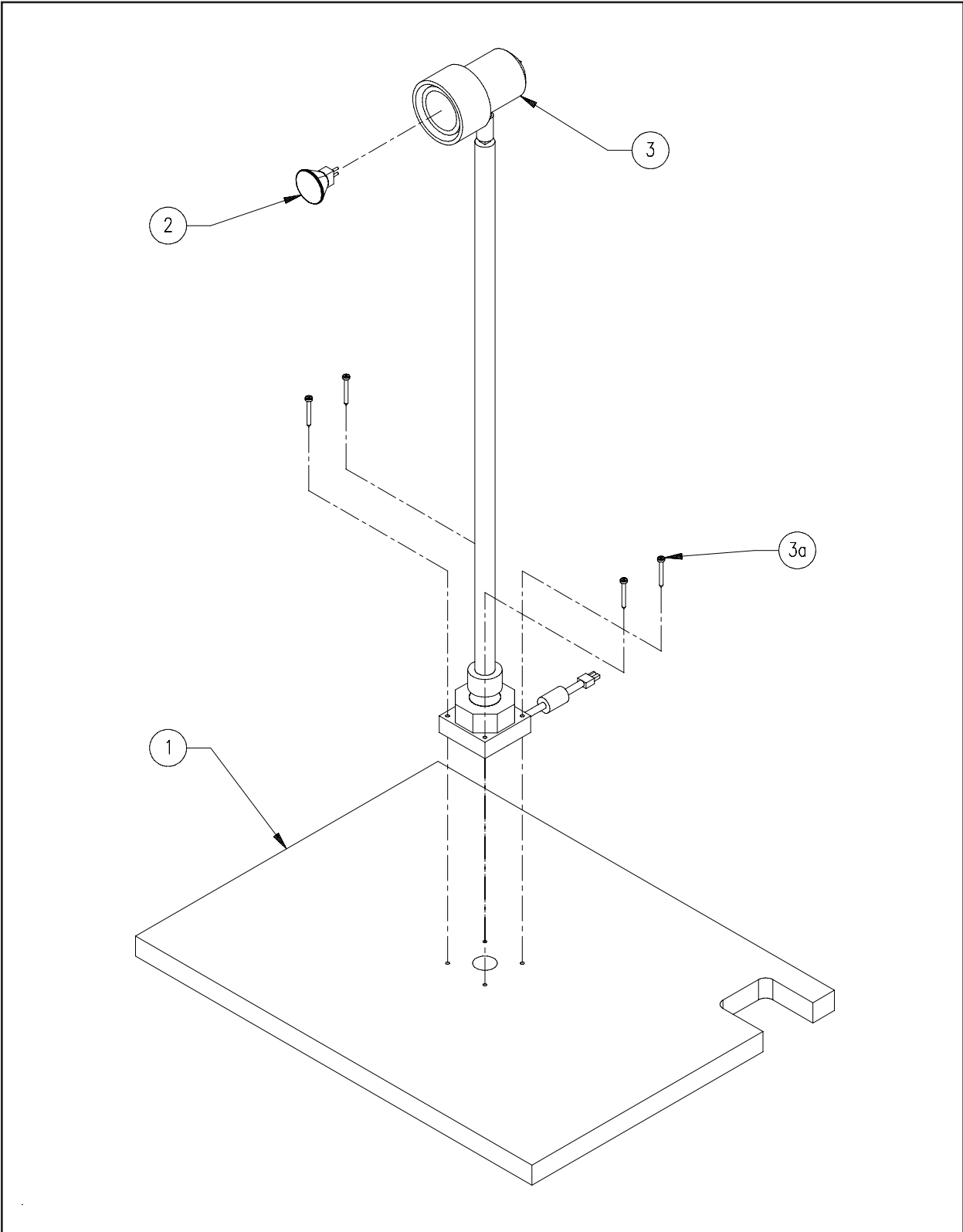


Figure 6

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<b>Light Fixture</b>			<b>Reference Figure 6</b>
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	009350-01	TableTop, Rear, Right	(see page 1-1)
2	011350-01	Bulb, 12V/12W	
3	011349-01	Lamp, Flexible, w/Switch, 12V/12W	
3a	-----	Screw, Pan Head Phillips, Self-Tapping, #6 x 1.25" (part of item 3)	

# Sewing Head

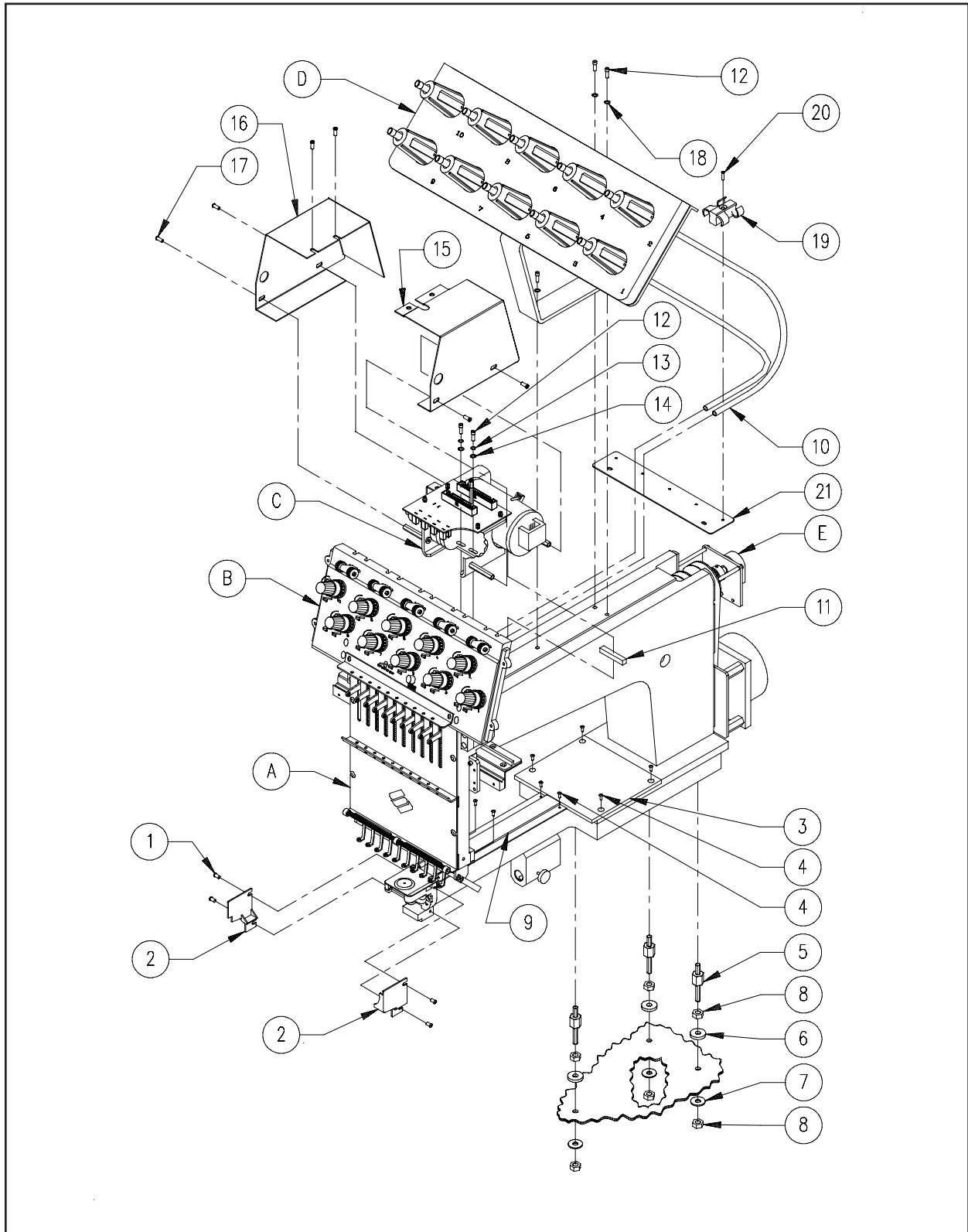


Figure 7

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**Sewing Head** **Reference Figure 7**


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Item No.	Part Number	Item Description	Comments
A	-----	Needle Case	See Pages 10-1 & 11-1
B	-----	Thread Tensioner	See Page 13-1
C	-----	Color Change	See Page 8-1
D	-----	Thread Tree	See Page 9-1
E	-----	Z-Drive/Encoder	See Page 26-1
1	003136-06	Screw, Button Head Socket, M3 x 0.5 x 6mm	
2	006529-01	Set, Cover, Rotary Hook	
3	006034-21	Cover, Bed, Rear	
4	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	
5	008241-01	Pillar, Head, Support	
6	10547-08	Washer, Head	
7	690439-08	Washer, Flat, M8	
8	010178-08	Nut, Hex, M8	
9	007526-01	Cover, Bed, Front	
10	005704-01	Tubing, .125" ID x .187" OD	
11	004779-01	Key, Color Change Mount	
12	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
13	690427-04	Washer, Lock, Split, M4	
14	690439-04	Washer, Flat, M4	
15	10320	Cover, Drive, Color Change, Right	
16	10321	Cover, Drive, Color Change, Left	
17	009863-08	Screw, Pan Head Phillips, <sup>w</sup> /Star, M4 x 0.7 x 8mm	
18	690713-38	Washer, Lock, External Star, #8	
19	005707-01	Clip, Tubing	
20	001935-10	Screw, Flat Head Phillips, M3 x 0.5 x 10mm	
21	010622-02	Bracket, Tube, Thread	(see page 2-1)

# Color Change

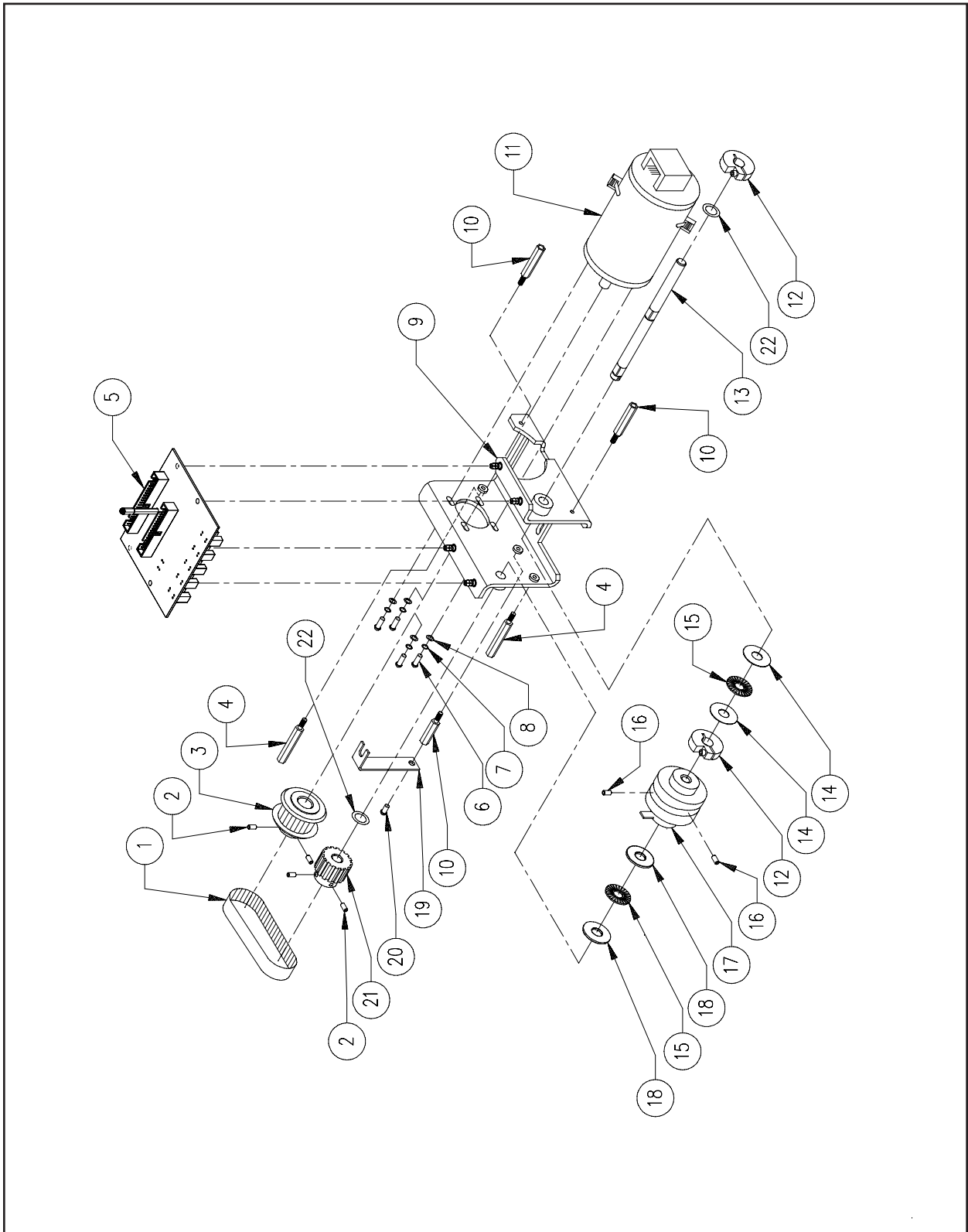
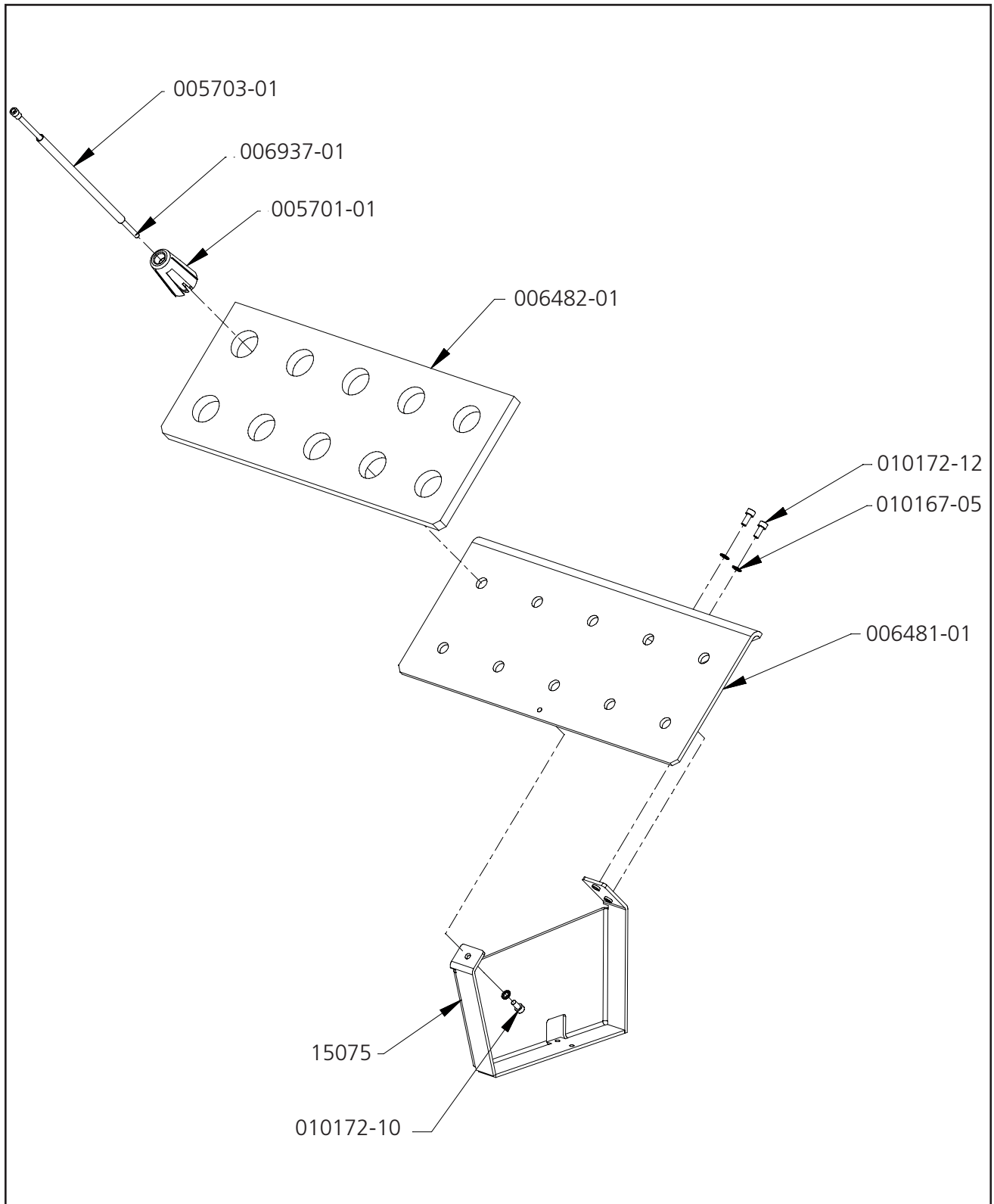


Figure 8

<b>Color Change</b>		<b>Reference Figure 8</b>	
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	003504-01	Belt, Timing, 39T, 1/5P	
2	001960-04	Screw, Set, Flat Point, M4 x 0.7 x 4mm	
3	006855-01	Pulley, Timing, 1/5P, 12 Groove	
4	008129-35	Standoff, Hex, M-F, M4 x 0.7 x 35mm	
5	009411-02	PCB, EMT, Color Change, Assembly	
6	670174-08	Screw, Pan Head Phillips, 6-32 x 1/2 "	
7	690033-36	Washer, Lock, Split, #6	
8	690034-36	Washer, Flat, #6	
9	006340-01	Housing, Drive, Color Change	
10	008129-22	Standoff, Hex, M-F, M4 x 0.7 x 22mm	
11	006570-01	Motor, Color Change	
12	008062-01	Clamp, Split-Hub, 8mm ID	
13	006485-01	Shaft, Cam, Color Change	
14	007574-01	Washer, Thrust, 1.00mm Thick	
15	008061-01	Bearing, Thrust, 8mm	
16	001927-06	Screw, Set, Socket, M5 x 0.8 x 6mm	
17	007077-01	Cam, Color Change	
18	007573-01	Washer, Thrust, 2.75mm Thick	
19	006782-01	Bracket, Wire Guard	
20	009863-06	Screw, Pan Head Phillips, w/Star, M4 x 0.7 x 6mm	
21	008060-01	Pulley, Timing, 5.08mmP, 16 Groove	
22	003235-08	Spacer, Shaft, .375" ID x .562" OD x .016" Thick	

# Thread Tree



**Figure 9**



---

<b>Thread Tree</b>			<b>Reference Figure 9</b>
<b>Part Number</b>	<b>Qty.</b>	<b>Item Description</b>	<b>Comments</b>
15075	1	Bracket, Thread Tree Support	
005701-01	1	Seat, Cone, Thread, Thread Tree	
005703-01	1	Tube, Guide, Thread Tree, 9.7"	
006481-01	1	Plate, Thread Tree	
006482-01	1	Pad, Thread Tree	
006937-01	1	Tubing, Thread Tree, 24", Assembly	
010167-05	3	Washer, External Tooth Star, M5	
010172-10	1	Screw, M5 x 0.8 X 10mm Socket Head Cap, Zinc Plate	
010172-12	2	Screw, M4 x 0.8 X 12mm Socket Head Cap, Zinc Plate	

# Needle Case (1 of 2)

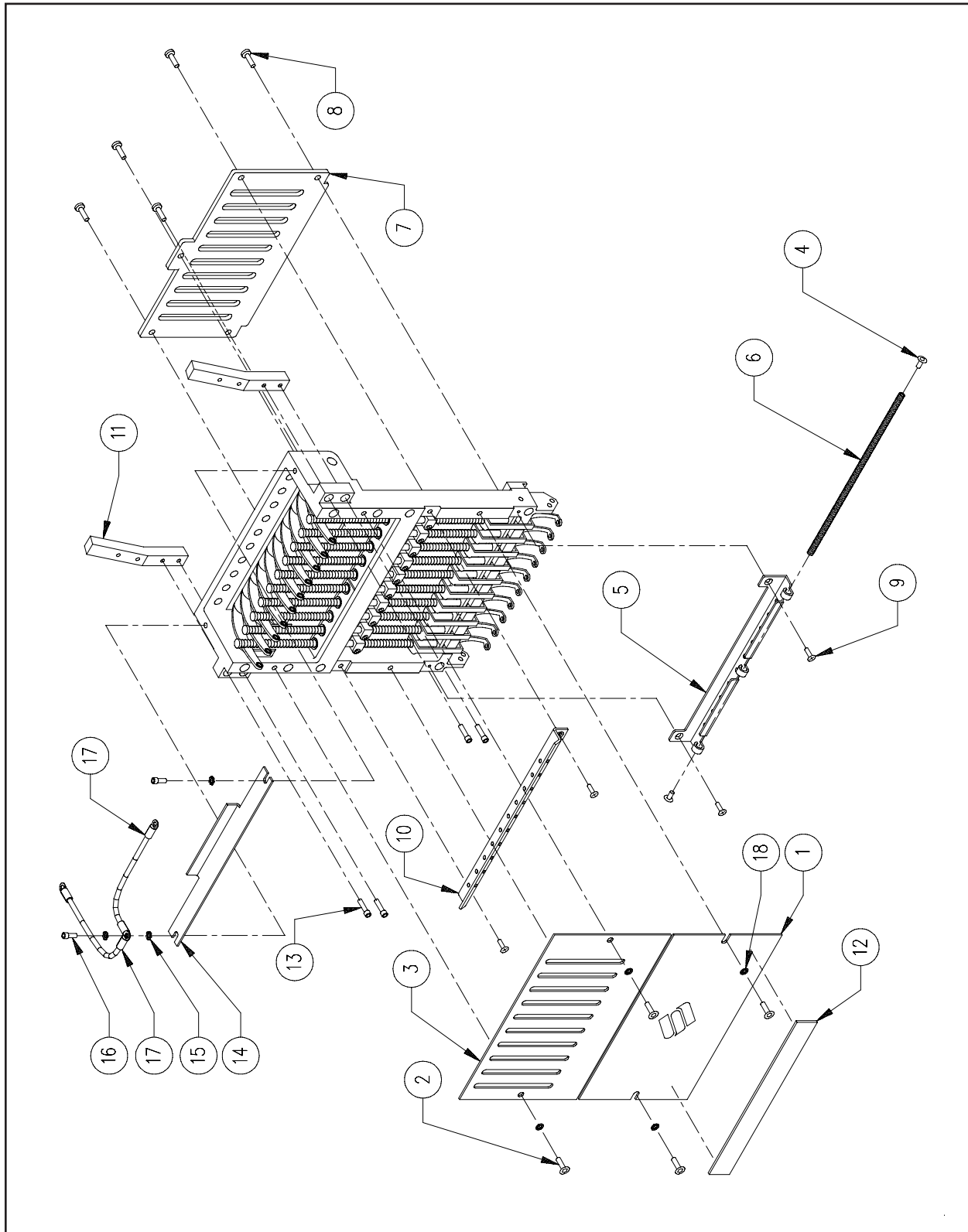


Figure 10

**Needle Case (1 of 2)****Reference Figure 10**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	007511-01	Cover, Needle Case, Lower	
2	010171-06	Screw, Socket Head Cap, M4 x 0.7 x 6mm, Zinc Plate	
3	007510-02	Cover, Needle Case, Upper	
4	003509-10	Screw, Button Head Cap, M4 x 0.7 x 10mm	
5	008483-01	Guide, Thread, Lower, w/Eyelet	
6	007519-01	Spring, Lower Thread Guide	
7	007503-01	Plate, Guide, Needle Bar	
8	001924-06	Screw, Cheese Head, Slotted, M4 x 0.7 x 6mm	
9	001935-06	Screw, Flat Head Phillips, M3 x 0.5 x 6mm	
10	008482-01	Guide, Thread, Middle, w/Eyelet	
11	007528-01	Support, Tensioner Bracket	
12	007527-01	Magnet, Thread Retaining	
13	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 16mm, Zinc Plate	
14	006347-01	Blade, Sensor, Interruptor	
15	690439-04	Washer, Flat, M4	
16	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
17	009317-01	Cable, Ground, Pan, 4.75"	
18	690811-38	Washer, Lock, Internal Star, #8	

# Needle Case (2 of 2)

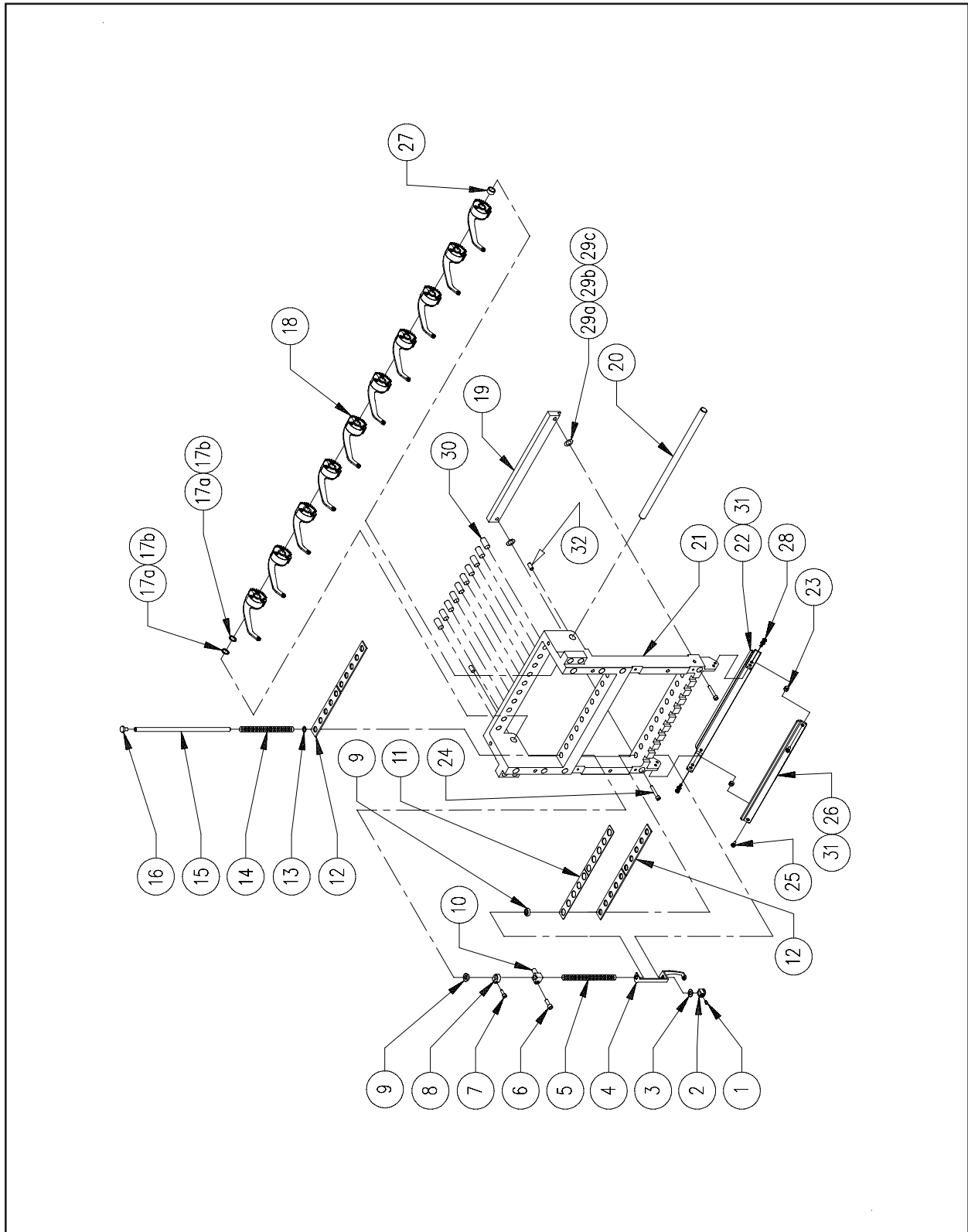


Figure 11

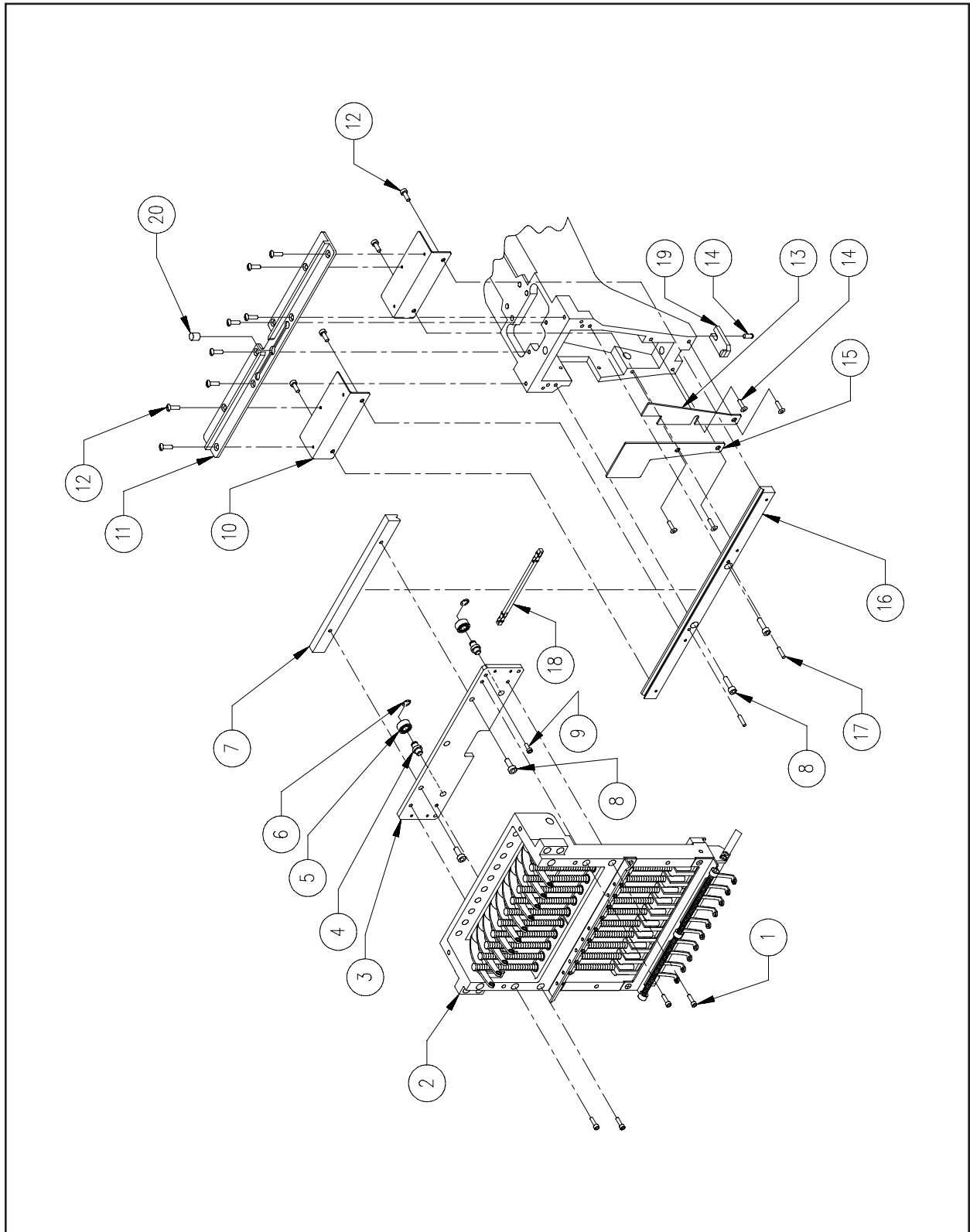
**Needle Case (2 of 2)****Reference Figure 11**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	001828-01	Screw, Set, Needle Clamp	
2	001528-01	Clamp, Needle	
3	007591-01	Damper, Needle Clamp	
4	007924-01	Presser Foot, Assembly	
5	11479	Spring, Presser Foot	
6	001922-08	Screw, Socket Head Cap, M3 x 0.5 x 8mm	
7	001922-10	Screw, Socket Head Cap, M3 x 0.5 x 10mm	
8	001840-01	Clamp, Stop, Needle Bar	
9	005577-01	Damper, Needle Case	
10	007408-01	Stud, Connecting, Needle Bar	
11	007505-01	Shim, Needle Case	
12	007506-01	Felt, Needle Case	
13	005009-01	Washer, Flat, .260" ID x .420" OD x .03" Thick	
14	001537-01	Spring, Holding, Needle Bar	
15	001532-01	Bar, Needle	
16	002637-08	Screw, Socket Head Cap, Low Head, M5 x 0.8 x 8mm	
17a	702876-05	Spacer, Precision, .313" ID x .010" Thick	(Use as Required)
17b	702876-08	Spacer, Precision, .313" ID x .016" Thick	(Use as Required)
18	010360-01	Lever, Take-Up, Assembly	
19	10207	Rail, Guide, Lower	
20	007504-01	Shaft, Take-Up Lever	
21	007501-01	Case, 10 Needle	
22*	008474-01	Bracket, Grabber, Lower, Flared	
23*	002884-01	Spacer, Support, Velcro	
24	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
25	671855-08	Screw, Pan Head Slotted, M3 x 0.5 x 8mm	
26*	008472-01	Bar, Grabber	
27	007518-01	Spacer, Shaft, Take-Up Lever	
28	671855-06	Screw, Pan Head Slotted, M3 x 0.5 x 6mm	
29a	700837-01	Spacer, Shaft, 1/4" ID x .002" Thick	(Use as Required)
29b	700837-02	Spacer, Shaft, 1/4" ID x .004" Thick	(Use as Required)
29c	700837-03	Spacer, Shaft, 1/4" ID x .006" Thick	(Use as Required)
30	662744-08	Pin, Dowel, .25" OD x .50"	
31*	008471-01	Velcro, Wiper, Pile, Flared	
32	001960-06	Screw, Set, Flat Point, M4 x 0.7 x 6mm	

