


# Illustrated Parts Manual for the EMT 1 embroidery peripheral



- A Complete Illustrated Parts Manual
- Tubular
- 

Part Number 10947, Revision B

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# 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 1 Sewing Peripheral. This manual represents only the second phase of this product. The part number is 10517 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.

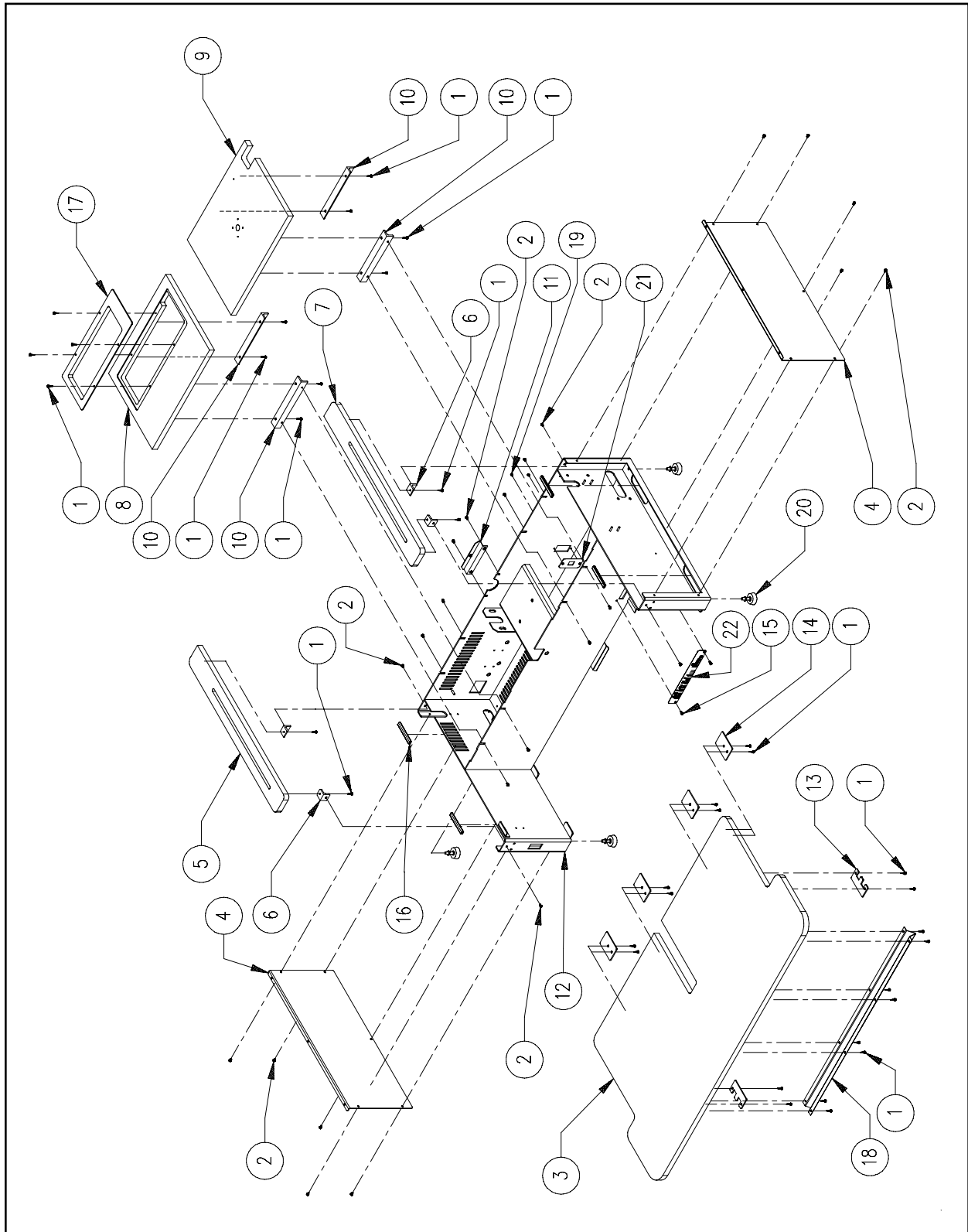
### **Index**

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**

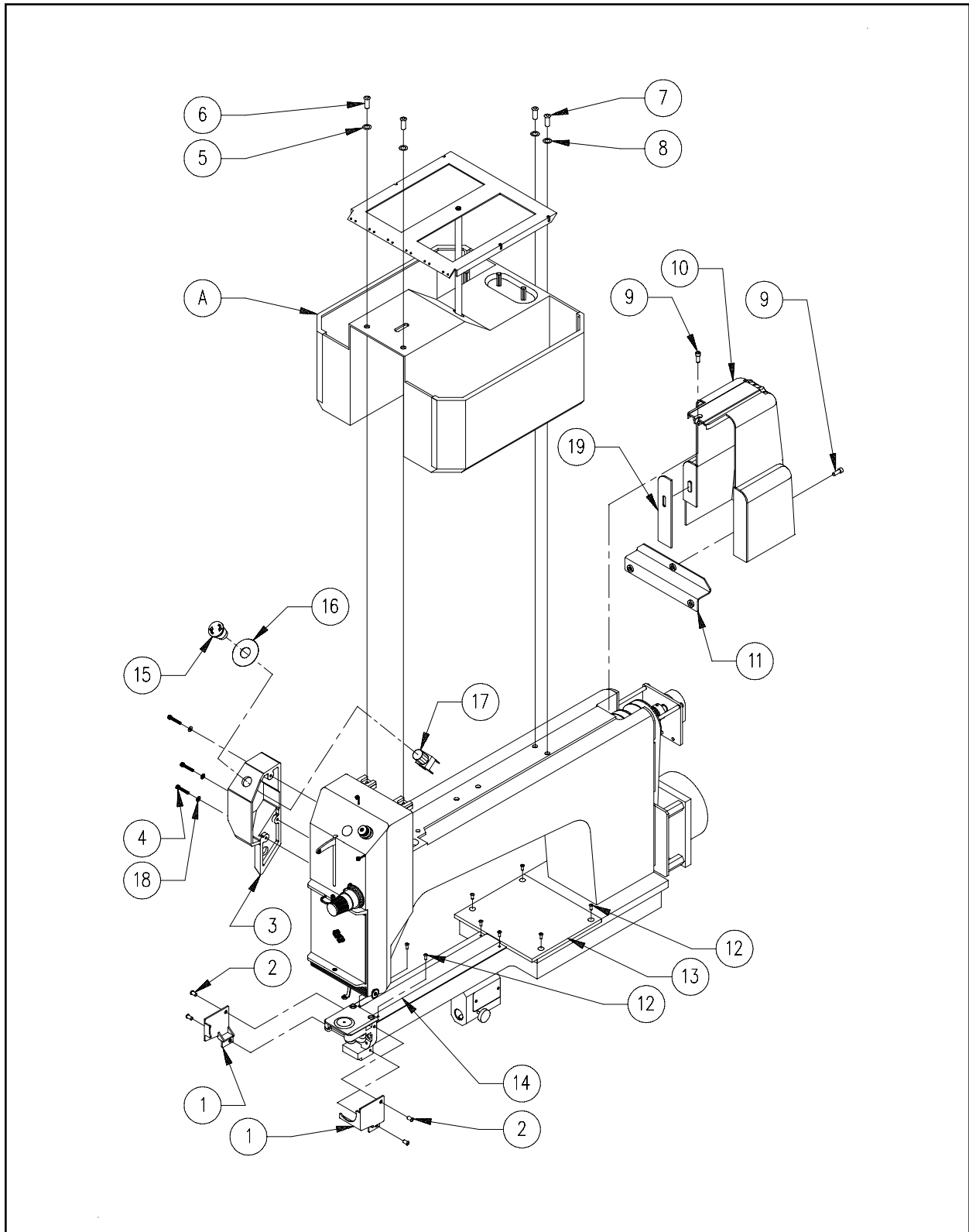


**Table Top/Machine Covers****Reference Figure 1**

<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	011106-01	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>
A	-----	Thread Tree	(See Page 6-1)
1	006529-01	Set, Cover, Rotary Cover	
2	003136-06	Screw, Button Head Socket, M3 x 0.5 x 6mm	
3	011124-01	Cover, E-Stop	
4	010170-20	Screw, Socket Head Cap, M3 x 0.5 x 20mm, Zinc Plate	
5	005033-01	Washer, Shoulder, Nylon, .156" ID x .188"	
6	003509-12	Screw, Button Head Socket, M4 x 0.7 x 12mm	
7	003509-20	Screw, Button Head Socket, M4 x 0.7 x 20mm	
8	690364-38	Washer, Flat, Nylon, #8	
9	010171-14	Screw, Socket Head Cap, M4 x 0.7 x 14mm, Zinc Plate	
10	010201-01	Cover, Z-Motor	
11	009814-01	Bracket, Mounting, Z-Cover	(See Page 1-1)
12	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	
13	006034-21	Cover, Bed, Rear	
14	007526-01	Cover, Bed, Front	
15	010104-01	Switch, E-Stop, 24mm	
16	010110-01	Plate, E-Stop	
17	010105-01	Switch, E-Stop Block, 24mm	
18	690439-03	Washer, Flat, M3	
19	011190-01	Plate, Front, Z-Drive Cover	

# Keyboard (1 of 2)

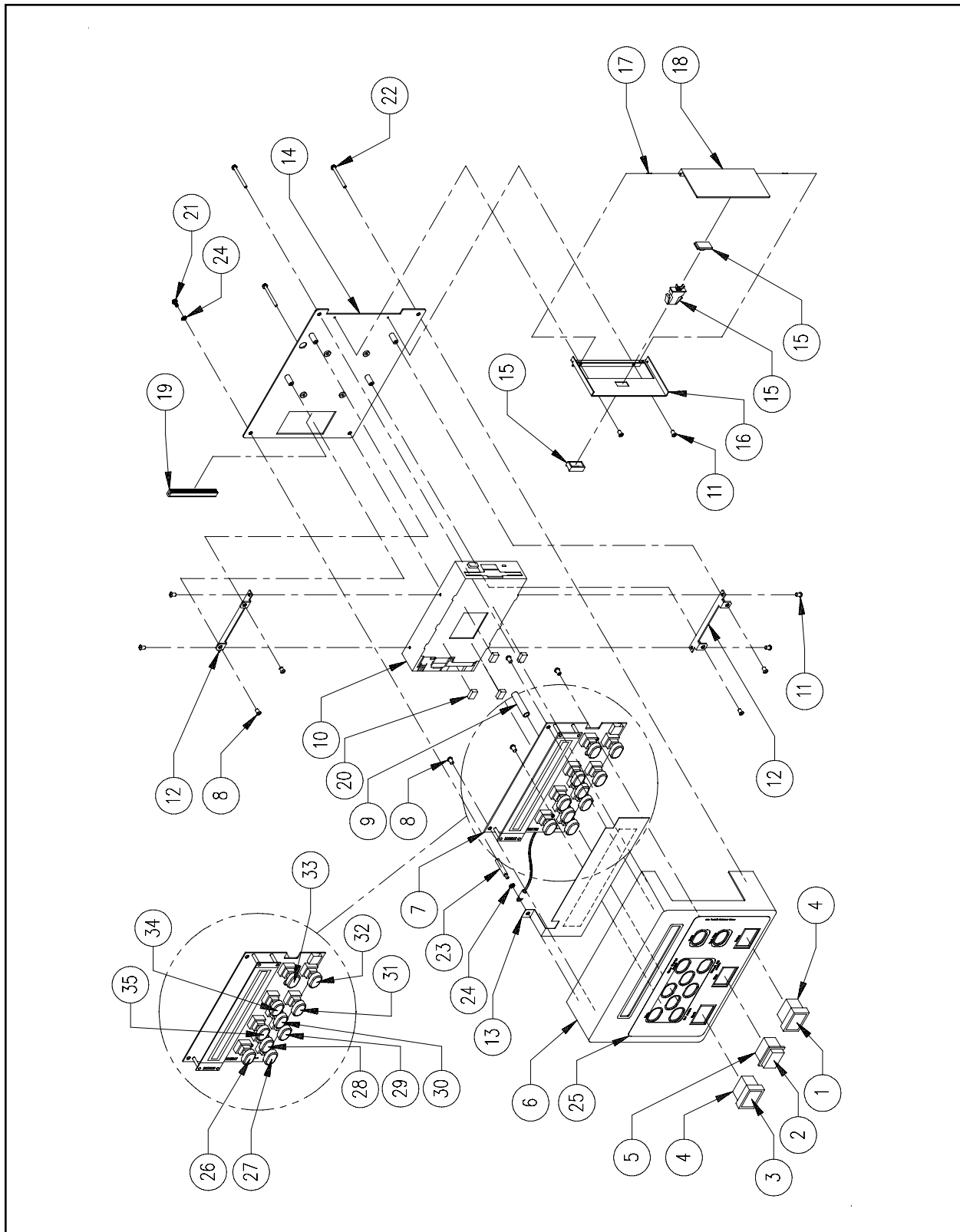


Figure 3

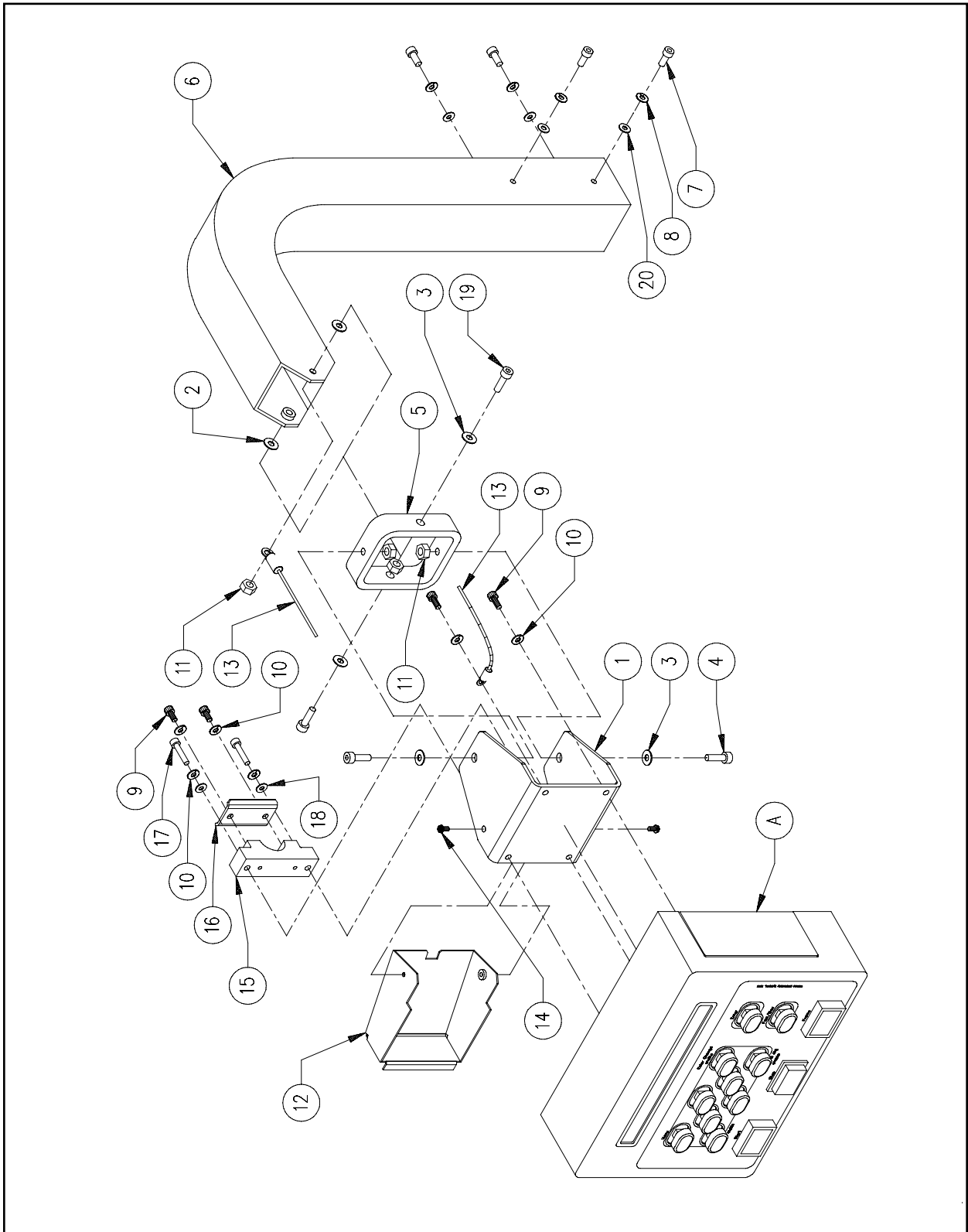
**Keyboard (1 of 2) (\*010612-01)****Reference Figure 3**

<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	004262-08	Screw, Pan Head Phillips, M4 x 0.7 x 8mm	
22	004262-40	Screw, Pan Head Phillips, M4 x 0.7 x 40mm	
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)



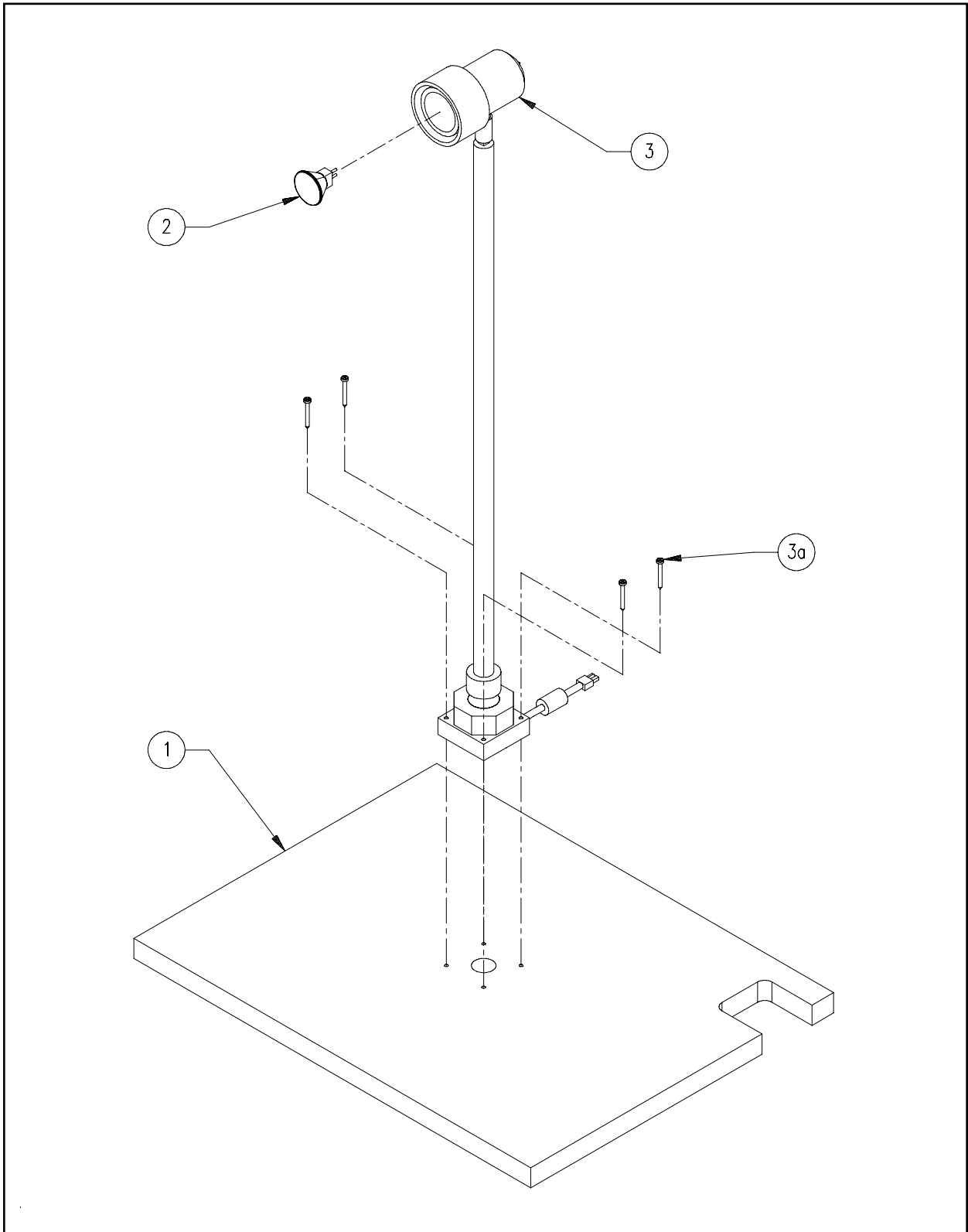
**Figure 4**

**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	009343-01	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.

# Light Fixture



**Figure 5**



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<b>Light Fixture</b>			<b>Reference Figure 5</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	
3	011349-01	Lamp, Flexible, w/Switch, 12V/12W	
3a	-----	Screw, Pan Head Phillips, Self-Tapping, #6 x 1.25" (part of item 3)	