Note: The following can be replaced as a factory built assembly:

\*008491-01 Grabber Bracket/Bar, Assembly

# Needle Case Linear Drive



**Figure 12**

**Needle Case Linear Drive****Reference Figure 12**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 16mm, Zinc Plate	
2	-----	Needle Case	See Pages 10-1 & 11-1
3*	007515-01	Plate, Bearing, Retainer	
4*	007516-01	Stud, Bearing, Retainer	
5	007517-01	Bearing, Radial, 4mm ID x 9mm OD	
6	007562-06	Ring, Retaining	
7	007520-01	V-Rail, Needle Case	
8	010171-12	Screw, Socket Head Cap, M4 x 0.7 x 12mm, Zinc Plate	
9	010171-06	Screw, Socket Head Cap, M4 x 0.7 x 6mm, Zinc Plate	
10	007546-01	Bracket, Support, Take-Up Lever Guide	
11	007507-01	Guide, Take-Up Lever	
12	671855-06	Screw, Pan Head Slotted, M3 x 0.5 x 6mm	
13	007473-01	Cover, Front, Arm, Right	
14	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	
15	007514-01	Cover, Front, Arm, Left	
16	007521-01	V-Rail, Arm	
17	002610-14	Pin, Spring, 3mm	
18	007522-01	Bearing, Cross-Roller	
19	001942-01	Plate, Position, Machined	
20	002821-01	Pad, Reservoir, Felt	

Note: The following can be replaced as a factory built assembly:

\*007558-01 Plate, Retainer, Bearing, Assembly

# Thread Tensioner

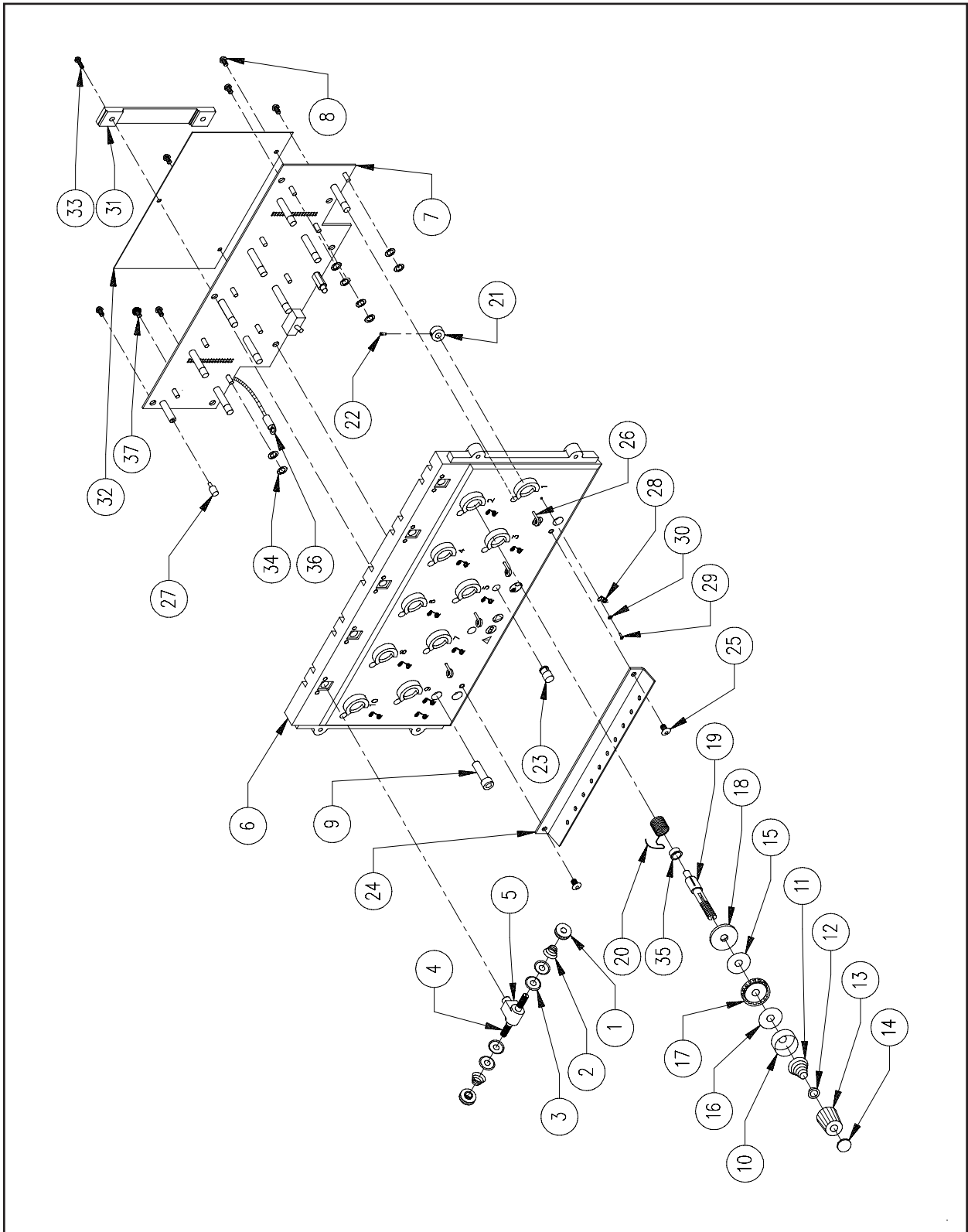


Figure 13



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**Thread Tensioner** **Reference Figure 13**


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Item No.	Part Number	Item Description	Comments
1•	007080-01	Knob, Adjust, Pretensioner, Plastic	
2•	003654-01	Spring, Pretensioner	
3•	005137-01	Disk, Pretensioner	
4•	007531-01	Post, Pretensioner	
5#	007524-01	Bracket, Pretensioner	
6#	009401-01	Bracket, Tensioner	
7#	009415-04	PCB, Thread Break, Assembly	
8#	001924-06	Screw, Cheese Head, Slotted, M4 x 0.7 x 6mm	
9	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
10*	005196-01	Base, Tensioner	
11*	004854-01	Spring, Tensioner, Thread	
12*	005422-01	Cap, Spring	
13*	005197-01	Knob, Tensioner, Black, Assembly	
14#	003560-01	Tab, Tensioner	
15*	005198-02	Pad, Felt, .095" Thick	
16*	005198-01	Pad, Felt, .065" Thick	
17*	006474-01	Disk, Tensioner, Thread, Assembly	
18*	004908-01	Disk, Plastic	
19*	004897-01	Post, Tensioner	
20*	007559-01	Spring, Check, Tensioner, Thread	
21#	007529-01	Collar, Tensioner, Assembly	
22#	001922-10	Screw, Socket Head Cap, M3 x 0.5 x 10mm, Zinc Plate	
23#	010373-01	Cover, LED, Yellow	
24#	008481-01	Guide, Thread, Upper, Assembly	
25#	003509-06	Screw, Button Head Cap, M4 x 0.7 x 6mm	
26#	002897-01	Post, Guide	
27	007659-02	Standoff, M-F, 3/16" Round	
28#	008468-01	Pigtail	
29#	010568-01	Screw, Plastifast, 2-32 x 1/4"	
30#	690034-32	Washer, Flat #2	
31#	010577-02	Clamp, Ribbon Cable, 3.31"	
32#	010620-01	Insulator, Thread Break	
33	001924-10	Screw, Cheese Head Slotted, M4 x 0.7 x 10mm	
34	010917-01	Re-inforcement, Self-Adhesive	
35	011351-01	Bushing, Tensioner	
36#	009317-01	Cable, Ground, Pan, 4.75"	
37#	009863-10	Screw, Pan Head Phillips, ⁂/Star, M4 x 0.7 x 10mm	

Note: The following can be replaced as a factory built assembly:

- \*007547-01 Tensioner, Thread, Main, Black, Assembly
- 007530-01 Pretensioner, Assembly
- #10869 Tensioner, ⁂/Insulator, Assembly  
(includes 007547-01 and 007530-01)

# Arm and Bed

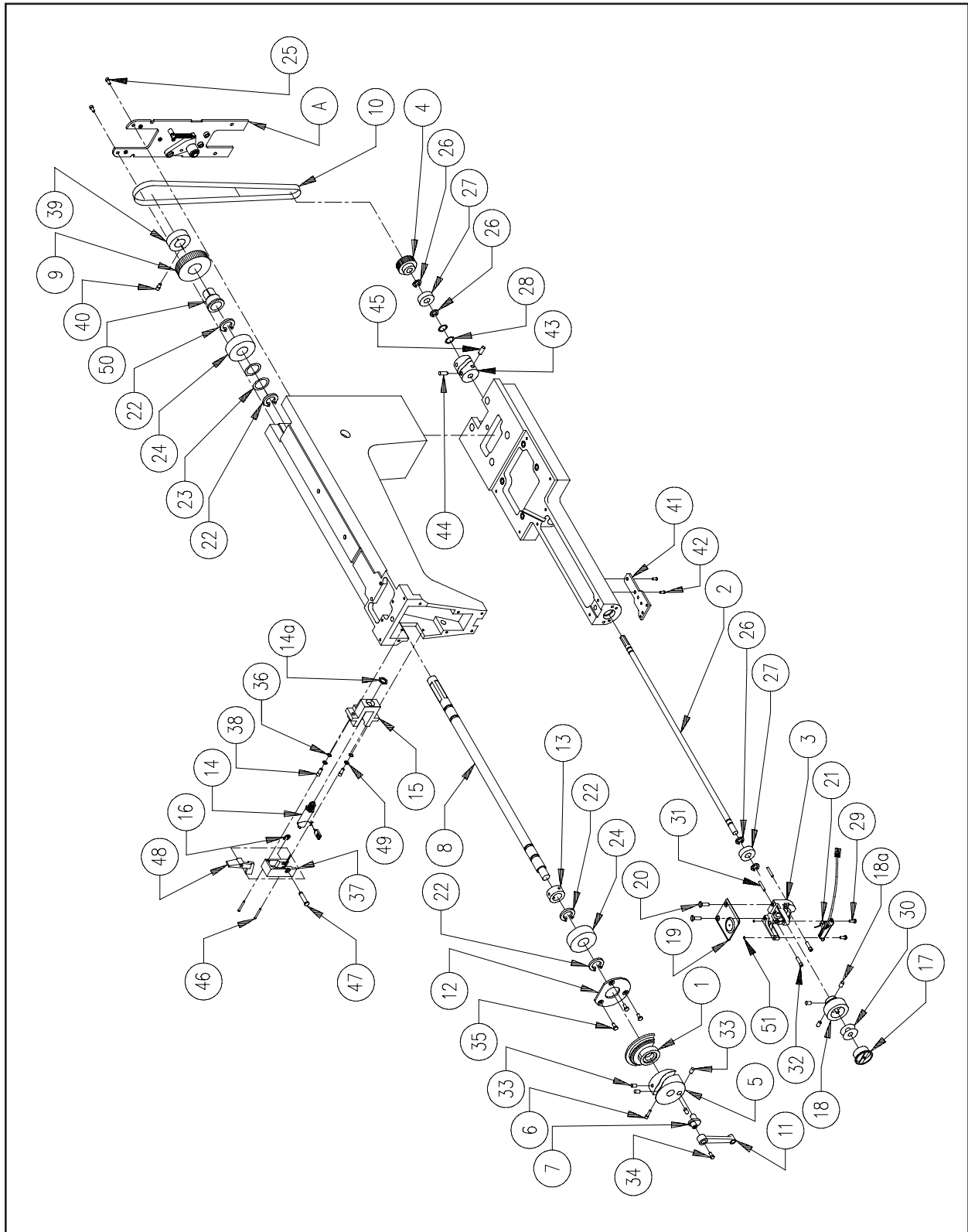


Figure 14

<b>Arm and Bed</b>			<b>Reference Figure 14</b>
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
A	004504-01S	Bobbin Idler	See Page 16-1
1	003539-01	Counterweight, Phase II	
2	003535-01	Shaft, Bobbin, Phase II	
3	10181	Bracket, Needle Plate	
4	001522-01	Pulley, Drive, Bobbin, Bottom, 16T, 1/5P	
5	003545-01	Cam, Drive, Take-Up Lever	
6	003546-01	Screw, Set, Cam	
7	002698-01	Rod, Crank, 90 Deg	
8	003532-01	Shaft, Arm	
9*	005332-01	Pulley, Adjustable, Top, 32T, 1/5P	
10	002809-01	Belt, Timing, 1/5P, 104 Groove, 3/8" Wide	
11	001939-01	Rod, Connecting	
12	003531-01	Plate, Retainer, Bearing, Arm Shaft	
13	004261-01	Collar, Shaft, Headup	
14	008395-01	Solenoid, Jump Stitch	
14a	-----	Nut, Panel	Included in Item #14
15	006561-01	Bracket, Jump Stitch Solenoid	
16•	001955-14	Ring, Retaining, External	
17	004267-01	Case, Bobbin, <sup>wo</sup> /Spring	
18	009000-01	Hook, Rotary, Small Bobbin	
18a	341992-06	Screw, Rotary Hook	
19	10246	Plate, Needle, Pocketed	
20	004643-01	Screw, Needle Plate	
21	010107-01	Sensor, Under Thread Control, Assembly	
22	003533-05	Ring, Retainer, External, Arm Shaft	
23	002697-09	Washer, Wave, 35mm OD	
24	002696-15	Bearing, Ball, Radial, 15mm ID	
25	001926-12	Screw, Flat Head Socket, M4 x 0.7 x 12mm	
26	003534-10	Ring, Retaining, External, Bobbin Shaft	
27	002696-08	Bearing, Ball, Radial, 8mm ID	
28	002697-03	Washer, Wave, 22mm OD	
29	671855-06	Screw, Pan Head Slotted, M3 x 0.5 x 6mm	
30	761002-11	Thread, Bobbin, White	
31	006390-12	Pin, Dowel, 3mm OD x 12mm Long	
32	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 12mm, Zinc Plate	
33	001971-06	Screw, Set, Flat Point, M6 UNF x 6mm	
34	002637-10	Screw, Socket Head Cap, Low Head, M5 x 0.8 x 10mm	
35	001926-12	Screw, Flat Socket, M4 x 0.7 x 12mm	
36	702946-30	Spacer, Shaft, .187" ID x .312" OD x .03" Thick	
37•	006560-01	Bracket, Latch	
38	010171-12	Screw, Socket Head Cap, M4 x 0.7 x 12mm, Zinc Plate	
39	002668-01	Collar, Support, Gear	
40	670038-10	Screw, Socket Head Cap, 10-32 x 5/8"	

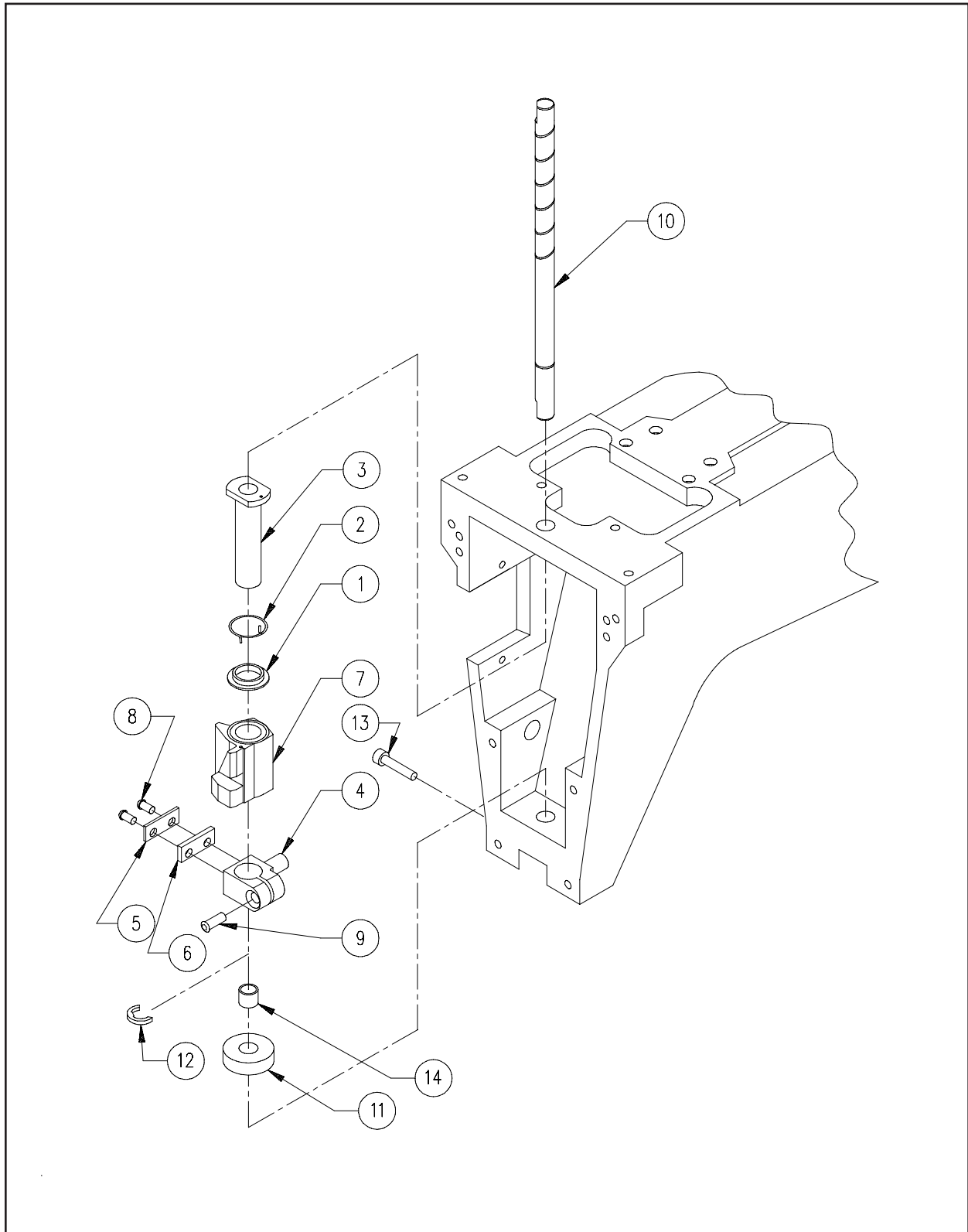
<b>Arm and Bed</b>			<b>Reference Figure 14</b>
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
41	006526-01	Bracket, Picker	
42	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	
43	007257-01	Cam, Trimmer	(#up to s/n 17033)
	10183	Cam, Trimmer	(#s/n 17034 and above)
44	001927-10	Screw, Set, Flat Point, M5 x 0.8 x 10mm	
45	007272-10	Screw, Set, Cone Point, M5 x 0.8 x 10mm	
46	010170-20	Screw, Socket Head Cap, M3 x 0.5 x 20mm, Zinc Plate	
47•	006559-01	Pin, Latch	
48•	002876-21	Latch, Jump Stitch	
49	690427-04	Washer, Lock, Split, M4	
50*	005331-01	Pulley, Hub, Adjustable	
51	006549-03	O-Ring, .187" ID x .06" Thick	

Note: The following can be replaced as a factory built assembly:

- \*005191-01 Pulley, Adjustable, Assembly
  - 007340-01 Bracket, Latch, Jump Stitch, Assembly
- #These serial numbers are for the head only, not the machine.

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# Reciprocator



**Figure 15**

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**Reciprocator** **Reference Figure 15**

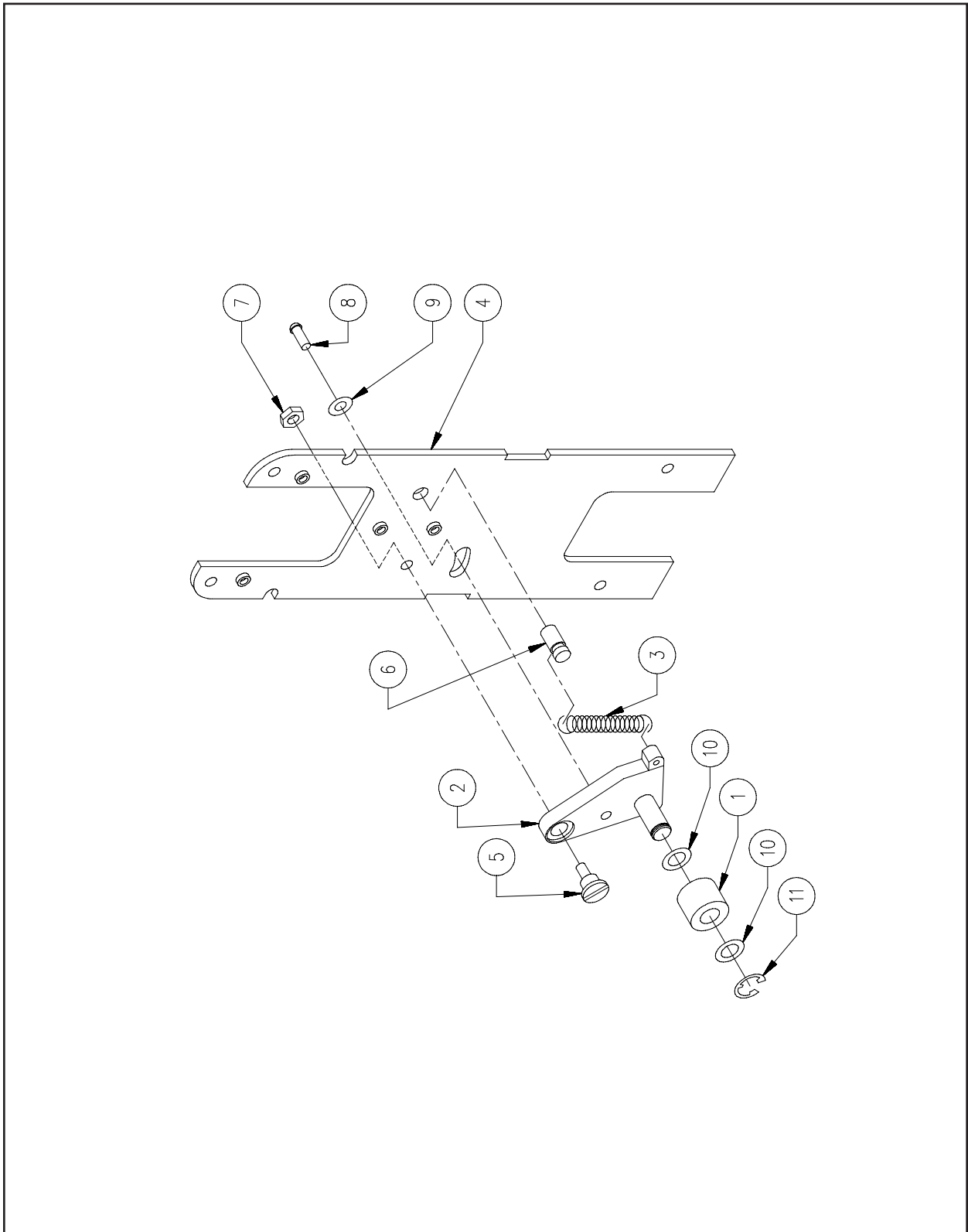

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Item No.	Part Number	Item Description	Comments
1*	007449-01	Bushing, Cradle, Spring	
2*	007448-01	Spring, Jump, Reciprocator	
3*	001865-01	Bushing, Shaft, Needle Bar	
4*	11027	Stud, Connector, Reciprocator	
5*	001842-01	Bracket, Stopper, Steel	
6*	004676-01	Bracket, Stopper, Delrin	
7*	004878-01	Reciprocator	
8	671855-06	Screw, Pan Head Slotted, M3 x 0.5 x 6mm	
9	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
10	11029	Shaft, Guide, Needle Bar	
11	10209	Bearing, Shaft, Guide	
12	001955-18	Ring, Retainer, External, 5/16" ID	
13	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm	
14	10208	Bushing, Bearing, Lower Guide	

Note: The following can be replaced as a factory built assembly:

\*001990-01S Assembly, Reciprocator

# Bobbin Idler



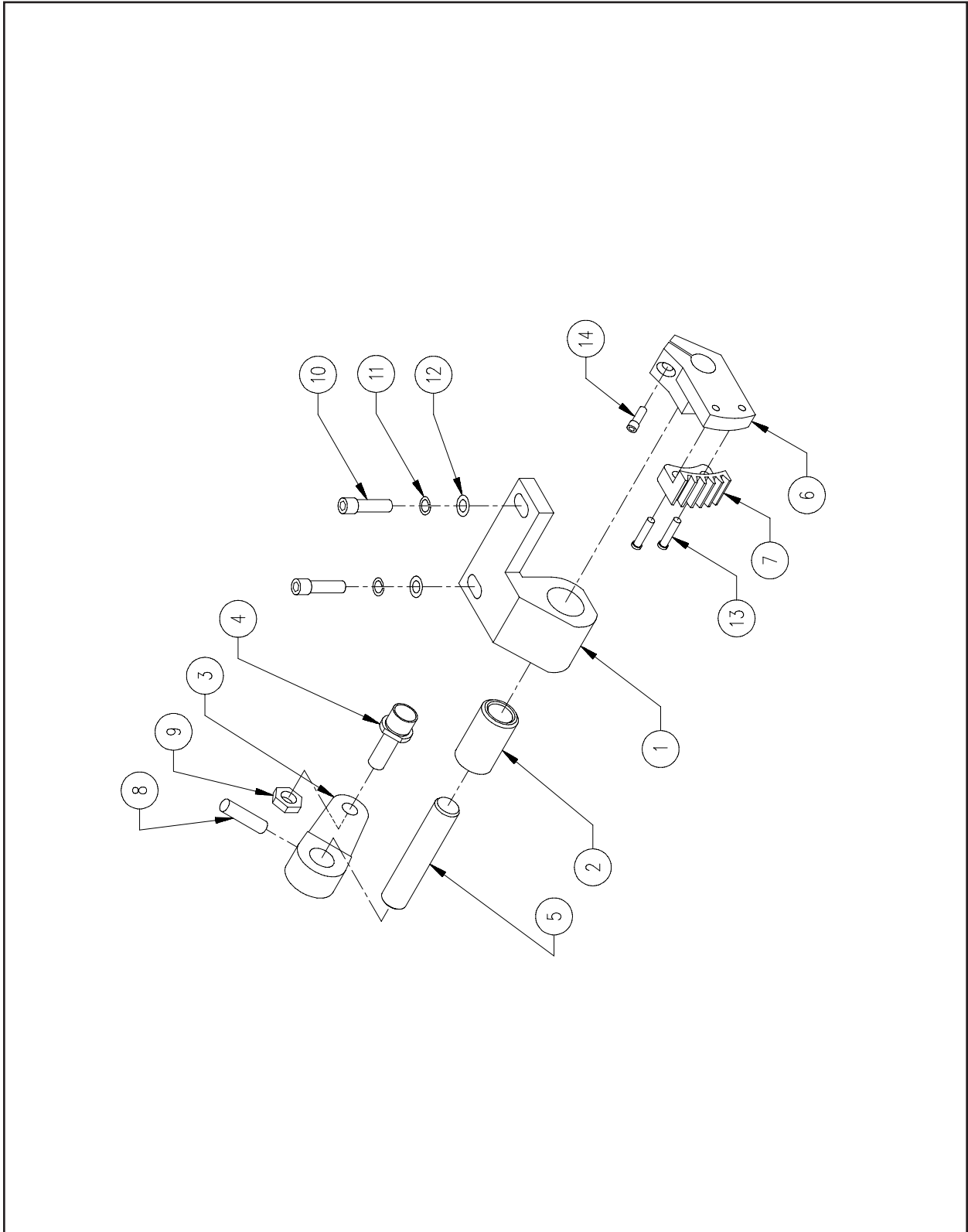
**Figure 16**



**Bobbin Idler****Reference Figure 16**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	003593-01	Roller, Idler	
2	002817-01	Bar, Idler, Assembly	
3	002816-06	Spring, Idler	
4	003668-01	Cover, Rear	
5	003188-01	Screw, Shoulder, M5 x 7mm OD x 0.8mm	
6	660278-01	Stud, Press, 1/4" OD x 1/2"	
7	003543-05	Nut, Jam, Hex, M5	
8	672036-10	Screw, Button Head Cap, M5 x 0.8 x 10mm	
9	690427-05	Washer, Lock, Split, M5	
10	702876-08	Spacer, Shaft, 5/16" ID x .016" Thick	
11	001955-18	Ring, Retainer, External, 5/16" ID	
12	690439-05	Washer, Flat, M5	

# Take-Up Drive Lever



**Figure 17**

**Take-Up Drive Lever****Reference Figure 17**

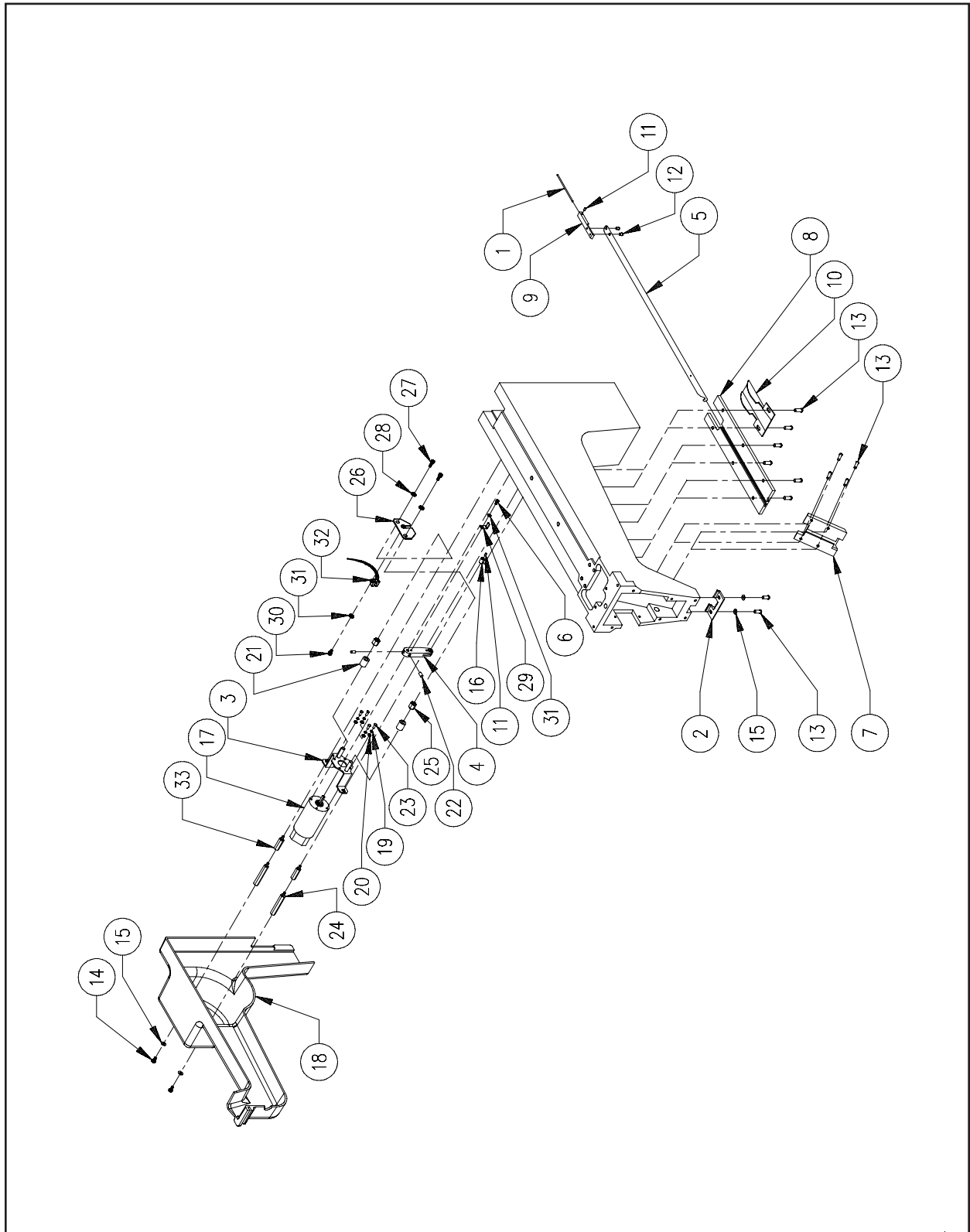
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	003567-01	Base, Drive, Lever, Take-Up, PHS II	
2*	001947-01	Bushing, Base, Drive, Lever, Take-Up	
3•	004821-01	Lever, Drive, Lever, Take-Up	
4	001983-01	Follower, Assembly	
5•	004820-01	Shaft, Drive, Lever, Take-Up	
6	001893-01	Case, Gear, Drive, Lever, Take-Up	
7	001894-01	Gear, Drive, Lever, Take-Up	
8•	660830-10	Pin, Groove, 1/8" OD x 5/8"	
9	003543-05	Nut, Jam, Hex, M5	
10	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 16mm, Zinc Plate	
11	690427-04	Washer, Lock, Split, M4	
12	690439-04	Washer, Flat, M4	
13	671855-06	Screw, Pan Head Slotted, M3 x 0.5 x 6mm	
14	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	

Note:

The following can be replaced as a factory built assembly:

- \*005362-01 Assembly, Bushing, Take-Up Lever
- 004768-01 Lever, Drive, Lever, Take-up, Assembly

# Grabber Motor



**Figure 18**

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**Grabber Motor** **Reference Figure 18**


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<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	003185-01	Rod, Guide	
2	10156	Guide, Grabber	
3	10837	Bracket, Mounting, Grabber Drive	
4	003692-01	Arm, Drive, Grabber	
5	003586-01	Blade, Grabber	
6	003136-06	Screw, Button Head Cap, M3 x 0.5 x 6mm	
7	10157	Cover, Blade, Front	
8	003589-01	Cover, Blade, Top	
9	003590-01	Bracket, Transition	
10	003592-21	Cover, Blade, Rear	
11	001962-03	Screw, Set, Flat Point, M3 x 0.5 x 3mm	
12	670406-02	Screw, Button Head Cap, 4-40 x 1/8"	
13	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	
14	010171-08	Screw, Socket Head Cap, M4 x 0.7 x 8mm, Zinc Plate	
15	690439-04	Washer, Flat, M4	
16	003155-01	Swivel, Wire	
17	10819	Motor/Encoder, Assembly	
18	10326	Cover, Drive, Grabber Motor	
19	690033-36	Washer, Lock, Split, #2	
20	690034-36	Washer, Flat, #2	
21	003176-01	Bumper, Motor Stop	
22	001960-04	Screw, Set, Flat Point, M4 x 0.7 x 4mm	
23	670174-04	Screw, Pan Head Phillips, 6-32 x 1/4"	
24	009894-48	Standoff, M/F, Hex, M4 x 0.7 x 48mm	
25	009893-14	Standoff, F/F, Hex, M5 x 0.8 x 10mm	
26	009816-01	Plate, Mounting, Grabber Home	
27	010172-08	Screw, Socket Head Cap, M5 x 0.8 x 8mm, Zinc Plate	
28	690427-05	Washer, Lock, Split, M5	
29	009817-01	Flag, Home, Grabber	
30	010170-08	Screw, Socket Head Cap, M3 x 0.5 x 8mm, Zinc Plate	
31	690427-03	Washer, Lock, Split, M3	
32	010380-01	Switch, Optical, Assembly	
33	009894-25	Standoff, M/F, Hex, M4 x 0.7 x 25mm	

# Cutter/Picker

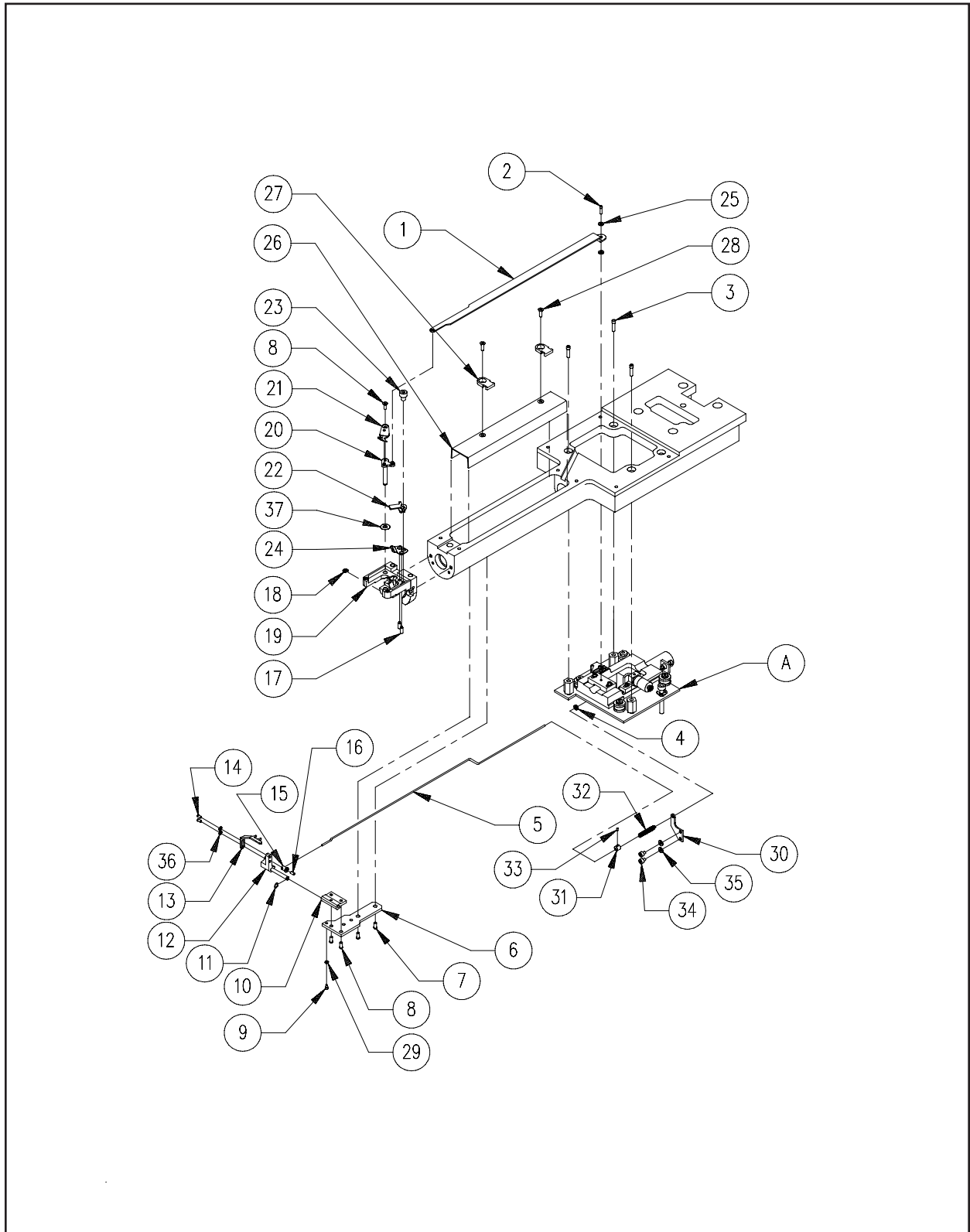


Figure 19

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**Cutter/Picker** **Reference Figure 19**


---

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
A	007265-01	Trimmer Drive	See Page 20-1
1	010609-01	Link, Connecting	
2	003679-01	Screw, Shoulder, 4-40 x 1/8" OD x 1/8"	
3	010172-16	Screw, Socket Head Cap, M5 x 0.8 x 16mm, Zinc Plate	
4	690364-32	Washer, Flat, #2, .032" Thick	
5	010355-01	Link, Connecting, Picker	
6	006526-01	Bracket, Picker	
7	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	
8	007443-06	Screw, Flat Head Socket, M3 x 0.5 x 6mm	
9	010170-10	Screw, Socket Head Cap, M3 x 0.5 x 10mm, Zinc Plate	
10	003511-01	Mount, Picker	
11	001955-08	Ring, Retainer, External, .125"	
12	003141-01	Base, Picker	
13	005615-01	Picker	
14	010170-06	Screw, Socket Head Cap, M3 x 0.5 x 6mm, Zinc Plate	
15	003131-01	Pin, Swivel, Front	
16	001962-03	Screw, Set, Flat Point, M3 x 0.5 x 3mm	
17	10188-06	Screw, Set, Cone Point, M3 x 0.5 x 6mm	
18	001955-15	Clip, Retaining, External, .188" ID	
19	10181	Bracket, Needle Plate	
20	10185	Arm, Drive, Movable Knife	
21	10186	Knife, Movable	
22	10187	Knife, Adjustable	
23	001922-08	Screw, Socket Head Cap, M3 x 0.5 x 8mm	
24	10184	Presser, Under Thread	
25	005098-01	Spacer, Shaft, .128" ID x .317" OD x .03" Thick	
26	006387-01	Bracket, Bed, Cable	
27	004550-01	Mount, Cable Tie	
28	001926-10	Screw, Flat Head Socket, M4 x 0.7 x 10mm	
29	010178-03	Nut, Hex, M3	
30	008465-01	Bracket, Spring, Mount	
31	008467-01	Collar, Picker	
32	010892-01	Spring, Picker, Front	
33	003123-03	Screw, Set, Cup Point, M3 x 0.5 x 3mm	
34	010170-06	Screw, Socket Head Cap, M3 x 0.5 x 6mm, Zinc Plate	
35	690427-03	Washer, Lock, Split, M3	
36	690811-34	Washer, Internal Star, #4	
37	11481	Washer, Stainless Steel	(see note)

Note: minimum of 1 required, up to four can be used

# Trimmer Drive

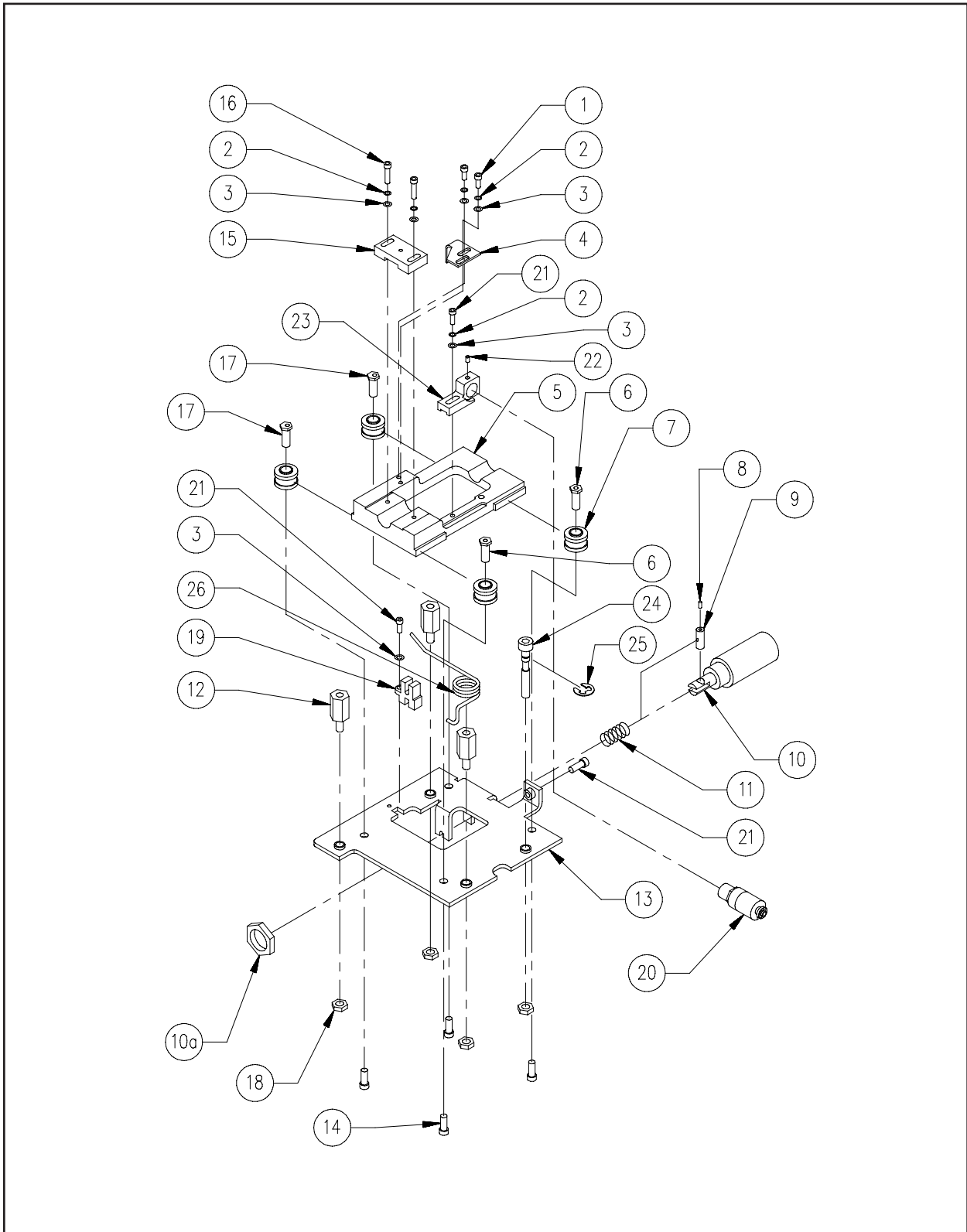


Figure 20



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**Trimmer Drive** **Reference Figure 20**


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<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	010170-06	Screw, Socket Head Cap, M3 x 0.5 x 6mm, Zinc Plate	
2	690427-03	Washer, Lock, Split, M3	
3	690439-03	Washer, Flat, M3	
4	010693-01	Bracket, Switch, Adjusting	
5	007258-01	Frame, Movable, Machined	
6	005661-01	Shaft, Roller, Movable Frame	
7	005669-01	Roller, Movable, Frame	
8	001962-06	Screw, Set, Flat Point, M3 x 0.5 x 6mm	
9	003627-01	Clamp, Swivel, Picker	
10*	007273-01	Picker, Solenoid, Assembly	
10a	-----	Nut, Panel, Solenoid	(Included with Item 10)
11	003686-01	Spring, Return, Solenoid	
12	004746-01	Standoff, 10mm Hex, M-F, M5 x 0.8 x 16mm	
13	007259-01	Bracket, Solenoid, Mounting	
14	670174-08	Screw, Pan Head Phillips, 6-32 x 1/2 "	
15	005609-01	Plate, Link Adjusting	
16	010170-14	Screw, Socket Head Cap, M3 x 0.5 x 14mm, Zinc Plate	
17	005661-02	Shaft, Roller, Movable Frame	
18	680430-05	Nut, Hex, M5	
19*	007264-01	Switch, Optical, Assembly	
20*	007262-01	Solenoid, Trimmer, Assembly	
21	010170-10	Screw, Socket Head Cap, M3 x 0.5 x 10mm, Zinc Plate	
22	001962-03	Screw, Set, Flat Point, M3 x 0.5 x 3mm	
23	007255-01	Mount, Solenoid, Trimmer	
24	007256-01	Bolt, Adjuster, Trimmer	
25	001955-15	Ring, Retaining, External, .188 "	
26	009202-01	Spring, Trimmer Home	

Note: The following can be replaced as a factory built assembly:

\*007261-01 Trimmer, Picker, Solenoid, Opto, Assembly

# Electronics Cage (1 of 2)

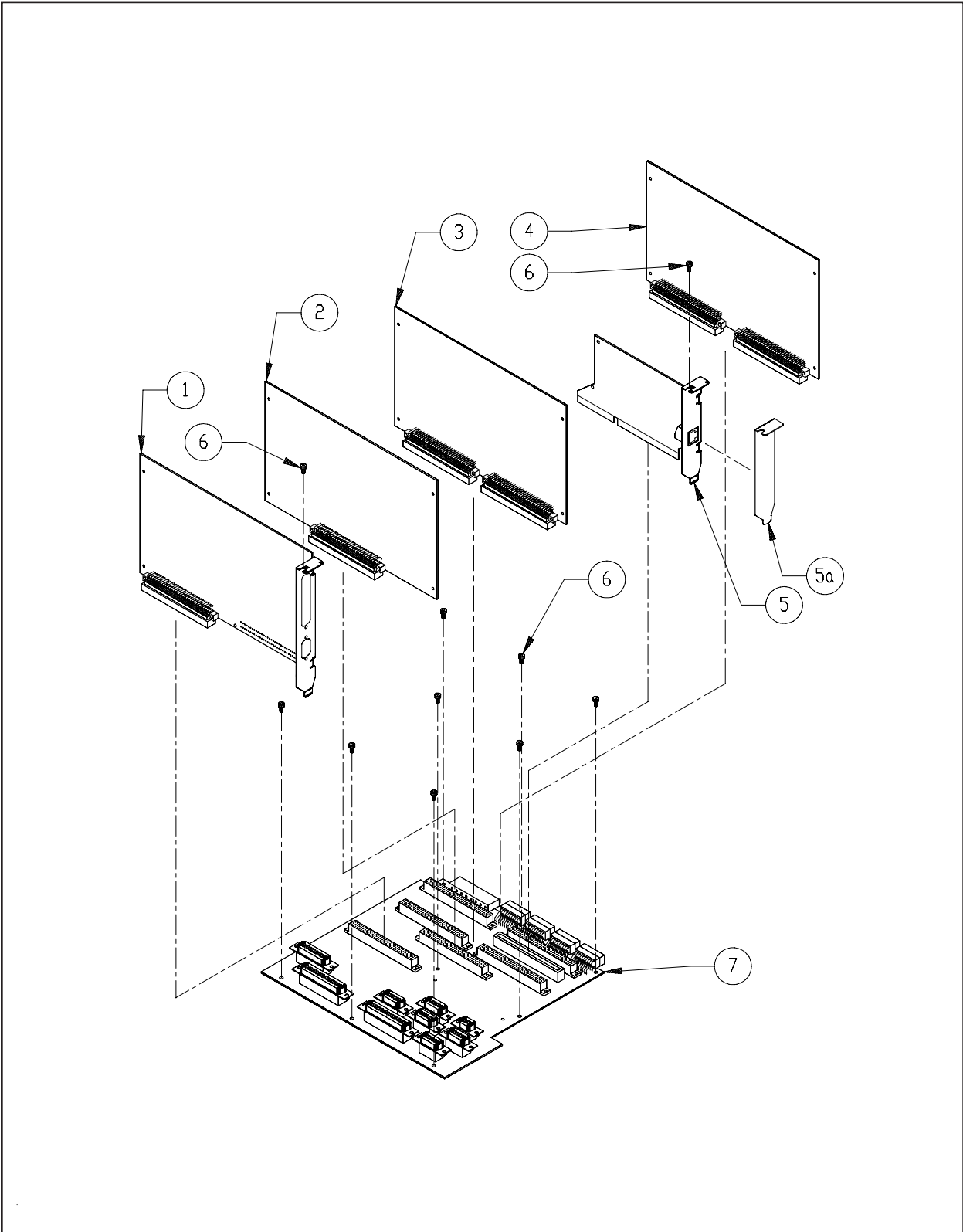


Figure 21

**Electronics Cage (1 of 2)****Reference Figure 21**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	009419-01	PCB, Motor Driver, Assembly	
2*	009846-05	PCB, LV Drivers, Assembly	
3*	009407-06	PCB, Interface, Assembly	
4*	12754-02	Assembly, CPU/TI, EMT, w/Prog. Chips installed	
5	010192-01	PCB, Network, Intel, Pro 10	(Option)
5a*	010657-01	Bracket, Blank, PC	(used if item 5 not installed)
6*	009862-10	Screw, Pan Head Phillips, w/Star, M3 x 0.5 x 10mm	
7*	10716	PCB, Backplane, Assembly	

Note:

\*Items 1-4 and 5a-7 on this page and items 1-6, 10 and 11 on page 22-2 can be replaced as a factory built assembly:  
10661 Card Cage, EMT, Assembly

# Electronics Cage (2 of 2)

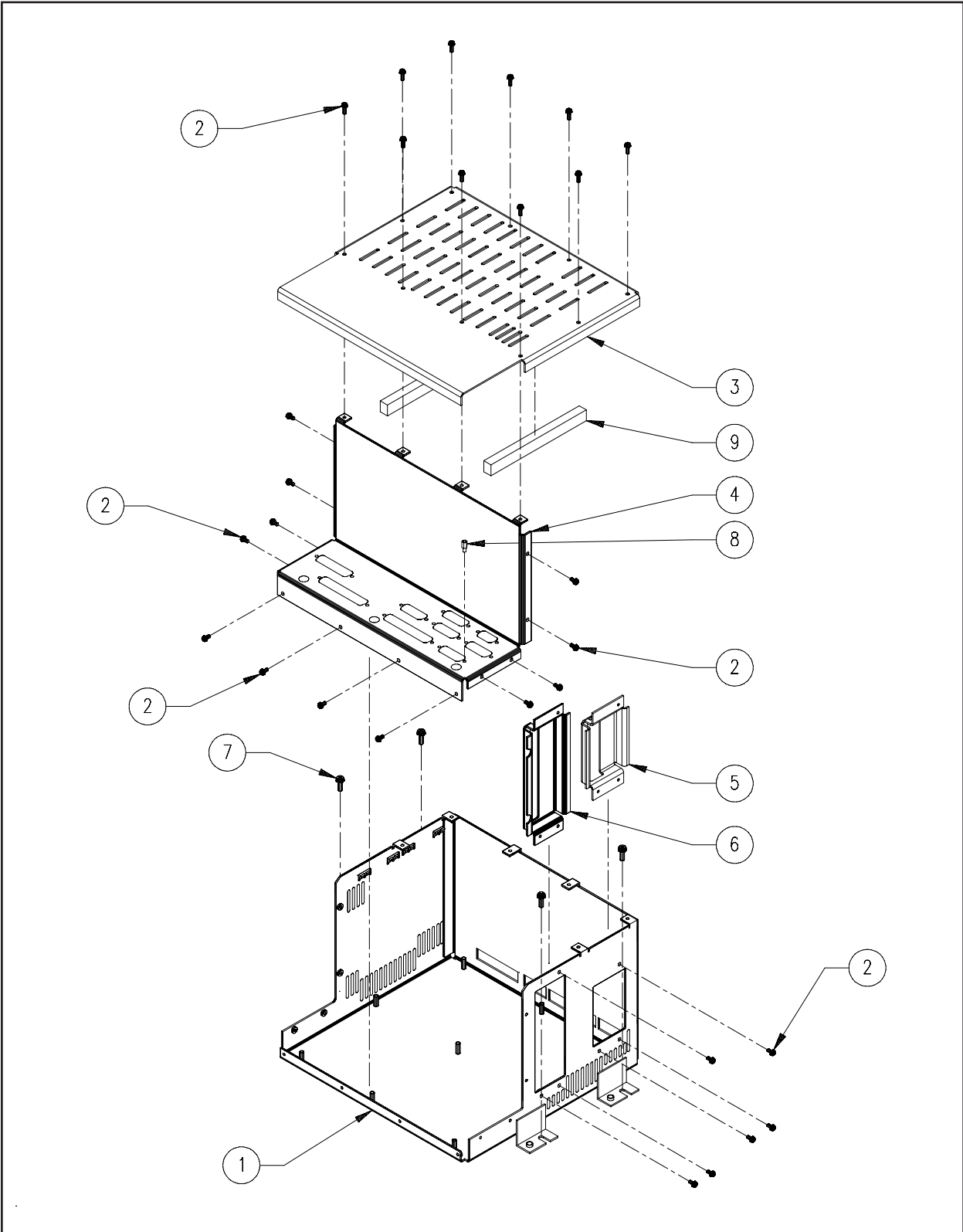


Figure 22

**Electronics Cage (2 of 2)****Reference Figure 22**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	10230	Card Cage, Bottom Cover	
2*	009862-06	Screw, Pan Head Phillips, <sup>w</sup> /Star, M3 x 0.5 x 6mm	
3*	009833-01	Card Cage, Top Cover	
4*	009848-01	Card Cage, Front Cover, Single Head	
5*	009837-01	Bracket, Ethernet Card Connector	
6*	009836-01	Bracket, Motor Board Connector	
7	11057	Screw, Pan Head Phillips, <sup>w</sup> /Star, M5 x 0.8 x 12mm, Zinc Plate	
8*	000609-03	Screwlock, 4-40 ID x 5/16"	(x18)
9*	010545-01	Seal, Rubber, 3/8" x 1/2"	

Note: \*Items 1-6, 8 and 9 on this page and items 1-4 and 5a-7 on page 21-2 can be replaced as a factory built assembly:  
10661 Card Cage, EMT, Assembly

# Power Distribution

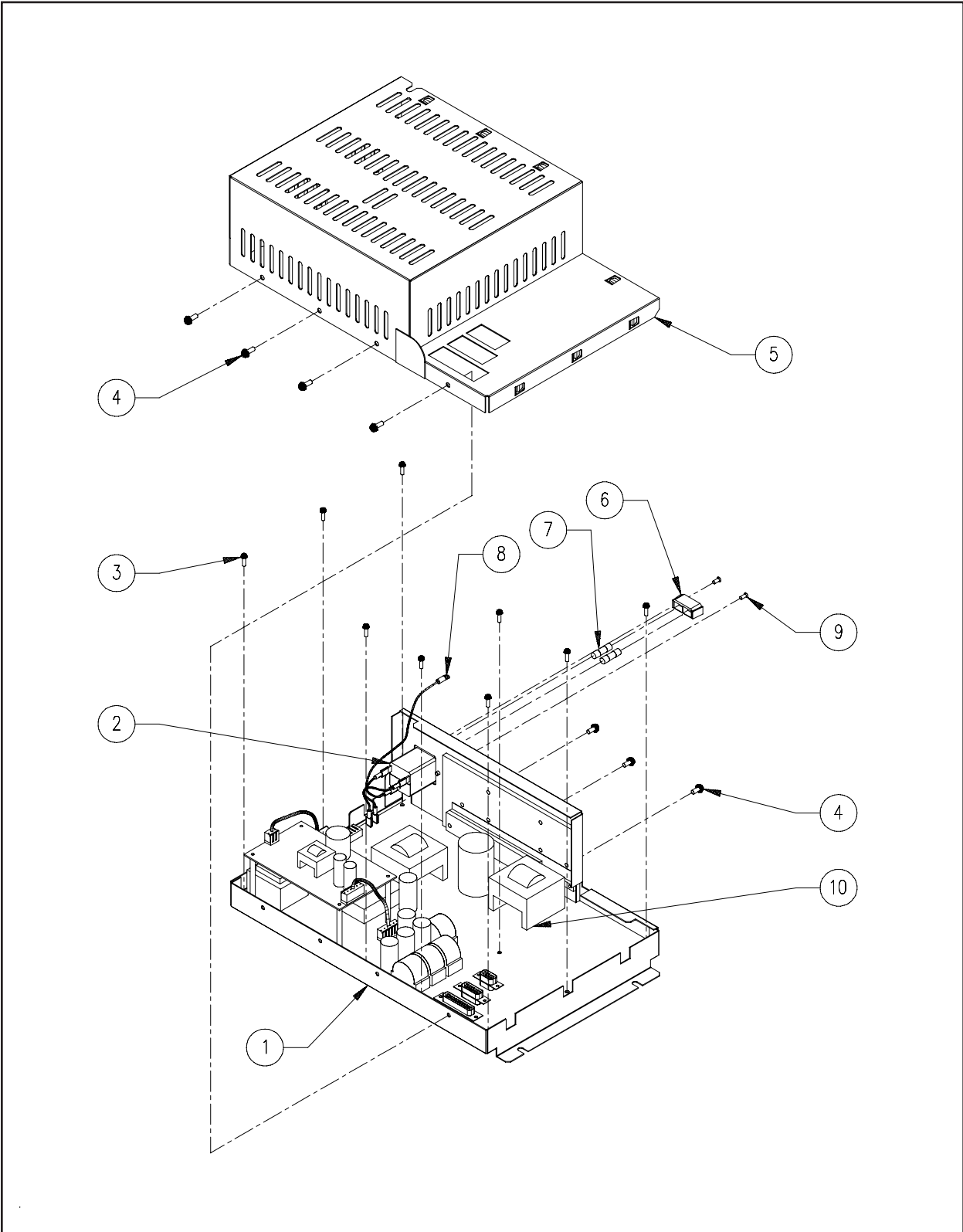


Figure 23

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**Power Distribution** **Reference Figure 23**


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<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	10274	Base, Power Supply	
2*	010682-01	Power Entry Module, Filtered, 6A	
3*	009862-10	Screw, Pan Head Phillips, w/Star, M3 x 0.5 x 10mm	
4*	009863-08	Screw, Pan Head Phillips, w/Star, M4 x 0.5 x 8mm	
5*	10273-01	Cover, Power Supply	
6*	009090-01	Holder, Fuse	
7*	010162-05	Fuse, 5A, TD	
8*	10307-01	Harness, Power Entry, EMT 10	
9*	001935-06	Screw, Flat Head Phillips, M3 x 0.5 x 6mm	
10*	10033-04	PCB, Assy, Universal Power Supply PCB, EMT10	

Note: The following can be replaced as a factory built assembly:

\*10512-02 Power Supply, Universal, Assy

# X/Y Drive (1 of 7)

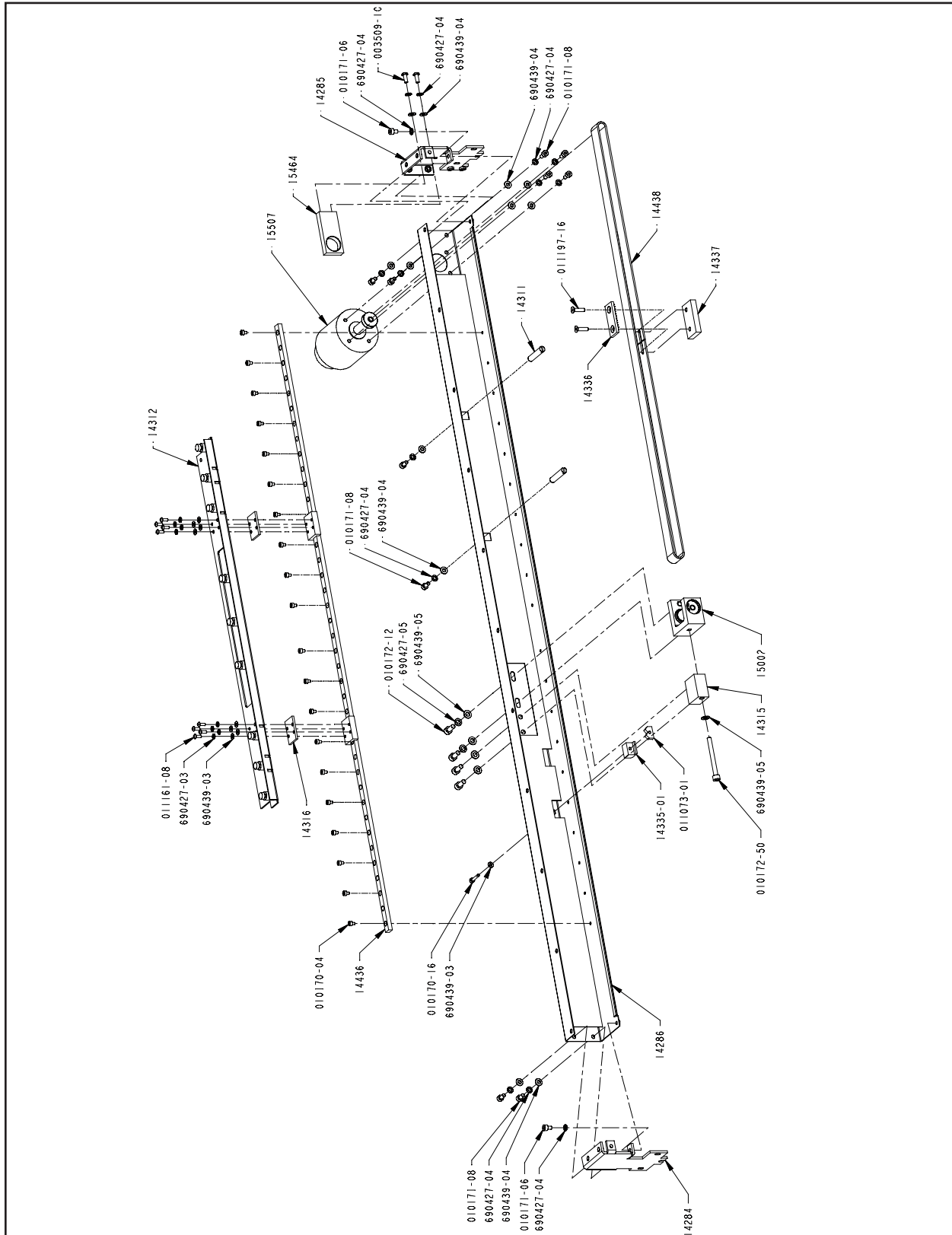


Figure 24



**X/Y Drive (1 of 7)****Reference Figure 24**

<b>Part Number.</b>	<b>Qty.</b>	<b>Item Description</b>	<b>Comments</b>
14284	1	Bracket, Left End, Beam Support	
14285	1	Bracket, Right End, Beam Support	
14286	1	X-Beam, Steel	
14311	2	Bolt, Support	
14312	1	Carriage, X-Beam	
14315	1	Block, Tensioner	
14316	2	Spacer, Linear Carriage	
14336	1	Clamp, Top, Belt, X-Drive	
14337	1	Clamp, Bottom, Belt, X-Drive	
14436	1	Linear Rail, Size 9, 800MM L, M3	
14438	1	Belt, X-Drive, AT3, 17mm Wide X 1160mm Long	
15002	1	Tensioner, X-Drive, Assembly	
15464	1	BLOCK, BEARING, MOTOR, X-AXIS	
15507	1	Motor, Servo, X-Axis, Assembly	
003509-01	2	Screw, Button Head Socket, M4 x 0.7 x 10mm	
010170-04	20	Screw, M3 x 0.5 X 4mm Socket Head Cap, Zinc Plate	
010170-16	1	Screw, M3 x 0.5 X 16mm Socket Head Cap, Zinc Plate	
010171-06	2	Screw, M4 x 0.7 X 6mm Socket Head Cap, Zinc Plate	
010171-08	10	Screw, M4 x 0.7 X 8mm Socket Head Cap, Zinc Plate	
010172-12	4	Screw, M4 x 0.8 X 12mm Socket Head Cap, Zinc Plate	
010172-50	1	Screw, M5 x 0.8 X 50mm Socket Head Cap, Zinc Plate	
011073-01	1	Sensor, Optical, Switch, Assembly	
011161-08	8	Screw, M3 x .5 x 8MM, Button Head Cap, Zinc Plate	
011197-16	2	Screw, Flat Head Socket, M4 x 0.7 x 16mm	
690427-03	8	Washer, Lock, Split, M3	
690427-04	14	Washer, Lock, Split, M4	
690427-05	2	Washer, Lock, Split, M5	
690439-03	9	Washer, Flat, M3	
690439-04	12	Washer, Flat, M4	
690439-05	5	Washer, Flat, M5	