# Thread Tree

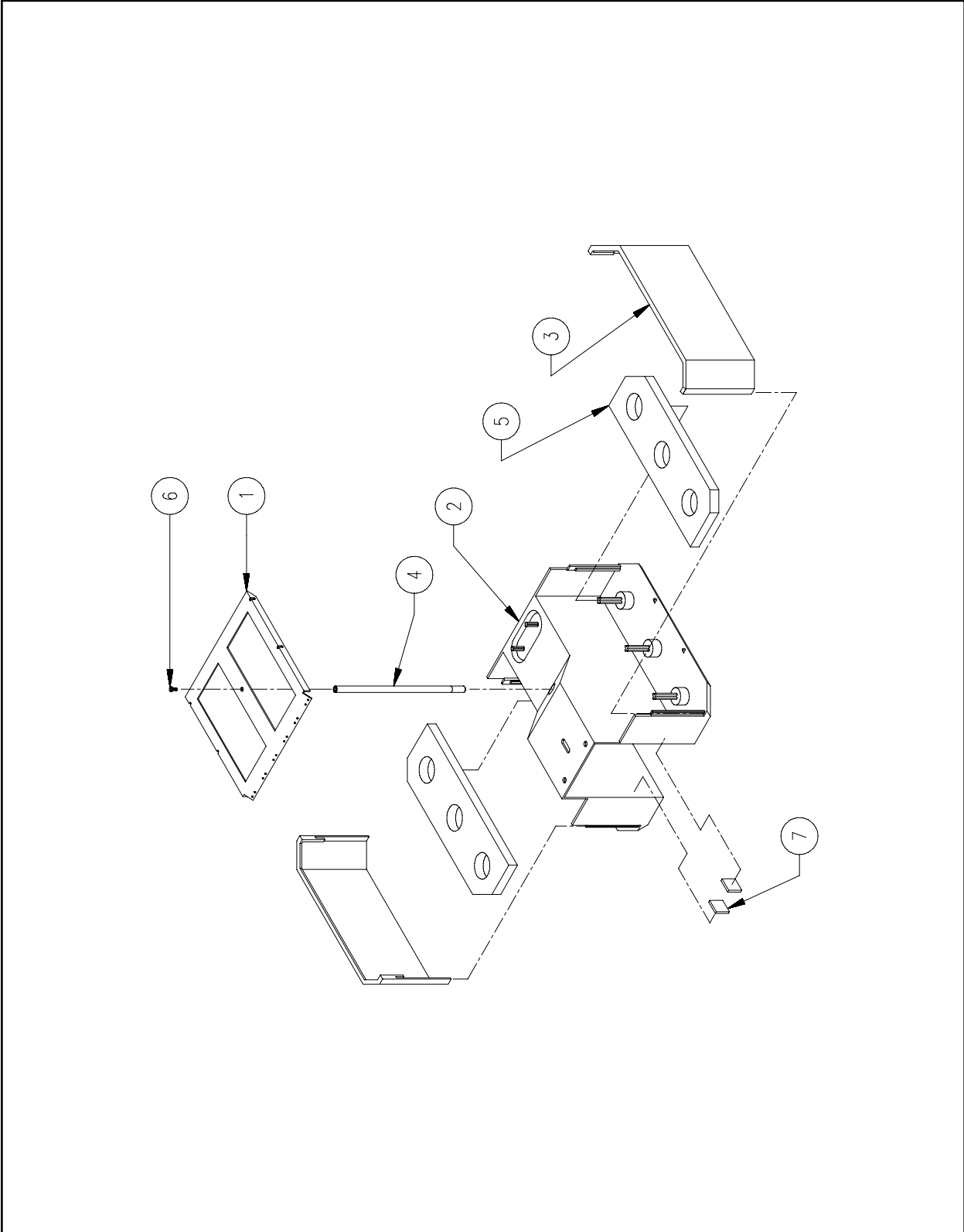


Figure 6

<b>Thread Tree</b>			<b>Reference Figure 6</b>
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	003572-01	Spreader, Thread Tree	
2*	005014-21	Base, Thread Tree	
3	001994-01	Panel, Side	
4	002653-01	Support, Thread Tree	
5*	003526-01	Pad, Thread Holder	
6	004480-08	Screw, Truss Head Phillips, M5 x 0.8 x 8mm	
7	005004-01	Pad, Cushion, Side, Thread Tree Base	

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

\*005915-21 Base, Thread Tree, w/Pad

# Needle Case

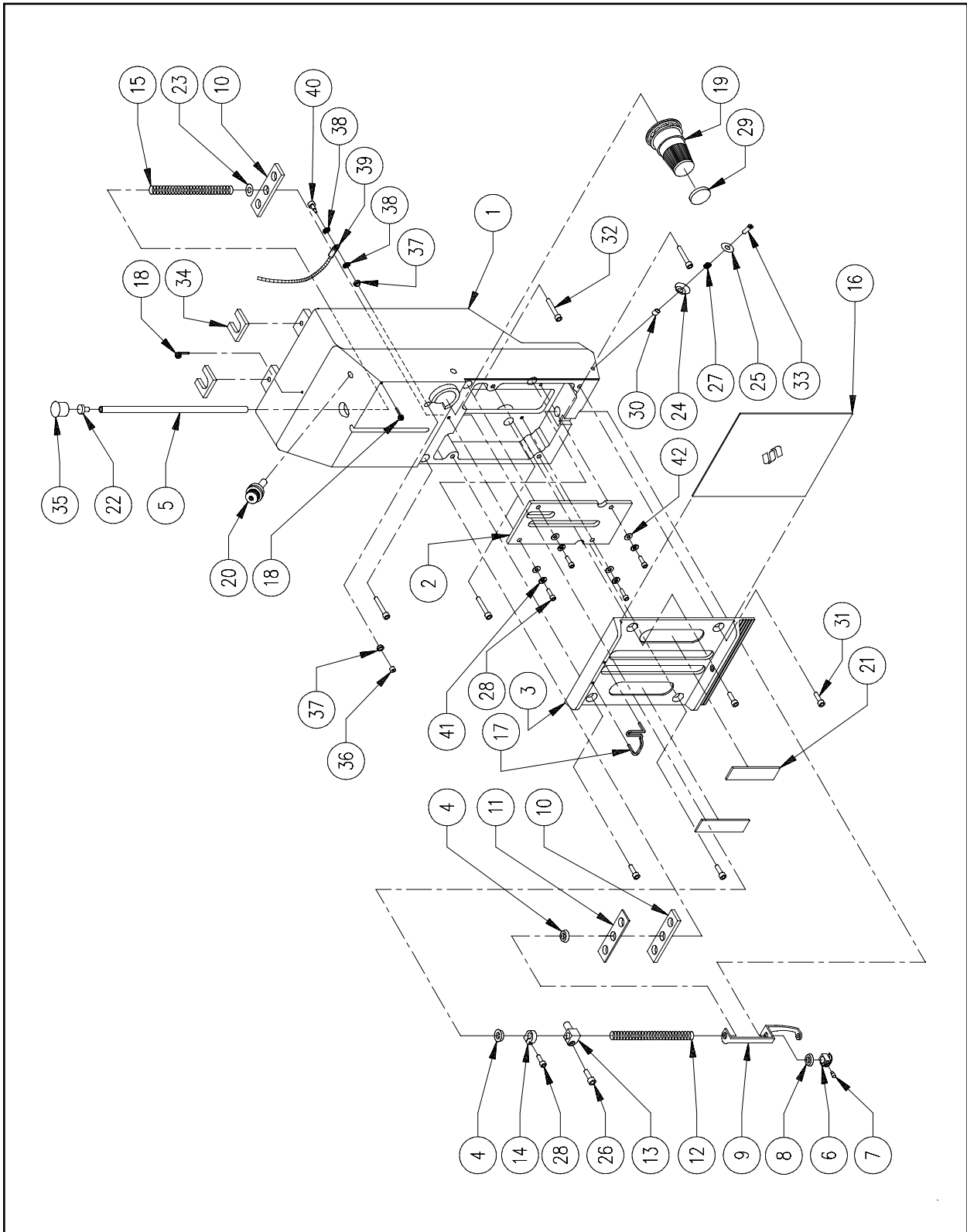
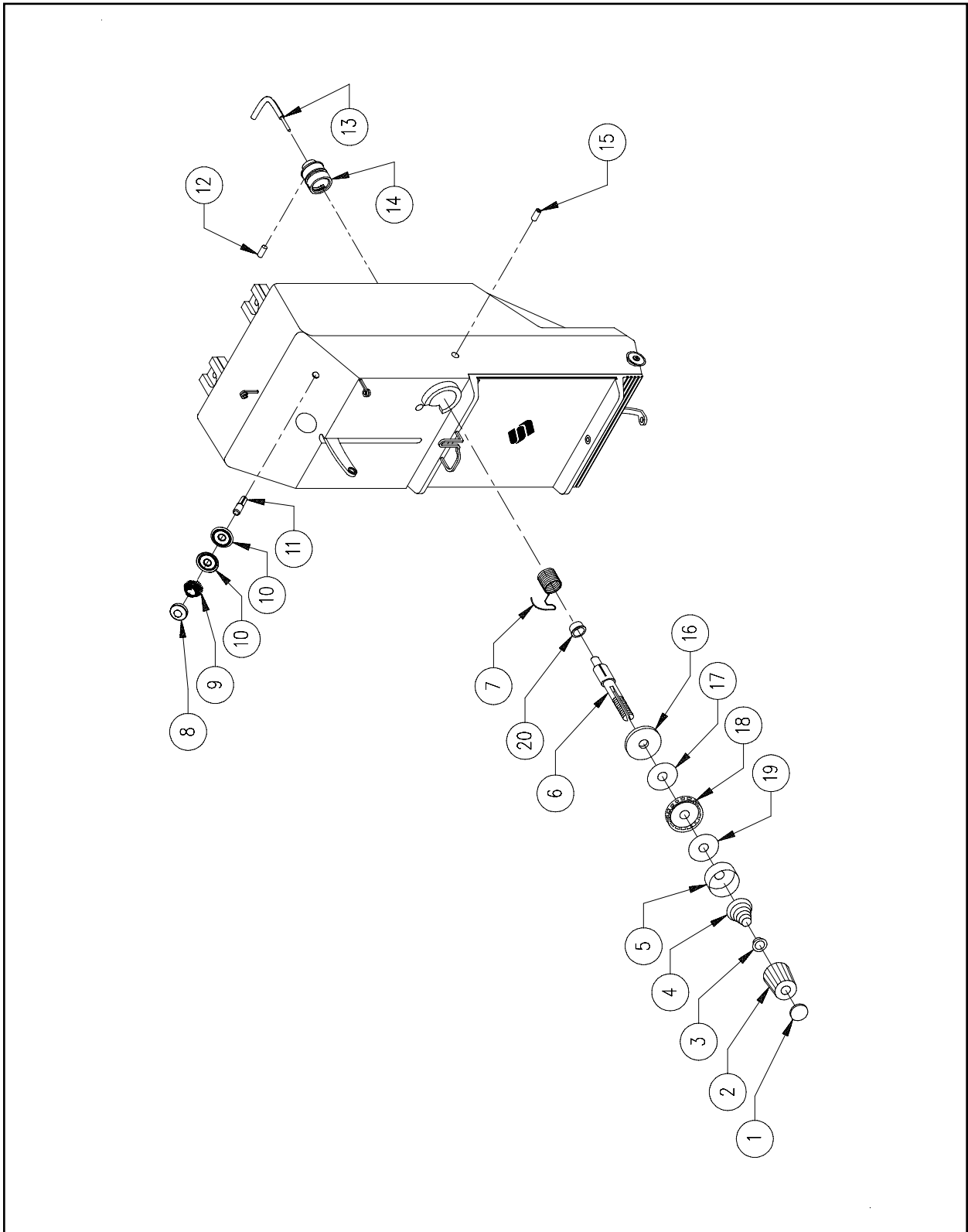


Figure 7

<b>Needle Case</b>		<b>Reference Figure 7</b>	
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	011160-01	Case, Needle, Machined	
2	005019-01	Plate, Guide, Needle Bar	
3	005016-21	Cover, Needle Case	
4	005577-01	Damper, Needle Case	
5	001532-01	Bar, Needle	
6	001528-01	Clamp, Needle, Assembly	
7	001828-01	Screw, Set, Needle Clamp	
8	001988-01	O-Ring, Molded, Needle Bar	
9	005008-01	Foot, Presser, Assembly	
10	001830-01	Felt, Needle Case	
11	007505-01	Shim, Needle Case	
12	001535-01	Spring, Presser Foot	
13	002808-02	Stud, Connecting, Needle Bar	
14	001840-01	Clamp, Stop, Needle Bar	
15	001537-01	Spring, Holding, Needle Bar	
16	005017-21	Plate, Cover, Needle Case	
17	005032-01	Guide, Thread, Middle	
18	002897-01	Post, Guide	
19	007547-01	Tensioner, Thread, Main, Black, Assembly	(see page 8-1)
20	007530-01	Pretensioner, Assembly	(see page 8-1)
21	005028-01	Magnet, Cover, Needle Case	
22	010172-08	Screw, Socket Head Cap, M5 x 0.8 x 8mm, Zinc Plate	
23	004237-01	Washer, Flat, .257" ID x .03" Thick	
24	005299-01	Disk, Thread Suspender	
25	005300-01	Presser, Spring	
26	010170-08	Screw, Socket Head Cap, M3 x 0.5 x 8mm, Zinc Plate	
27	005421-01	Spring, Thread Suspender	
28	010170-10	Screw, Socket Head Cap, M3 x 0.5 x 10mm, Zinc Plate	
29	003560-01	Tab, Tensioner	
30	005047-01	Spacer, Thread, Tie-off	
31	001926-12	Screw, Flat Head Socket, M4 x 0.7 x 12mm	
32	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 16mm, Zinc Plate	
33	006558-08	Screw, Pan Head Phillips, M3 x 0.5 x 8mm, Zinc Plate	
34	005025-01	Pad, Cushion, Top, Thread Tree Base	
35	005024-01	Plug, Dome, .437" Dia.	
36	005010-01	Standoff, Fem., 4-40 ID x 3/16" OD x 1/8"	
37	005011-01	Washer, Shoulder, Nylon, .116" ID x .047"	
38	690713-34	Washer, Lock, External Star, #4	
39	005038-01	Harness, Jumper, Thread Break	
40	005620-01	Screw, Shoulder, 1/8" OD x .188", 4-40 Thread	
41	690427-03	Washer, Lock, Split, M3	
42	690439-03	Washer, Flat, M3	

# Thread Tensioners



**Figure 8**

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**Thread Tensioners** **Reference Figure 8**

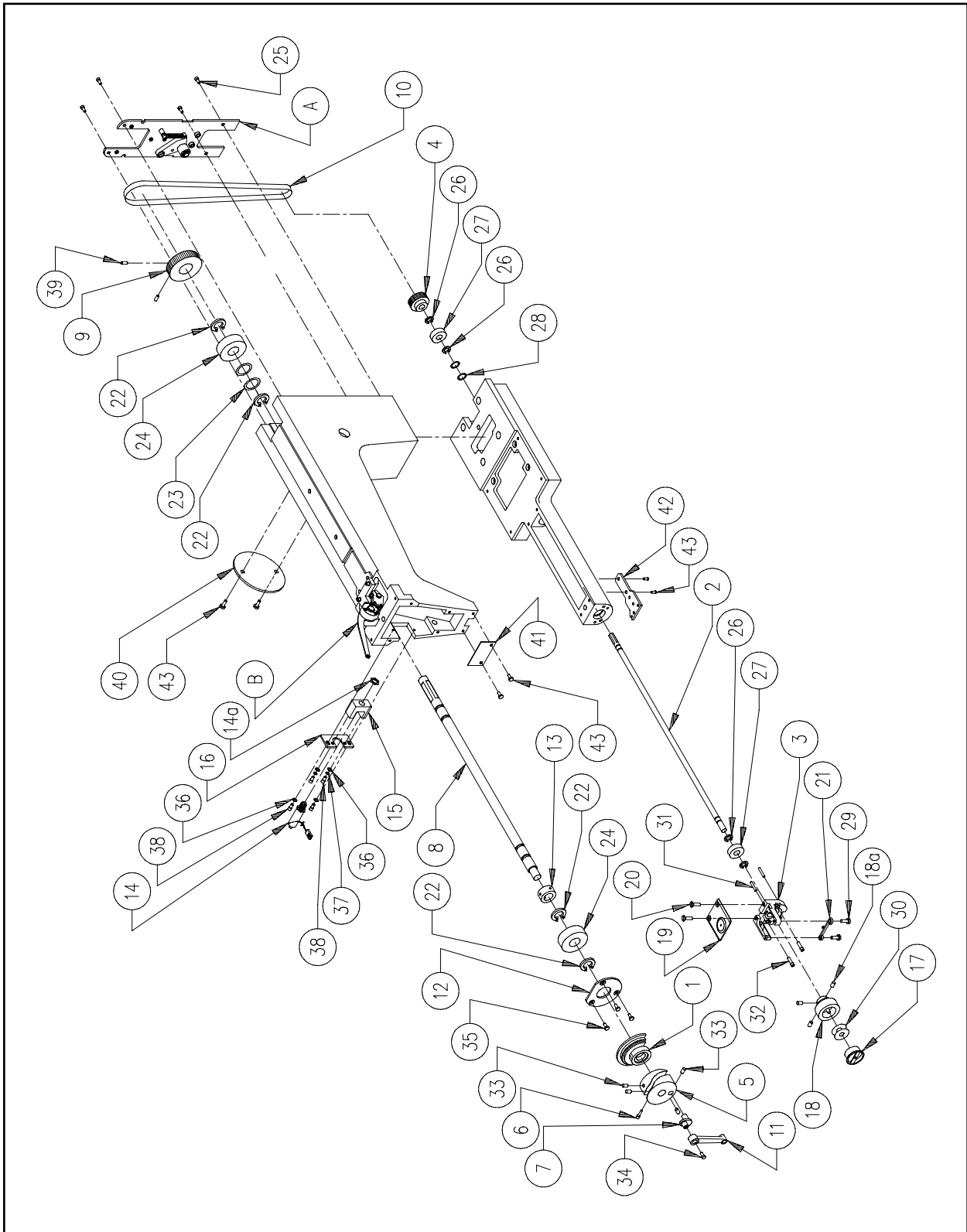

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<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	003560-01	Tab, Tensioner	
2*	005197-01	Knob, Tensioner, Black, Assembly	
3*	005422-01	Cap, Spring	
4*	004854-01	Spring, Tensioner, Thread	
5*	005196-01	Base, Tensioner	
6*	004897-01	Post, Tensioner	
7*	007559-01	Spring, Check, Tensioner, Thread	
8•	007080-01	Knob, Adjust, Pretensioner, Plastic	
9•	003654-01	Spring, Pretensioner	
10•	005137-01	Disk, Pretensioner	
11•	007531-01	Post, Pretensioner	
12	004920-01	Screw, Set, Mounting Post	
13	011142-01	Harness, Thread Break/Jump Stitch	
14	011123-01	Mount, Tensioner Post	
15	001960-06	Screw, Set, Socket, Flat Point, M4 x 0.7 x 6mm	
16*	004908-01	Disk, Plastic	
17*	005198-02	Pad, Felt, .095" Thick	
18*	006474-01	Disk, Tensioner, Thread, Assembly	
19*	005198-01	Pad, Felt, .065" Thick	
20	011351-01	Bushing, Tensioner	

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

- \*007547-01 Tensioner, Thread, Main, Black, Assembly
- 007530-01 Pretensioner, Assembly

# Arm and Bed



**Figure 8**



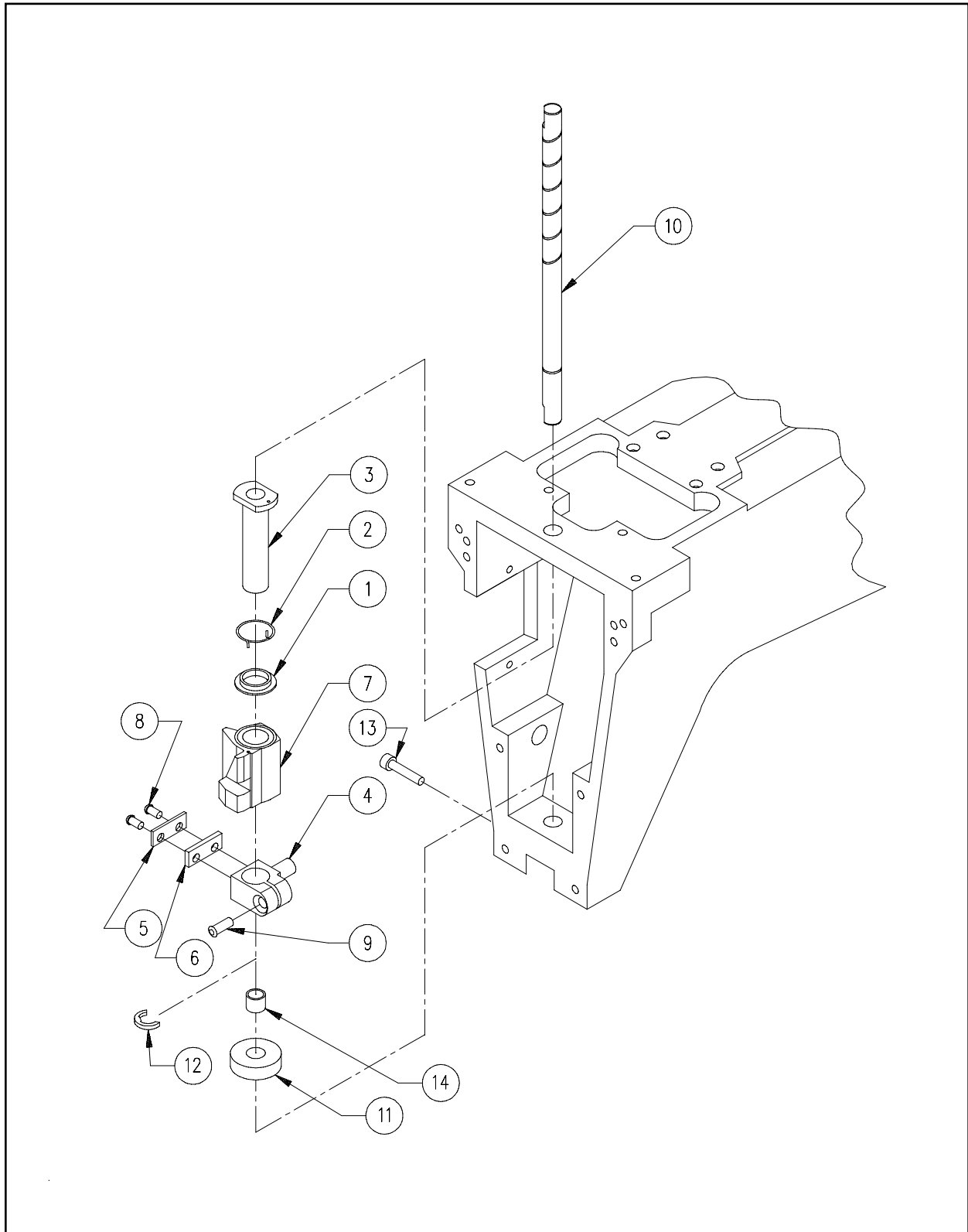
<b>Arm and Bed</b>			<b>Reference Figure 8</b>
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
A	004504-01S	Bobbin Idler	See Page 11-1
B	-----	Take-Up Drive Lever	See Page 12-1
1	003539-01	Counterweight, Phase II	
2	003535-01	Shaft, Bobbin, Phase II	
3	10181	Bracket, Needle 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	001523-01	Pulley, Drive, Bobbin, 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	001801-01	Solenoid, Jump Stitch	
14a	-----	Nut, Panel	(Included in Item #14)
15	001850-01	Bracket, Jump Stitch Solenoid	
16*	001851-01	Plate, Interface, Bracket, Solenoid	
17	004267-01	Case, Bobbin, Small	
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	001916-01	Support, Rotary Hook	
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	690427-04	Washer, Lock, Split, M4	
38	010171-08	Screw, Socket Head Cap, M4 x 0.7 x 8mm, Zinc Plate	
39	001927-12	Screw, Set, Flat Point, M5 x 0.8 x 12mm	

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<b>Arm and Bed</b>			<b>Reference Figure 8</b>
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
40	003622-21	Cover, Solenoid	
41	005022-01	Plate, Cover, Arm	
42	006526-01	Bracket, Picker	
43	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mm	

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# Reciprocator



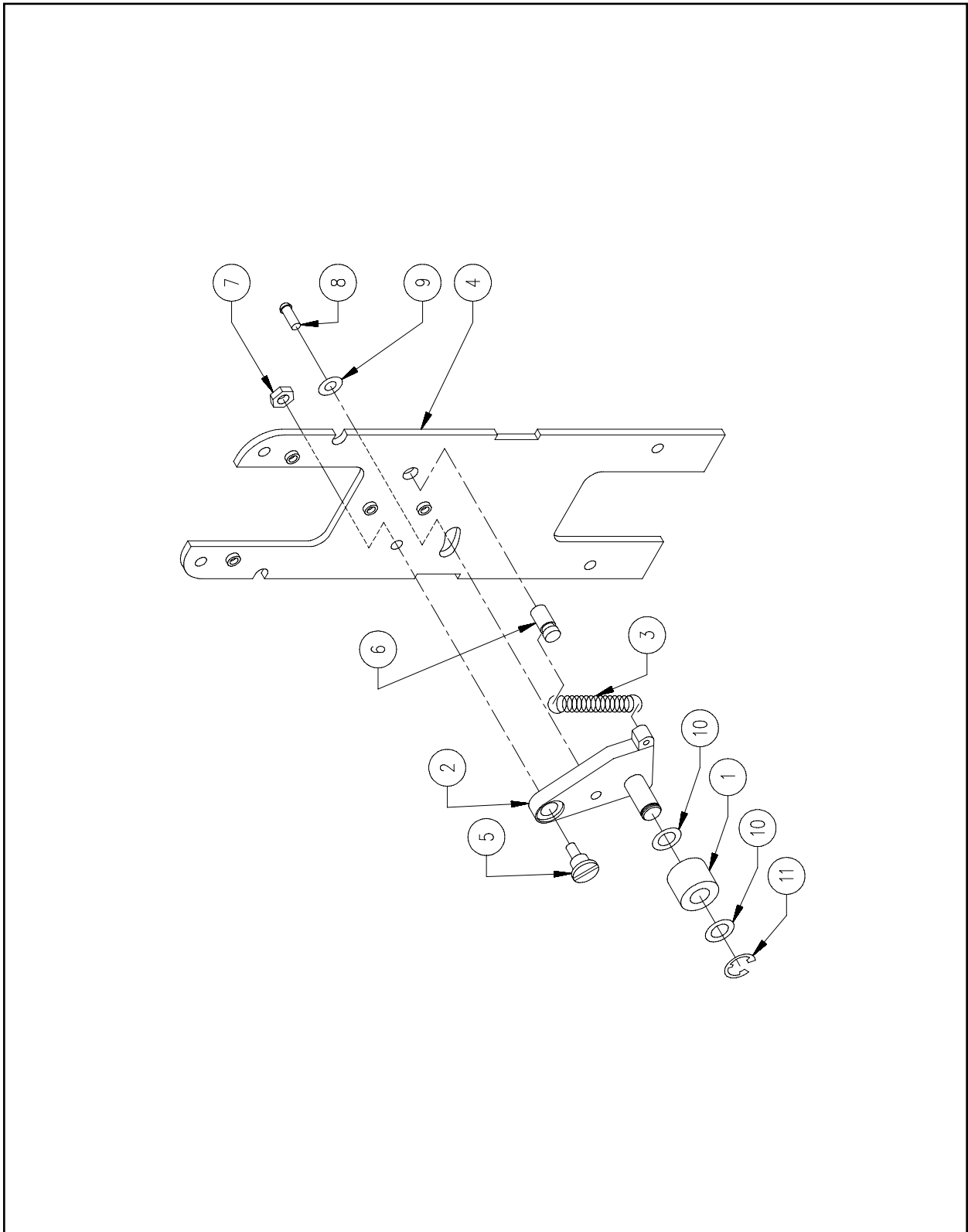
**Figure 10**

<b>Reciprocator</b>		<b>Reference Figure 10</b>	
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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

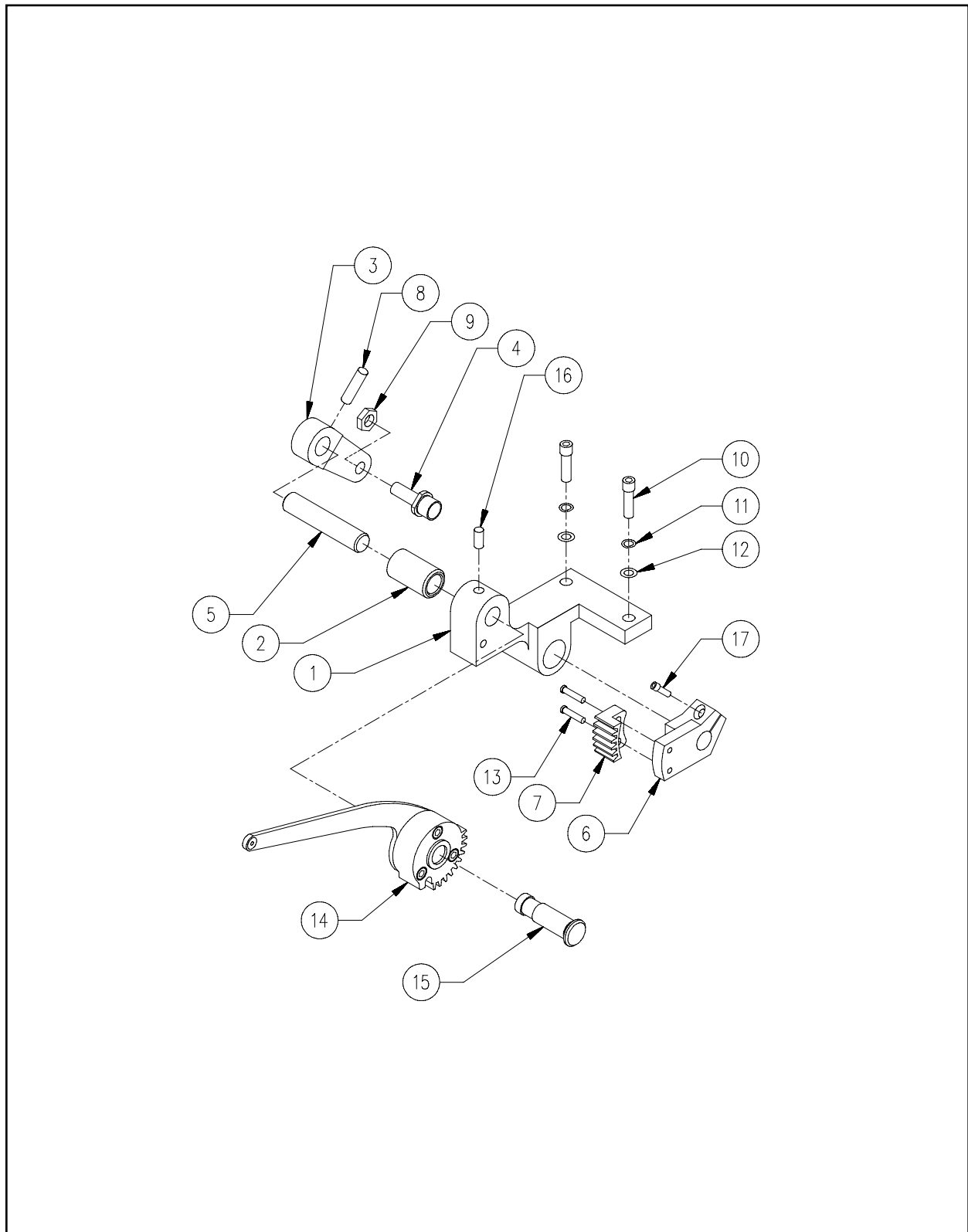


**Figure 11**

**Bobbin Idler****Reference Figure 11**

<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 12**



**Take-Up Drive Lever****Reference Figure 12**

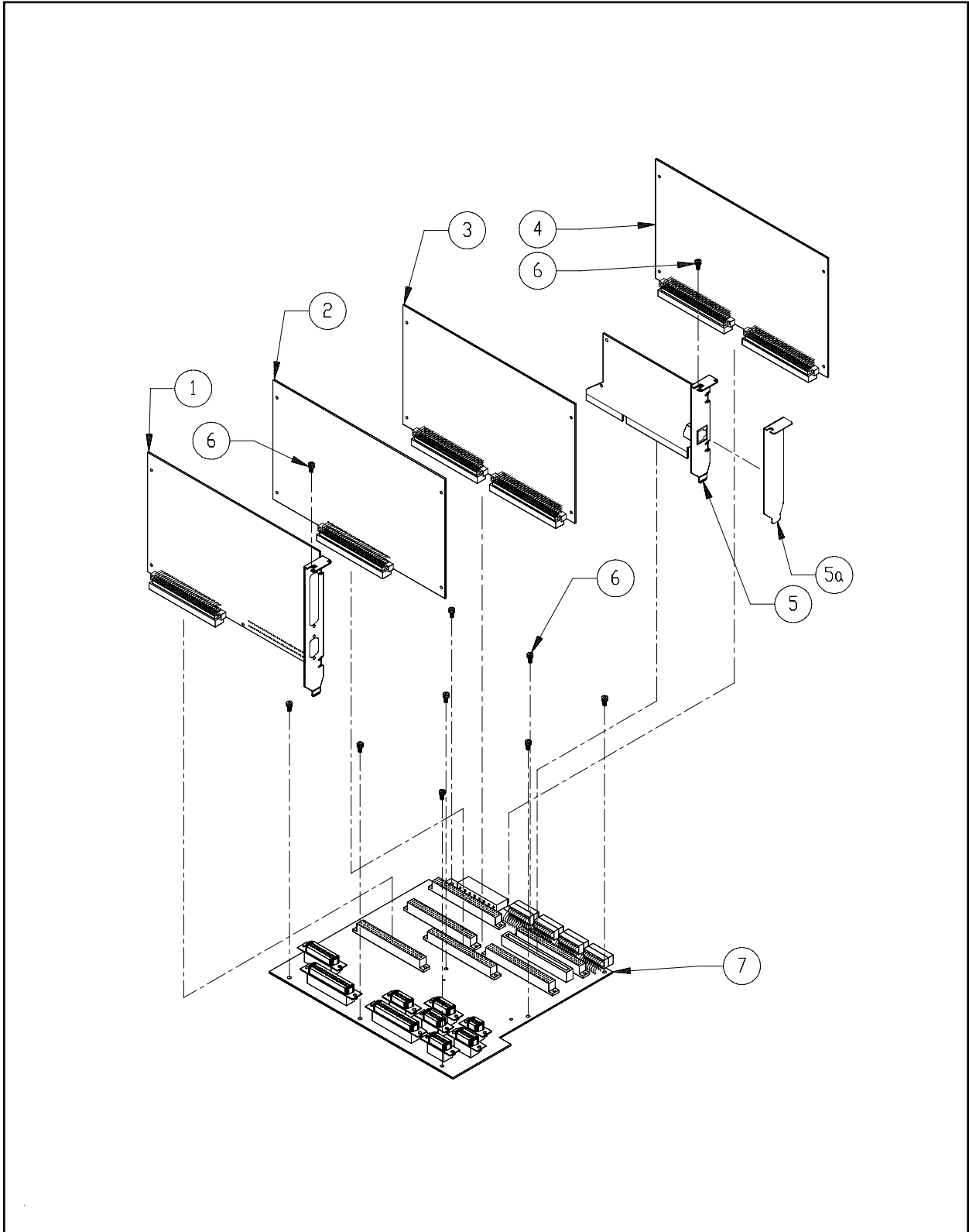
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	005003-01	Base, Drive, Lever, Take-Up, PHS II	
2	001947-01	Bushing, Base, Drive, Lever, Take-Up	
3*	004821-01	Lever, Drive, Lever, Take-Up	
4	001983-01	Follower, Assembly	
5*	004820-01	Shaft, Drive, Lever, Take-Up	
6	001893-01	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	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, 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	001868-01	Assembly, Lever, Take-Up	
15	005021-01	Pin, Pivot, Take-Up Lever	
16	001960-04	Screw, Set, Flat Point, M4 x 0.7 x 4mm	

Note:

The following can be replaced as a factory built assembly:

\*004768-01 Lever, Drive, Lever, Take-up, Assembly

## Electronics Cage (1 of 2)



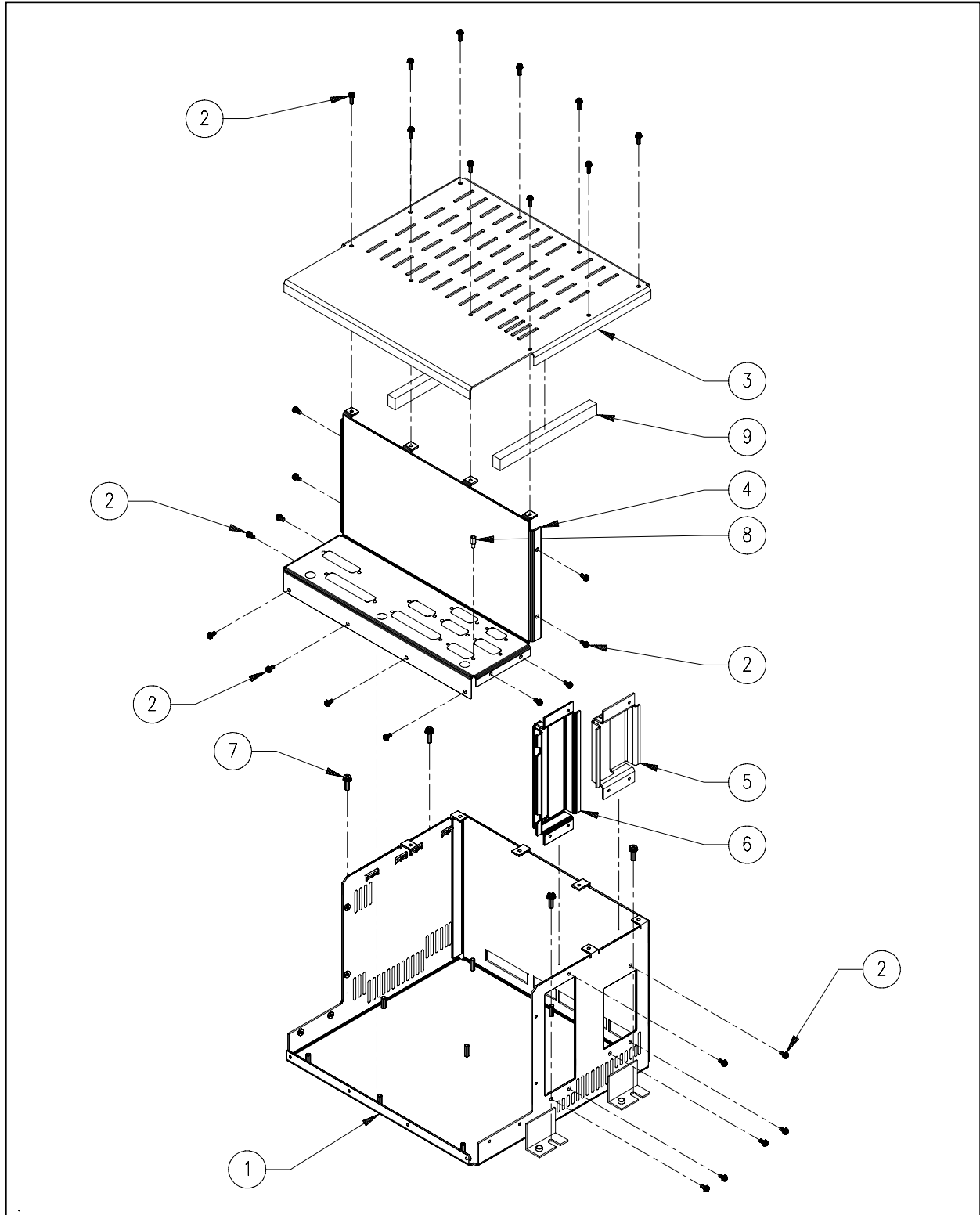
**Figure 13**

**Electronics Cage (1 of 2)****Reference Figure13**

<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*	10711	PCB, CPU, Assembly	
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 14-2 can be replaced as a factory built assembly:  
10661 Card Cage, EMT, Assembly

## Electronics Cage (2 of 2)



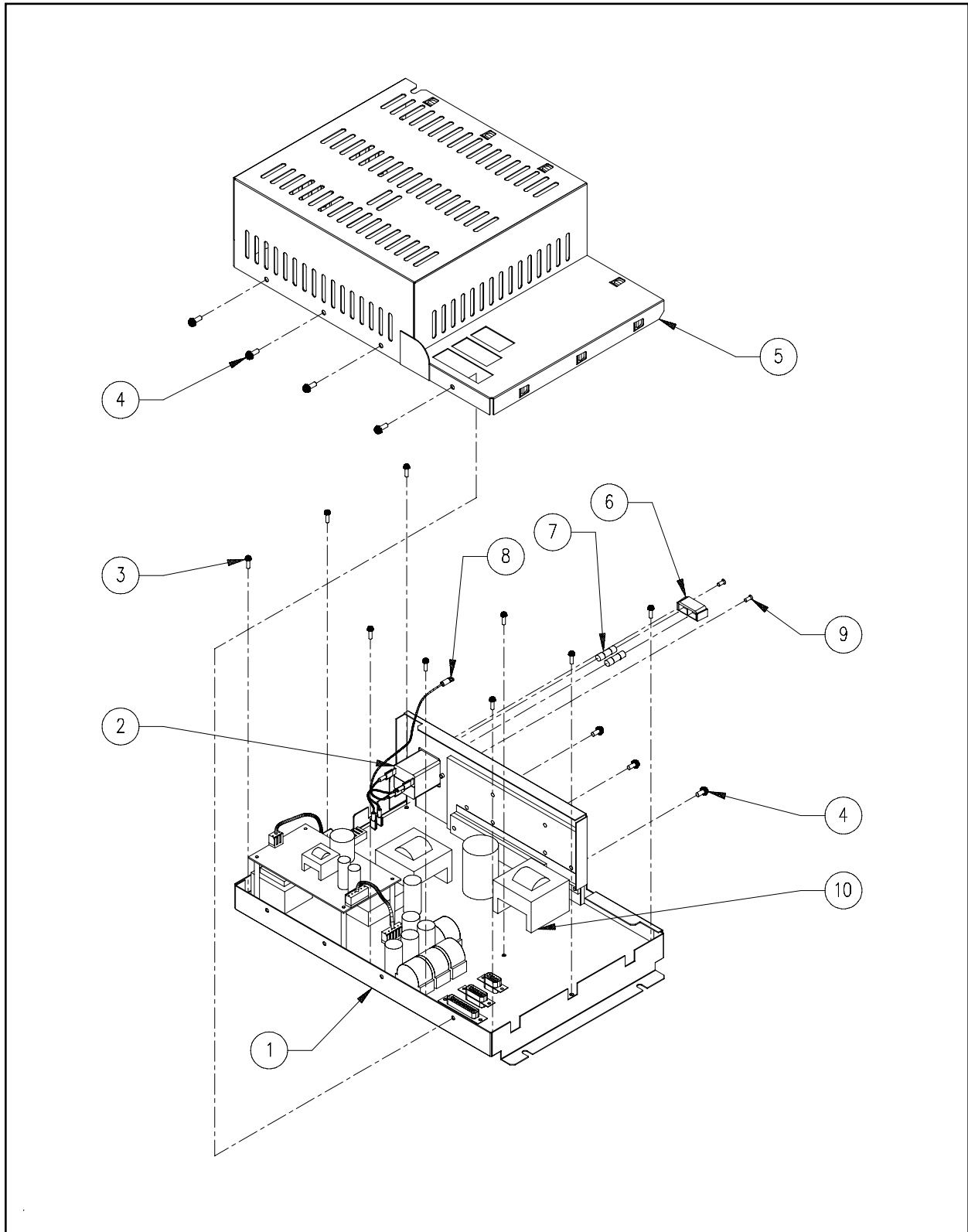
**Figure 14**

**Electronics Cage (2 of 2)****Reference Figure 14**

<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 8mm, 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 13-2 can be replaced as a factory built aseembly:  
10661 Card Cage, EMT, Assembly