# X/Y Drive (2 of 7)

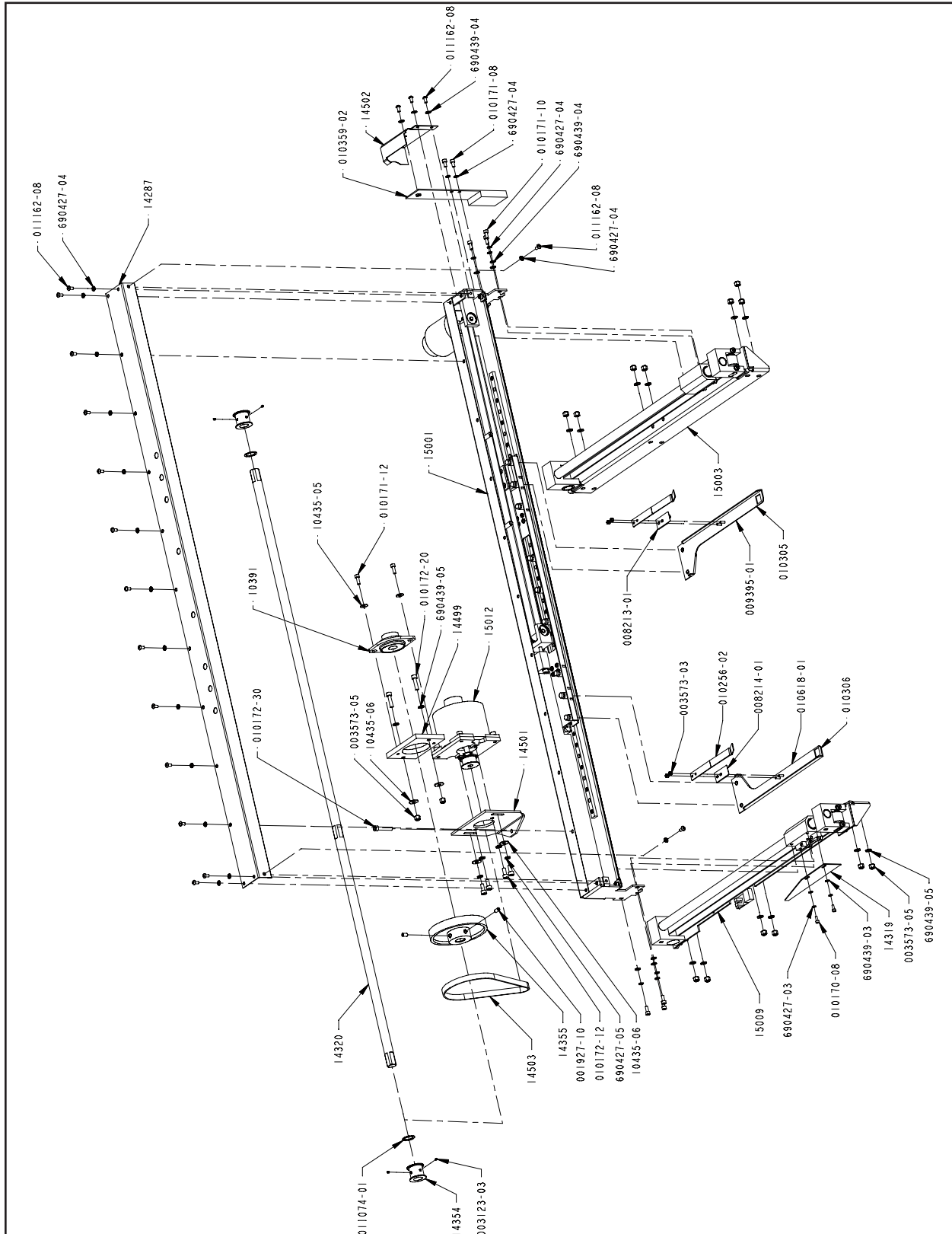


Figure 25

**X/Y Drive (2 of 7)****Reference Figure 24**

<b>Part Number.</b>	<b>Qty.</b>	<b>Item Description</b>	<b>Comments</b>
010305*	1	Bracket, Tubular, Right, Assembly	
010306**	1	Bracket, Tubular, Left, Assembly	
10391	1	Bearing, Flanged Housing, 15mm ID	
14287	1	Cover, X-Beam	
14319	1	Flag, Y-Home	
14320	1	Shaft, Y-Drive	
14354	2	Pulley, Drive, Y-Drive	
14355	1	Pulley, Main, Y-Drive	
14499	1	Plate, Interface, Flanged Bearing	
14501	1	Plate, Tensioner, Y-Motor	
14502	1	Cover, X-Motor/PCB	
14503	1	Belt, Y-Motor, 82T, 1/5P XL, 9.5MM Wide	
15001	1	X-Beam, X/Y Drive, EMT10T F1, Assembly	
15003	1	Y-Drive, Right, X/Y Drive, EMT10T F1, Assembly	
15009	1	Y-Drive, Left, X/Y Drive, EMT10T F1, Assembly	
15012	1	Motor, Y-Axis, Assembly	
001927-10	2	Screw, Set, Skt, Flt Pt, M5 x .8 x 10MM	
003123-03	4	Screw, Set, Cup Point, M3 x 0.5 x 3MM	
003573-05	15	Nut, Nylock, M5 x 0.8	
010170-08	2	Screw, M3 x 0.5 X 8mm Socket Head Cap, Zinc Plate	
010171-08	2	Screw, M4 x 0.7 X 8mm Socket Head Cap, Zinc Plate	
010171-10	6	Screw, M4 x 0.7 X 10mm Socket Head Cap, Zinc Plate	
010171-12	2	Screw, M4 x 0.7 X 12mm Socket Head Cap, Zinc Plate	
010172-12	4	Screw, M4 x 0.8 X 12mm Socket Head Cap, Zinc Plate	
010172-20	2	Screw, M5 x 0.8 X 20mm Socket Head Cap, Zinc Plate	
010172-30	1	Screw, M5 x 0.8 X 30mm Socket Head Cap, Zinc Plate	
010359-02	1	PCB, X-Beam/Rack, Assembly	
011074-01	2	Washer, Nylon, .600 ID, .812 OD, .031 THK	
011162-08	18	Screw, M4 x .7 x 8MM, Button Head Cap, Zinc Plate	
10435-05	2	Washer, Fender, 4.3 x 12 x 1mm	
10435-06	4	Washer, Fender, 5.3 x 15 x 1.2mm	
690427-03	2	Washer, Lock, Split, M3	
690427-04	23	Washer, Lock, Split, M4	
690427-05	2	Washer, Lock, Split, M5	
690439-03	2	Washer, Flat, M3	
690439-04	9	Washer, Flat, M4	
690439-05	16	Washer, Flat, M5	

Note:

* 009395-01	1	Bracket, Tubular Frame, Right
008213-01	1	Locator, Right
010256-02	1	Clip, Spring, Tubular
003573-03	2	Nut, Nylock, M3
** 010618-01	1	Bracket, Tubular Frame, Left
008214-01	1	Locator, Left
010256-02	1	Clip, Spring, Tubular
003573-03	2	Nut, Nylock, M3

# X/Y Drive (3 of 7)

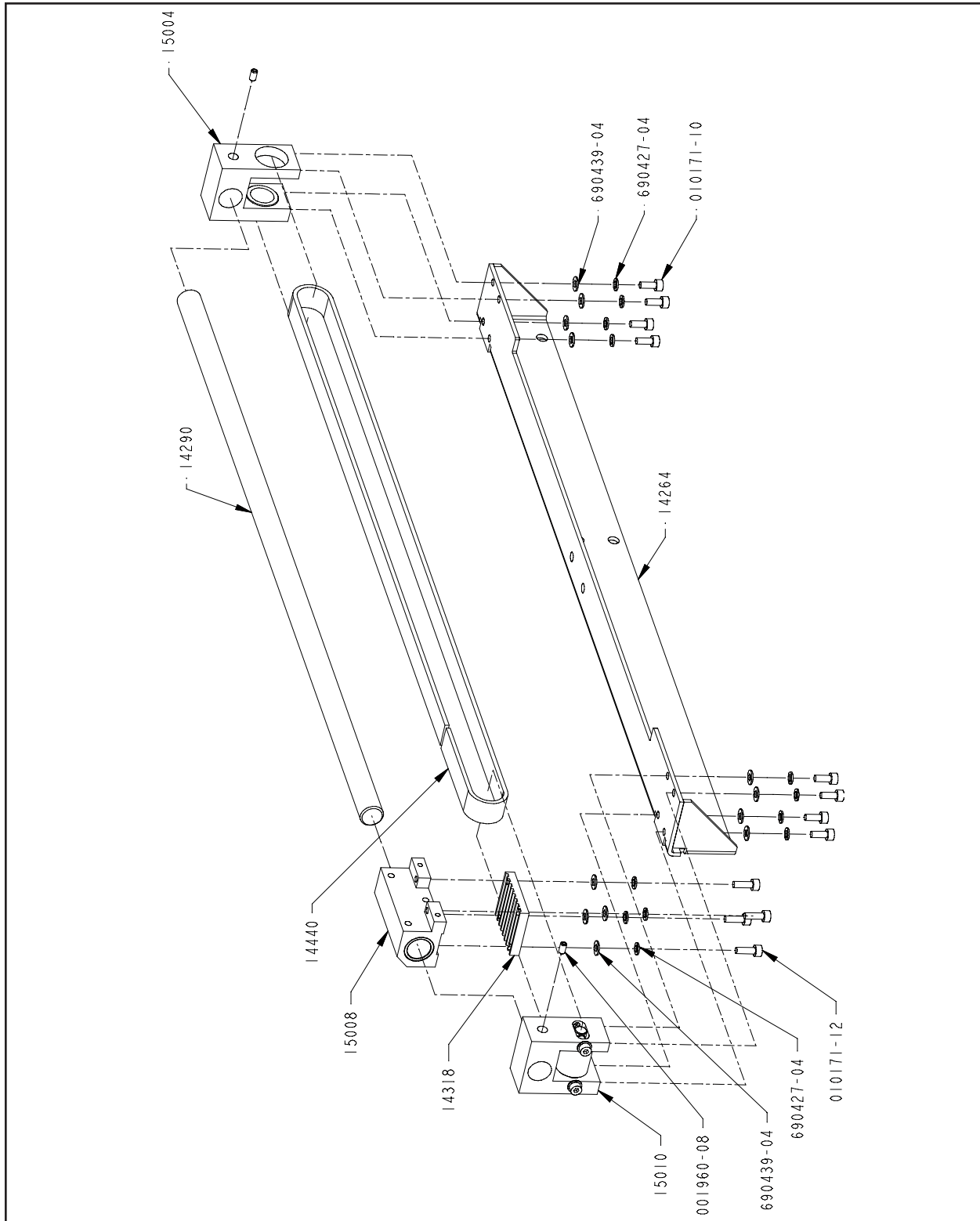


Figure 26

**X/Y Drive (3 of 7)****Reference Figure 24**

<b>Part Number.</b>	<b>Qty.</b>	<b>Item Description</b>	<b>Comments</b>
14264	1	Bracket, Right, Mounting	
14290	1	Shaft, Y-Rail	
14318	1	Clamp, Belt, Y-Drive	
14440	1	Belt, Y-Drive, AT5, 16MM Wide X 1060MM Long	
15004	1	Block, Y-Drive, Assembly	
15008	1	Block, Bearing, Y-Rail, Assembly	
15010	1	Idler, Block, Y-Drive, Right, Assembly	
001960-08	2	Screw, Set, Flat Point, M4 x 0.7 x 8mm	
010171-10	8	Screw, M4 x 0.7 X 10mm Socket Head Cap, Zinc Plate	
010171-12	4	Screw, M4 x 0.7 X 12mm Socket Head Cap, Zinc Plate	
690427-04	12	Washer, Lock, Split, M4	
690439-04	12	Washer, Flat, M4	

# X/Y Drive (4 of 7)

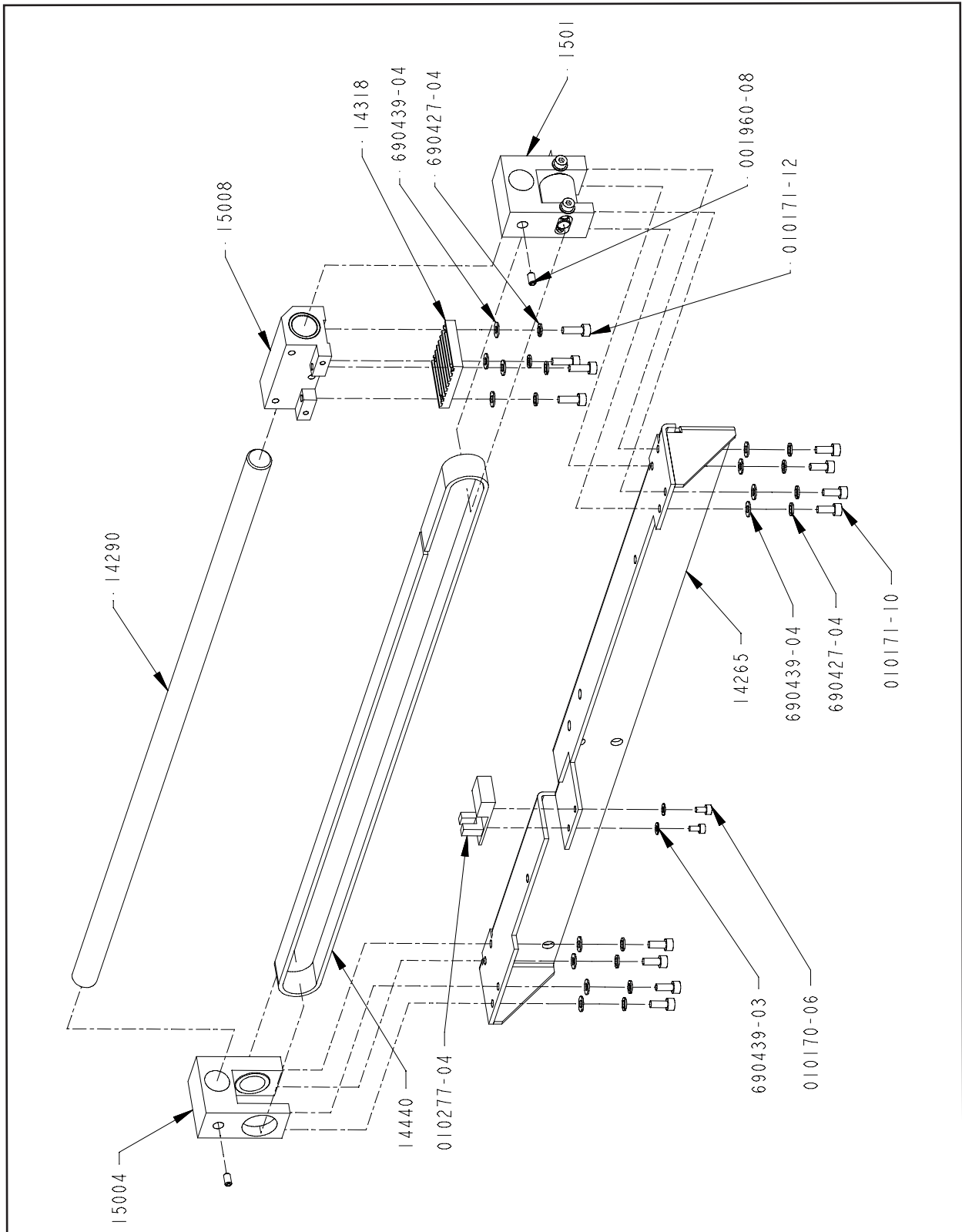
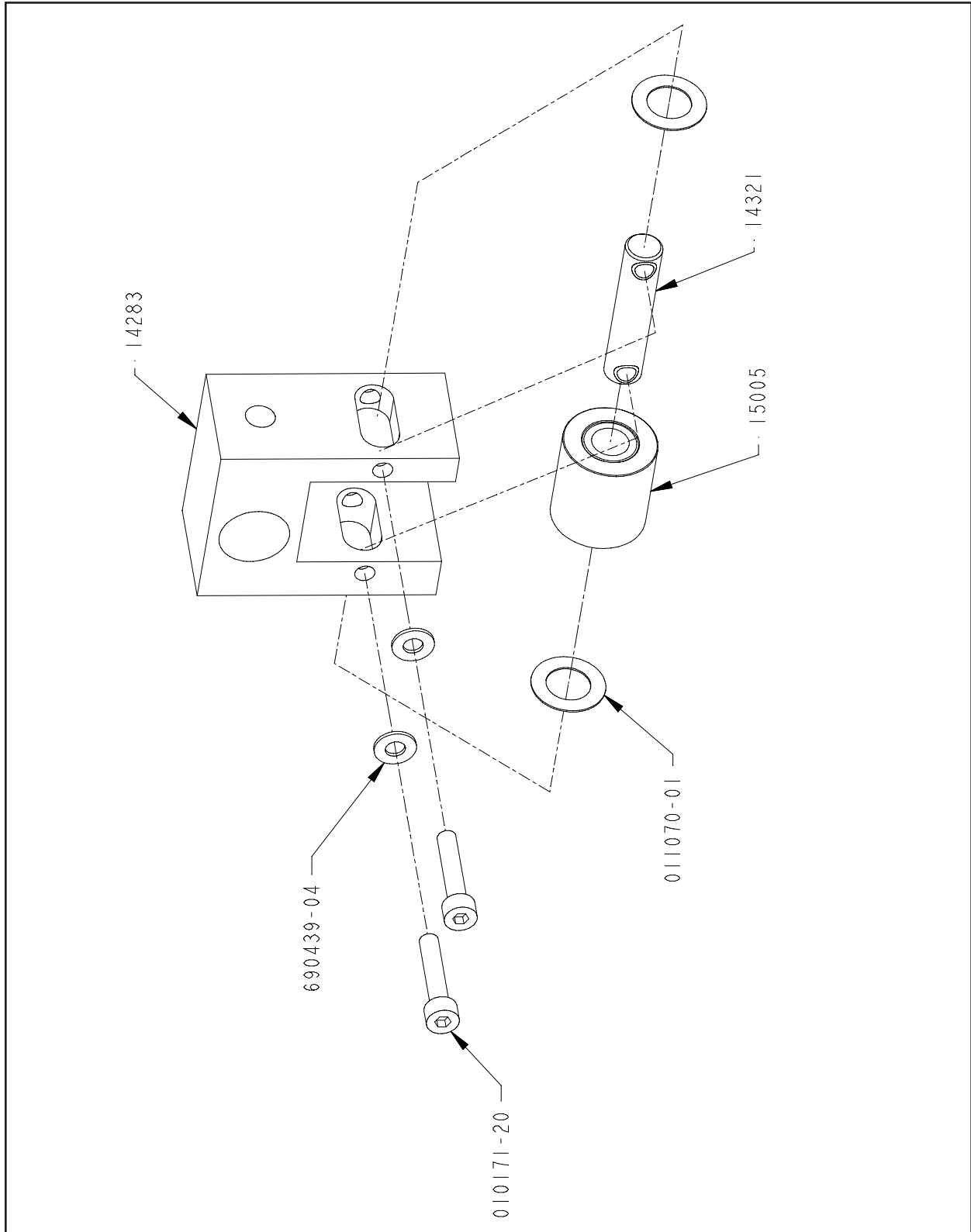


Figure 27

<b>X/Y Drive (4 of 7)</b>			<b>Reference Figure 24</b>
<b>Part Number.</b>	<b>Qty.</b>	<b>Item Description</b>	<b>Comments</b>
14265	1	Bracket, Left, Mounting	
14290	1	Shaft, Y-Rail	
14318	1	Clamp, Belt, Y-Drive	
14440	1	Belt, Y-Drive, AT5, 16MM Wide X 1060MM Long	
15004	1	Block, Y-Drive, Assembly	
15008	1	Block, Bearing, Y-Rail, Assembly	
15011	1	Idler, Block, Y-Drive, Left, Assembly	
001960-08	2	Screw, Set, Flat Point, M4 x 0.7 x 8mm	
010170-06	2	Screw, M3 x 0.5 X 6mm Socket Head Cap, Zinc Plate	
010171-10	8	Screw, M4 x 0.7 X 10mm Socket Head Cap, Zinc Plate	
010171-12	4	Screw, M4 x 0.7 X 12mm Socket Head Cap, Zinc Plate	
010277-04	1	PCB, Y-Home, Assembly	
690427-04	12	Washer, Lock, Split, M4	
690439-03	2	Washer, Flat, M3	
690439-04	12	Washer, Flat, M4	

# X/Y Drive (5 of 7)



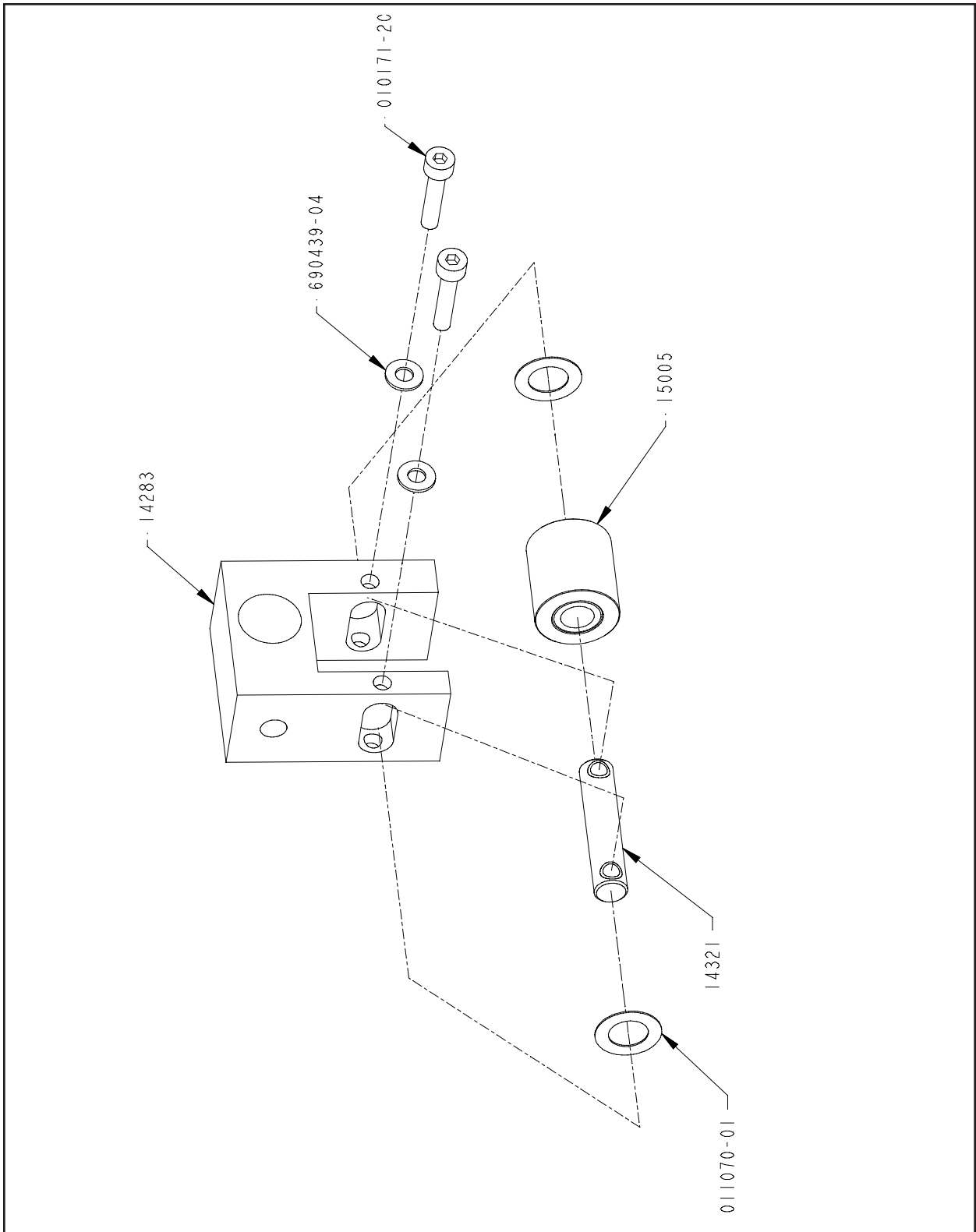
**Figure 28**



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<b>X/Y Drive (5 of 7)</b>			<b>Reference Figure 24</b>
<b>Part Number.</b>	<b>Qty.</b>	<b>Item Description</b>	<b>Comments</b>
14283	1	Block, Return, Y-Drive	
14321	1	Shaft, Return	
15005	1	Pulley, Idler, Y-Drive, Assembly	
010171-20	2	Screw, M4 x 0.7 X 20mm Socket Head Cap, Zinc Plate	
011070-01	2	Washer, .625 OD x .375 ID x .015 THK, Nylon	
690439-04	2	Washer, Flat, M4	

# X/Y Drive (6 of 7)

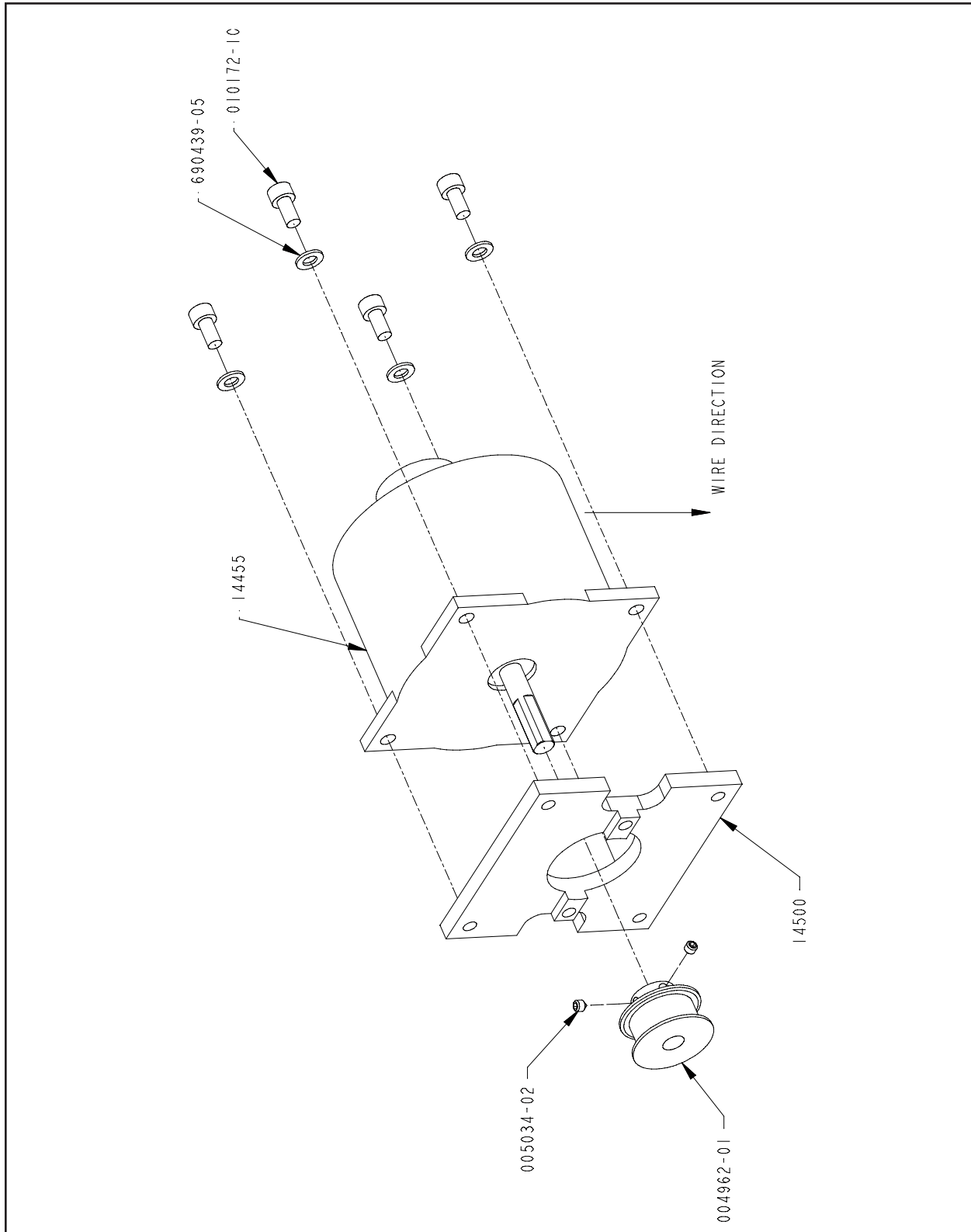


**Figure 29**

**X/Y Drive (6 of 7)****Reference Figure 24**

<b>Part Number.</b>	<b>Qty.</b>	<b>Item Description</b>	<b>Comments</b>
14283	1	Block, Return, Y-Drive	
14321	1	Shaft, Return	
15005	1	Pulley, Idler, Y-Drive, Assembly	
010171-20	2	Screw, M4 x 0.7 X 20mm Socket Head Cap, Zinc Plate	
011070-01	2	Washer, .625 OD x .375 ID x .015 THK, Nylon	
690439-04	2	Washer, Flat, M4	

# X/Y Drive (7 of 7)



**Figure 30**

**X/Y Drive (7 of 7)****Reference Figure 24**

<b>Part Number.</b>	<b>Qty.</b>	<b>Item Description</b>	<b>Comments</b>
14455	1	Motor, Servo, Y-Axis	
14500	1	Plate, Interface, Y-Motor	
004962-01	1	Pulley, 5.08 MM Pitch, 15 Groove	
005034-02	2	Screw, Set, Socket, Cup Point, M4 x .7 x 4MM	
010172-10	4	Screw, M5 x 0.8 X 10mm Socket Head Cap, Zinc Plate	
690439-05	4	Washer, Flat, M5	

# Z-Drive Encoder

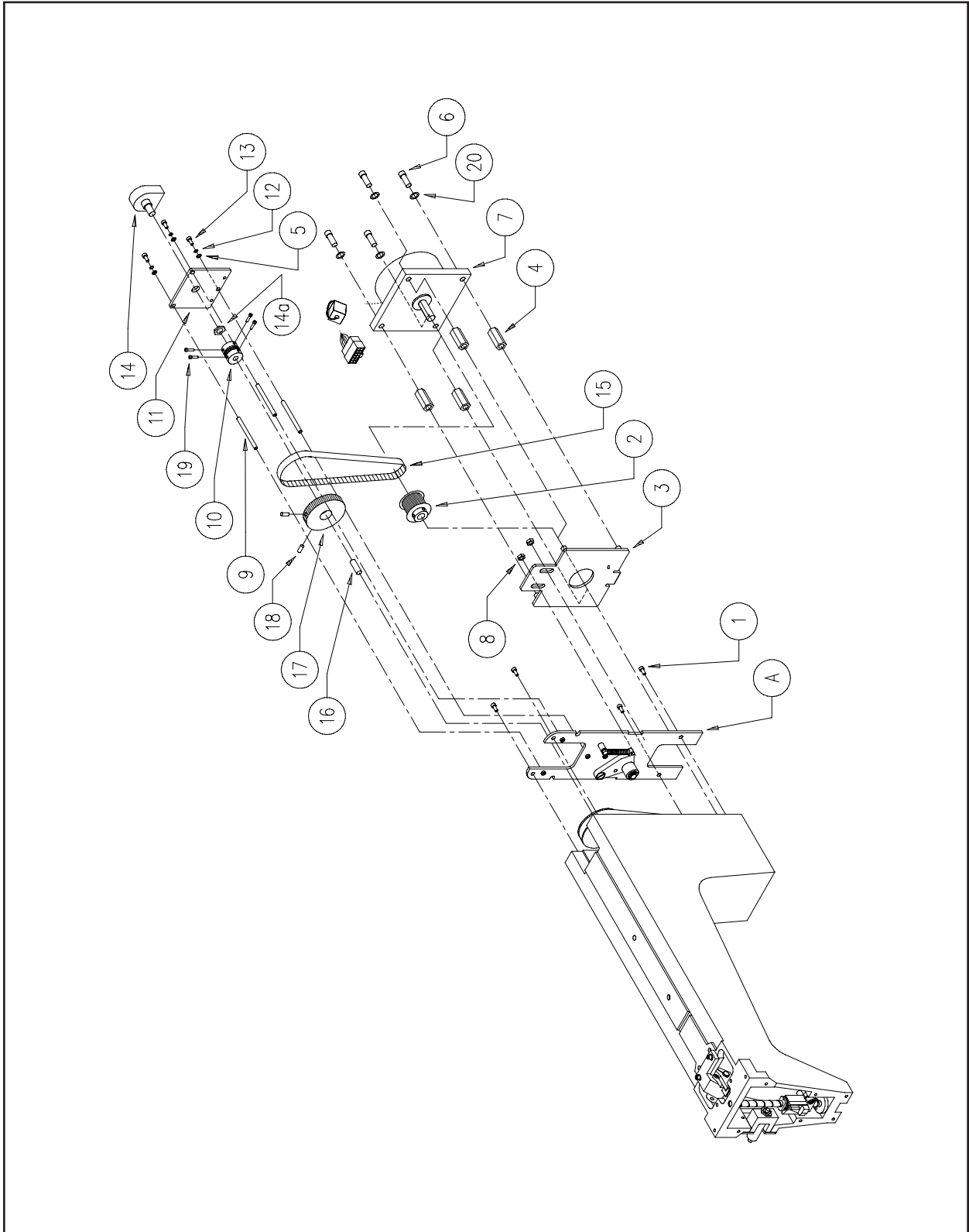


Figure 31

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**Z-Drive Encoder** **Reference Figure 26**