## Power Distribution



**Figure 15**

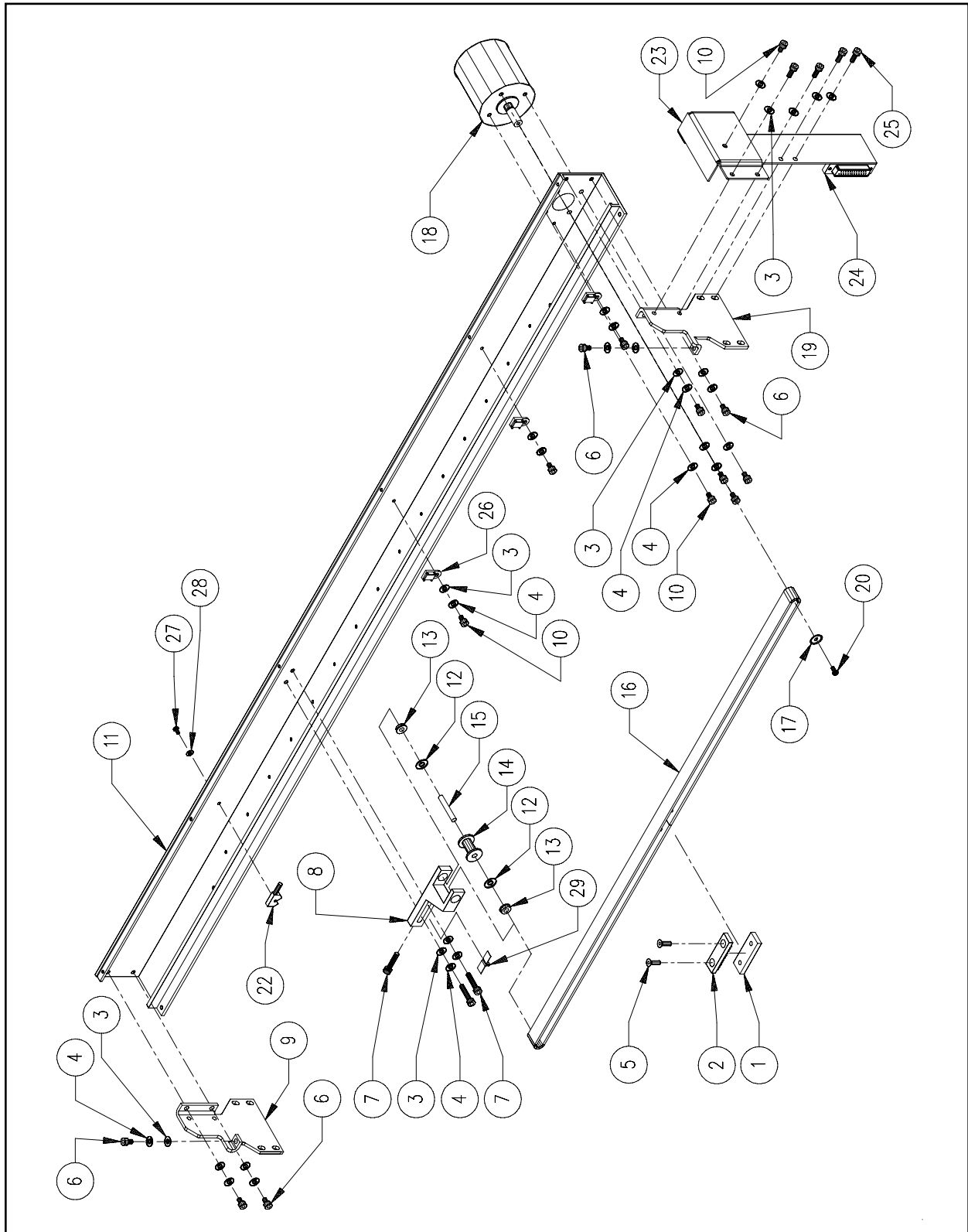
**Power Distribution****Reference Figure 15**

<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, M3 x 0.5 x 8mm	
5*	10273	Cover, Power Supply	
6*	009090-01	Holder, Fuse	
7*	010162-05	Fuse, 5A, TD	
8*	10307	Harness, Power Entry, PC	
9*	001935-06	Screw, Flat Head Phillips, M3 x 0.5 x 6mm	
10*	10033	PCB, E-Stop-Power Supply, Assembly	

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

\*10512      Power Supply, Universal, EMT 10

# X-Beam (1 of 2)



**Figure 16**



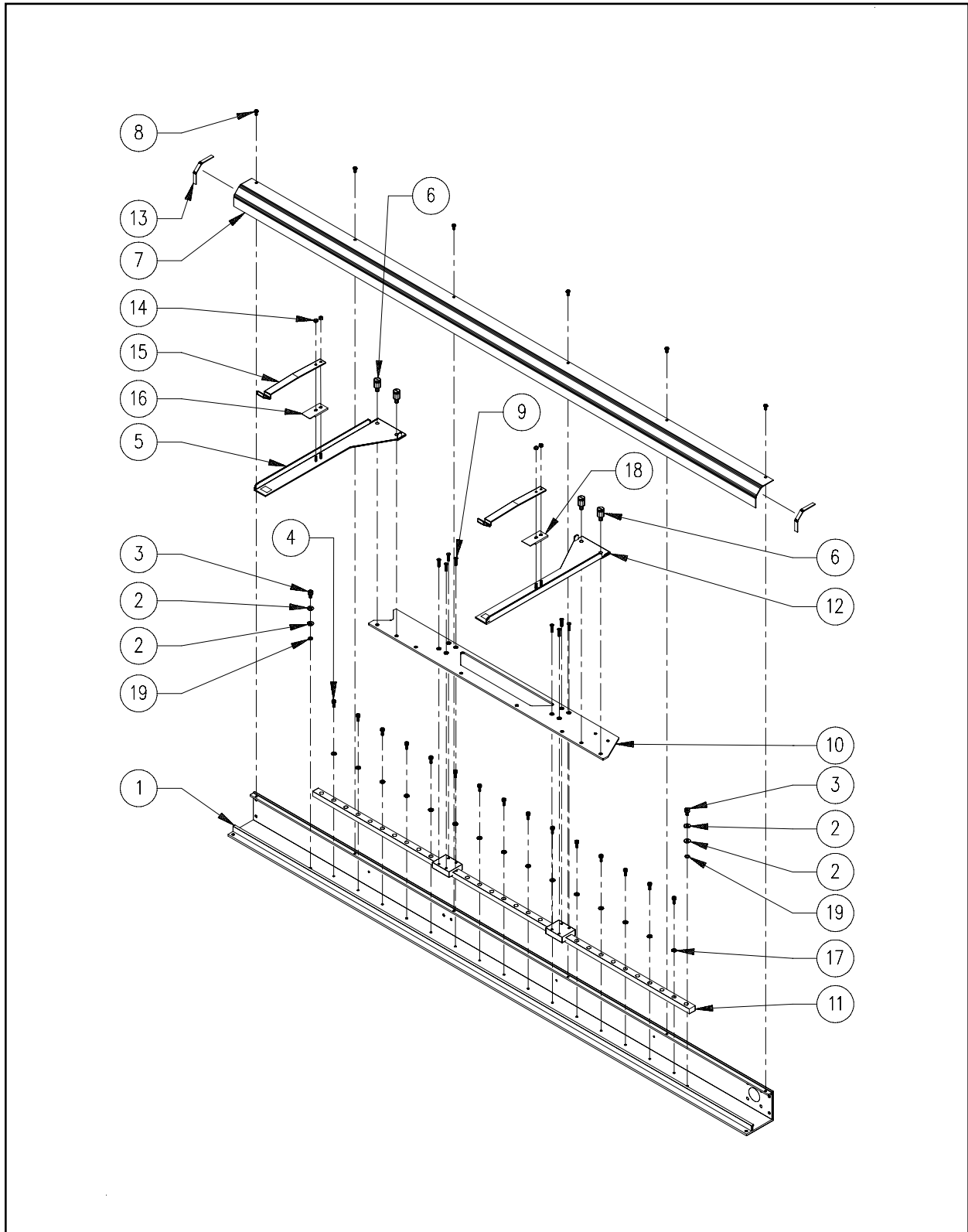
**X-Beam (1 of 2)****Reference Figure 16**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	009476-01	Spacer, Belt	
2	009475-01	Clamp, Belt	
3	690439-04	Washer, Flat, M4	
4	690427-04	Washer, Lock, Split, M4	
5	001926-16	Screw, Flat Head Socket, M4 x 0.7 x 16mm	
6	010171-08	Screw, Socket Head Cap, M4 x 0.7 x 8mm, Zinc Plate	
7*	010171-16	Screw, Socket Head Cap, M4 x 0.7 x 16mm, Zinc Plate	
8*	009471-01	Block, Return	
9	009474-02	Bracket, Left	
10	010171-06	Screw, Socket Head Cap, M4 x 0.7 x 6mm, Zinc Plate	
11	009479-02	Extrusion, Base	
12*	690364-03	Washer, AIN	
13*	006416-01	Bearing, Ball, Radial, Flanged, 3/16" ID	
14*	010750-01	Pulley, Return	
15*	009466-01	Shaft, Return, X-Axis	
16	009467-02	Belt, X-Axis	
17	010477-02	Flange, Pulley, X-Axis Motor	
18	009462-01	Motor, X-Axis	
19	009473-02	Bracket, Right	
20	006558-06	Screw, Pan Head Phillips, M3 x 0.5 x 6mm	
21*	010958-01	Velcro Pile, Dust Wiper	
22	011073-01	Sensor, Optical Switch, Assembly	
23	010896-01	Cover, X-Beam, PCB	
24	010359-02	PCB, X-Beam, X-Rack, Assembly	
25	010171-14	Screw, Socket Head Cap, M4 x 0.7 x 14mm, Zinc Plate	
26	011336-01	Mount, Cable Tie, Nylon	
26a	340139-01	Tie, Cable, 3.1"	(not shown)
27	009862-10	Screw, Pan Head Phillips, *Star, M3 x 0.5 x 10mm	
28	690439-03	Washer, Flat, M3	

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

\*010941-02 Assembly, Idler, X-Axis, Belt

# X-Beam (2 of 2)



**Figure 17**

**X-Beam (2 of 2)****Reference Figure 17**

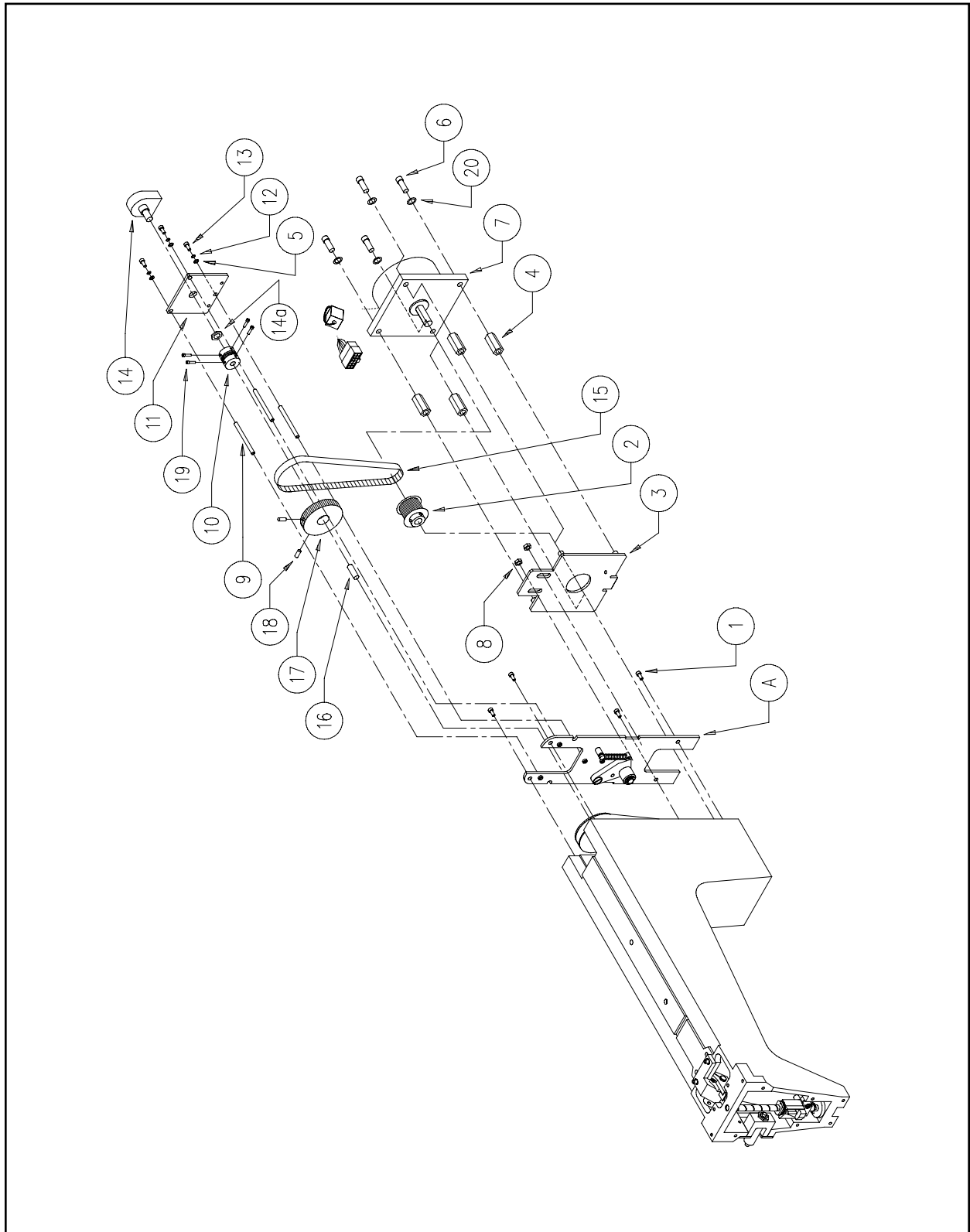
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	009479-02	Extrusion, Base	
2	690427-04	Washer, Lock, Split, M4	
3	010171-06	Screw, Socket Head Cap, M4 x 0.7 x 6mm, Zinc Plate	
4	010170-08	Screw, Socket Head Cap, M3 x 0.5 x 8mm, Zinc Plate	
5*	010618-01	Bracket, Tubular Frame, Left	
6	010410-03	Screw, Thumb, Knurl, 8mm	
7	009480-01	Extrusion, Cover	
8	010170-06	Screw, Socket Head Cap, M3 x 0.5 x 6mm, Zinc Plate	
9	005934-01	Screw, Flat Head Phillips, M3 x 0.5 x 6mm	
10	009478-01	Carriage, X-Axis	
11	009464-01	Rail, X-Drive	
12•	009395-01	Bracket, Tubular Frame, Right	
13	009889-01	Gasket, Rack, X-Axis	
14*•	003573-03	Nut, Nylock, M3	
15*•	010256-02	Clip, Spring, Tubular	
16*	008214-01	Locator, Left	
17	690427-03	Washer, Lock, Split, M3	
18•	008213-01	Locator, Right	
19	702875-09	Spacer, 3/16" ID x .25" OD x .031" Thick	

Note:

The following can be replaced as a factory built assembly:

- \*010305-01 Bracket, Tubular, Left, Assembly
- 010306-01 Bracket, Tubular, Right, Assembly

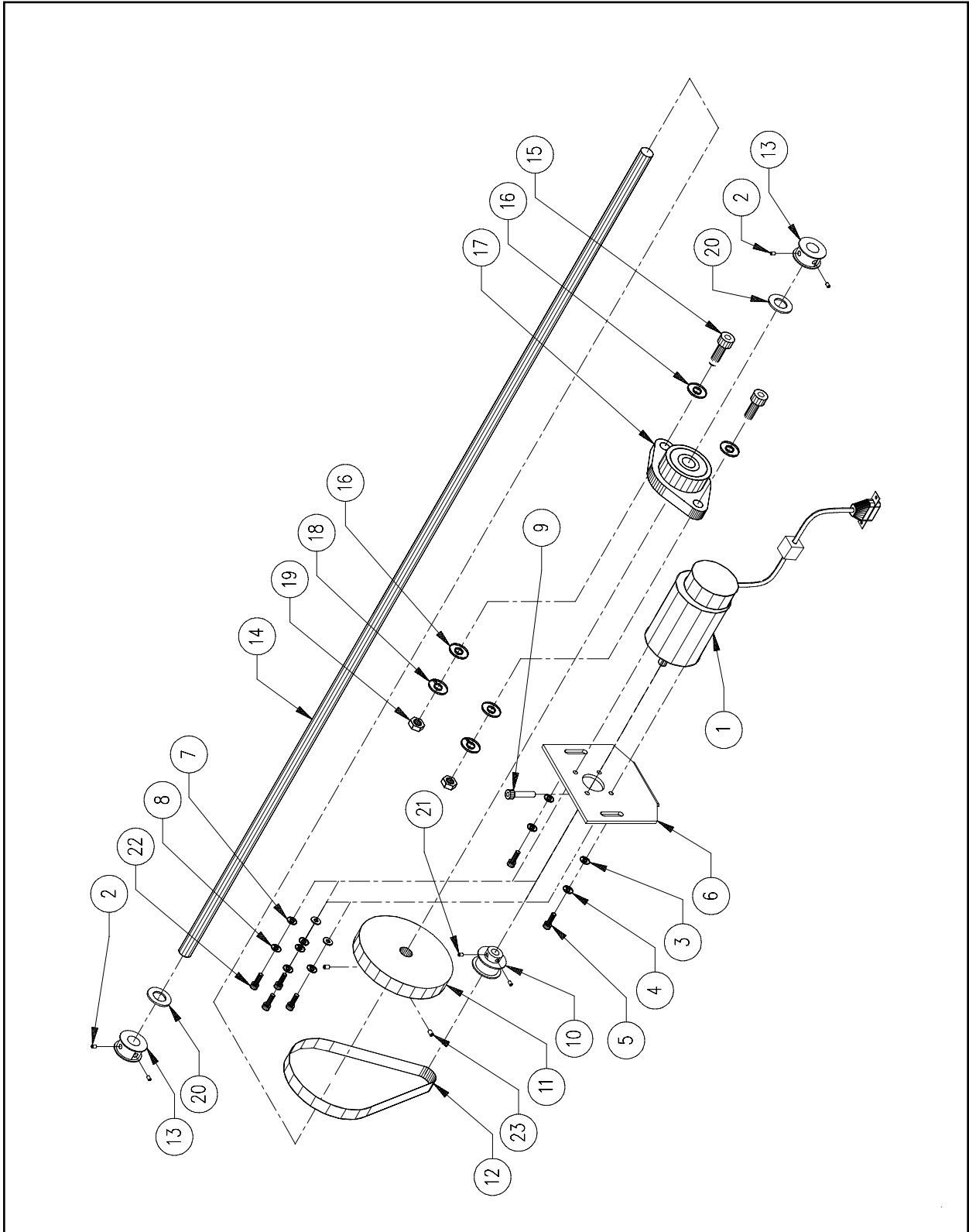
# Z-Drive Encoder



**Figure 18**

<b>Z-Drive Encoder</b>			<b>Reference Figure18</b>
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
A	004504-01S	Bobbin Idler	See Page 11-1
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"	

# Y-Drive



**Figure 19**

<b>Y-Drive</b>		<b>Reference Figure 19</b>	
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	009463-02	Motor, Y-Axis	
2	670050-03	Screw, Set, Knurled Cup, 8-32 x 3/16"	
3	690439-05	Washer, Flat, M5	
4	690427-05	Washer, Lock, Split, M5	
5	010172-10	Screw, Socket Head Cap, M5 x 0.8 x 10mm, Zinc Plate	
6	10599	Plate, Motor Mount #2	
7	690439-04	Washer, Flat, M4	
8	690427-04	Washer, Lock, Split, M4	
9	010171-30	Screw, Socket Head Cap, M4 x 0.7 x 30mm, Zinc Plate	
10	004962-01	Pulley, Pinion, Y-Axis	
11	344349-01	Pulley, Drive	
12	010399-01	Belt, 80T, 1/5P	
13	011159-01	Pulley, Drive, Y-Rail	
14	009484-01	Shaft, Drive	
15	010174-25	Screw, Socket Head Cap, M8 x 1.25 x 25mm, Zinc Plate	
16	690439-08	Washer, Flat, M8	
17	343054-08	Bearing, Flange Cartridge, 2-Hole	
18	690427-08	Washer, Lock, Split, M8	
19	001963-09	Nut, Hex, M8	
20	009465-01	Washer, AIN	
21	005034-02	Screw, Set, Cup Point, M4 x 0.7 x 4mm	
22	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
23	670872-06	Screw, Set, Knurled Cup, 1/4-20 x 3/8"	

# Left Y-Carriage

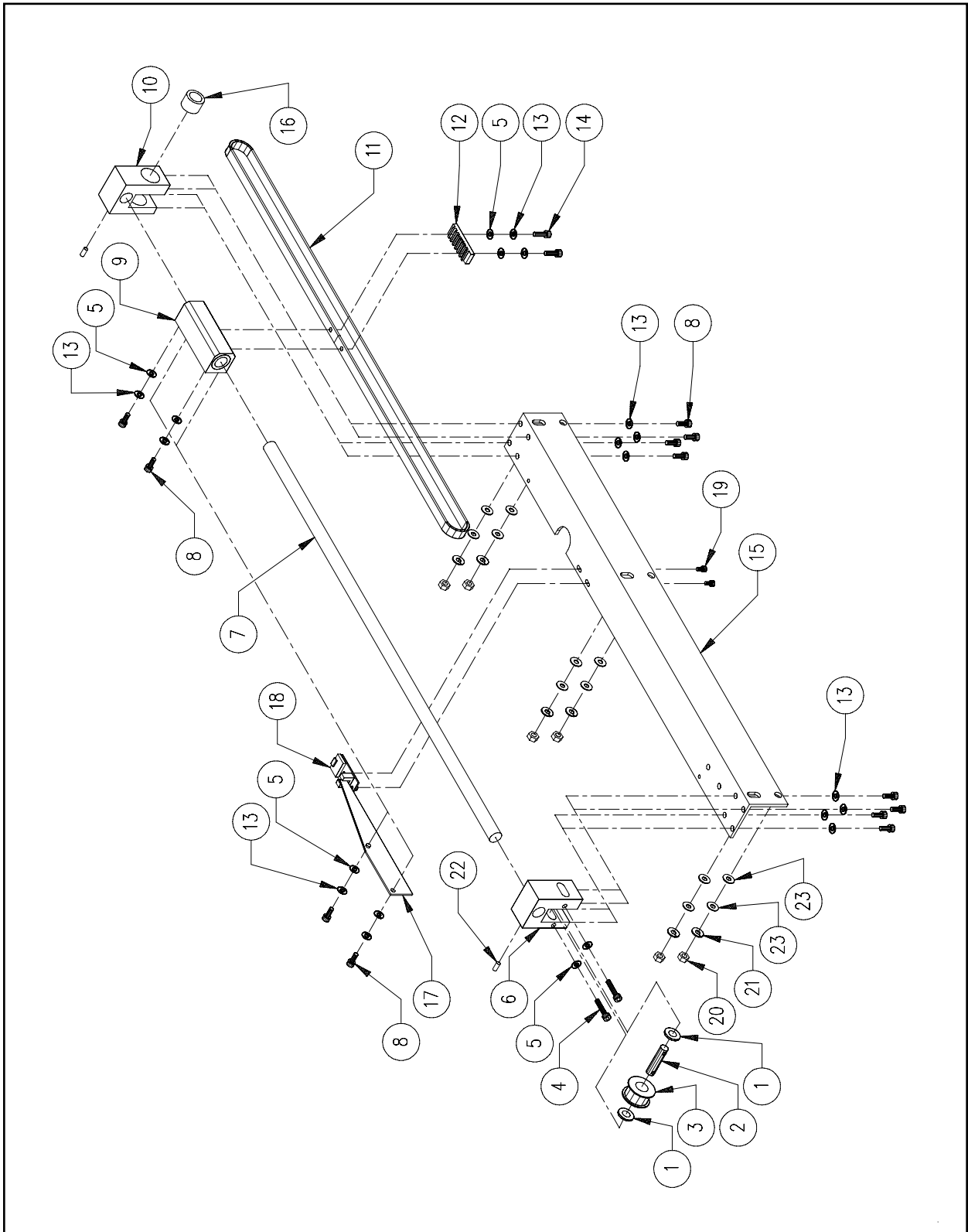


Figure 20



**Left Y-Carriage****Reference Figure 20**

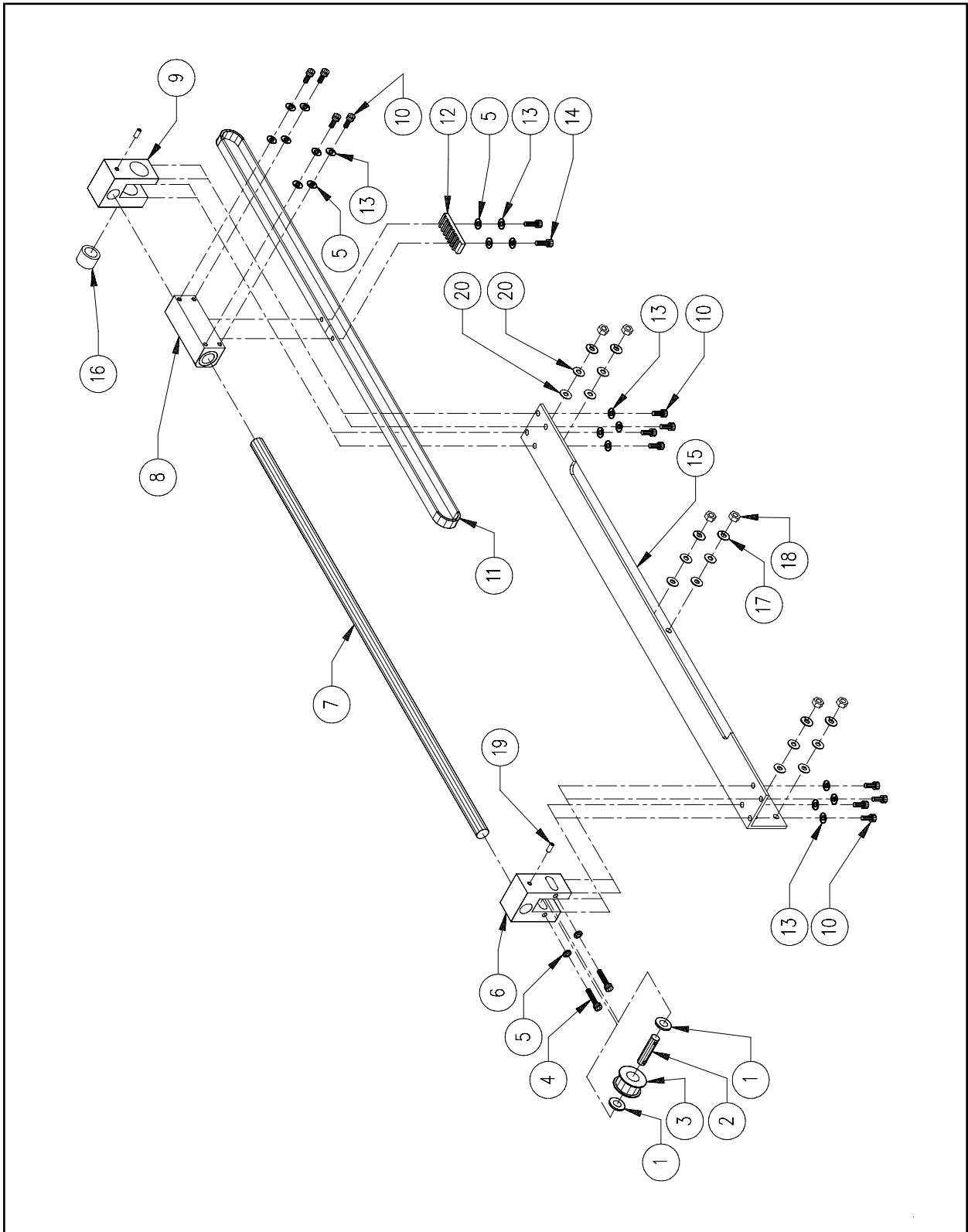
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	009465-01	Washer, AIN	
2	009483-01	Shaft, Return	
3	005289-01	Pulley, Idler, Return, Assembly	
4	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
5	690439-04	Washer, Flat, M4	
6	009481-01	Block, Return, Y-Rack	
7	009486-01	Rail, Y-Carriage	
8	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
9	010198-01	Block, Carriage, Y-Axis	
10*	009482-01	Block, Drive	
11	010751-01	Belt, Y-Axis	
12	009890-01	Clamp, Y-Belt	
13	690427-04	Washer, Lock, Split, M4	
14	010171-14	Screw, Socket Head Cap, M4 x 0.7 x 14mm, Zinc Plate	
15	009485-04	Bracket, Mount	
16*	010740-02	Bearing, Roller, 1/2" ID x 1/2"	
17	009891-02	Flag, Y-Limit	
18	010277-04	PCB, Y-Limit, Assembly	
19	010170-06	Screw, Socket Head Cap, M3 x 0.5 x 6mm, Zinc Plate	
20	003573-05	Nut, Hex, M5	
21	690427-05	Washer, Lock, Split, M5	
22	001960-08	Screw, Set, Flat Point, M4 x 0.7 x 8mm	
23	690439-05	Washer, Flat, M5	

Note:

The following can be replaced as a factory built assembly:

\*010310-01 Block, Y-Drive, Rear, Assembly

# Right Y-Carriage



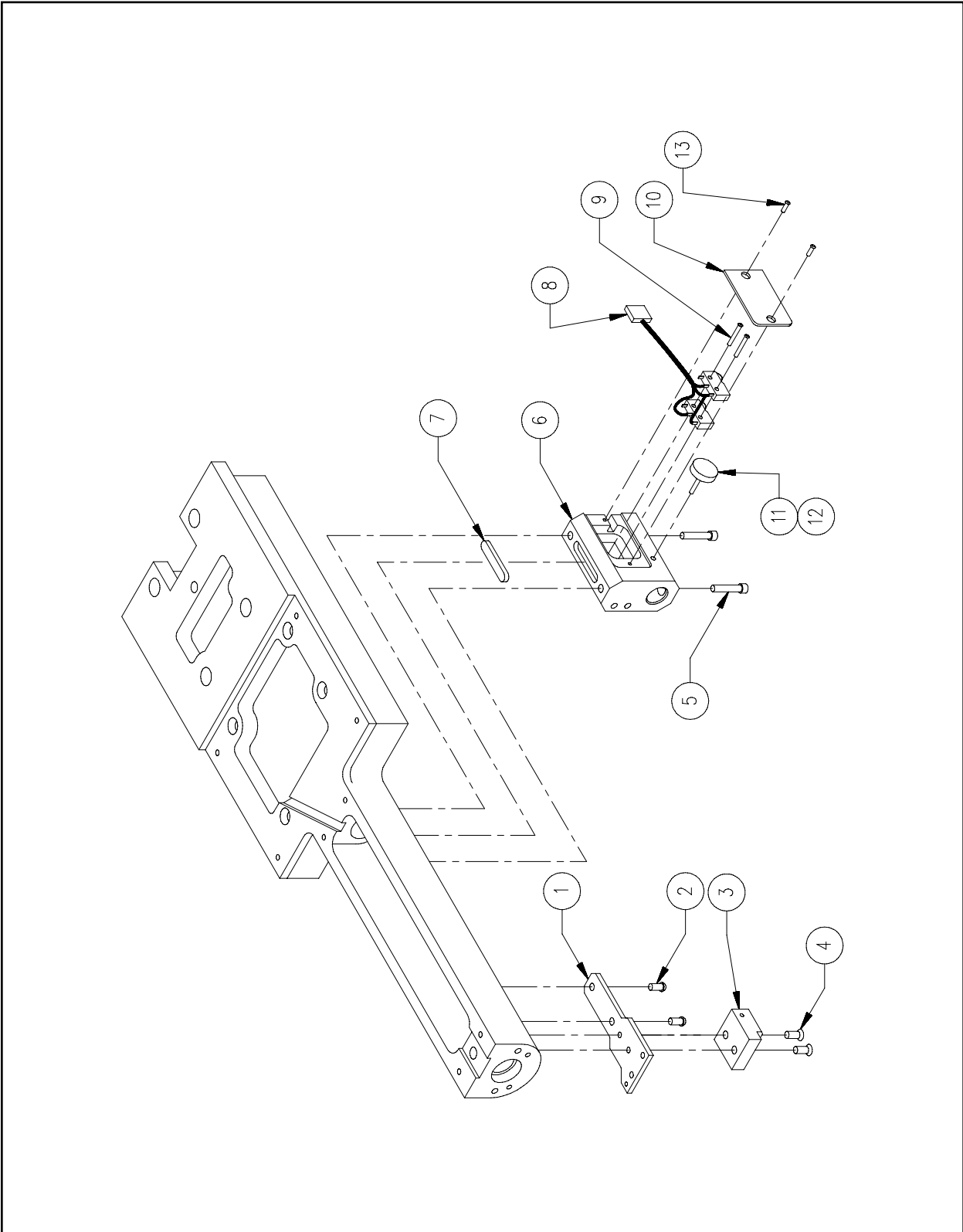
**Figure 21**

<b>Right Y-Carriage</b>		<b>Reference Figure 21</b>	
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	009465-01	Washer, AIN	
2	009483-01	Shaft, Return	
3	005289-01	Pulley, Idler, Return, Assembly	
4	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 20mm, Zinc Plate	
5	690439-04	Washer, Flat, M4	
6	009481-01	Block, Return, Y-Rack	
7	009486-01	Rail, Y-Carriage	
8	010198-01	Block, Carriage, Y-Axis	
9*	009482-02	Block, Drive	
10	010171-10	Screw, Socket Head Cap, M4 x 0.7 x 10mm, Zinc Plate	
11	010751-01	Belt, Y-Axis	
12	009890-01	Clamp, Y-Belt	
13	690427-04	Washer, Lock, Split, M4	
14	010171-14	Screw, Socket Head Cap, M4 x 0.7 x 14mm, Zinc Plate	
15	010361-03	Bracket, Mount, Right Rack	
16*	010740-02	Bearing, Roller, 1/2" ID x 1/2"	
17	690427-05	Washer, Lock, Split, M5	
18	003573-05	Nut, Hex, M5	
19	001960-08	Screw, Set, Flat Point, M4 x 0.7 x 8mm	
20	690439-05	Washer, Flat, M5	

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

\*010310-01 Block, Y-Drive, Rear, Assembly

# Cap Frame Mounts



**Figure 22**

**Cap Frame Mounts****Reference Figure 22**

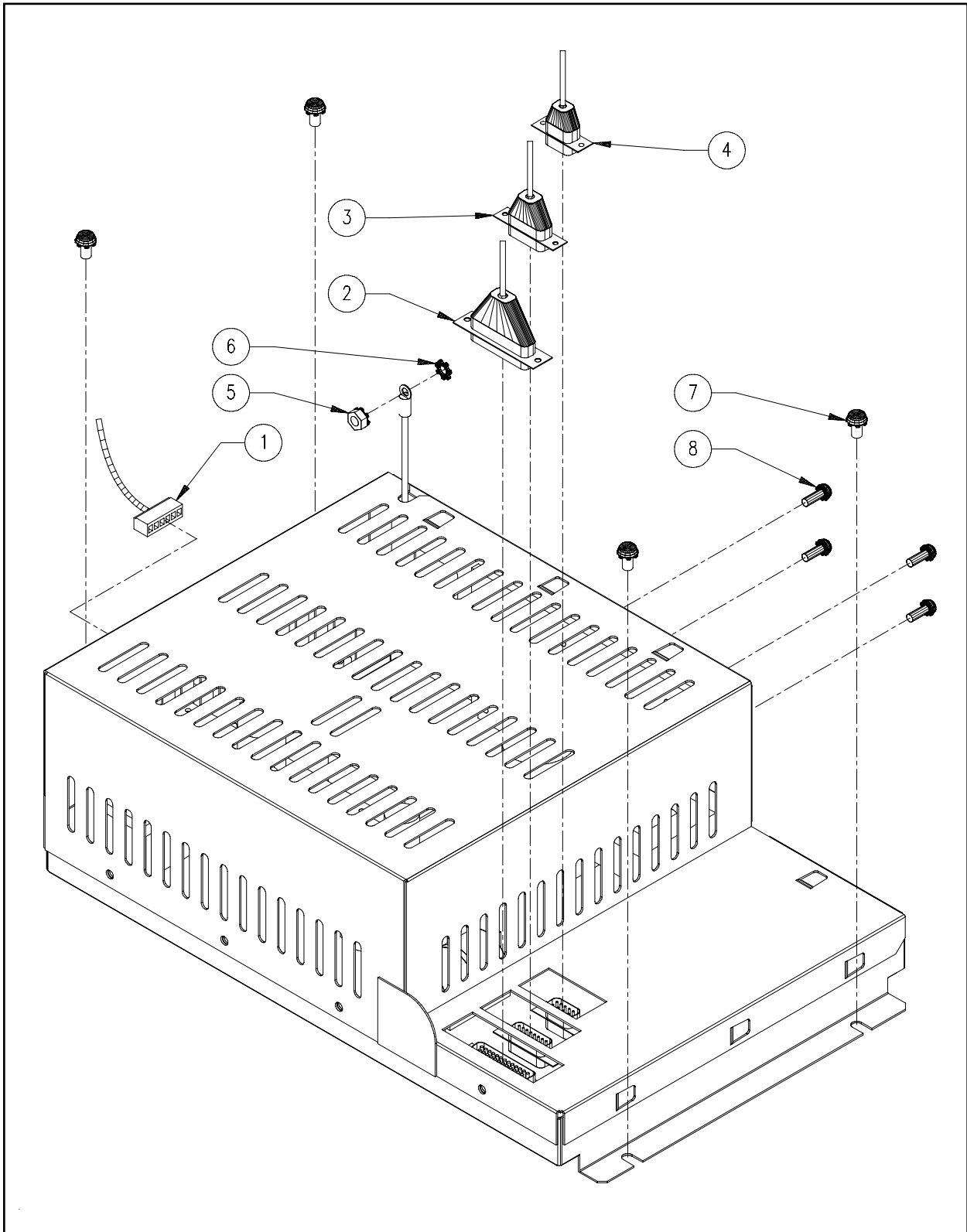
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	006526-01	Bracket, Picker	
2	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8mmg	
3	006523-02	Mount, Dove Tail, Cap Frame	
4	001926-12	Screw, Flat Head Socket, M4 x 0.7 x 12mm	
5	010171-20	Screw, Socket Head Cap, M4 x 0.7 x 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 23**

**Harnesses (1 of 3)****Reference Figure 23**

<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	009970-01	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)

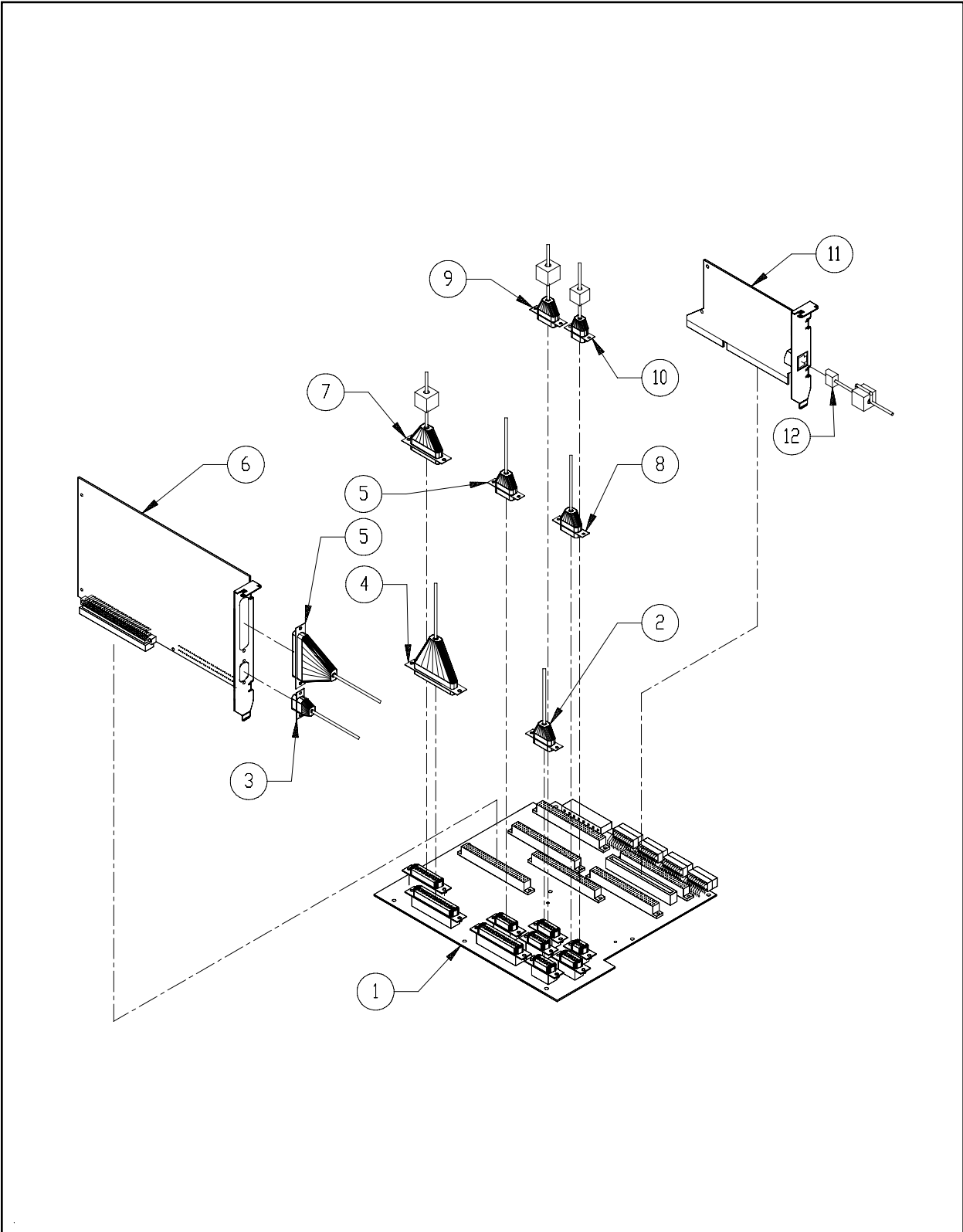


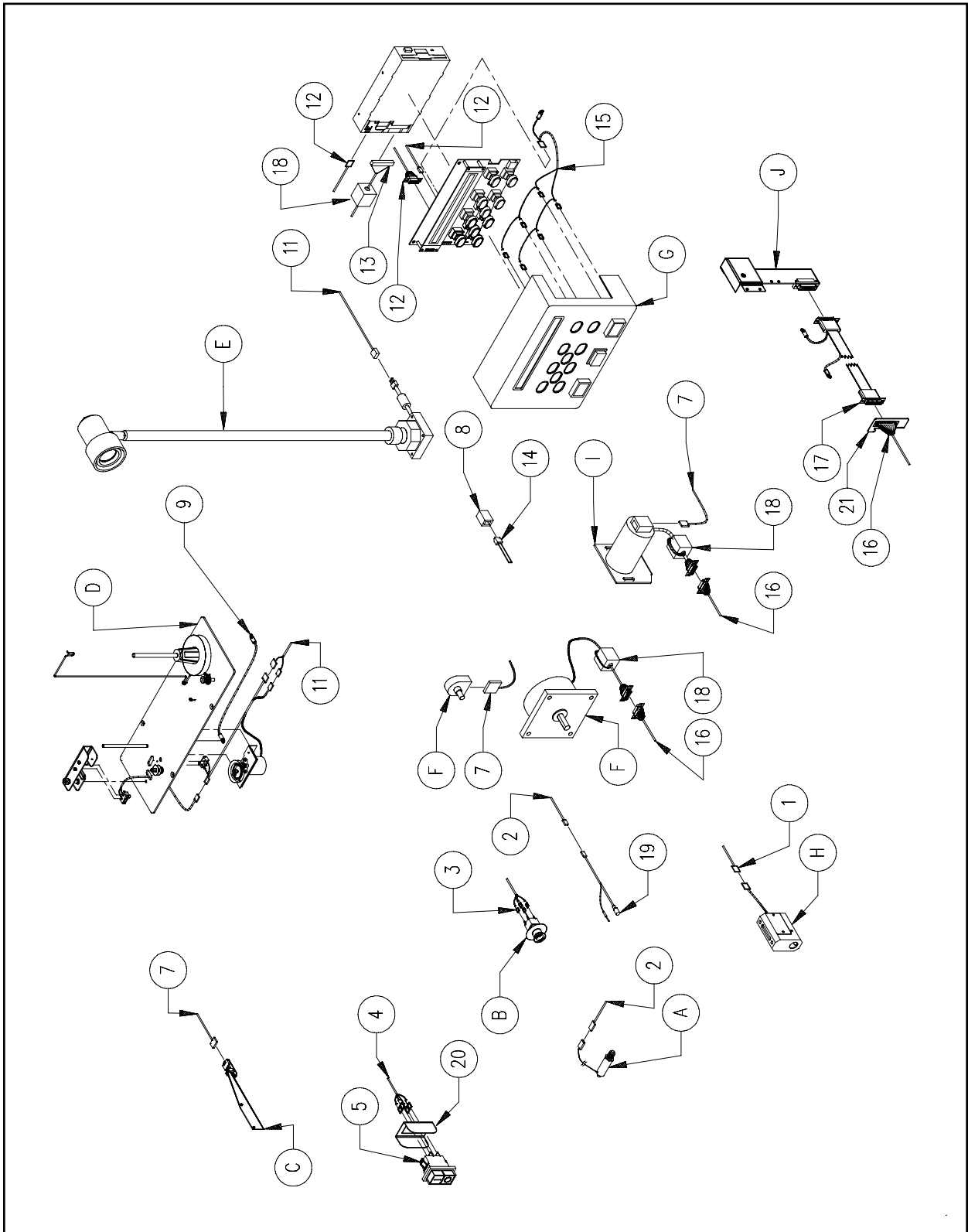
Figure 24



**Harnesses (2 of 3)****Reference Figure 24**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1	10716	PCB, Backplane, Assembly	
2	009970-02	Cable, Power, Backplane	
3	009961-02	Cable, Low Voltage Power	
4	010992-01	Cable, Floppy Drive	
5	010523-03	Harness, X-Axis Collector	
6	009419-01	PCB, Motor Drive, Assembly	
7	11044	Harness, Keyboard/Display	
8	009968-01	Harness, Y-Z Axis	
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	