---

Item No.	Part Number	Item Description	Comments
A	004504-01S	Bobbin Idler	See Page 16-1
1	001926-01	Screw, Flat Head Socket, M4 x 0.7 x 12mm	
2	340090-01	Pulley, 16T, 3/8" ID, w/Hub	
3	003667-01	Plate Mounting, Z-Drive Motor	
4	714399-16	Standoff, F/F, 1/2" Hex, 1/4-20 x 1"	
5	690439-04	Washer, Flat, M4	
6	670035-08	Screw, Socket Head Cap, 1/4-20 x 1/2"	
7	010694-02	Motor, Z-Drive	
8	005284-01	Nut, Lock, M6	
9	004829-01	Standoff, Encoder, M-F, M4 x 0.7 x 2.01"	
10	003553-01	Coupler, Shaft, Helical, 1/4" x 1/4"	
11	004730-01	Plate, Encoder	
12	690427-04	Washer, Lock, Split, M4	
13	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 16mm, Zinc Plate	
14	004729-01	Encoder, Z-Axis	
14a	-----	Nut, Panel	(Included with Item #14)
15	344394-01	Belt, Timing, 80 Groove, 1/5P, 3/8" Wide	
16	662744-12	Pin, Dowel, 1/4" OD x .750"	
17	001523-01	Pulley, Drive, Bobbin, Top, 32T, 1/5P	
18	001927-12	Screw, Set, Flat Point, M5 x 0.8 x 12mm	
19	670068-06	Screw, Socket Head Cap, 6-32 x 3/8"	
20	690034-04	Washer, Flat, 1/4"	

# Cap Frame Mounts

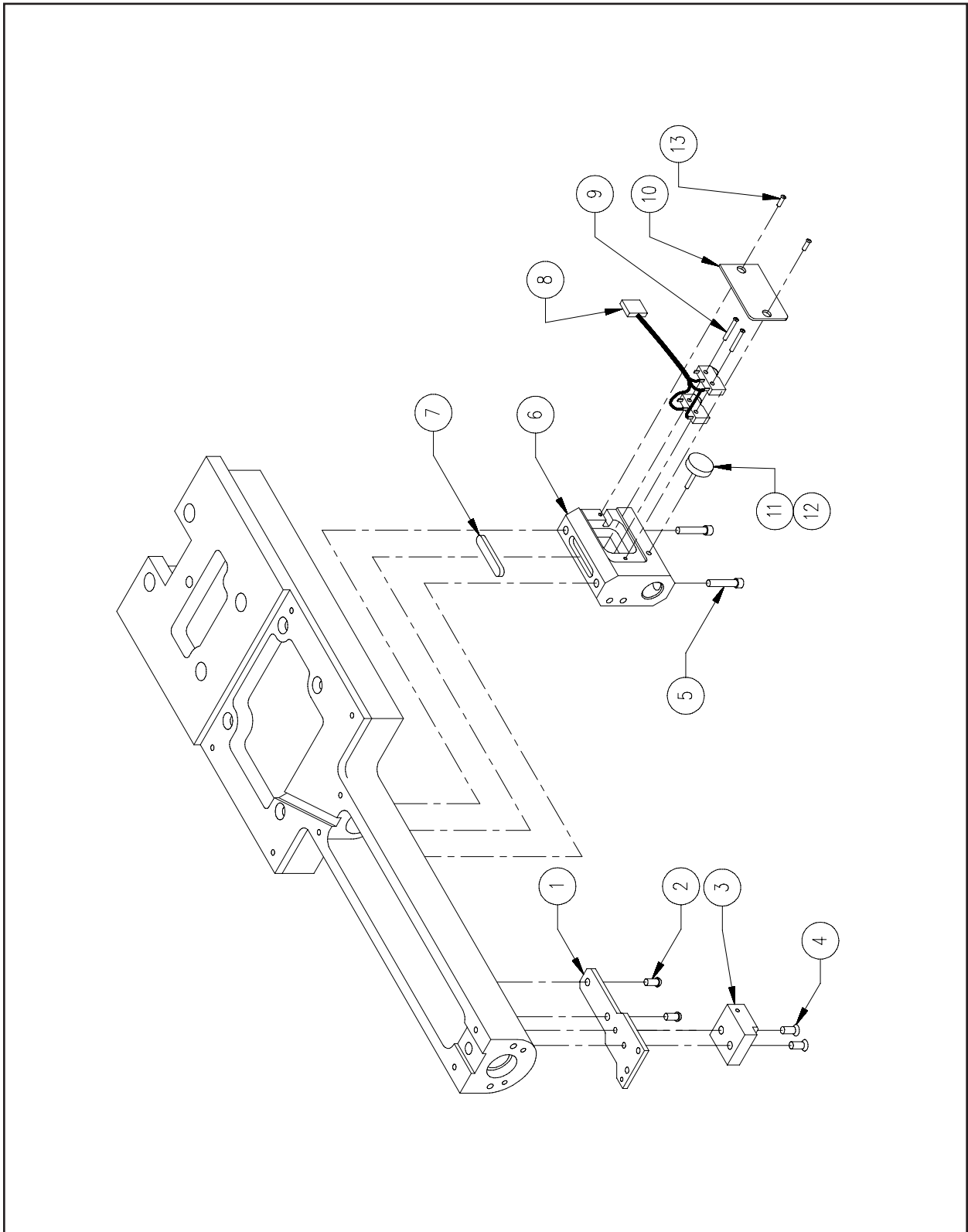


Figure 32



**Cap Frame Mounts****Reference Figure 30**

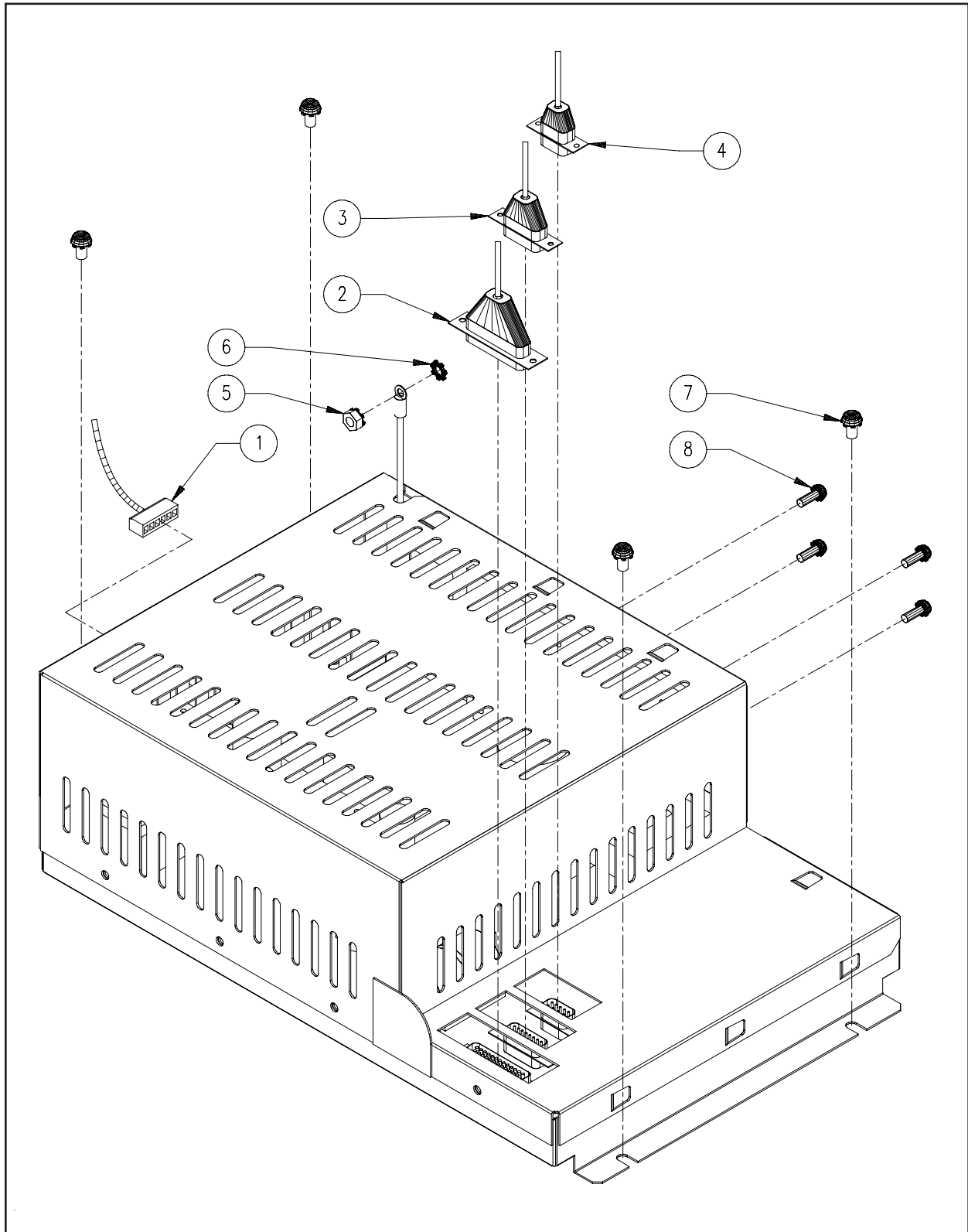
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	006526-01	Bracket, Picker	
2	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mmg	
3	006523-02	Mount, Dove Tail, Cap Frame	
4	001926-12	Screw, Flat Head Socket, M4 x 0.7 x 12mm	
5	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
6*	009861-01	Connector, Dual Cap Frame	
7	006525-01	Key, Shaft, 6mm x 6mm x 32mm	
8*	11516	Switch, Cap Frame, Dual	
9*	003122-16	Screw, Pan Head Phillips, M2 x 0.4 x 16mm	
10*	009014-01	Cover, Cap Frame Bracket	
11	010172-10	Screw, Socket Head Cap, M5 x 0.8 x 10mm, Zinc Plate	
12	006538-01	Knob, Knurled, M5, Black	
13*	006558-06	Screw, Pan Head Phillips, M3 x 0.5 x 6mm	

Note:

The following can be replaced as a factory built assembly:

\*010186-02 Bracket, Cap Frame, Assembly

## Harnesses (1 of 3)

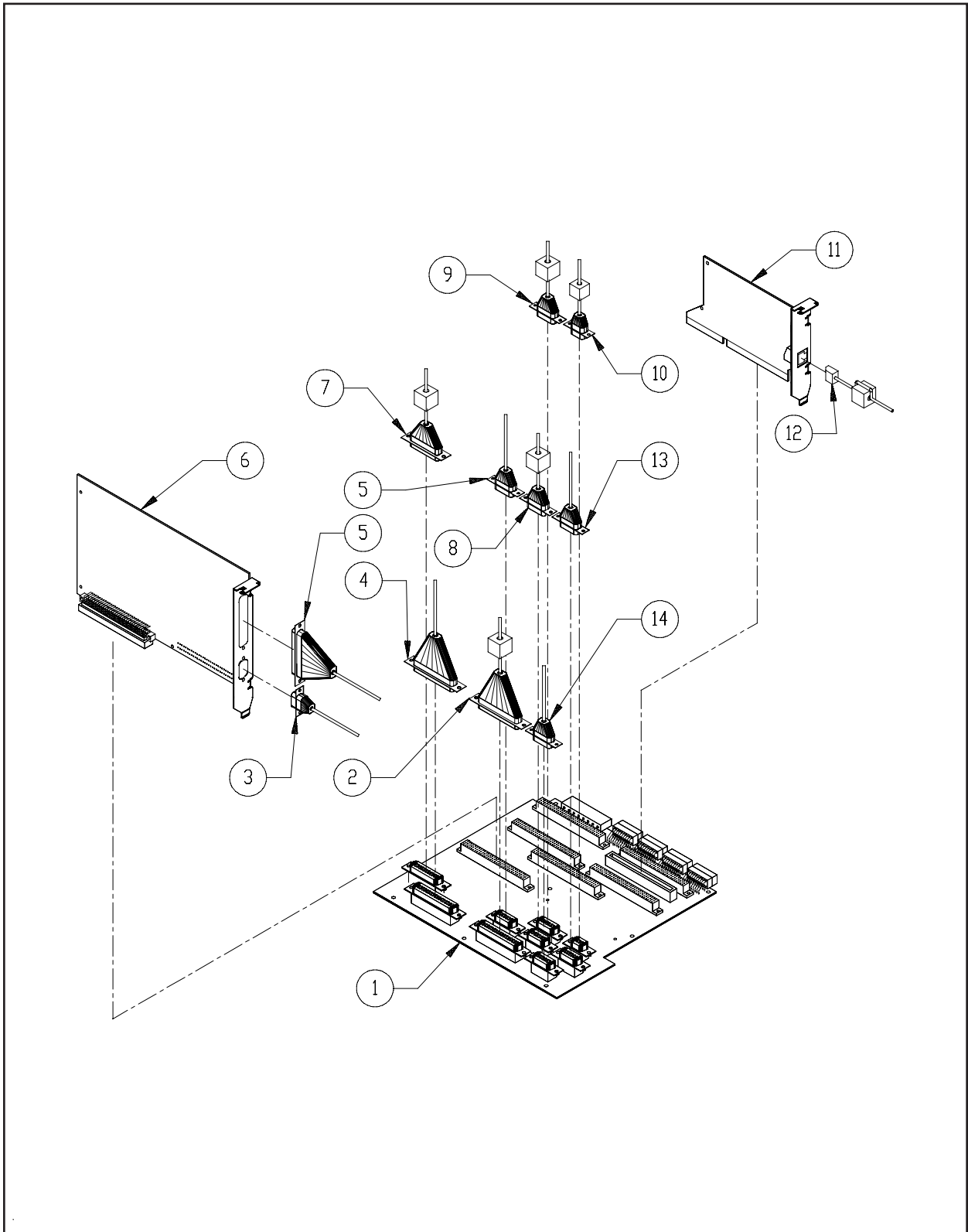


**Figure 33**

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<b>Harnesses (1 of 3)</b>			<b>Reference Figure 31</b>
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	10270	Harness, Circuit Breaker	
2	10148	Harness, Bobbin Winder	
3	009970-02	Cable, Power, Backplane	
4	009961-02	Cable, Low Voltage Power	
5	009561-05	Nut, Kep, M5	
6	010167-05	Washer, Lock, External Star, M5	
7	11057	Screw, Pan Head Phillips, w/Star, M5 x 0.8 x 8mm	
8	009863-10	Screw, Pan Head Phillips, w/Star, M4 x 0.7 x 10mm	

## Harnesses (2 of 3)



**Figure 34**

**Harnesses (2 of 3)****Reference Figure 32**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	10716	PCB, Backplane, Assembly	
2	010951-01	Cable, Thread/Color Change	
3	009961-02	Cable, Low Voltage Power	
4	010992-01	Cable, Floppy Drive	
5	010523-03	Harness, X-Axis Collector	
6	009419-02	PCB, Motor Drive, Assembly	
7	011087-01	Harness, Keyboard/Display	
8	010952-01	Harness, Color/Grabber-Encoder/Motor	
9	011092-02	Harness, Head	
10	009969-03	Cable, Jump Stitch	
11	010192-01	PCB, Network, Intel, Pro 10	
12	010369-01	Cable, Ethernet, Network, Interface	
13	009968-01	Harness, Y-Z Axis	
14	009970-02	Cable, Power, Backplane	

# Harnesses (3 of 3)

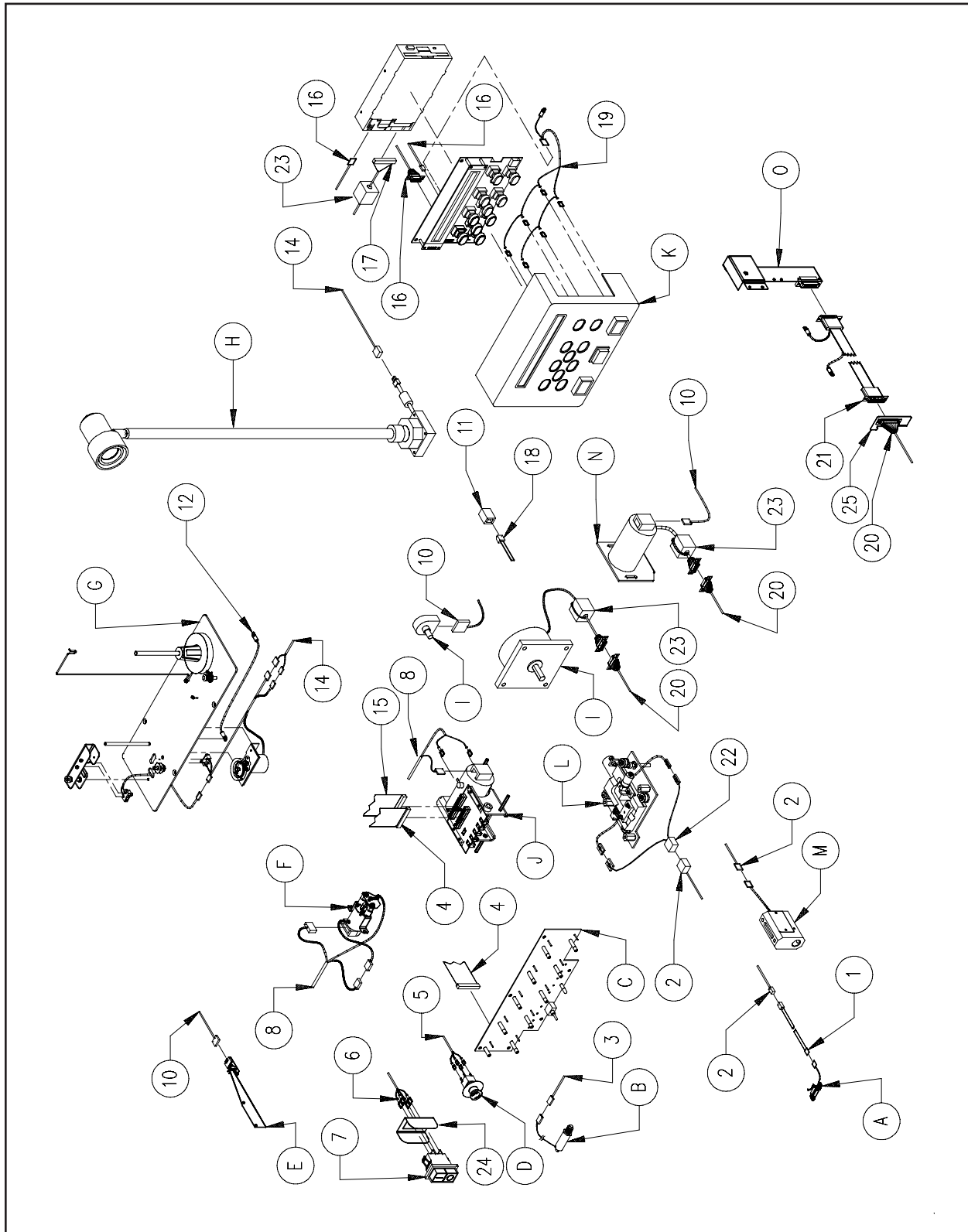


Figure 35

**Harnesses (3 of 3)****Reference Figure 33**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
A	-----	Under Thread Control	(See page 14-1)
B	-----	Jump Stitch	(See page 14-1)
C	-----	Thread Tensioner	(See page 13-1)
D	-----	E-Stop Switch	(See page 2-1)
E	-----	Y-Limit Flag	(See page 28-1)
F	-----	Grabber Motor	(See page 18-1)
G	-----	Bobbin Winder	(See page 5-1)
H	-----	Light Fixture	(See page 6-1)
I	-----	Z-Motor/Encoder	(See page 26-1)
J	-----	Color Change	(See page 8-1)
K	-----	Keyboard	(See page 3-1)
L	-----	Trimmer Drive	(See page 20-1)
M	-----	Cap Frame Mounts	(See page 30-1)
N	-----	Y-Drive Motor	(See page 27-1)
O	-----	X-Beam	(See page 24-1)
1	009972-01	Harness, Bed, Under Thread Control	
2	009910-05	Harness, Head	
3	009969-02	Cable, Jump Stitch	
4	011094-02	Cable, Jumper, Thread Break	
5	009971-03	Cable, E-Stop	
6	10270	Harness, Circuit Breaker	
7	009879-04	Breaker, On/Off, 4A	
8	010952-01	Harness, Color/Grabber-Encoder/Motor	
9	10307	Harness, Power Entry, PC	
10	009968-01	Harness, Y-Z Axis	
11	000434-02	Coupler, In-Line, 6 Position	
12	011006-01	Cable, Ground, Braid, 6.5"	
13	010682-01	Power Entry Module, Filtered, 6A	
14	10148	Harness, Bobbin Winder	
15	010951-01	Cable, Thread/Color Change	
16	009918-02	Harness, Keyboard/Display	
17	010992-02	Cable, Floppy Drive	
18	010369-01	Cable, Ethernet, Network, Interface	
19	009913-02	Harness, Start/Stop/Frame	
20	010523-03	Harness, X-Axis Collector	
21	010922-02	Cable, X-Axis Flex	
22	007261-01	Trimmer, Picker, Solenoid, Opto, Assembly	
23	009311-01	Ferrite, Split, Large	
24	10173	Guard, Switch	
25	10944	Bracket, Mount, D-Sub	

# Cap Frame Drive

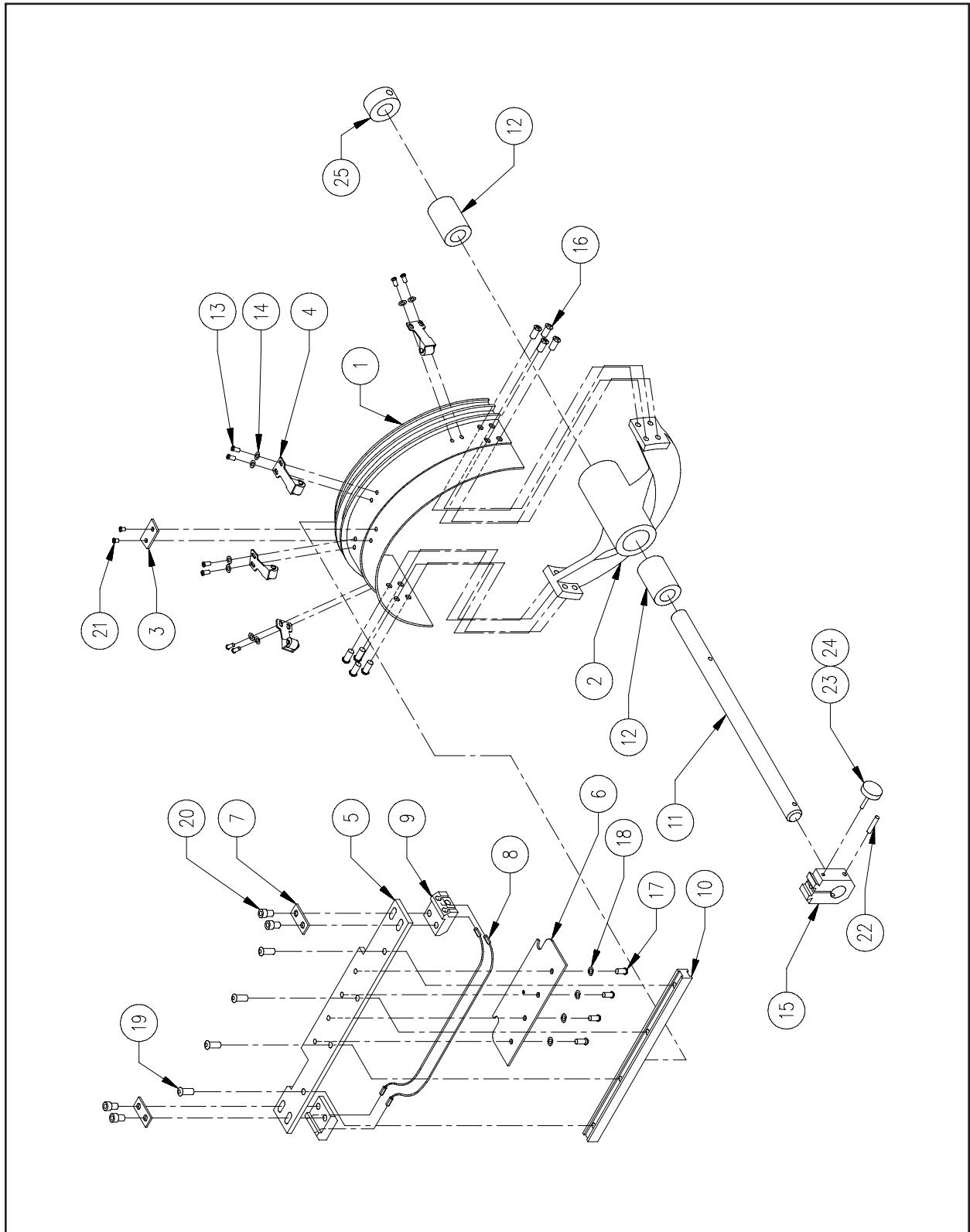


Figure 36



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**Cap Frame Drive** **Reference Figure 34**


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Item No.	Part Number	Item Description	Comments
1*	452732-01	Ring, Drive, Cap Frame	
2*	006496-01	Hub, Cap Driver, Phase II	
3*	552912-01	Locator, Cap Frame	
4*	004229-01	Clip, Roller, Cap Frame Driver, Assembly	
5*	454861-01	Bracket, Drive	
6•	554862-01	Mount, Drive Ring	
7*	552915-01	Washer, Flat, Rectangle	
8*	402913-01	Cable, Drive Ring	
9*	452916-01	Bracket, Cable	
10*	442917-01	Bar, Guide	
11•	006522-01	Shaft, Cap Frame	
12*	005342-08	Bearing, Sleeve, Frelon	
13*	670131-03	Screw, Pan Head Phillips, 4-40 x 3/16"	
14*	690034-34	Washer, Flat, #4	
15•	006521-01	Mount, Male, Cap Frame	
16*	672982-06	Screw, Pan Head Phillips, 8-32 x 3/8"	
17	670174-04	Screw, Pan Head Phillips, 6-32 x 1/4"	
18	690033-36	Washer, Lock, Split, #6	
19*	670267-06	Screw, Button Head Cap, 8-32 x 3/8"	
20*	670149-06	Screw, Socket Head Cap, 8-32 x 3/8"	
21*	670131-02	Screw, Pan Head Phillips, 4-40 x 1/8"	
22	660830-10	Pin, Groove, 1/8" OD x 7/8"	
23#	010172-16	Screw, Socket Head Cap, M5 x 0.8 x 16mm, Zinc Plate	
24#	006538-01	Knob, Knurled, M5, Black	
25	342872-08	Collar, Shaft, 1/2" ID	

Note: The following can be replaced as a factory built assembly:

- \*006667-01 Ring, Drive, Sub-Assembly
- 006541-01 Ring, Drive, Assembly (includes 006667-01)
- #007401-01 Screw, Thumb, 16mm Lg, Assembly

# Melco Cap Frame

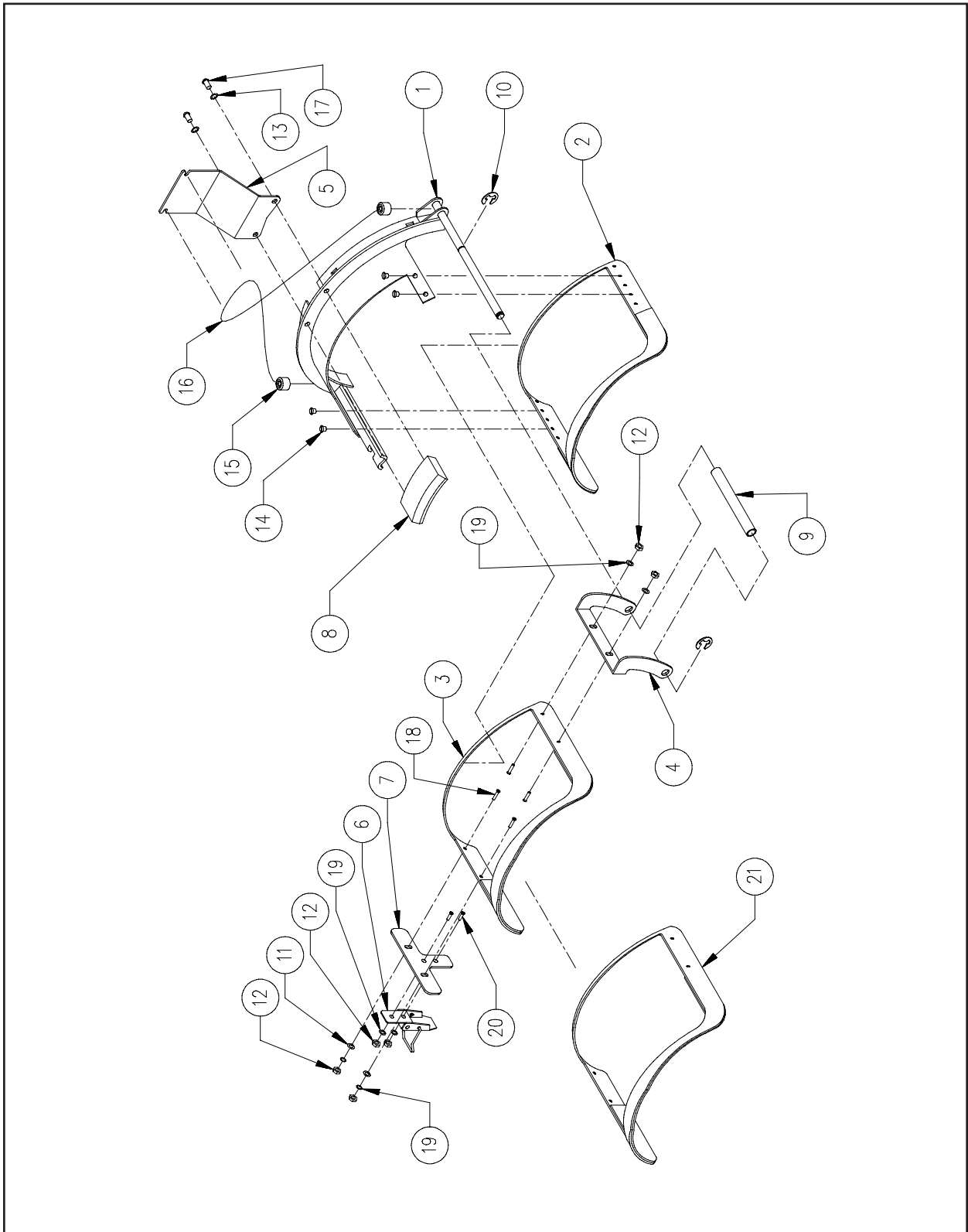


Figure 37

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**Melco Cap Frame** **Reference Figure 35**


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Item No.	Part Number	Item Description	Comments
1	004938-01	Base, Cap Frame, Assembly	
2#	006010-01	Frame, Lower, w/Rubber, 6-Panel	
3*	005949-01	Strap, Clamping, 72mm, 6-Panel	
4*•	002629-01	Bracket, Hinge	
5	005071-01	Holder, Cord, Visor Clamp	
6*•	005487-01	Catch, Pull	
7*•	005486-01	Bracket, Latch	
8	004904-01	Block, Locator, Brim	
9	002632-01	Spacer	
10	004240-01	Ring, Retainer, E-Style	
11*•	690439-03	Washer, Flat, M3	
12*•	680430-03	Nut, Hex, M3	
13	690033-36	Washer, Lock, Split, #6	
14	004963-01	Screw, Special, Cap Frame	
15	005068-01	Terminal, Shock Cord	
16	005073-01	Cord, Shock, Cap Frame	
17	670174-06	Screw, Pan Head, Phillips, 6-32 x 3/8"	
18*•	006019-01	Screw, Flat Head Phillips, M3 x 0.5 x 8mm	
19*•	003128-03	Washer, Lock, Split, M3	
20*•	005934-01	Screw, Flat Head Phillips, M3 x 0.5 x 6mm	
21•	005948-01	Strap, Clamping, 82mm, 6-Panel	

Note: The following can be replaced as a factory built assembly:

- \*007199-01 Strap, Clamping, 72mm, 6-Panel, Assembly
- 007198-01 Strap, Clamping, 82mm, 6-Panel, Assembly
- #006674-01 Cap Frame, Adjustable, 6-Panel (includes 007198-01 and 007199-01)

# Melco Cap Frame Gauge

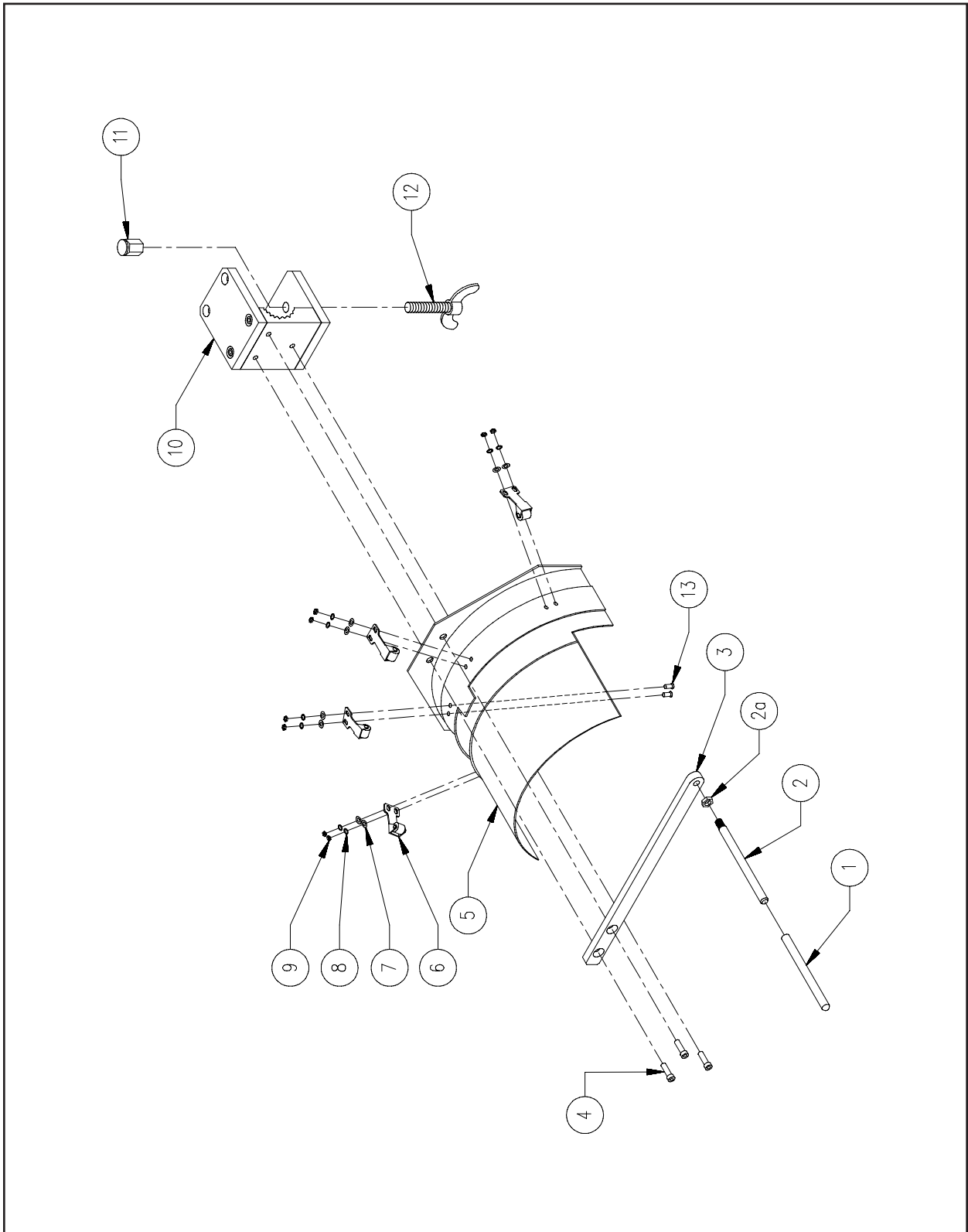


Figure 38

**Melco Cap Frame Gauge****Reference Figure 36**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	005100-01	Shaft Cover, Frame Holder	
2*	004958-01	Shaft, Frame Holder, Gauge Set	
2a*	680032-04	Nut, Hex, 1/4-20	
3*	004957-01	Bracket, Frame Holder, Gauge Set	
4#	670038-08	Screw, Socket Head Cap, 10-32 x 1/2"	
5#	005051-01	Gauge, Cap Frame, Weldment	
6#	004229-01	Clip, Roller, Cap Frame Driver, Assembly	
7#	690034-34	Washer, Flat, #4	
8#	690033-34	Washer, Lock, Split, #4	
9#	680032-34	Nut, Hex, 4-40	
10#	004949-01	Block, Mounting, Cap Gauge, Assembly	
11•	004952-01	Nut, Swivel, 3/8-16	
12•	004950-01	Screw, Thumb, Wing-Head, 3/8-16 x 1.5"	
13#	670828-06	Screw, Flat Head Socket, 4-40 x 3/8"	

Note:

The following can be replaced as a factory built assembly:

- \*004956-01 Holder, Frame, Gauge Set, Assembly
- #005050-01 Gauge, Cap Frame, Assembly
- 004949-01 Block, Mounting, Cap Gauge, Assembly (part of Item 10)

# Wide Angle Cap Frame (1 of 7)

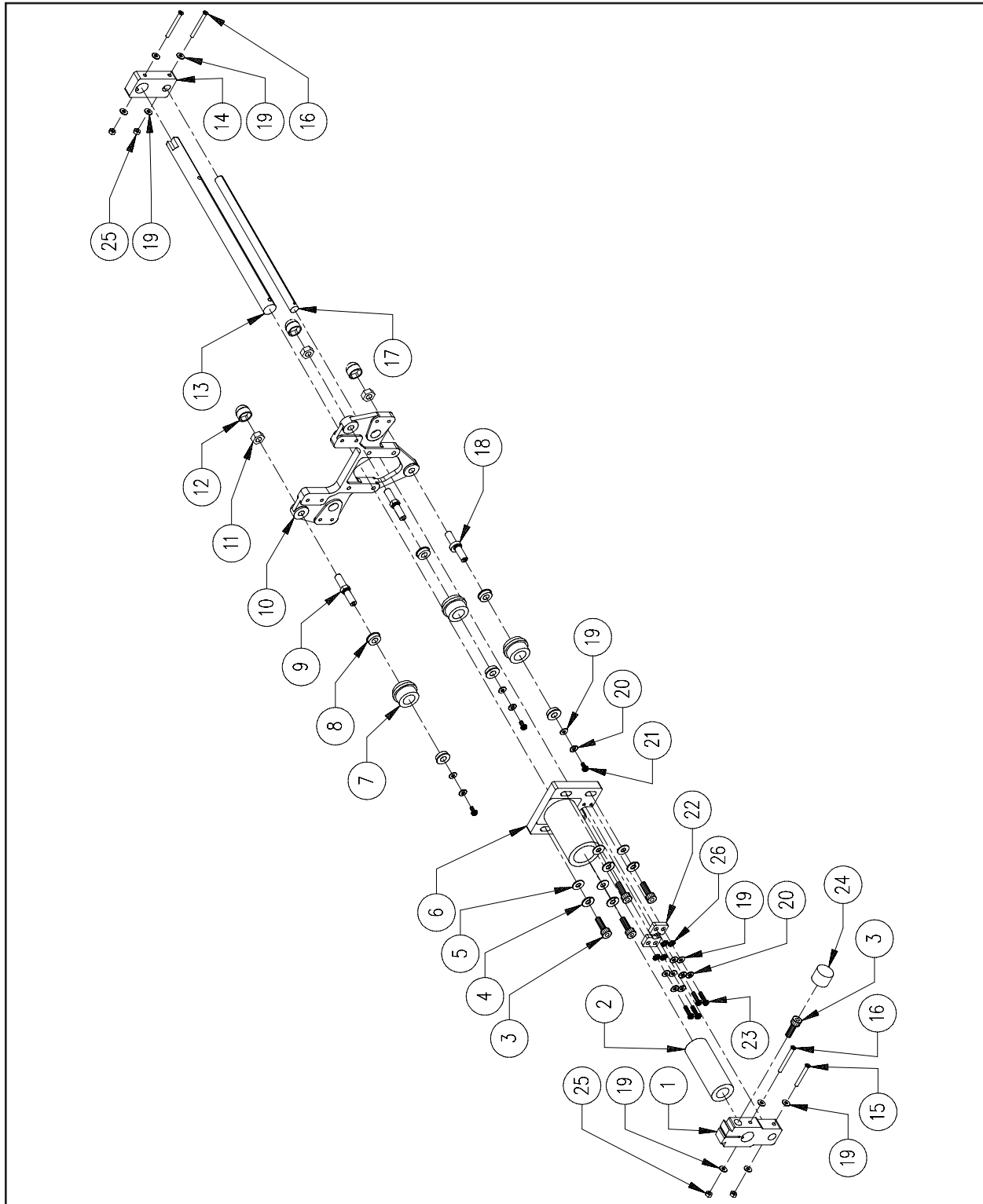


Figure 39

**Wide Angle Cap Frame (1 of 7)****Reference Figure 37**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	009602-03	Mount, Front, Drive Ring	
2	009618-01	Bearing, Linear	
3	010172-16	Screw, Socket Head Cap, M5 x 0.8 x 16mm, Zinc Plate	
3a*	010468-01	Wrench, Hex, 4mm	(see Note) (not shown)
4	690427-05	Washer, Lock, Split, M5	
5	690439-05	Washer, Flat, M5	
6	009594-01	Housing, Bearing	
7	009597-01	Roller, Drive Ring	
8	009623-01	Bearing, Flanged	
9	009599-02	Shaft, Roller	
10	009601-01	Base, Drive Ring	
11	680430-06	Nut, Hex, M6	
12	006913-06	Cover, Cap, Hex, M6	
13	010099-02	Shaft, Drive Ring	
14	009596-02	Support, Shaft, Rear	
15	006558-25	Screw, Pan Head Phillips, M3 x 0.5 x 25mm	
16	006558-30	Screw, Pan Head Phillips, M3 x 0.5 x 30mm	
17	009615-02	Shaft, Guide, Drive Ring	
18	009598-02	Shaft, Roller, Eccentric	
19	690439-03	Washer, Flat, M3	
20	690427-03	Washer, Lock, Split, M3	
21	675310-01	Screw, Pan Head Phillips, M3 x 0.5 x 6mm	
22	009595-02	Pad, Guide, Shaft	
23	010170-16	Screw, Socket Head Cap, M3 x 0.5 x 16mm	
24	006538-03	Knob, Knurled, Black, M5	
25	003573-03	Nut, M3, Locking	
26	010167-03	Washer, External Star, M3	

Note:

\*Used with Item 3 and supplied with the Wide-Angle Cap Frame Option

# Wide Angle Cap Frame (2 of 7)

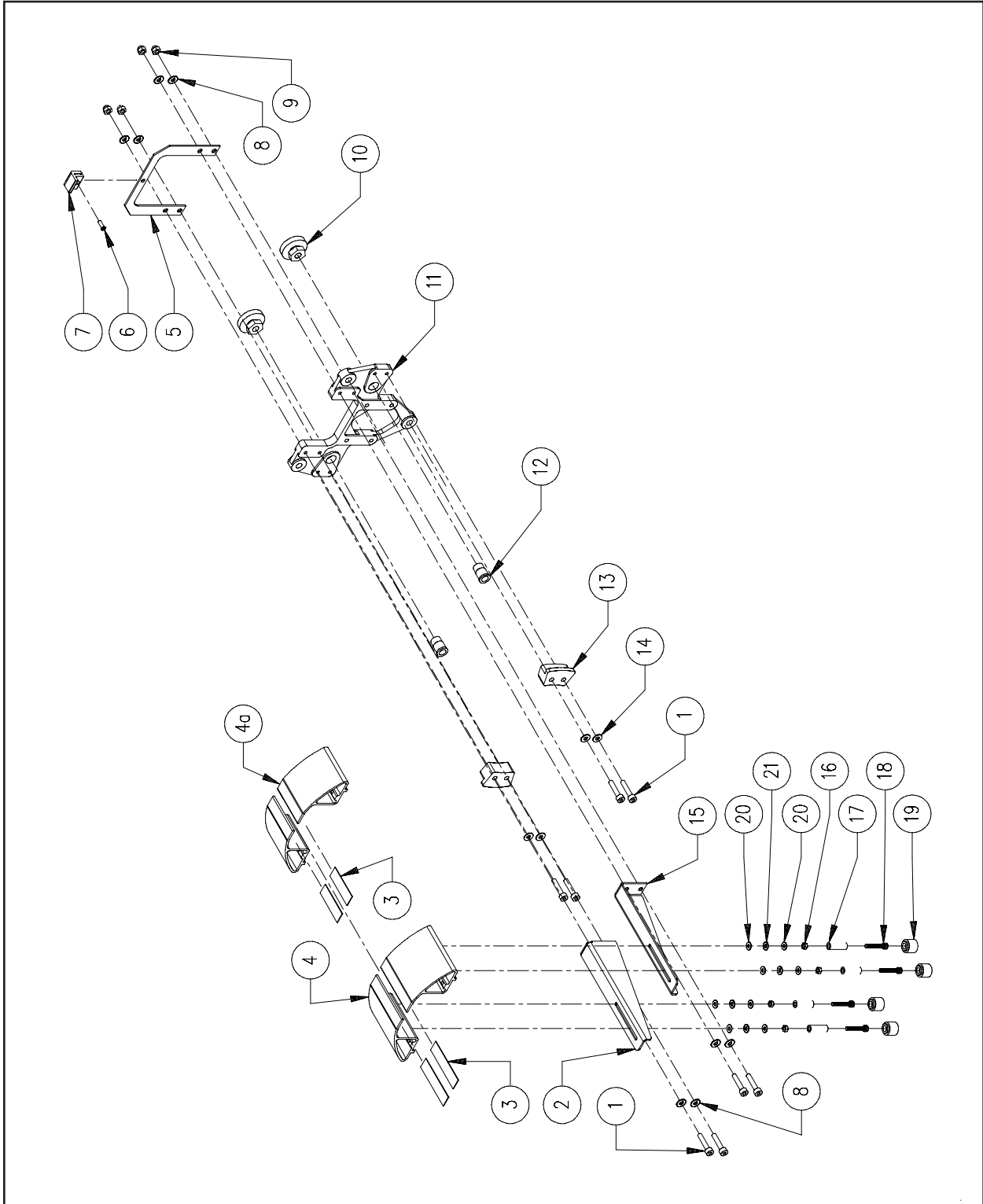


Figure 40



**Wide Angle Cap Frame (2 of 7)****Reference Figure 38**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
2	011057-01	Bracket, Support, Left Hand	
3	011062-01	Tape, Adhesive, 2.25"	
4*	009604-01	Support, Cap, Large, Machined	
4a*	10773	Support, Cap, Small, Machined	
5	009621-01	Bracket, Holder, Bar	
6	010406-08	Screw, Flat Head Phillips, M2.5 x 0.4 x 8mm	
7	009857-02	Pad, Holder, Bar	
8	690427-04	Washer, Lock, Split, M4	
9	010407-04	Nut, Acorn, M4	
10	009659-01	Lock, Shaft, .25" ID	
11	009601-01	Base, Drive Ring	
12	009616-01	Nipple, Support, Tensioner Disk	
13	009600-02	Pad, Support, Cylinder	
14	010668-01	Washer, Flat, Fender, M4	
15	011056-01	Bracket, Support, Right Hand	
16	680430-03	Nut, Hex, M3	
17	700134-12	Spacer, Nylon, .14" ID x .25" OD x .75"	
18	010170-30	Screw, Socket Head Cap, M3 x 0.5 x 30mm, Zinc Plate	
19	006538-03	Knob, Knurled, Black, M3	
20	006303-04	Washer, Plain, Type 3	
21	690427-03	Washer, Lock, Split, M3	

Note: \*When replacing items 4 or 4a item 3 must also be replaced and trimmed to fit

# Wide Angle Cap Frame (3 of 7)

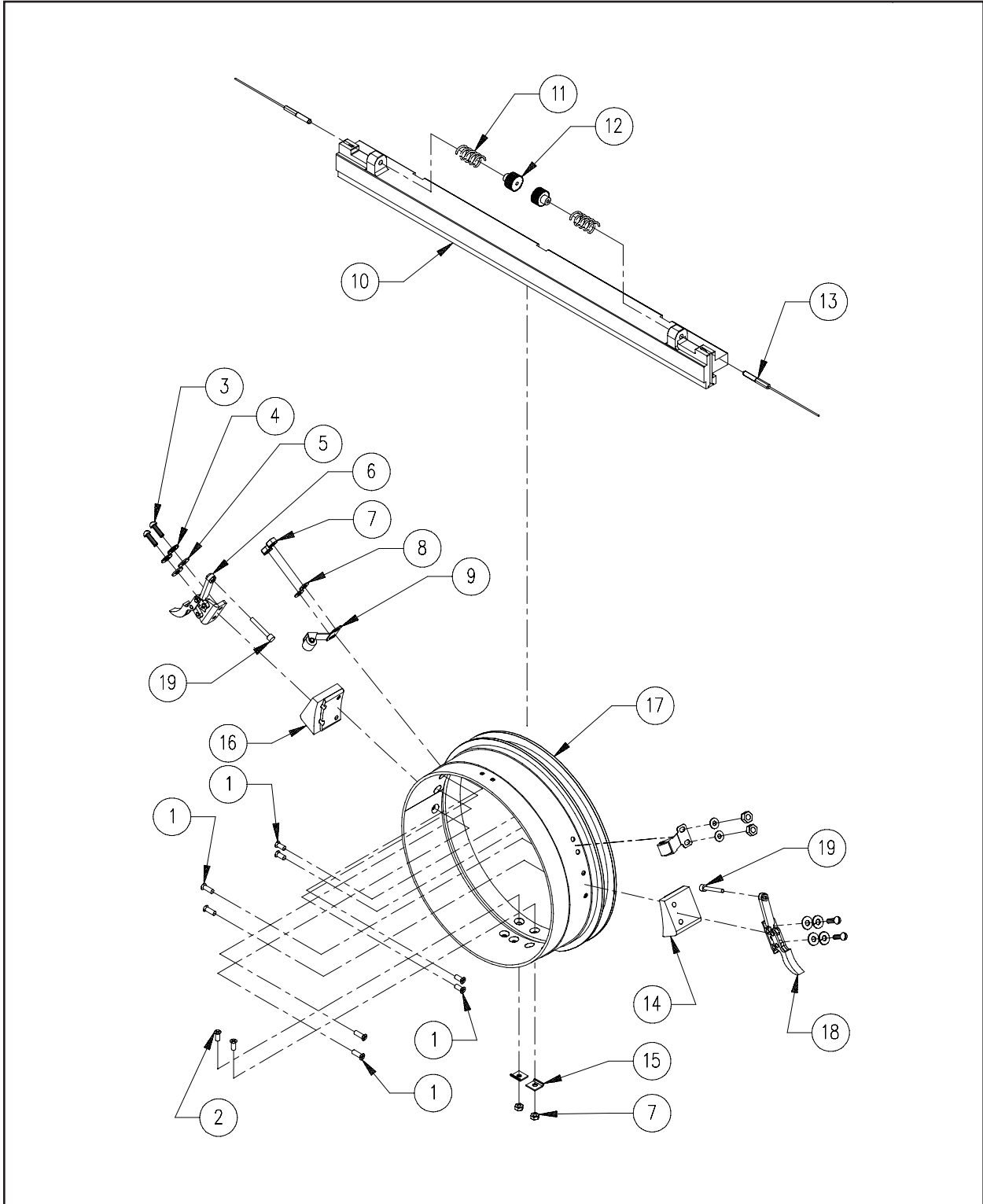
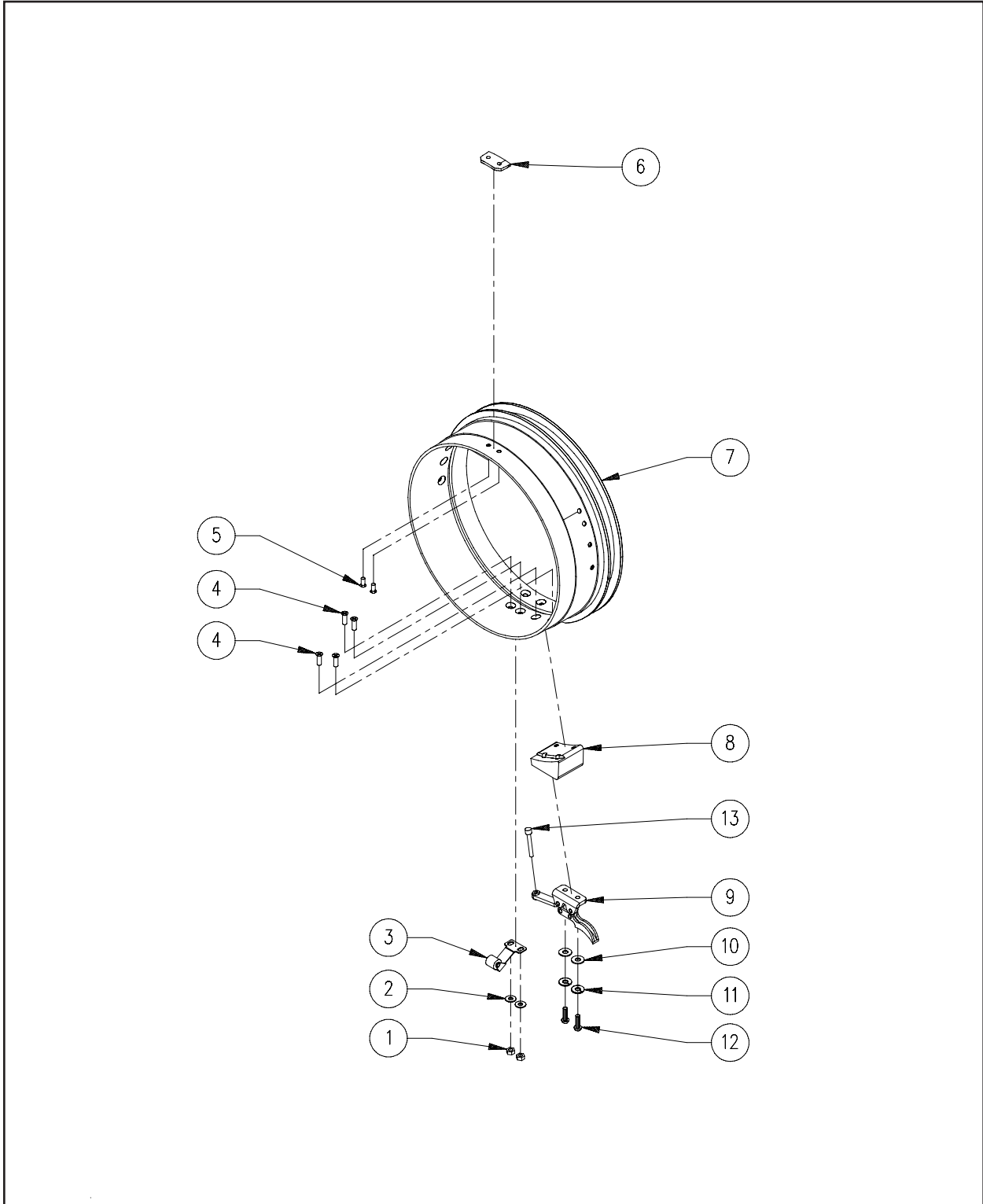


Figure 41

**Wide Angle Cap Frame (3 of 7)****Reference Figure 39**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	005934-08	Screw, Flat Head Phillips, M3 x 0.5 x 8mm	
2	005934-01	Screw, Flat Head Phillips, M3 x 0.5 x 6mm	
3	010171-10	Screw, Socket Head, Cap, M4 x 0.7 x 10mm, Zinc Plate	
4	690427-04	Washer, Lock, Split, M4	
5	690439-04	Washer, Flat, M4	
6	009624-02	Clamp, Hold Down, Left Hand	
7	680430-03	Nut, Hex, M3	
8	690439-03	Washer, Flat, M3	
9	004229-01	Clip, Roller, Assembly	
10	009608-02	Bracket, Drive Ring	
11	009625-01	Spring, Compression	
12	009610-01	Nut, Tensioner, Drive Ring	
13	009626-01	Cable, Drive Ring, Assembly	
14	011058-01	Bracket, Clamp, Right Hand	
15	009811-01	Washer, Holder, Cable	
16	011059-01	Bracket, Clamp, Left Hand	
17	009619-02	Cylinder, Drive Ring	
18	009624-01	Clamp, Hold Down, Right Hand	
19	674900-10	Screw, Hex Head, 8-32 x 5/8"	

# Wide Angle Cap Frame (4 of 7)



**Figure 42**

**Wide Angle Cap Frame (4 of 7)****Reference Figure 40**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	680430-03	Nut, Hex, M3	
2	690439-03	Washer, Flat, M3	
3	004229-01	Clip, Roller, Assembly	
4	005934-08	Screw, Flat Head Phillips, M3 x 0.5 x 8mm, Zinc Plate	
5	010406-04	Screw, Flat Head Socket, M2.5 x 0.4 x 4mm	
6	009620-01	Locator, Drive Ring	
7	009619-02	Cylinder, Drive Ring	
8	011059-01	Bracket, Clamp, Left Hand	
9	009624-02	Clamp, Hold Down, Left Hand	
10	690439-04	Washer, Flat, M4	
11	690427-04	Washer, Lock, Split, M4	
12	001924-10	Screw, Cheese Head, Slotted, M4 x 0.7 x 10mm	
13	674900-10	Screw, Hex Head, 8-32 x 5/8"	

# Wide Angle Cap Frame (5 of 7)

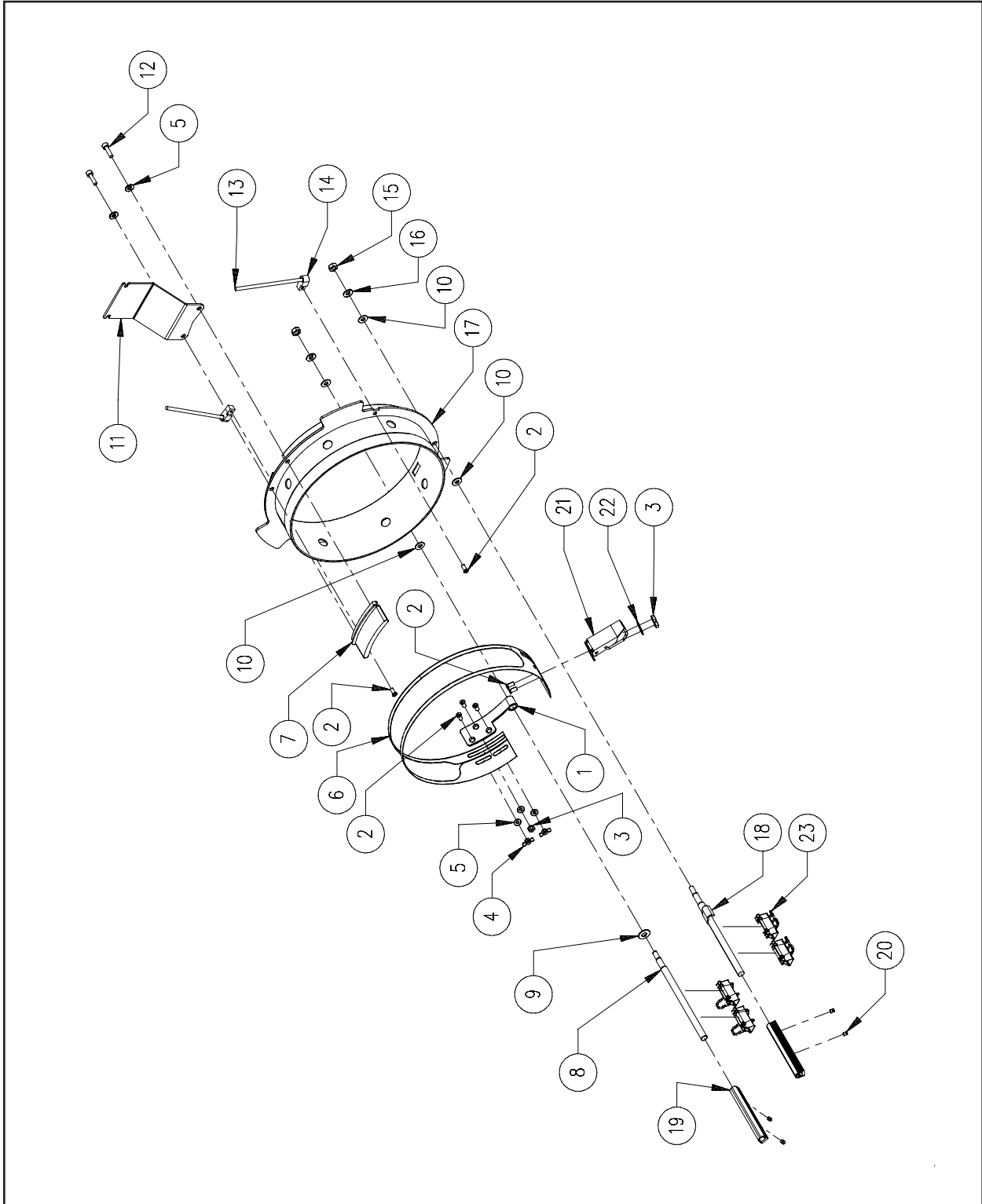


Figure 43

**Wide Angle Cap Frame (5 of 7)****Reference Figure 41**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1•	010074-01	Hinge, Cap Frame	
2•*	010133-06	Screw, Small Flat Head, M3 x 0.5 x 6mm	
3*	680430-03	Nut, Hex, M3	
4*	006021-01	Nut, Wing, M3	
5•*	690439-03	Washer, Flat, M3	
6*	010151-01	Strap, Clamping, Cap Frame, w/Rubber	
7•	010191-02	Locator, Brim, Cap Frame	
8•	010075-01	Post, Cap Frame	
9•	690439-05	Washer, Flat, M5	
10•	690439-04	Washer, Flat, M4	
11•	005071-02	Holder, Visor	
12•	010170-10	Screw, Socket Head Cap, M3 x 0.5 x 10mm, Zinc Plate	
13*	005073-01	Cord, Shock, Cap Frame	
14•	010079-01	Bracket, Strap, Rubber	
15•	001963-05	Nut, Hex, M4	
16•	690427-04	Washer, Lock, Split, M4	
17*	010077-01	Weldment, Cap Frame, w/Rubber	
18•	010078-02	Post, Cap Frame, Weldment	
19•	010081-02	Holder, Clip	
20•	001960-03	Screw, Set, Flat Point, M4 x 0.7 x 3mm	
21*	005487-01	Latch, Takigen	
22*	690427-03	Washer, Lock, Split, M3	
23•	009682-02	Clip, Cap Frame	

Note:

The following can be replaced as a factory built assembly:

- \*010093-01 Cap Frame, Wide-Angle, Melco, Assembly
- 010540-02 Cap Frame, Wide-Angle, Sub-Assembly