## Harnesses (3 of 3)



**Figure 25**

**Harnesses (3 of 3)****Reference Figure 25**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
A	-----	Jump Stitch	(See page 9-1)
B	-----	E-Stop Switch	(See page 2-1)
C	-----	Y-Limit Flag	(See page 20-1)
D	-----	Bobbin Winder (Option)	(See page 26-1)
E	-----	Light Fixture	(See page 5-1)
F	-----	Z-Motor/Encoder	(See page 18-1)
G	-----	Keyboard	(See page 3-1 & 4-1)
H	-----	Cap Frame Mounts	(See page 22-1)
I	-----	Y-Drive Motor	(See page 19-1)
J	-----	X-Beam	(See page 16-1 & 17-1)
1	011038-01	Harness, Hatswitch	
2	011110-01	Cable, Jump Stitch, TB, CC	
3	009971-03	Cable, E-Stop	
4	10270	Harness, Circuit Breaker	
5	009879-04	Breaker, On/Off, 4A	
6	10307	Harness, Power Entry, PC	
7	009968-01	Harness, Y-Z Axis	
8	000434-02	Coupler, In-Line, 6 Position	
9	010761-01	Cable, Grounding, 3"	(Option D above)
10	010682-01	Power Entry Module, Filtered, 6A	
11	10148	Harness, Bobbin Winder	
12	009918-02	Harness, Keyboard/Display	
13	010992-02	Cable, Floppy Drive	
14	010369-01	Cable, Ethernet, Network, Interface	
15	009913-02	Harness, Start/Stop/Frame	
16	010523-03	Harness, X-Axis Collector	
17	010922-02	Cable, X-Axis Flex	
18	009311-01	Ferrite, Split, Large	
19	011142-01	Harness, Thread Break/Jump Stitch	
20	10173	Guard, Switch	
21	10944	Bracket, Mount, D-Sub	

# Bobbin Winder

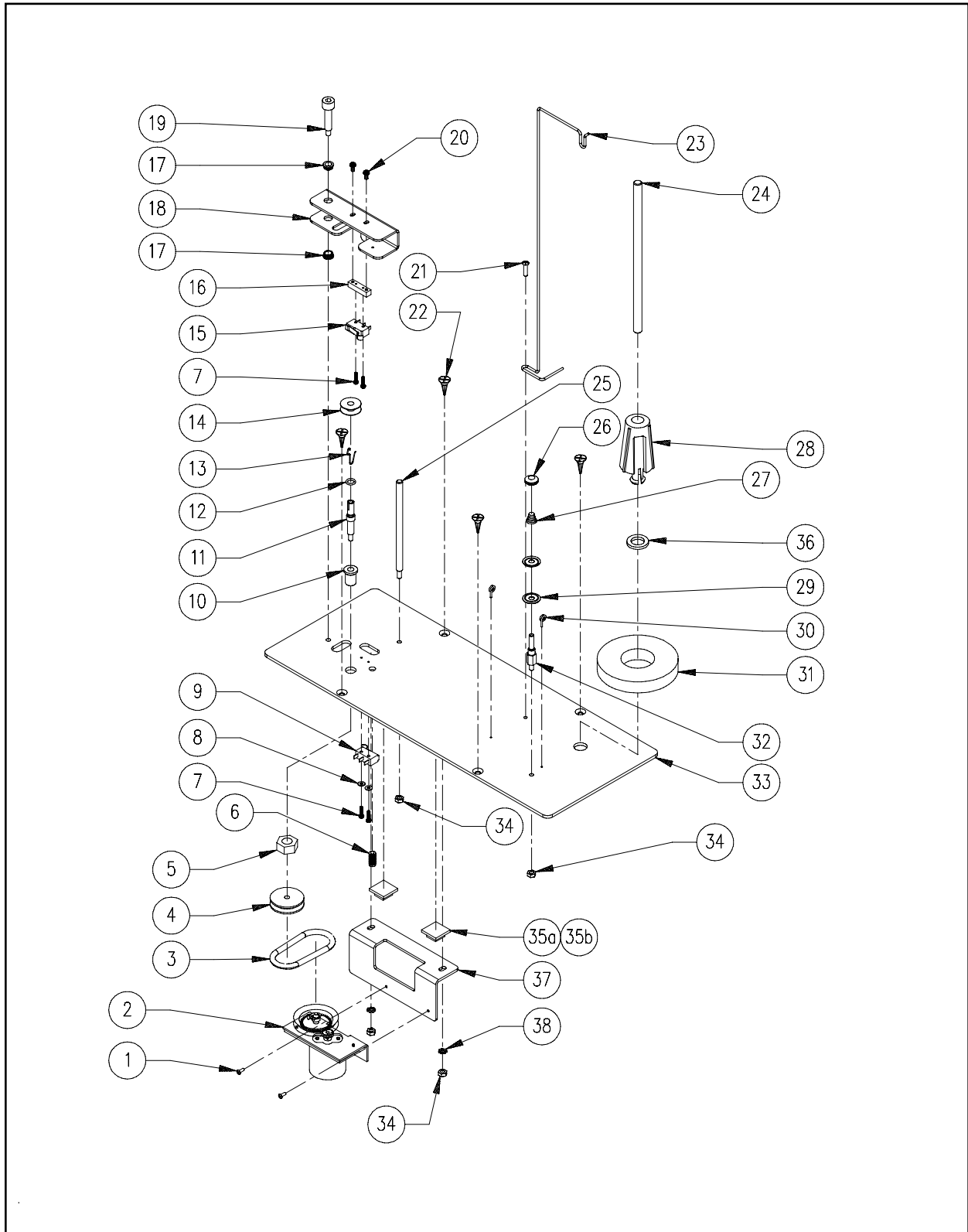


Figure 26

**Bobbin Winder (009381-03)****Reference Figure 26**

<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, Lock, External Star, M4	

# Cap Frame Drive

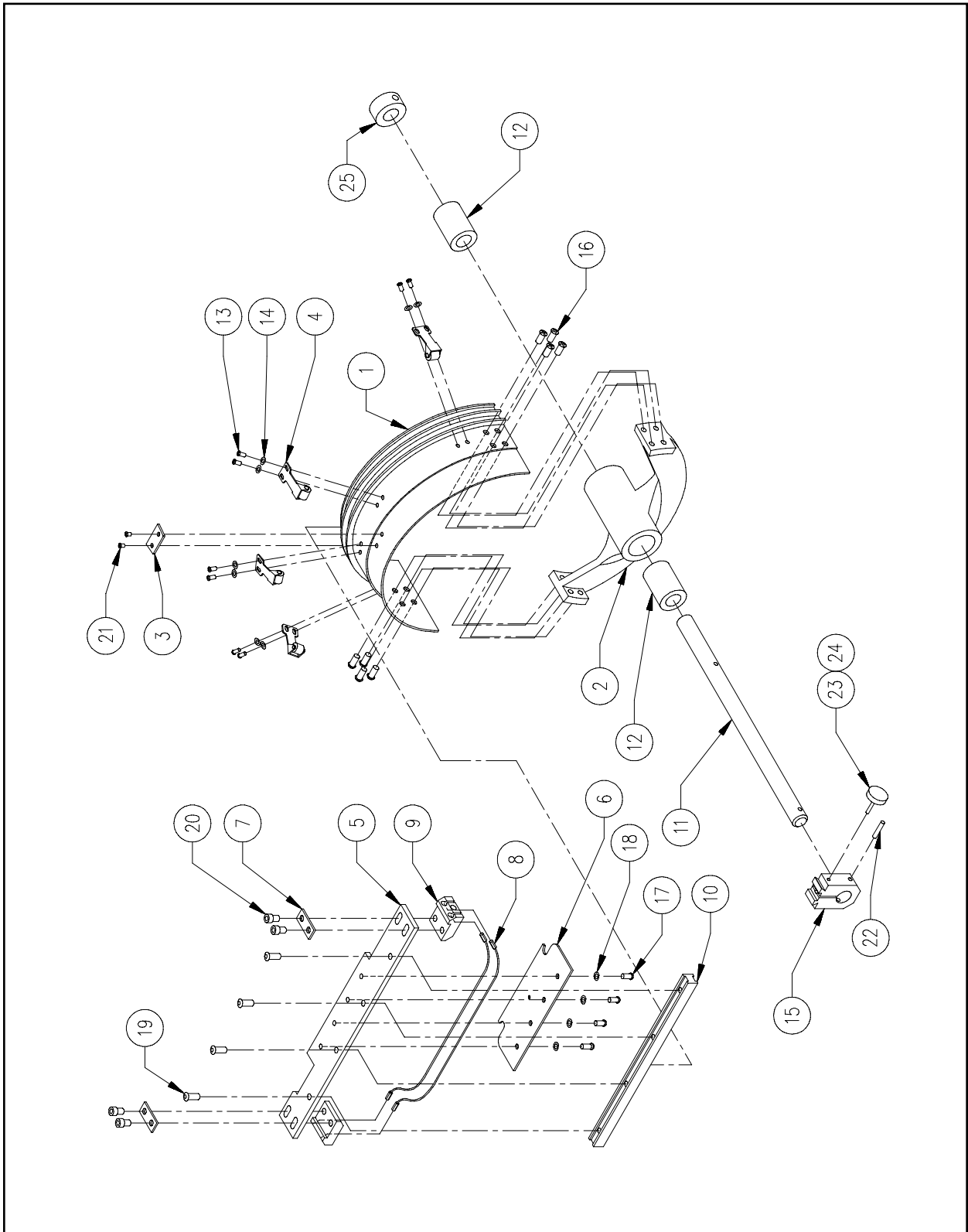


Figure 27

**Cap Frame Drive****Reference Figure 27**

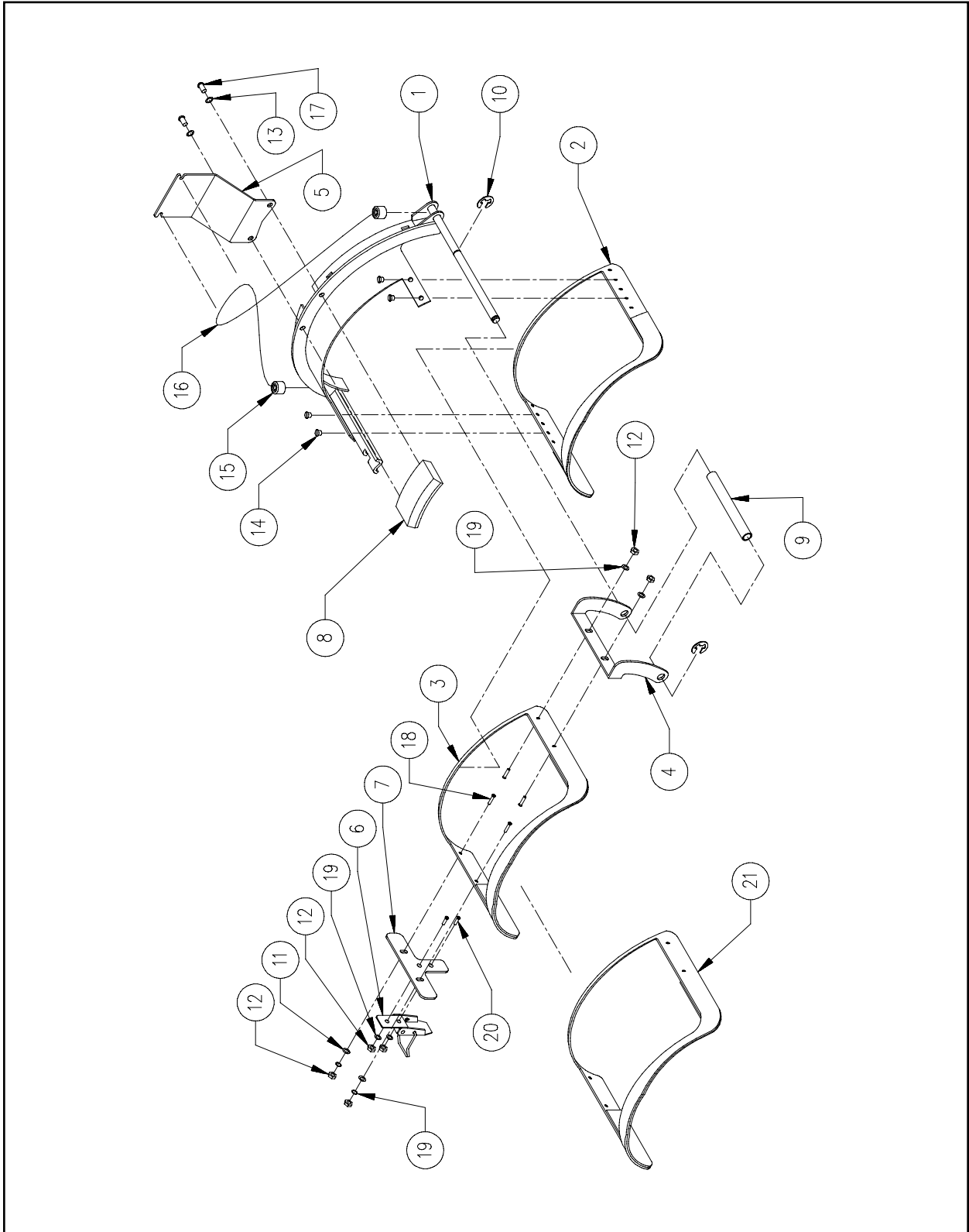
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	452732-01	Ring, Drive, Cap Frame	
2*	006496-01	Hub, Cap Driver, Phase II	
3*	552912-01	Locator, Cap Frame	
4*	004229-01	Clip, Roller, Cap Frame Driver, Assembly	
5*	454861-01	Bracket, Drive	
6•	554862-01	Mount, Drive Ring	
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 28**



**Melco Cap Frame****Reference Figure 28**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
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

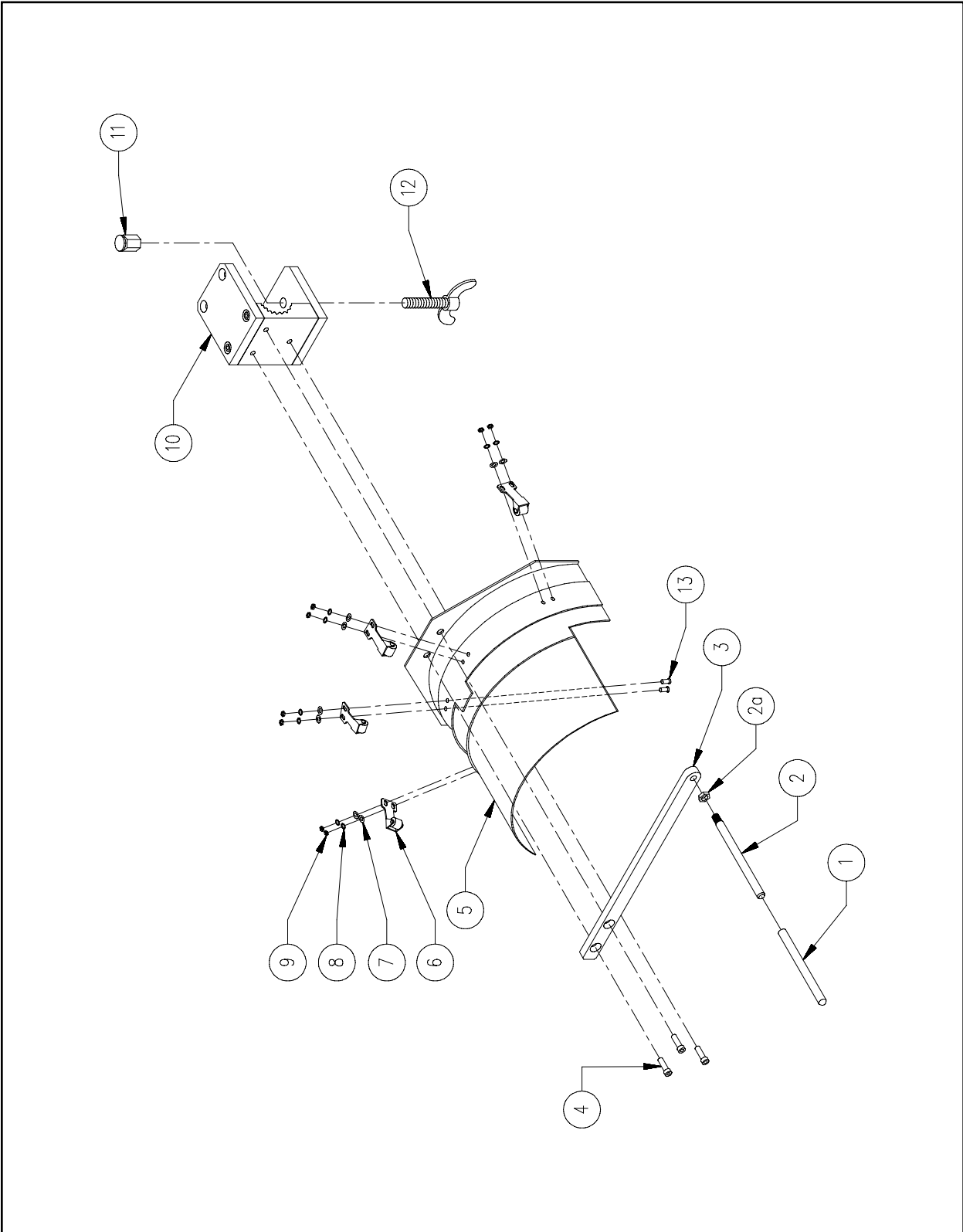


Figure 29

**Melco Cap Frame Gauge****Reference Figure 29**

<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)

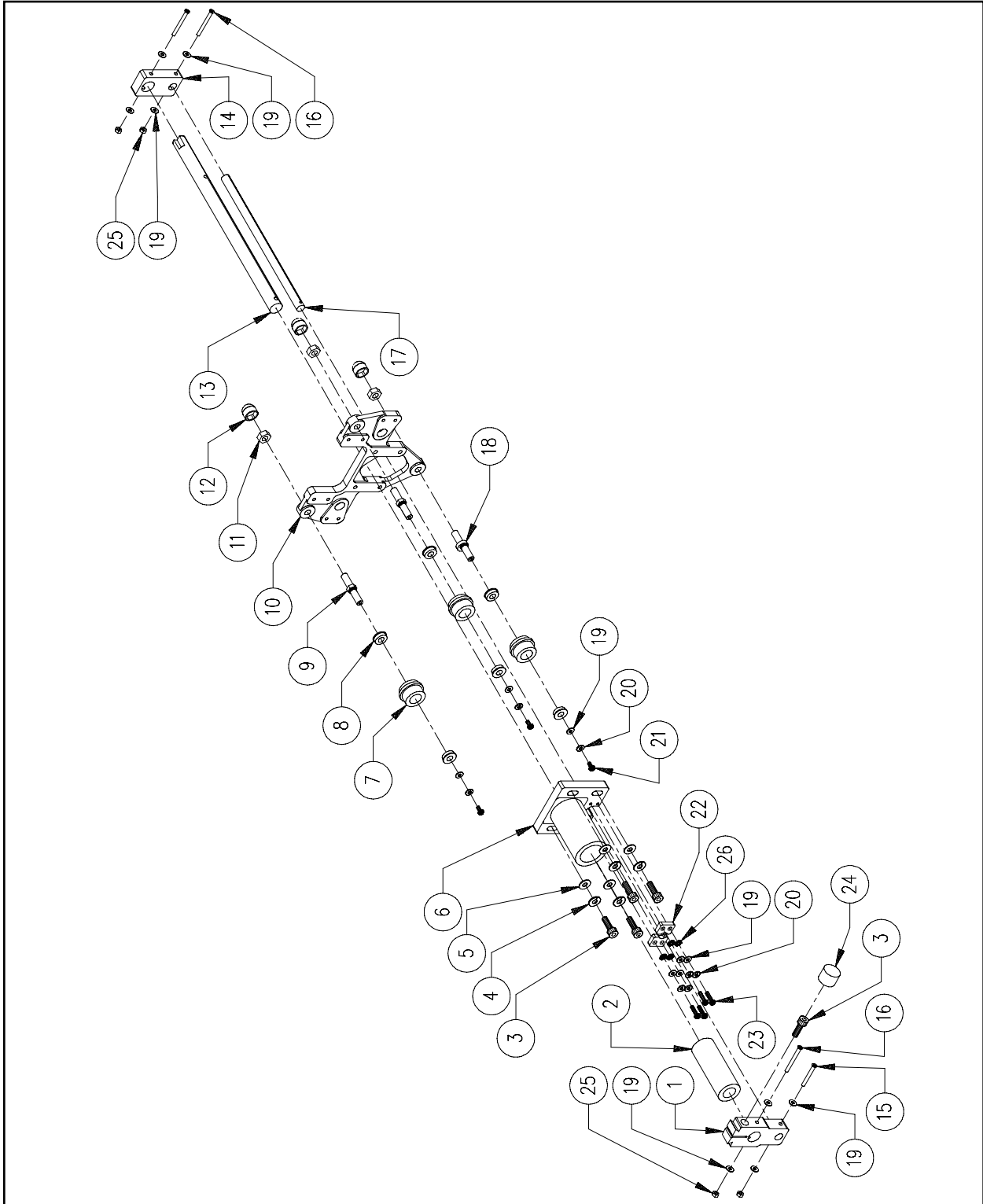


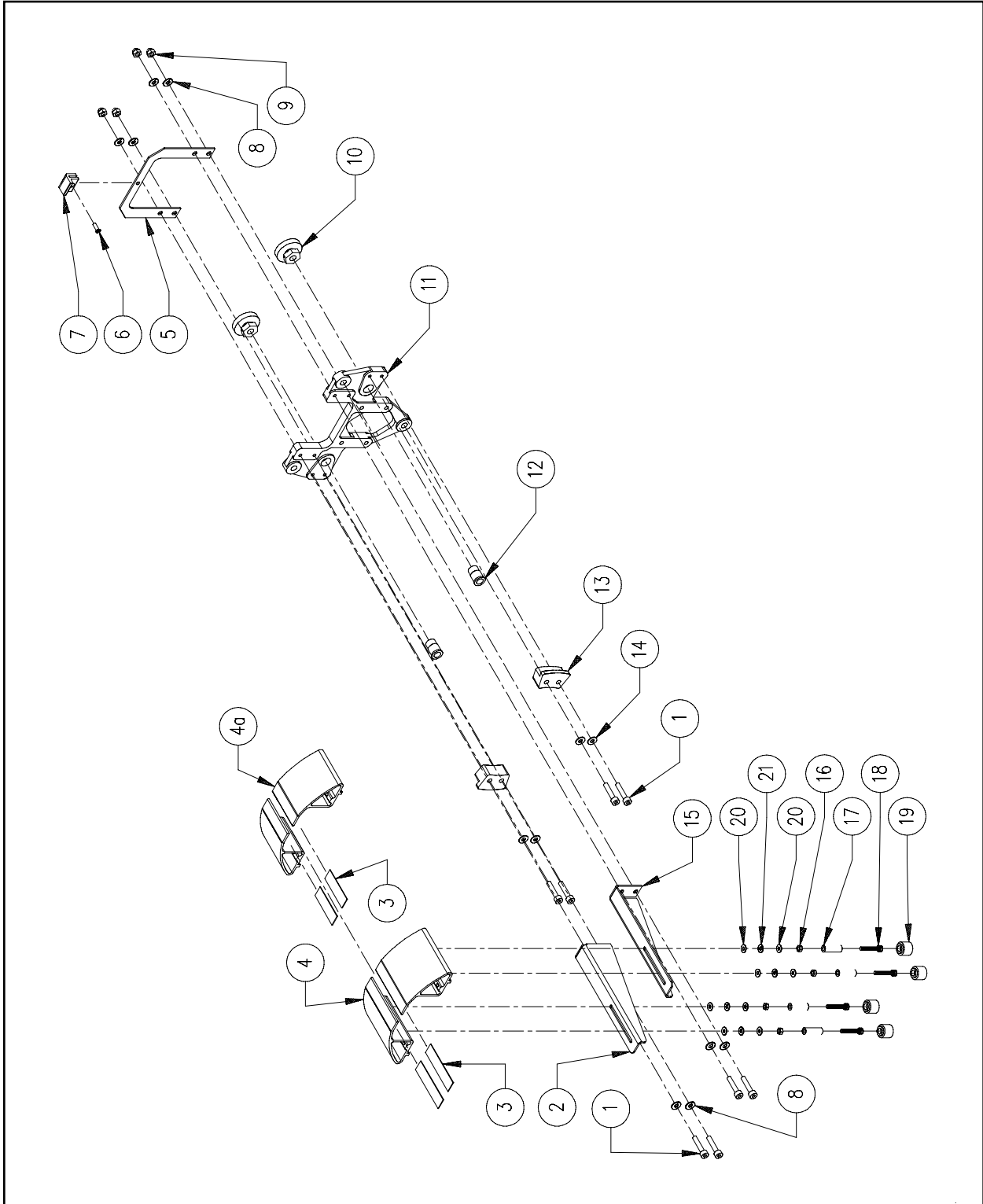
Figure 30

**Wide Angle Cap Frame (1 of 7)****Reference Figure 30**

<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)



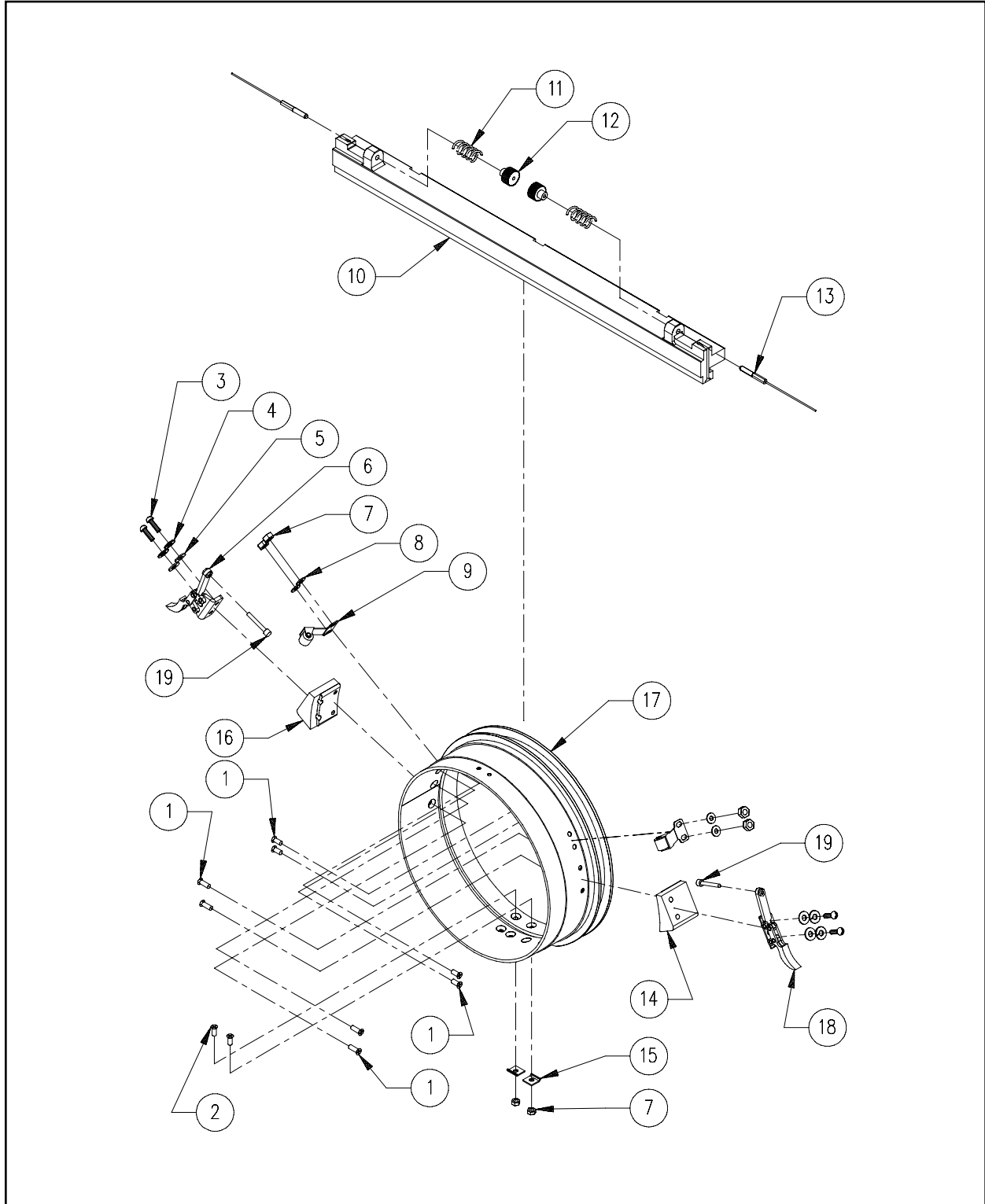
**Figure 31**

**Wide Angle Cap Frame (2 of 7)****Reference Figure 31**

<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)



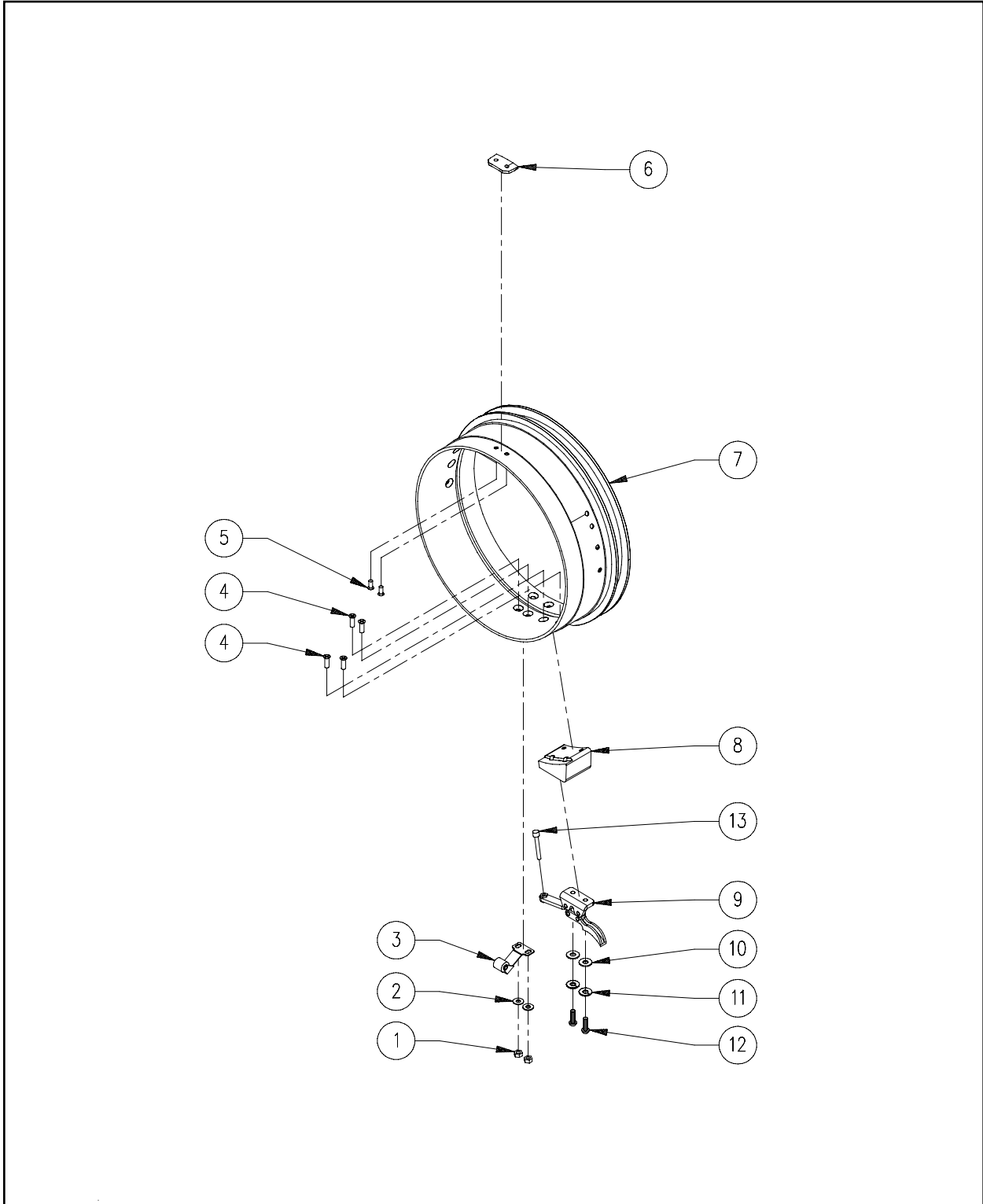
**Figure 32**



**Wide Angle Cap Frame (3 of 7)****Reference Figure 32**

<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)

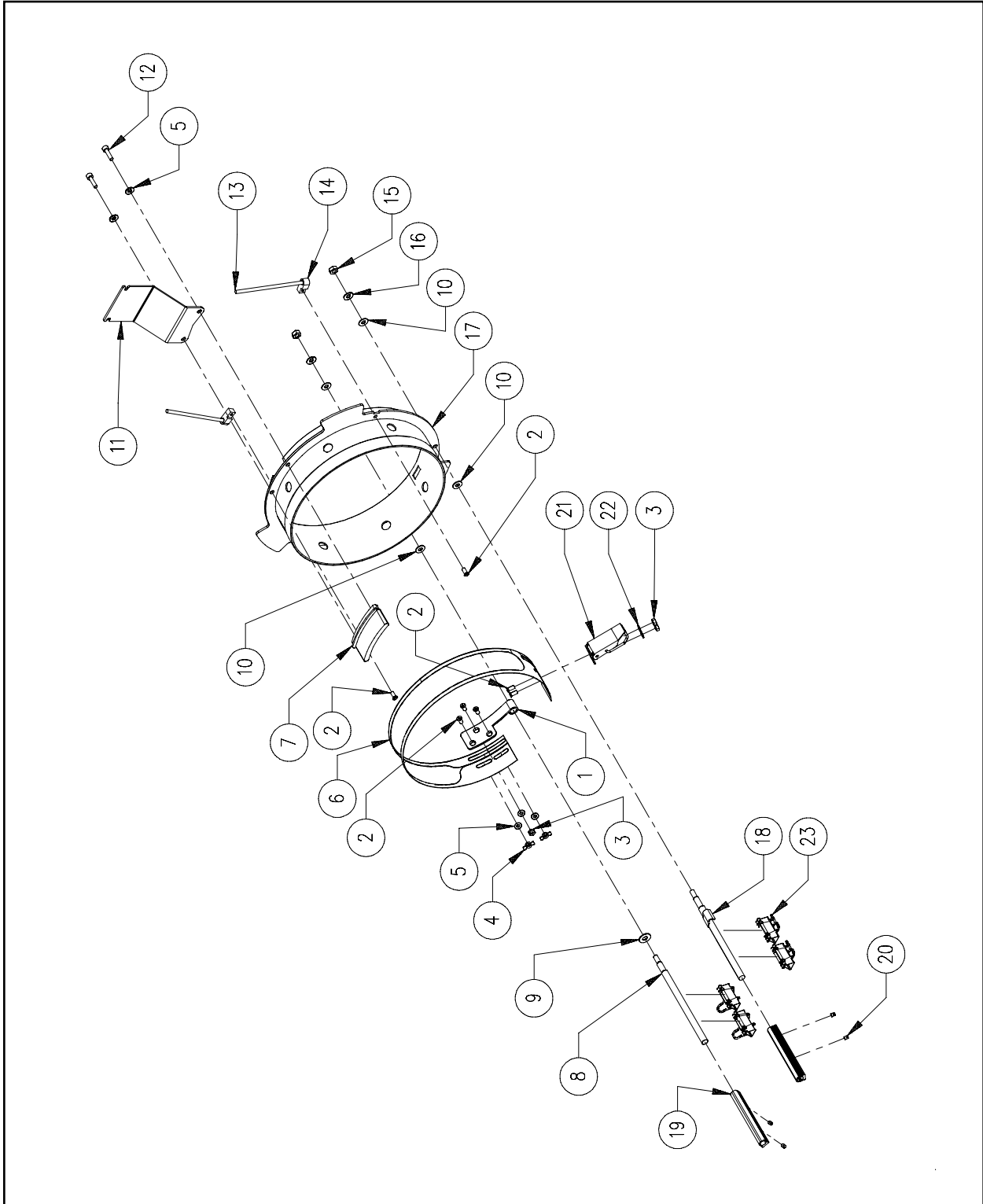


**Figure 33**

**Wide Angle Cap Frame (4 of 7)****Reference Figure 33**

<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	
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 34**

**Wide Angle Cap Frame (5 of 7)****Reference Figure 34**

<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)

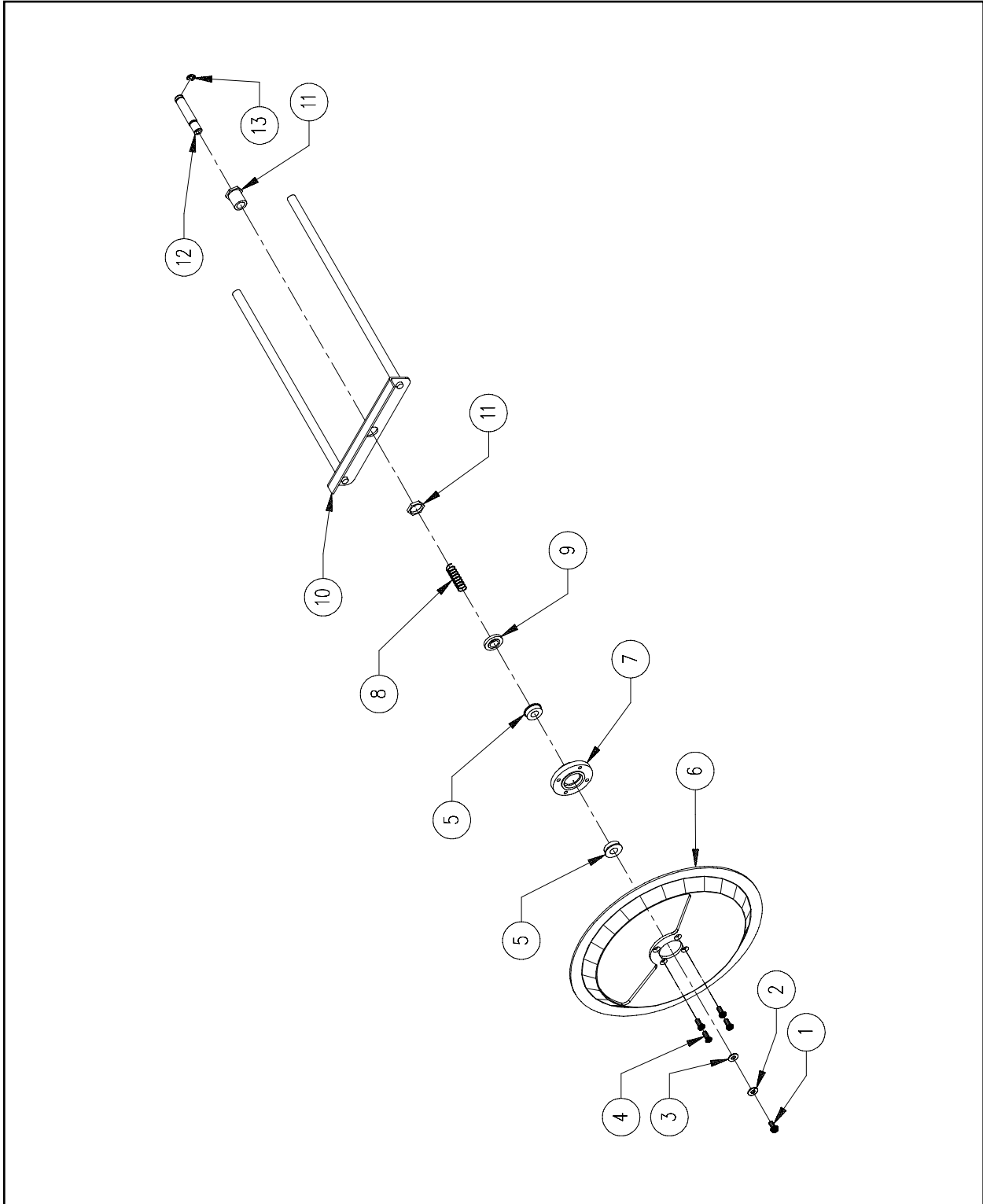


Figure 35

**Wide Angle Cap Frame (6 of 7)****Reference Figure 35**

<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)