# Wide Angle Cap Frame (6 of 7)

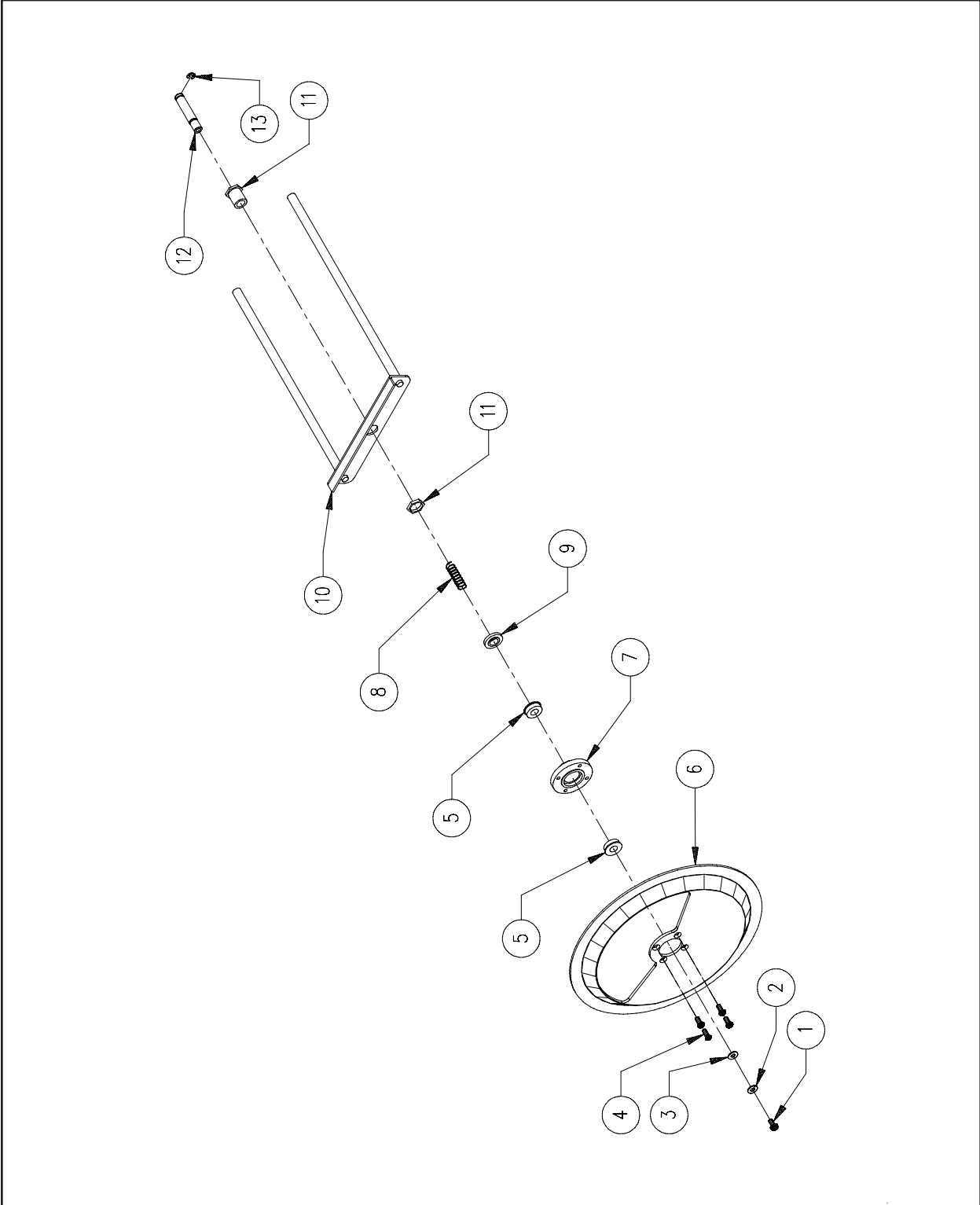


Figure 44



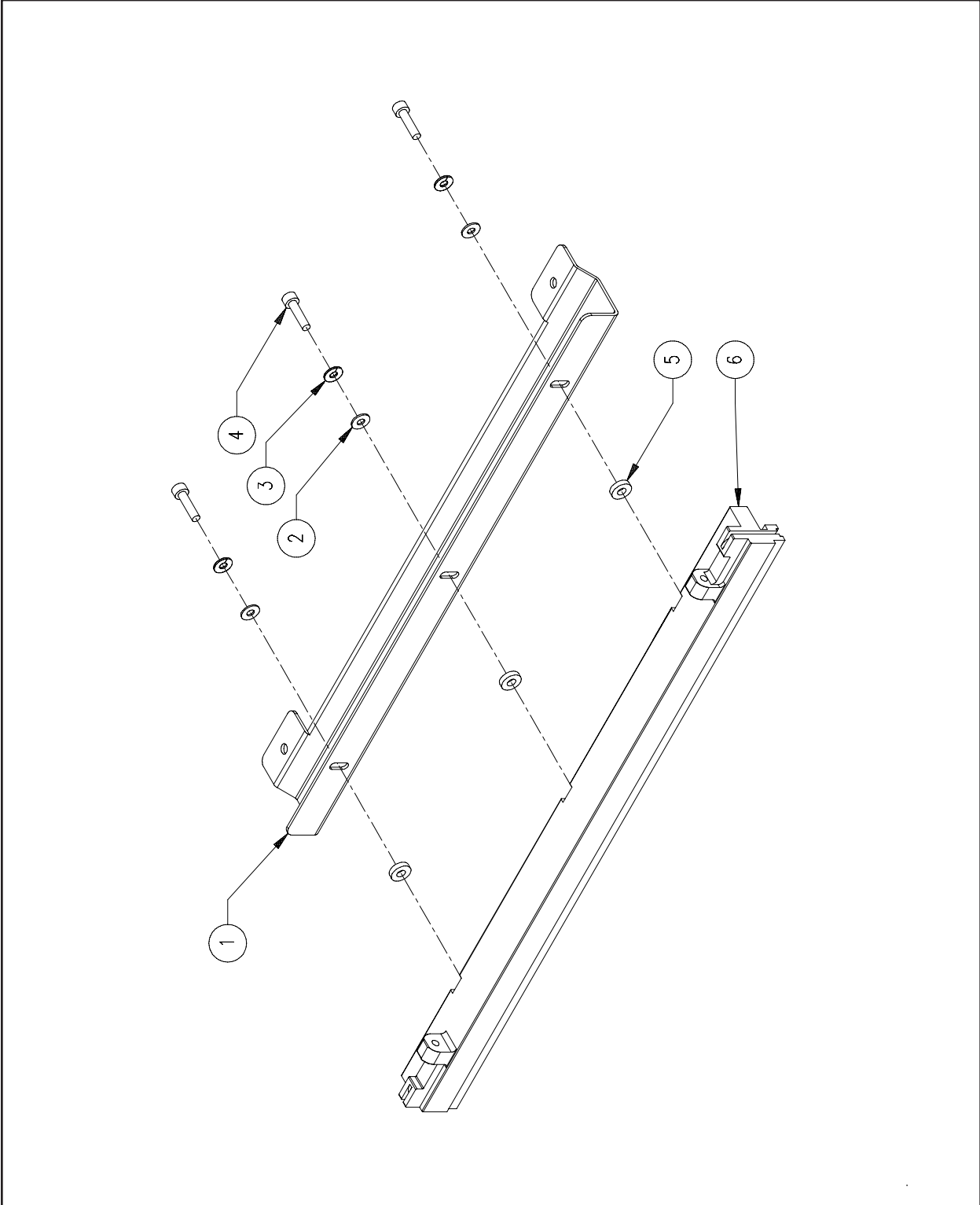
**Wide Angle Cap Frame (6 of 7)****Reference Figure 42**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	675310-01	Screw, Pan Head Phillips, M3 x 0.5 x 6mm	
2*	690427-03	Washer, Lock, Split M3	
3*	690439-03	Washer, Flat, M3	
4*	010133-06	Screw, Flat Head Phillips, M3 x 0.5 x 6mm	
5*	009623-01	Bearing, Flanged, 6mm ID x 12mm OD	
6*	009613-01	Tensioner Disk	
7*	010096-02	Tensioner Disk Hub	
8*	009622-01	Spring, Compression	
9*	009812-02	Washer, Support, Spring	
10*	009606-01	Tensioner Disk Support	
11	009658-01	Bearing, Panel, 1/4" ID	
12*	009614-01	Tensioner Disk Shaft	
13*	001955-17	Retainer Ring	

Note: The following can be replaced as a factory built assembly:

\*010094-01 Tensioner, Disk, Assembly

# Wide Angle Cap Frame (7 of 7)



**Figure 45**

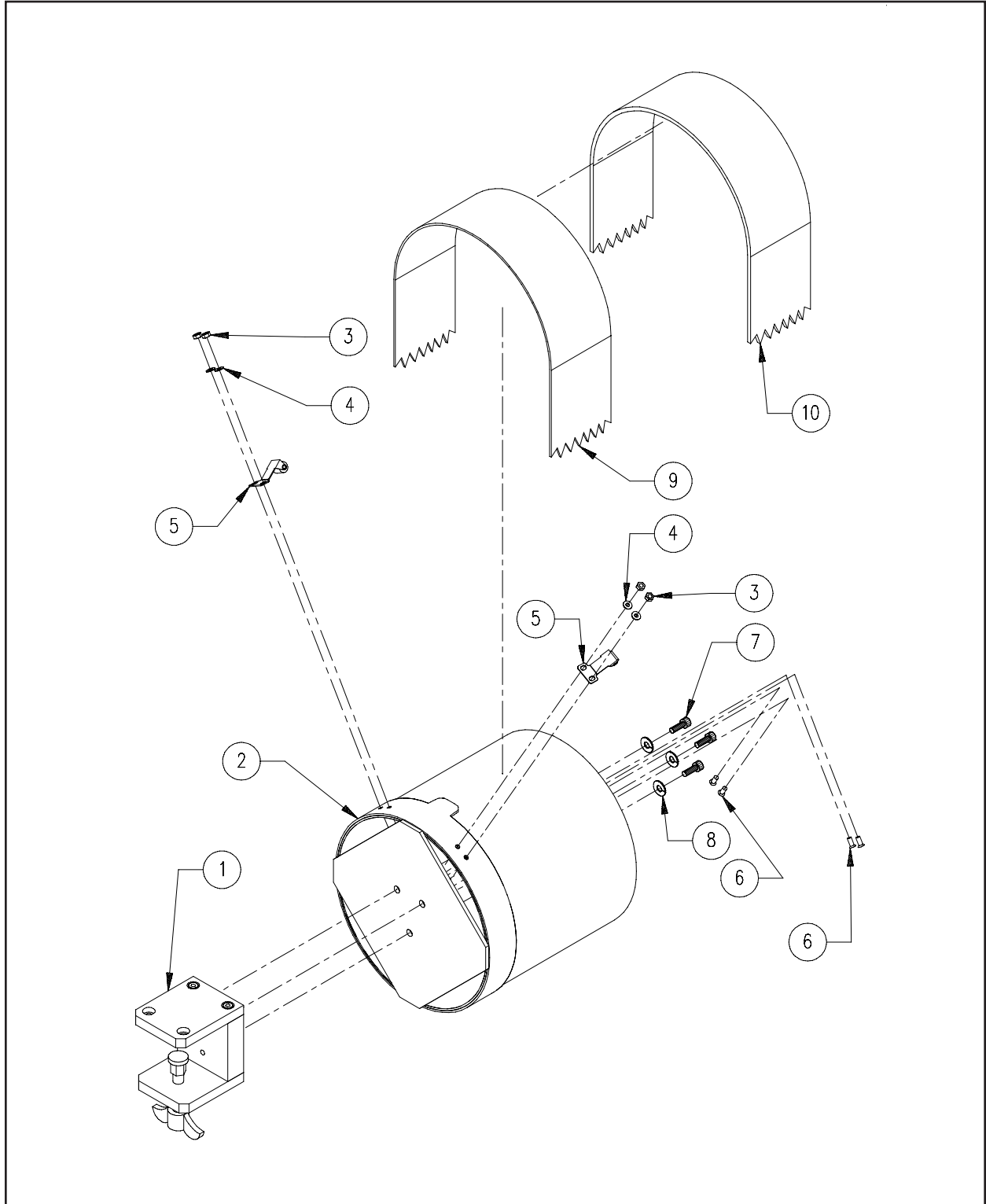
**Wide Angle Cap Frame (7 of 7)****Reference Figure 43**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	010097-02	Bracket, Interface, Cap Frame	
2	690439-04	Washer, Flat, M4	
3	690427-04	Washer, Lock, Split, M4	
4	010171-12	Screw, Socket Head Cap, M4 x 0.7 x 12mm, Zinc Plate	
4a*	010701-02	Wrench, L-Hex, 3mm, Short Arm	(see Note) (not shown)
5	010658-01	Spacer, Interface, Wide Angle Cap Frame	
6	009608-02	Bar, Drive Ring	

Note:

\*Used with Item 4 and supplied with the Wide-Angle Cap Frame Option

# Wide Angle Cap Frame Gauge



**Figure 46**

**Wide Angle Cap Frame Gauge****Reference Figure 44**

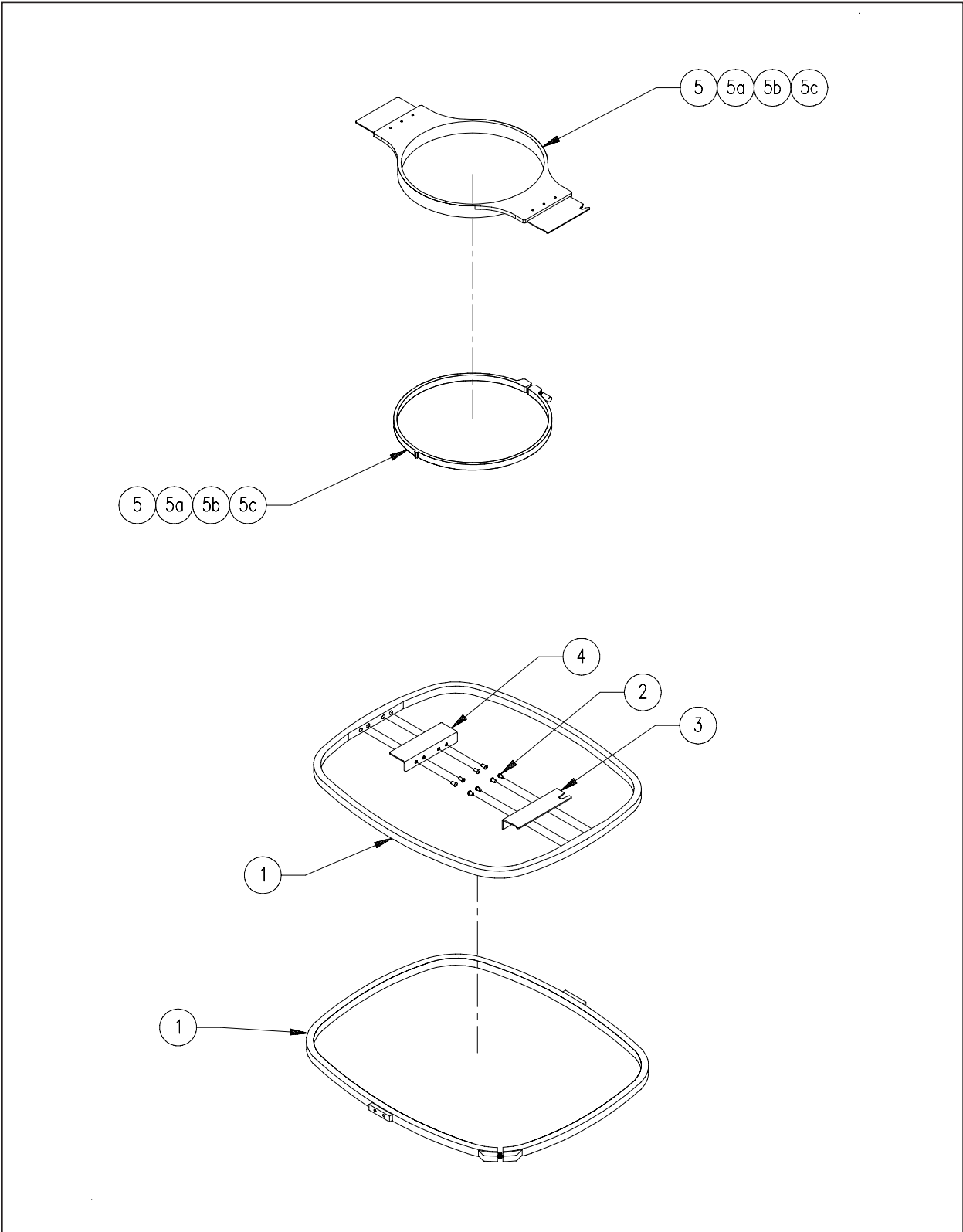
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	004949-01	Block, Mount, Cap Gauge	
2*	010196-01	Cylinder, Gauge	
3*	680430-03	Nut, Hex, M3	
4*	690439-03	Washer, Flat, M3	
5*	004229-01	Clip, Roller, Assembly	
6*	006558-08	Screw, Pan Head, Slotted, M3 x 0.5 x 8mm	
7*	670038-06	Screw, Socket Head Cap, 10-32 x 3/8"	
8*	690033-03	Washer, Lock, Split, #10	
9	010467-01	Strap, Rubber, Gauge, 2.38" x 18.00" x .0625" Thick	
10	010973-01	Strap, Rubber, Gauge, 2.38" x 18.00" x .125" Thick	

Note:

The following can be replaced as a factory built assembly:

\*010195-01 Gauge, Cap Frame, Wide-Angle

# Tubular Hoops (1 of 2)



**Figure 47**

**Tubular Hoops (1 of 2)****Reference Figure 45**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	006454-01	Hoop, 36cm x 30cm, w/Insert	
2*	003136-06	Screw, Button Head Socket, M3 x 0.5 x 6mm	
3*	008253-01	Bracket, Tubular, I/F, Right	
4*	008254-01	Bracket, Tubular, I/F, Left	
5	10214	Hoop, Tubular, 22cm, w/Interface Brackets	
5a	10215	Hoop, Tubular, 18cm, w/Interface Brackets	
5b	10216	Hoop, Tubular, 15cm, w/Interface Brackets	
5c	10217	Hoop, Tubular, 12cm, w/Interface Brackets	

Note:

The following can be replaced as a factory built assembly:

\*010942-01 Hoop, Tubular, 36cm x 30cm, Assembly

# Tubular Hoops (2 of 2)

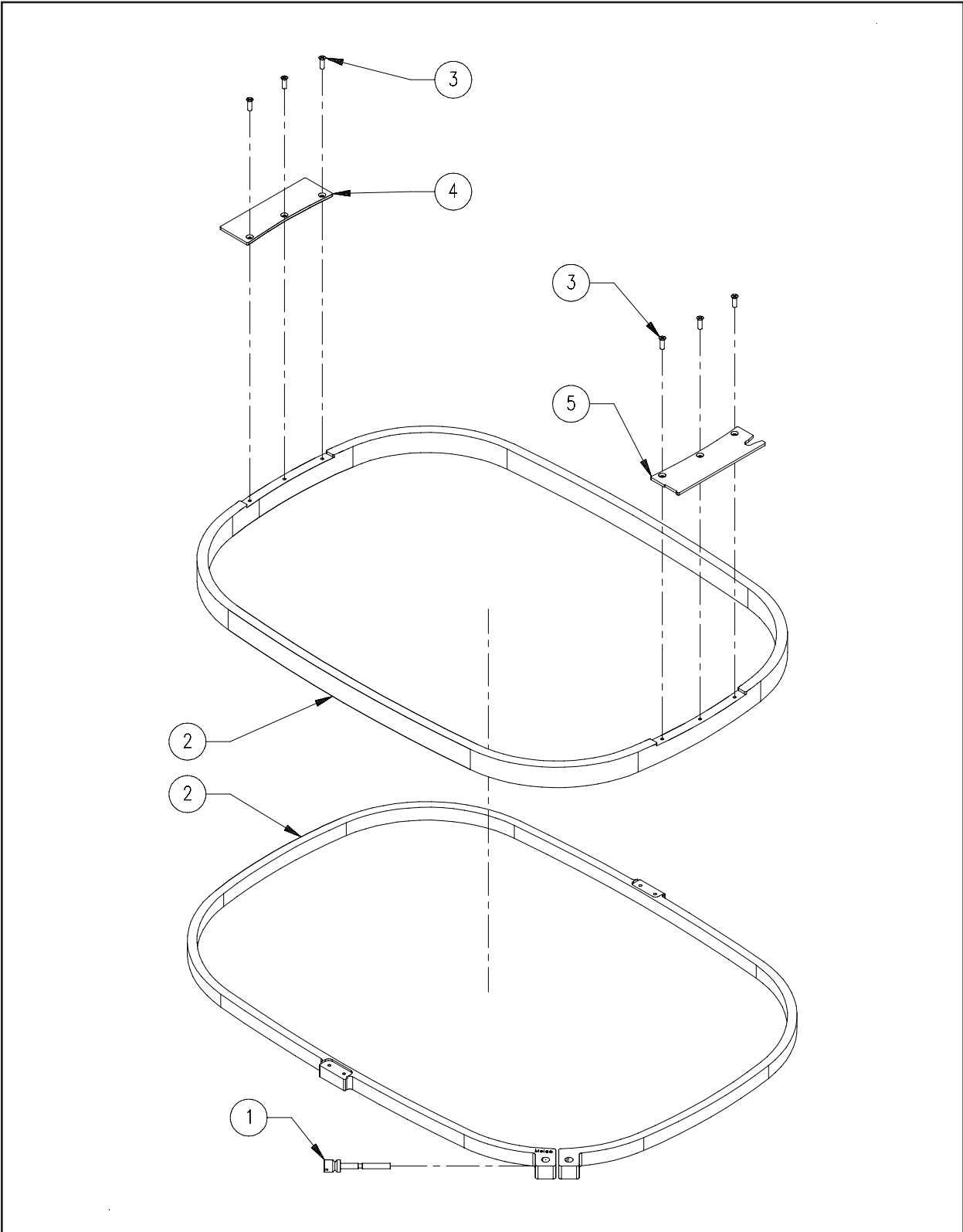


Figure 48



**Tubular Hoops (2 of 2)****Reference Figure 46**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	005576-01	Screw/Barrel Nut, Hoop, Assembly	
2*	010194-03	Hoop, Oval, 44cm x 30cm	
3*	001935-08	Screw, Flat Head Phillips, M3 x 0.5 x 8mm	
4*	010447-02	Bracket, Tubular Hoop, Left	
5*	010446-02	Bracket, Tubular Hoop, Right	

Note:

The following can be replaced as a factory built assembly:

\*010204-01 Hoop, Tubular, Oval, 44cm x 30cm, Assembly

# Mobile Cart

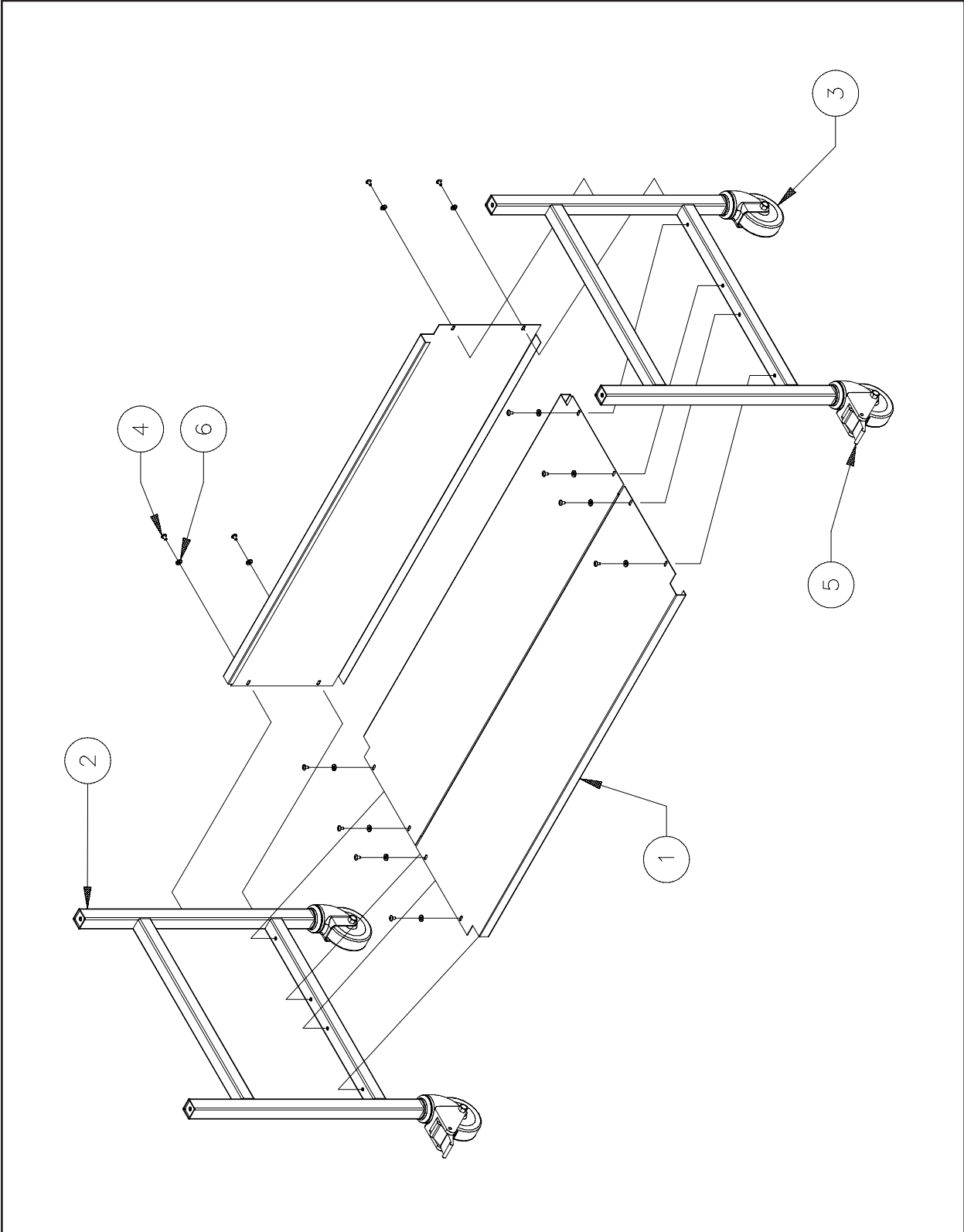
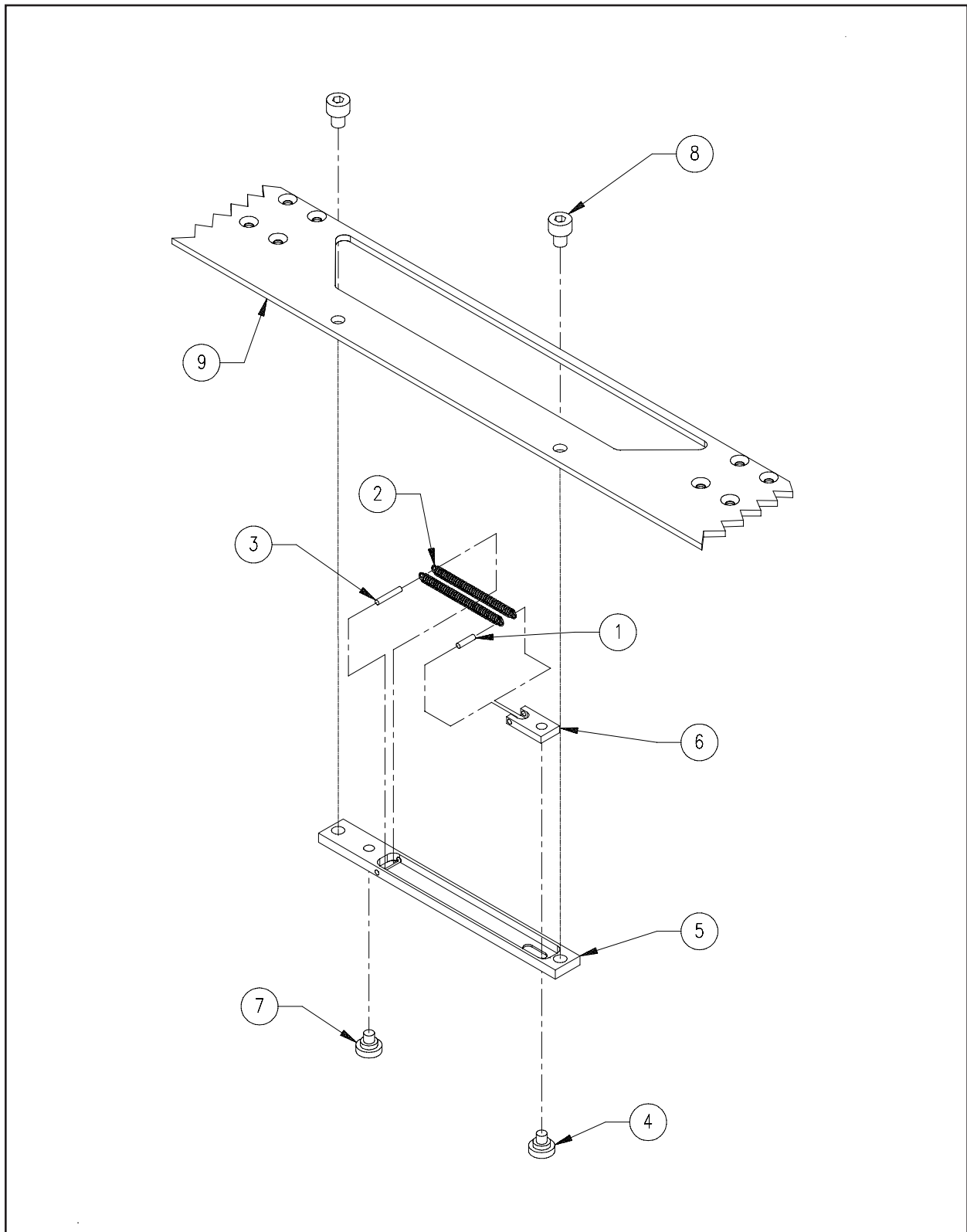


Figure 49

**Mobile Cart****Reference Figure 47**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	11701	Shelf	
2	11702	Side	
3	009989-01	Castor, 4", w/Brake	
4	010309-10	Screw, Truss Head Phillips, M5 x 0.8 x 10mm	
5	010469-01	Castor, 4", w/Brake	
6	690034-03	Washer, Flat, #10	

# Hoop Interface



**Figure 50**

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**Hoop Interface** **Reference Figure 48**

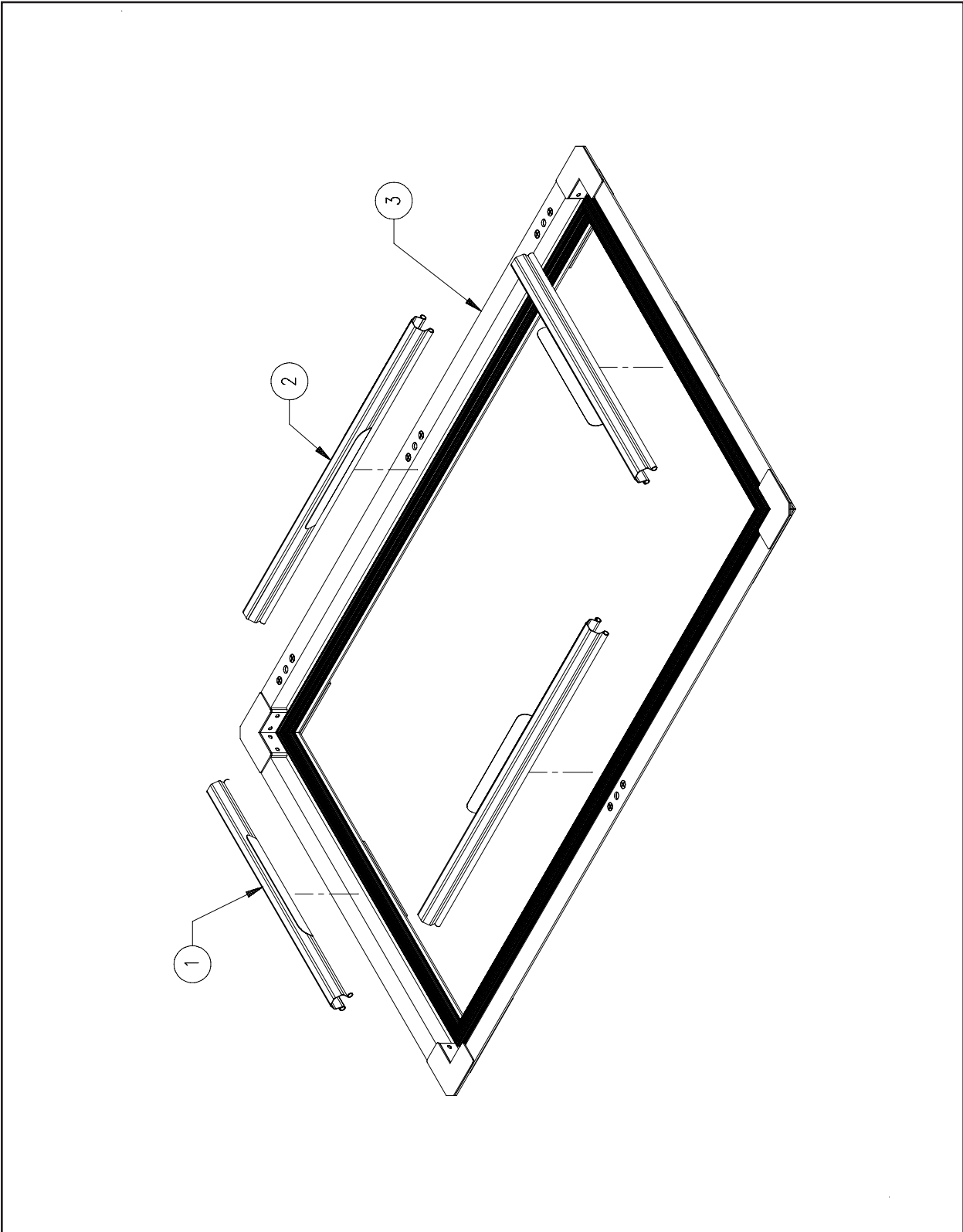

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<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	010378-08	Pin, Roll, 2mm x .315"	
2*	010379-01	Spring, Extension, .125" OD x 1.75"	
3*	010378-12	Pin, Roll, 2mm x .472"	
4*	010376-01	Locator, Movable Interface, Pin Type	
5*	010374-01	Block Interface, Pin Type	
6*	010375-01	Slide Interface, Pin Type	
7*	010377-01	Locator, Fixed Interface, Pin Type	
8*	010172-08	Screw, Socket Head Cap, M5 x 0.8 x 8mm, Zinc Plate	
9	009478-02	Carriage, X-Axis Rack	

Note: The following can be replaced as a factory built assembly:

\*010395-01 Interface, Hoop, Pin Type, Assembly

# Sash Frame



**Figure 51**

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**Sash Frame** **Reference Figure 49**

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<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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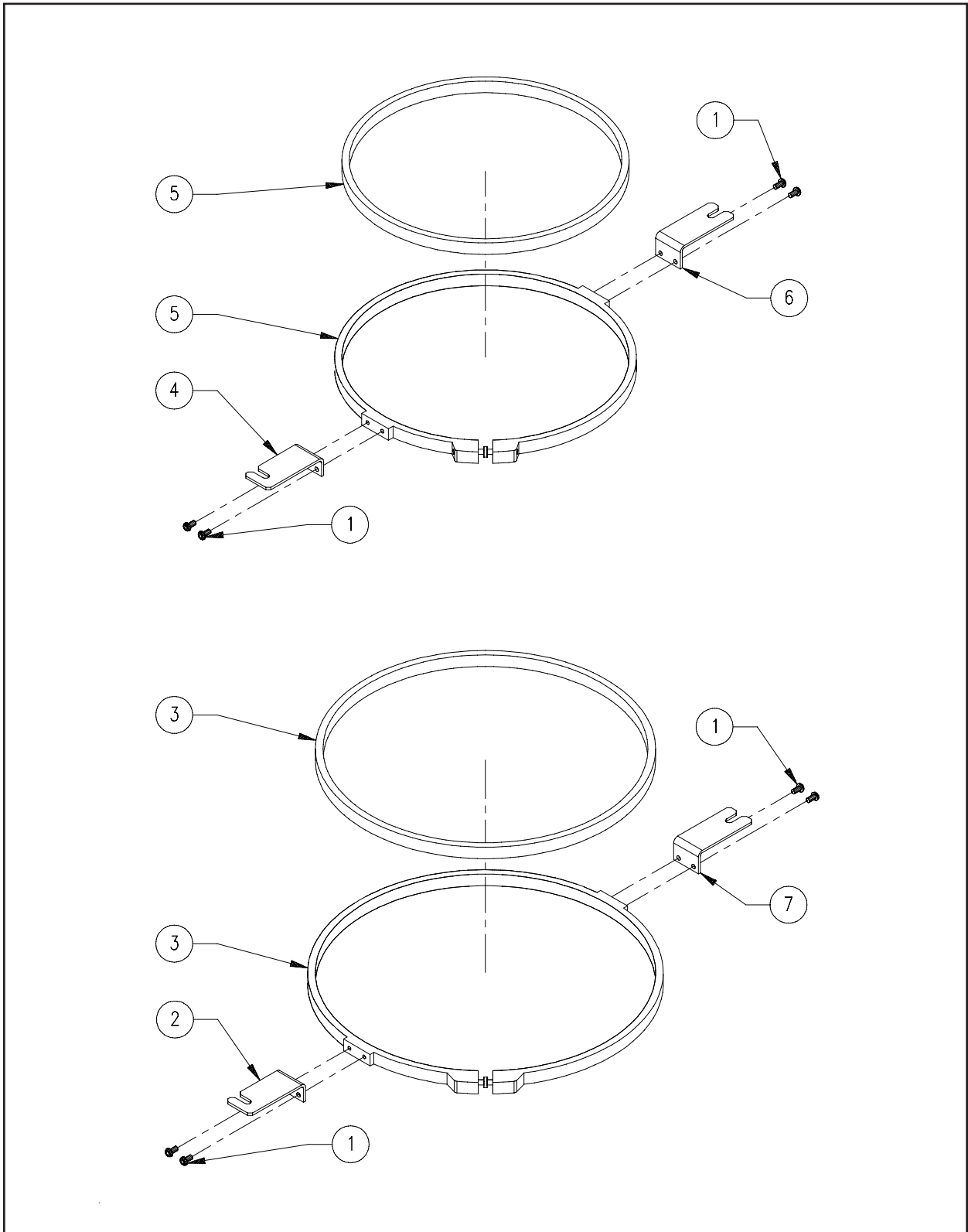
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1*	007598-01	Clip, Border Frame, 220mm	
2*	008177-01	Clip, Border Frame, 300mm	
3*	010764-02	Sash Frame, EMT 10T F1, Assembly	

Note: The following can be replaced as a factory built assembly:

\*010452-01 Option, Sash Frame, EMT 10T F1, Assembly

## Sash Hoops (21cm, 25cm)



**Figure 52**



**Sash Hoops (21cm, 25cm)****Reference Figure 50**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*•	003136-06	Screw, Button Head Socket, M3 x 0.5 x 6mm	
2*	010756-02	Bracket, Front, 25cm Hoop	
3*	007592-01	Hoop, 25cm, w/Arms	
4•	010759-02	Bracket, Front, 21cm Hoop	
5•	005404-01	Hoop, 21cm, w/Arms	
6•	010758-02	Bracket, Rear, 21cm Hoop	
7*	010755-02	Bracket, Rear, 25cm Hoop	

Note: The following can be replaced as a factory built assembly:

- \*010757-01 Hoop, Sash, Round, 25cm
- 010760-01 Hoop, Sash, Round, 21cm

**A**


---

Arm, Drive, Grabber 18-2  
 Arm, Drive, Movable Knife 19-2  
 Assembly, CPU/TI, EMT, w/Prog. Chips installed 21-2

**B**


---

Bar, Drive Ring 45-2  
 Bar, Grabber 11-2  
 Bar, Guide 36-2  
 Bar, Idler, Assembly 16-2  
 Bar, Needle 11-2  
 Base, Cap Frame, Assembly 37-2  
 Base, Drive Ring 39-2,40-2  
 Base, Drive, Lever, Take-Up, PHS II 17-2  
 Base, Picker 19-2  
 Base, Power Supply 23-2  
 Base, Strain Relief, Operator I/F 4-2  
 Base, Tensioner 13-2  
 Bearing, Ball, Radial, 15mm ID 14-2  
 Bearing, Ball, Radial, 8mm ID 14-2  
 Bearing, Cross-Roller 12-2  
 Bearing, Flanged 39-2  
 Bearing, Flanged Housing, 15mm ID 25-2  
 Bearing, Flanged, 6mm ID x 12mm OD 44-2  
 Bearing, Linear 39-2  
 Bearing, Panel, 1/4" ID 44-2  
 Bearing, Radial, 4mm ID x 9mm OD 12-2  
 Bearing, Shaft, Guide 15-2

Bearing, Sleeve, Frelon 36-2  
 Bearing, Thrust, 8mm 8-2  
 Belt, Timing, 1/5P, 104 Groove, 3/8" Wide 14-2  
 Belt, Timing, 39T, 1/5P 8-2  
 Belt, Timing, 80 Groove, 1/5P, 3/8" Wide 31-2  
 Belt, X-Drive, AT3, 17mm Wide X 1160mm Long 24-2  
 Belt, Y-Drive, AT5, 16MM Wide X 1060MM Long 26-2,27-2  
 Belt, Y-Motor, 82T, 1/5P XL, 9.5MM Wide 25-2  
 Blade, Grabber 18-2  
 Blade, Sensor, Interruptor 10-2  
 Block Interface, Pin Type 50-2  
 BLOCK, BEARING, MOTOR, X-AXIS 24-2  
 Block, Bearing, Y-Rail, Assembly 26-2,27-2  
 Block, Locator, Brim 37-2  
 Block, Mount, Cap Gauge 46-2  
 Block, Mounting, Cap Gauge, Assembly 38-2  
 Block, Mounting, Switch 5-2  
 Block, Return, Y-Drive 28-2,29-2  
 Block, Sensor, X-Drive 24-2  
 Block, Tensioner 24-2  
 Block, Y-Drive, Assembly 26-2,27-2  
 Bobbin, Aluminum 5-2  
 Bolt, Adjuster, Trimmer 20-2  
 Bolt, Support 24-2  
 Bracket, Angle, Table Top, Long 1-2  
 Bracket, Angle, Table Top, Short 1-2

- Bracket, Base, Winder 5-2
- Bracket, Bed, Cable 19-2
- Bracket, Blank, PC 21-2
- Bracket, Cable 36-2
- Bracket, Clamp, Left Hand 41-2,42-2
- Bracket, Clamp, Right Hand 41-2
- Bracket, Drive 36-2
- Bracket, Drive Ring 41-2
- Bracket, Enclosure, Disk Drive 3-2
- Bracket, Ethernet Card Connector 22-2
- Bracket, Frame Holder, Gauge Set 38-2
- Bracket, Front, 21cm Hoop 52-2
- Bracket, Front, 25cm Hoop 52-2
- Bracket, Grabber, Lower, Flared 11-2
- Bracket, Hinge 37-2
- Bracket, Holder, Bar 40-2
- Bracket, Interface, Cap Frame 45-2
- Bracket, Jump Stitch Solenoid 14-2
- Bracket, Latch 14-2,37-2
- Bracket, Left End, Beam Support 24-2
- Bracket, Left, Mounting 27-2
- Bracket, Motor Board Connector 22-2
- Bracket, Mount, D-Sub 35-2
- Bracket, Mounting, Disk Drive 3-2
- Bracket, Mounting, Display 4-2
- Bracket, Mounting, Grabber Drive 18-2
- Bracket, Mounting, Z-Cover 1-2,2-2
- Bracket, Needle Plate 14-2,19-2
- Bracket, Picker 14-3,19-2,32-2
- Bracket, Pivot, Display 4-2
- Bracket, Pretensioner 13-2
- Bracket, Rear, 21cm Hoop 52-2
- Bracket, Rear, 25cm Hoop 52-2
- Bracket, Right End, Beam Support 24-2
- Bracket, Right, Mounting 26-2
- Bracket, Solenoid, Mounting 20-2
- Bracket, Spring, Mount 19-2
- Bracket, Stopper, Delrin 15-2
- Bracket, Stopper, Steel 15-2
- Bracket, Strap, Rubber 43-2
- Bracket, Support, Left Hand 40-2
- Bracket, Support, Right Hand 40-2
- Bracket, Support, Take-Up Lever Guide 12-2
- Bracket, Switch, Adjusting 20-2
- Bracket, Tensioner 13-2
- Bracket, Thread Tree Support 9-2
- Bracket, Transition 18-2
- Bracket, Tube, Thread 2-2,7-2
- Bracket, Tubular Hoop, Left 48-2
- Bracket, Tubular Hoop, Right 48-2
- Bracket, Tubular, I/F, Left 47-2
- Bracket, Tubular, I/F, Right 47-2
- Bracket, Tubular, Left, Assembly 25-2
- Bracket, Tubular, Right, Assembly 25-2
- Bracket, Wire Guard 8-2
- Breaker, On/Off, 4A 35-2

Bulb, 12V/12W 6-2

Bumper, Motor Stop 18-2

Bushing, Base, Drive, Lever, Take-Up 17-2

Bushing, Bearing, Lower Guide 15-2

Bushing, Cradle, Spring 15-2

Bushing, Shaft, Bobbin Winder 5-2

Bushing, Shaft, Needle Bar 15-2

Bushing, Strain Relief 2-2

Bushing, Tensioner 13-2

## **C**

---

Cable, Drive Ring 36-2

Cable, Drive Ring, Assembly 41-2

Cable, E-Stop 35-2

Cable, Ethernet, Network, Interface 34-2,35-2

Cable, Floppy Drive 34-2,35-2

Cable, Ground, Braid, 6.5" 4-2,35-2

Cable, Ground, Pan, 4.75" 2-2,10-2,13-2

Cable, Jump Stitch 34-2,35-2

Cable, Jumper, Thread Break 35-2

Cable, Low Voltage Power 33-2,34-2

Cable, Power, Backplane 34-2

Cable, Thread/Color Change 34-2,35-2

Cable, X-Axis Flex 35-2

Cable, Power, Backplane 33-2

Cam, Color Change 8-2

Cam, Drive, Take-Up Lever 14-2

Cam, Trimmer 14-3

Cap, Spring 13-2

Card Cage, Bottom Cover 22-2

Card Cage, Front Cover, Single Head 22-2

Card Cage, Top Cover 22-2

Carriage, X-Axis Rack 50-2

Carriage, X-Beam 24-2

Case, 10 Needle 11-2

Case, Bobbin, wo/Spring 14-2

Case, Gear, Drive, Lever, Take-Up 17-2

Castor, 4", w/Brake 49-2

Castor, 4", wo/Brake 49-2

Catch, Pull 37-2

Clamp, Belt, Y-Drive 26-2,27-2

Clamp, Bottom, Belt, X-Drive 24-2

Clamp, Hold Down, Left Hand 41-2,42-2

Clamp, Hold Down, Right Hand 41-2

Clamp, Needle 11-2

Clamp, Ribbon Cable, 3.31" 13-2

Clamp, Split-Hub, 8mm ID 8-2

Clamp, Stop, Needle Bar 11-2

Clamp, Swivel, Picker 20-2

Clamp, Top, Belt, X-Drive 24-2

Clip, Border Frame, 220mm 51-2

Clip, Border Frame, 300mm 51-2

Clip, Cap Frame 43-2

Clip, Fixing, Drive Arm 19-2

Clip, Roller, Assembly 41-2,42-2,46-2

Clip, Roller, Cap Frame Driver, Assembly 36-2,38-2

- Clip, Tubing 7-2
  - Collar, Picker 19-2
  - Collar, Shaft, 1/2" ID 36-2
  - Collar, Shaft, Headup 14-2
  - Collar, Support, Gear 14-2
  - Collar, Tensioner, Assembly 13-2
  - Connector, Dual Cap Frame 32-2
  - Cord, Shock, Cap Frame 37-2,43-2
  - Counterweight, Phase II 14-2
  - Coupler, In-Line, 6 Position 35-2
  - Coupler, Shaft, Helical, 1/4" x 1/4" 31-2
  - Cover, Bed, Front 7-2
  - Cover, Bed, Rear 7-2
  - Cover, Blade, Front 18-2
  - Cover, Blade, Rear 18-2
  - Cover, Blade, Top 18-2
  - Cover, Cable, Operator I/F 4-2
  - Cover, Cap Frame Bracket 32-2
  - Cover, Cap, Hex, M6 39-2
  - Cover, Drive, Color Change, Left 7-2
  - Cover, Drive, Color Change, Right 7-2
  - Cover, Drive, Grabber Motor 18-2
  - Cover, Front, Arm, Left 12-2
  - Cover, Front, Arm, Right 12-2
  - Cover, LED, Yellow 13-2
  - Cover, LEDs 1-2
  - Cover, Needle Case, Lower 10-2
  - Cover, Needle Case, Upper 10-2
  - Cover, Operator Interface 3-2
  - Cover, Power Supply 23-2
  - Cover, Rear 16-2
  - Cover, Rear, Tensioner, Bracket, Left 2-2
  - Cover, Rear, Tensioner, Bracket, Right 2-2
  - Cover, Side 1-2
  - Cover, X-Beam 25-2
  - Cover, X-Motor/PCB 25-2
  - Cover, Z-Motor 2-2
  - Cylinder, Drive Ring 41-2,42-2
  - Cylinder, Gauge 46-2
- D**
- 
- Damper, Needle Case 11-2
  - Damper, Needle Clamp 11-2
  - Disc, Tensioner 5-2
  - Disk, Plastic 13-2
  - Disk, Pretensioner 13-2
  - Disk, Tensioner, Thread, Assembly 13-2
  - Door, Disk Drive 3-2
  - Drive, Disk, 3-1/2" 3-2
- E**
- 
- Encoder, Z-Axis 31-2
- F**
- 
- Felt, Needle Case 11-2
  - Ferrite, Split, Large 35-2
  - Flag, Home, Grabber 18-2
  - Flag, Y-Home 25-2
  - Follower, Assembly 17-2

Foot, Presser, Assembly 11-2  
Frame, Assembly 1-2  
Frame, Lower, w/Rubber, 6-Panel 37-2  
Frame, Movable, Machined 20-2  
Fuse, 5A, TD 23-2

---

**G**

Gauge, Cap Frame, Weldment 38-2  
Gear, Drive, Lever, Take-Up 17-2  
Grommet, 3.3" 3-2  
Grommet, Actuator Lever 5-2  
Guard, Switch 35-2  
Guide, Grabber 18-2  
Guide, Take-Up Lever 12-2  
Guide, Thread, Lower, w/Eyelet 10-2  
Guide, Thread, Middle, w/Eyelet 10-2  
Guide, Thread, Upper, Assembly 13-2  
Guide, Thread, Winder 5-2

---

**H**

Harness, Bed, Under Thread Control 35-2  
Harness, Bobbin Winder 33-2,35-2  
Harness, Circuit Breaker 33-2,35-2  
Harness, Color/Grabber-Encoder/Motor 34-2,35-2  
Harness, Head 34-2,35-2  
Harness, Keyboard/Display 34-2,35-2  
Harness, Power Entry, EMT 10 23-2  
Harness, Start/Stop/Frame 35-2  
Harness, X-Axis Collector 34-2,35-2

Harness, Y-Z Axis 34-2,35-2  
Hinge, Cap Frame 43-2  
Holder, Cable Tie, .75" Square 5-2  
Holder, Clip 43-2  
Holder, Cord, Visor Clamp 37-2  
Holder, Fuse 23-2  
Holder, Visor 43-2  
Hook, Rotary, Small Bobbin 14-2  
Hoop, 21cm, w/Arms 52-2  
Hoop, 25cm, w/Arms 52-2  
Hoop, 36cm x 30cm, w/Insert 47-2  
Hoop, Oval, 44cm x 30cm 48-2  
Hoop, Tubular, 12cm, w/Interface Brackets 47-2  
Hoop, Tubular, 15cm, w/Interface Brackets 47-2  
Hoop, Tubular, 18cm, w/Interface Brackets 47-2  
Hoop, Tubular, 22cm, w/Interface Brackets 47-2  
Housing, Bearing 39-2  
Housing, Drive, Color Change 8-2  
Hub, Cap Driver, Phase II 36-2  
Hub, Shaft, Arm, Winder 5-2

---

**I**

Idler, Block, Y-Drive, Left, Assembly 27-2  
Idler, Block, Y-Drive, Right, Assembly 26-2  
Insulator, Thread Break 13-2

---

**K**

Key, Color Change Mount 7-2  
Key, Shaft, 6mm x 6mm x 32mm 32-2  
Keycap, Alt 3-2

Keycap, Color Change 3-2

Keycap, Enter 3-2

Keycap, Fast/Slow 3-2

Keycap, Horizontal Arrow, Left 3-2

Keycap, Horizontal Arrow, Right 3-2

Keycap, Jog 3-2

Keycap, Menu 3-2

Keycap, Vertical Arrow, Down 3-2

Keycap, Vertical Arrow, Up 3-2

Knife, Adjustable 19-2

Knife, Movable 19-2

Knob, Adjust, Pretensioner, Plastic 5-2,13-2

Knob, Extension, Pot 3-2

Knob, Knurled, Black, M3 40-2

Knob, Knurled, Black, M5 39-2

Knob, Knurled, M5, Black 32-2,36-2

Knob, Tensioner, Black, Assembly 13-2

## **L**

---

Lamp, Flexible, w/Switch, 12V/12W 6-2

Latch, Jump Stitch 14-3

Latch, Takigen 43-2

Latch, Touch 3-2

Lens, Pushbutton, Black w/Legend 3-2

Lens, Pushbutton, Grey w/Legend 3-2

Lens, Pushbutton, White w/Legend 3-2

Lever, Actuator, Bobbin Winder 5-2

Lever, Drive, Lever, Take-Up 17-2

Lever, Take-Up, Assembly 11-2

Linear Rail, Size 9, 800MM L, M3 24-2

Link, Connecting 19-2

Link, Connecting, Picker 19-2

Locator, Brim, Cap Frame 43-2

Locator, Cap Frame 36-2

Locator, Drive Ring 42-2

Locator, Fixed Interface, Pin Type 50-2

Locator, Movable Interface, Pin Type 50-2

Lock, Shaft, .25" ID 40-2

## **M**

---

Magnet, Thread Retaining 10-2

Motor, Color Change 8-2

Motor, Modified, Winder 5-2

Motor, Servo, X-Axis, Assembly 24-2

Motor, Servo, Y-Axis 30-2

Motor, Y-Axis, Assembly 25-2

Motor, Z-Drive 31-2

Motor/Encoder, Assembly 18-2

Mount, Cable Tie 19-2

Mount, Dove Tail, Cap Frame 32-2

Mount, Drive Ring 36-2

Mount, Front, Drive Ring 39-2

Mount, Male, Cap Frame 36-2

Mount, Picker 19-2

Mount, Solenoid, Trimmer 20-2

## **N**

---

Nipple, Support, Tensioner Disk 40-2

Nut, Swivel, 3/8-16 38-2

Nut, Tensioner, Drive Ring 41-2

Nut, Wing, M3 43-2

## **O**

---

O-Ring, .187" ID x .06" Thick 14-3

O-Ring, 2-7/16" ID x 3/16" Dia. 5-2

O-Ring, 3/16" ID x 5/16" OD x 1/16" Thick 5-2

## **P**

---

Pad, Cone, Thread 5-2

Pad, Cushion, Disk Drive 3-2

Pad, Felt, .065" Thick 13-2

Pad, Felt, .095" Thick 13-2

Pad, Guide, Shaft 39-2

Pad, Holder, Bar 40-2

Pad, Leveling 1-2

Pad, Reservoir, Felt 12-2

Pad, Support, Cylinder 40-2

Pad, Thread Tree 9-2

PCB, Assy, Universal Power Supply PCB, EMT10  
23-2

PCB, Backplane, Assembly 21-2,34-2

PCB, EMT Operator Interface, Assembly 3-2

PCB, EMT, Color Change, Assembly 8-2

PCB, Interface, Assembly 21-2

PCB, LV Drivers, Assembly 21-2

PCB, Motor Drive, Assembly 34-2

PCB, Motor Driver, Assembly 21-2

PCB, Network, Intel, Pro 10 21-2,34-2

PCB, Thread Break, Assembly 13-2

PCB, X-Beam/Rack, Assembly 25-2

PCB, Y-Home, Assembly 27-2

Pedestal, Control Interface 4-2

Picker 19-2

Picker, Solenoid, Assembly 20-2

Pigtail 13-2

Pillar, Head, Support 7-2

Pin, Dowel, .25" OD x .50" 11-2

Pin, Dowel, 1/4" OD x .750" 31-2

Pin, Dowel, 3mm OD x 12mm Long 14-2

Pin, Groove, 1/8" OD x 5/8" 17-2

Pin, Groove, 1/8" OD x 7/8" 36-2

Pin, Latch 14-3

Pin, Pivot, Door 3-2

Pin, Roll, 2mm x .315" 50-2

Pin, Roll, 2mm x .472" 50-2

Pin, Spring, 3mm 12-2

Pin, Swivel, Front 19-2

Plate Mounting, Z-Drive Motor 31-2

Plate, Base, Operator Interface 3-2

Plate, Base, Winder 5-2

Plate, Bearing, Retainer 12-2

Plate, Coupler 1-2

Plate, Encoder 31-2

Plate, E-Stop 2-2

Plate, Guide, Needle Bar 10-2

Plate, Interface, Flanged Bearing 25-2

Plate, Interface, Y-Motor 30-2



Plate, Link Adjusting 20-2  
 Plate, Mounting, Grabber Home 18-2  
 Plate, Needle, Pocketed 14-2  
 Plate, Position, Machined 12-2  
 Plate, Retainer, Bearing, Arm Shaft 14-2  
 Plate, Strain Relief, Operator I/F 4-2  
 Plate, Table Top, Locator, Rear 1-2  
 Plate, Table Top, Locator, Side 1-2  
 Plate, Tensioner, Y-Moto 25-2  
 Plate, Thread Tree 9-2  
 Plunger, Ball, 1/4-20, 7lbs. 5-2  
 Post, Bobbin, Storage 5-2  
 Post, Cap Frame 43-2  
 Post, Cap Frame, Weldment 43-2  
 Post, Guide 5-2,13-2  
 Post, Pretensioner 13-2  
 Post, Tensioner 13-2  
 Post, Tensioner, Winder 5-2  
 Post, Thread, Winder 5-2  
 Power Entry Module, Filtered, 6A 23-2,35-2  
 Presser, Under Thread 19-2  
 Pulley, 16T, 3/8" ID, w/Hub 31-2  
 Pulley, 5.08 MM Pitch, 15 Groove 30-2  
 Pulley, Adjustable, Top, 32T, 1/5P 14-2  
 Pulley, Drive, Bobbin, Bottom, 16T, 1/5P 14-2  
 Pulley, Drive, Bobbin, Top, 32T, 1/5P 31-2  
 Pulley, Drive, Y-Drive 25-2  
 Pulley, Hub, Adjustable 14-3

Pulley, Idler, Y-Drive, Assembly 28-2,29-2  
 Pulley, Main, Y-Drive 25-2  
 Pulley, Timing, 1/5P, 12 Groove 8-2  
 Pulley, Timing, 5.08mmP, 16 Groove 8-2

## **R**

---

Rail, Guide, Lower 11-2  
 Reciprocator 15-2  
 Re-inforcement, Self-Adhesive 13-2  
 Ring, Drive, Cap Frame 36-2  
 Ring, Retainer, E-Style 37-2  
 Ring, Retainer, External, 5/16" ID 15-2,16-2  
 Ring, Retaining, External, .188" 20-2  
 Rod, Connecting 14-2  
 Rod, Crank, 90 Deg 14-2  
 Rod, Guide 18-2  
 Roller, Drive Ring 39-2  
 Roller, Idler 16-2  
 Roller, Movable, Frame 20-2

## **S**

---

Sash Frame, EMT 10T, Assembly 51-2  
 Screw, Needle Plate 14-2  
 Screw, Rotary Hook 14-2  
 Screw, Set, Cam 14-2  
 Screw, Special, Cap Frame 37-2  
 Screw, Thumb, Wing-Head, 3/8-16 x 1.5" 38-2  
 Screw/Barrel Nut, Hoop, Assembly 48-2  
 Screwlock, 4-40 ID x 5/16" 22-2  
 Seal, Rubber, 3/8" x 1/2" 22-2

- Seat, Cone, Thread 5-2
- Seat, Cone, Thread, Thread Tree 9-2
- Sensor, Optical, Switch, Assembly 24-2
- Sensor, Under Thread Control, Assembly 14-2
- Set, Cover, Rotary Hook 7-2
- Shaft Cover, Frame Holder 38-2
- Shaft, Arm 14-2
- Shaft, Arm, Winder 5-2
- Shaft, Bobbin, Phase II 14-2
- Shaft, Cam, Color Change 8-2
- Shaft, Cap Frame 36-2
- Shaft, Drive Ring 39-2
- Shaft, Drive, Lever, Take-Up 17-2
- Shaft, Frame Holder, Gauge Set 38-2
- Shaft, Guide, Drive Ring 39-2
- Shaft, Guide, Needle Bar 15-2
- Shaft, Return 28-2,29-2
- Shaft, Roller 39-2
- Shaft, Roller, Eccentric 39-2
- Shaft, Roller, Movable Frame 20-2
- Shaft, Take-Up Lever 11-2
- Shaft, Y-Drive 25-2
- Shaft, Y-Rail 26-2,27-2
- Shelf 49-2
- Shim, Needle Case 11-2
- Side 49-2
- Slide Interface, Pin Type 50-2
- Solenoid, Jump Stitch 14-2
- Solenoid, Trimmer, Assembly 20-2
- Spacer 37-2
- Spacer, Interface, Wide Angle Cap Frame 45-2
- Spacer, Linear Carriage 24-2
- Spacer, Nylon, .14" ID x .25" OD x .75" 40-2
- Spacer, Precision, .313" ID x .010" Thick 11-2
- Spacer, Precision, .313" ID x .016" Thick 11-2
- Spacer, Shaft, .128" ID x .317" OD x .03" Thick 19-2
- Spacer, Shaft, .375" ID x .562" OD x .016" Thick 8-2
- Spacer, Shaft, 1/4" ID x .002" Thick 11-2
- Spacer, Shaft, 5/16" ID x .016" Thick 16-2
- Spacer, Shaft, Take-Up Lever 11-2
- Spacer, Support, Velcro 11-2
- Spring, Check, Tensioner, Thread 13-2
- Spring, Compression 41-2,44-2
- Spring, Extension, .125" OD x 1.75" 50-2
- Spring, Holding, Needle Bar 11-2
- Spring, Idler 16-2
- Spring, Jump, Reciprocator 15-2
- Spring, Lower Thread Guide 10-2
- Spring, Picker, Front 19-2
- Spring, Presser Foot 11-2
- Spring, Pretensioner 13-2
- Spring, Return, Solenoid 20-2
- Spring, Shaft, Arm, Winder 5-2
- Spring, Tensioner 5-2

- Spring, Tensioner, Thread 13-2
- Spring, Trimmer Home 20-2
- Standoff, 10mm Hex, M-F, M5 x 0.8 x 16mm 20-2
- Standoff, Encoder, M-F, M4 x 0.7 x 2.01" 31-2
- Standoff, F/F, 1/2" Hex, 1/4-20 x 1" 31-2
- Standoff, F/F, Hex, M5 x 0.8 x 10mm 18-2
- Standoff, Hex, M-F, M4 x 0.7 x 22mm 8-2
- Standoff, Hex, M-F, M4 x 0.7 x 35mm 8-2
- Standoff, M/F, Hex, M4 x 0.7 x 25mm 18-2
- Standoff, M/F, Hex, M4 x 0.7 x 48mm 18-2
- Standoff, M/F, M4 x 0.7 x 31mm 3-2
- Standoff, M-F, 3/16" Round 13-2
- Stiffener, Table Insert 1-2
- Strap, Clamping, 72mm, 6-Panel 37-2
- Strap, Clamping, 82mm, 6-Panel 37-2
- Strap, Clamping, Cap Frame, w/Rubber 43-2
- Strap, Rubber, Gauge, 2.38" x 18.00" x .0625" Thick 46-2
- Strap, Rubber, Gauge, 2.38" x 18.00" x .125" Thick 46-2
- Stud, Bearing, Retainer 12-2
- Stud, Connecting, Needle Bar 11-2
- Stud, Connector, Reciprocator 15-2
- Stud, Press, 1/4" OD x 1/2" 16-2
- Support, Cap, Large, Machined 40-2
- Support, Cap, Small, Machined 40-2
- Support, Shaft, Rear 39-2
- Support, Tensioner Bracket 10-2
- Switch, Cap Frame, Dual 32-2
- Switch, E-Stop Block, 24mm 2-2
- Switch, E-Stop, 24mm 2-2
- Switch, Full, Bobbin, Assembly 5-2
- Switch, Momentary, w/Full Guard 3-2
- Switch, Optical, Assembly 18-2,20-2
- Switch, Pushbutton, Momentary 3-2
- Switch, Winder, On/Off, Assembly 5-2
- Swivel, Wire 18-2
- T**
- 
- Tab, Tensioner 13-2
- Table Top, Main 1-2
- Table Top, Rear, Left 1-2
- Table Top, Rear, Right 1-2
- Table Top, Side, Left 1-2
- Table Top, Side, Right 1-2
- TableTop, Rear, Right 6-2
- Tape, Adhesive, 2.25" 40-2
- Tape, Static, LCD 3-2
- Template, Panel 3-2
- Tensioner Disk 44-2
- Tensioner Disk Shaft 44-2
- Tensioner Disk Support 44-2
- Tensioner, X-Drive, Assembly 24-2
- Tensioner Disk Hub 44-2
- Terminal, Shock Cord 37-2
- Thread, Bobbin, White 14-2
- Tie, Cable, 3.1" 5-2

Tray, Table 1-2

Trim, Hand Hold 1-2

Trimmer, Picker, Solenoid, Opto, Assembly 35-2

Tube, Guide, Thread Tree, 9.7" 9-2

Tubing, .125" ID x .187" OD 7-2

Tubing, Thread Tree, 24", Assembly 9-2

---

**V**

Velcro, Wiper, Pile, Flared 11-2

V-Rail, Arm 12-2

V-Rail, Needle Case 12-2

---

**W**

Washer, Bellville, M6 4-2

Washer, Flat, Rectangle 36-2

Washer, Flat,Fender, M4 40-2

Washer, Head 7-2

Washer, Holder, Cable 41-2

Washer, Neoprene 5-2

Washer, Stainless Steel 19-2

Washer, Support, Spring 44-2

Washer, Thrust, 1.00mm Thick 8-2

Washer, Thrust, 2.75mm Thick 8-2

Washer, Wave, 22mm OD 14-2

Washer, Wave, 35mm OD 14-2

Weldment, Cap Frame, w/Rubber 43-2

Wrench, Hex, 4mm 39-2

Wrench, L-Hex, 3mm, Short Arm 45-2

---

**X**

X-Beam, Steel 24-2

X-Beam, X/Y Drive, EMT10T F1, Assembly 25-2

---

**Y**

Y-Drive, Left, X/Y Drive, EMT10T F1, Assembly 25-2

Y-Drive, Right, X/Y Drive, EMT10T F1, Assembly 25-2