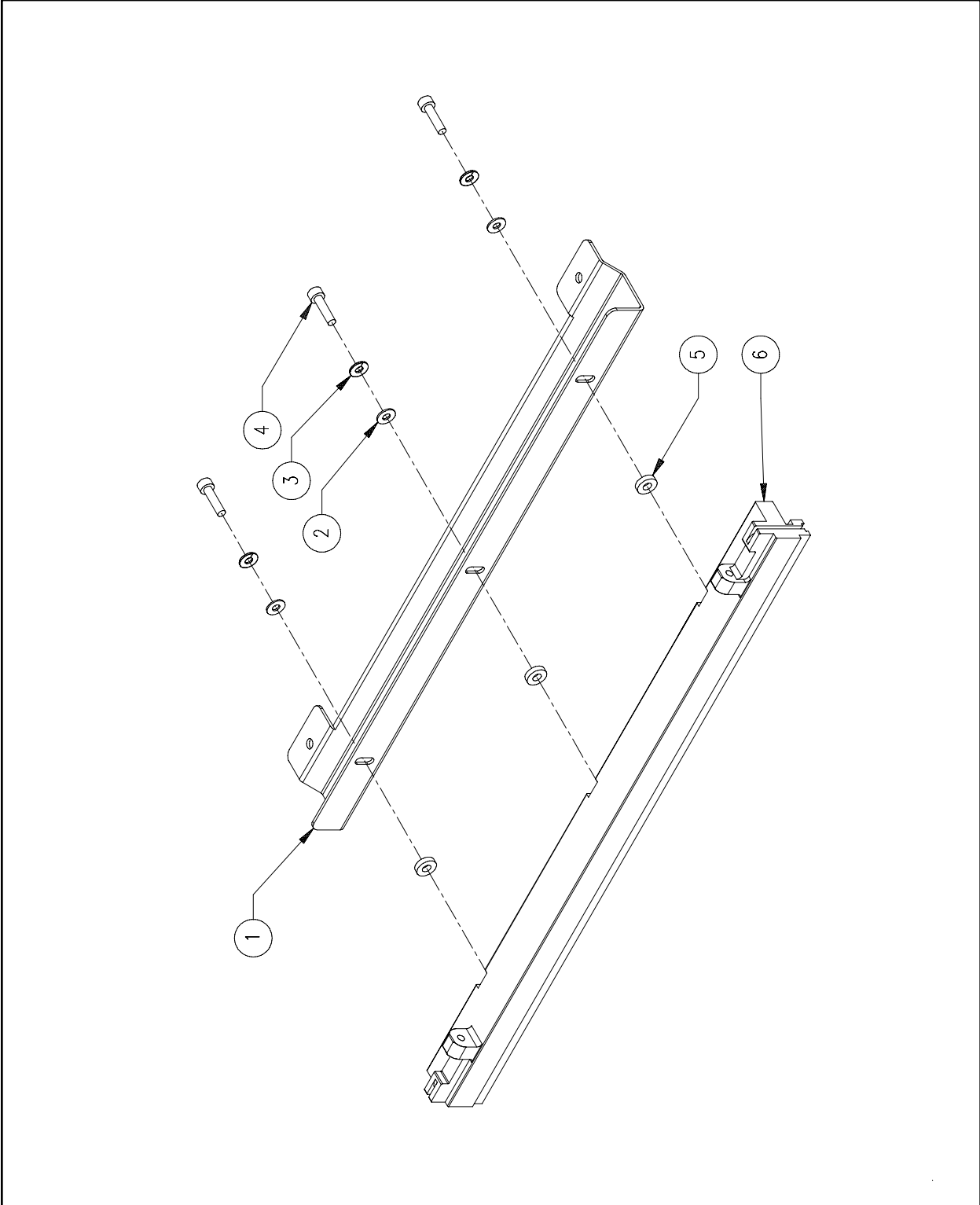


Figure 36

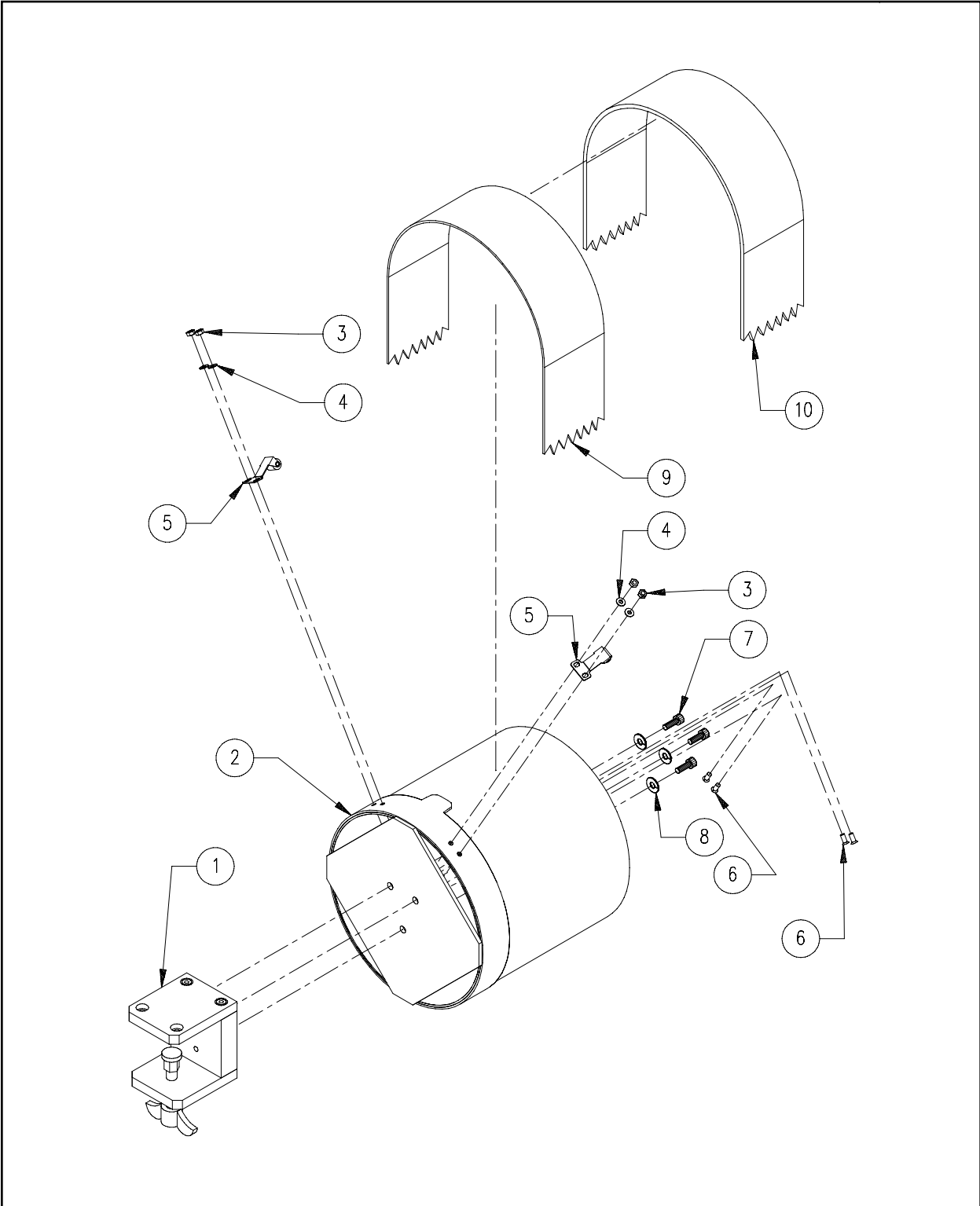


**Wide Angle Cap Frame (7 of 7)****Reference Figure 36**

<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 37**

**Wide Angle Cap Frame Gauge****Reference Figure 37**

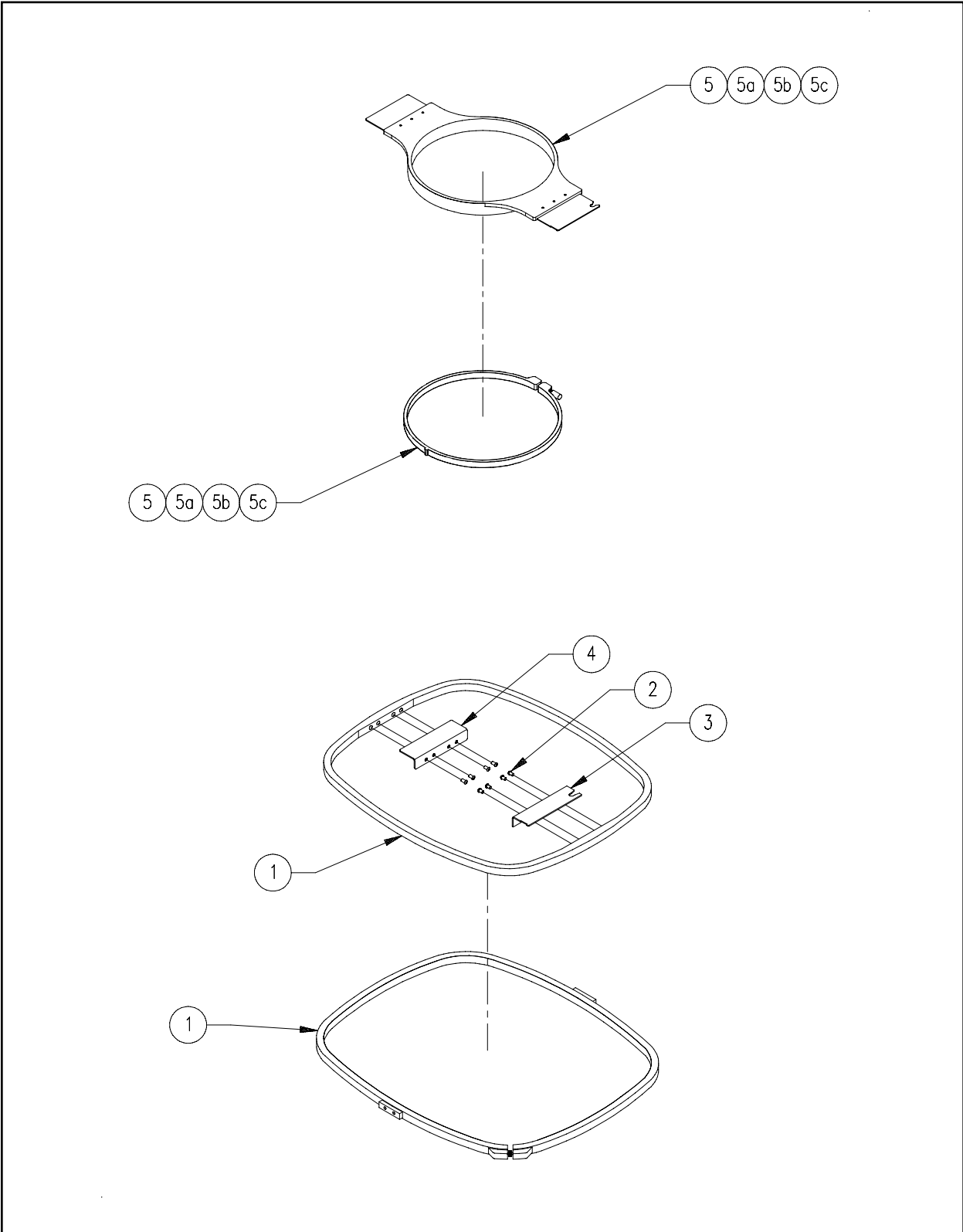
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	004949-01	Block, Mount, Cap Gauge	
2*	010196-01	Cylinder, Gauge	
3*	680430-03	Nut, Hex, M3	
4*	690439-03	Washer, Flat, M3	
5*	004229-01	Clip, Roller, Assembly	
6*	006558-08	Screw, Pan Head, Slotted, M3 x 0.5 x 8mm	
7*	670038-06	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 38**

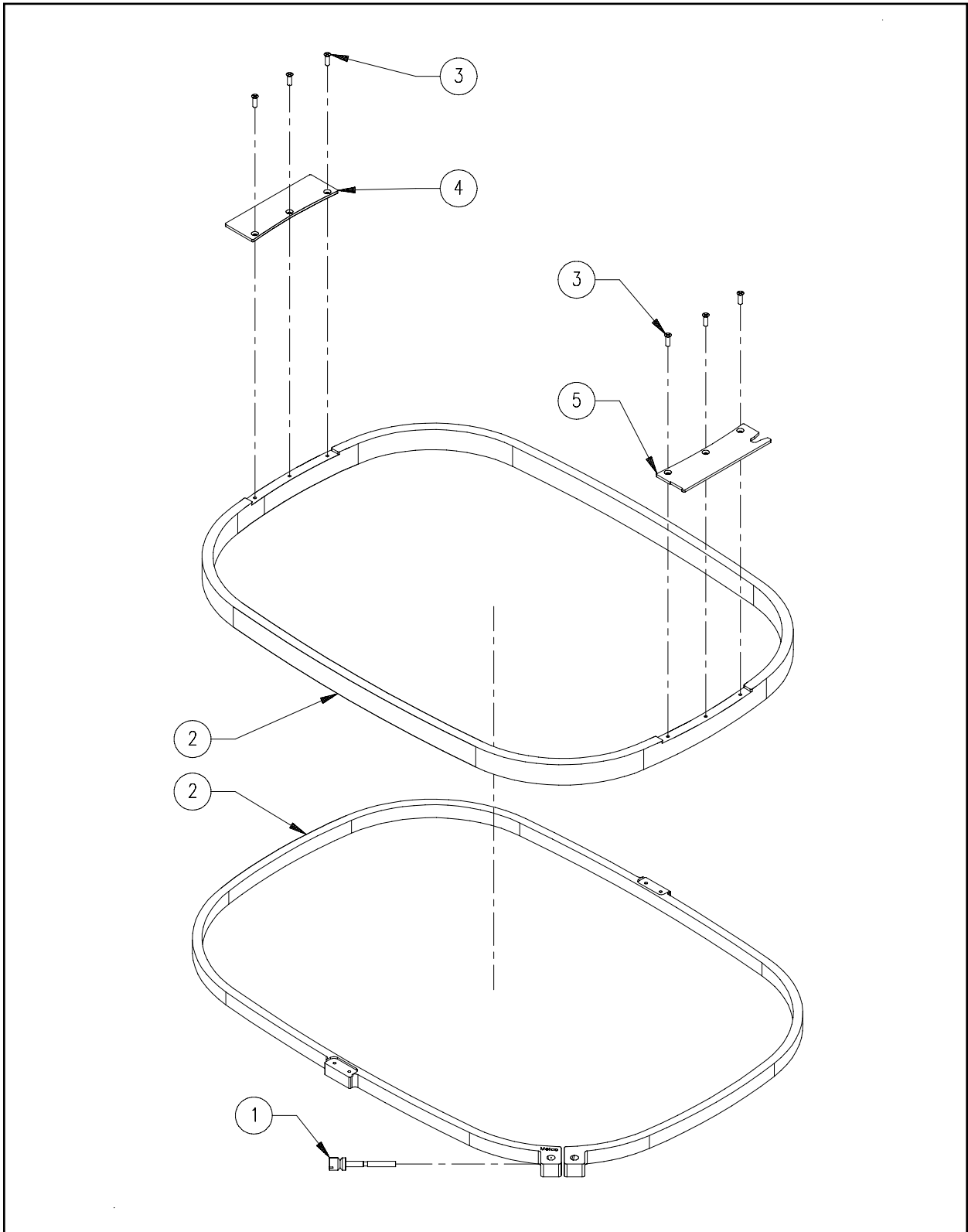
**Tubular Hoops (1 of 2)****Reference Figure 38**

<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 39**

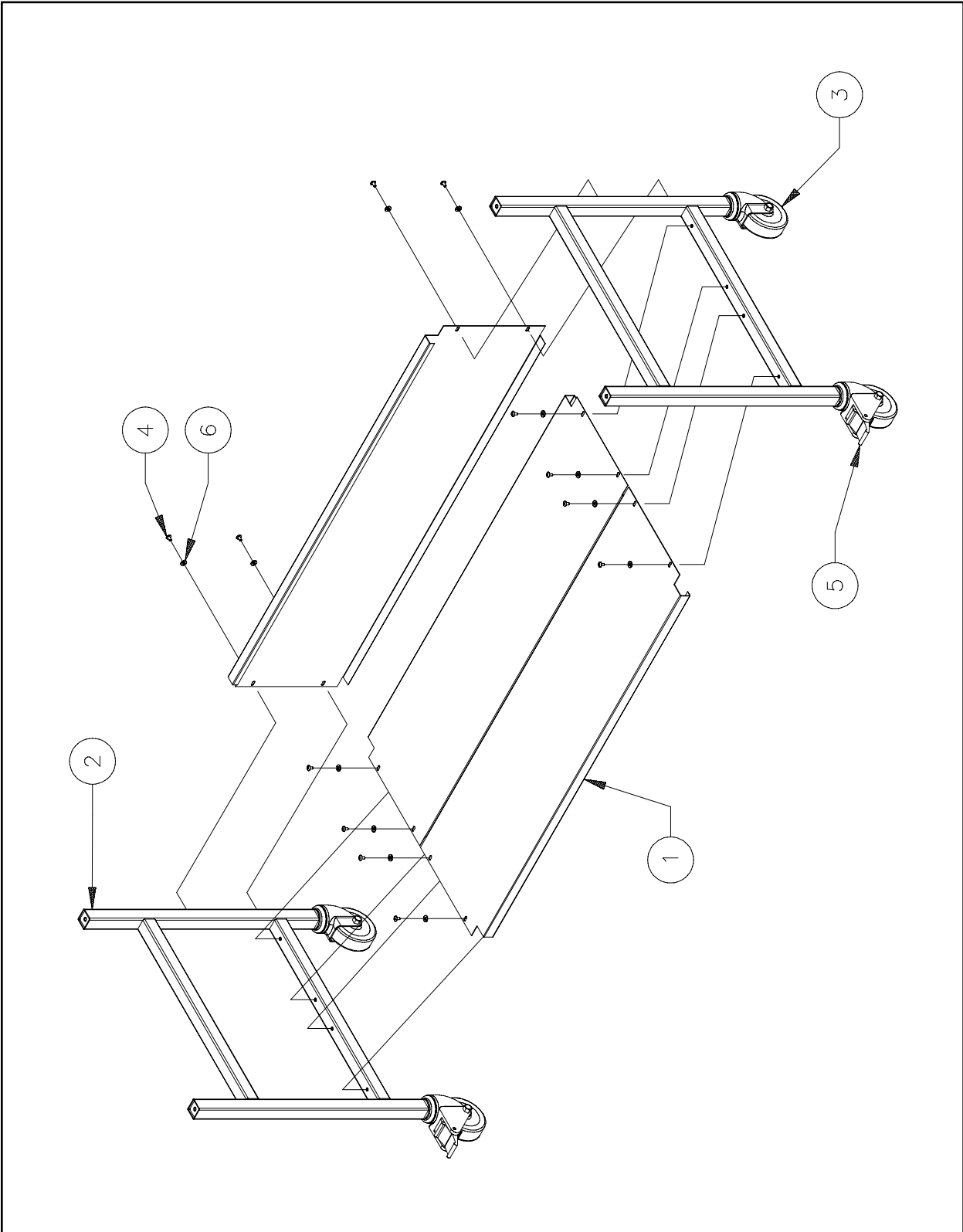
**Tubular Hoops (2 of 2)****Reference Figure 39**

<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	005576-01	Hoop, Screw/Barrel Nut, Assembly	
2*	010194-03	Hoop, Oval, 44cm x 30cm	
3*	003136-06	Screw, Button Head Socket, M3 x 0.5 x 6mm	
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



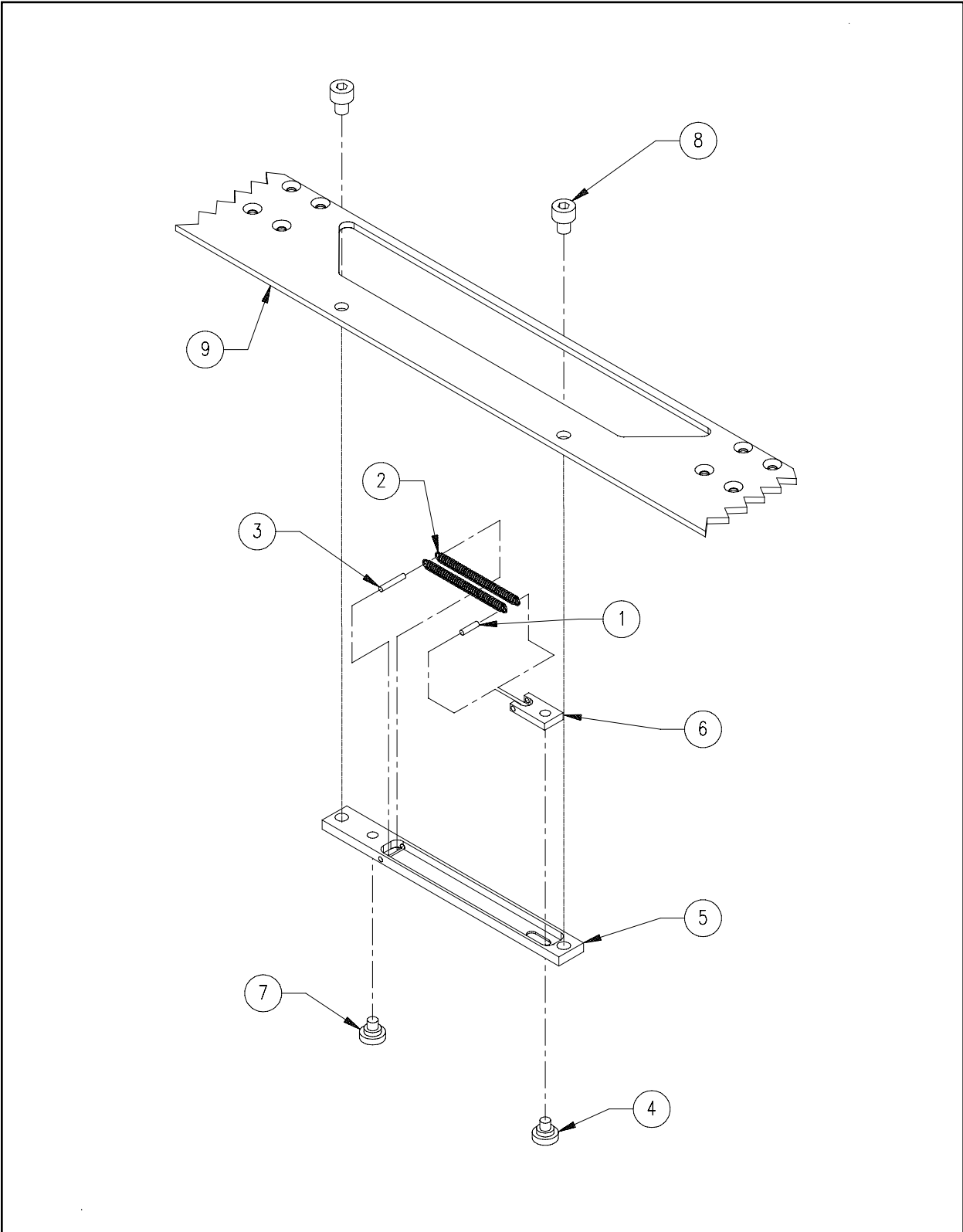
**Figure 40**



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<b>Mobile Cart</b>			<b>Reference Figure 40</b>
<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 41**

**Hoop Interface****Reference Figure 41**

<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

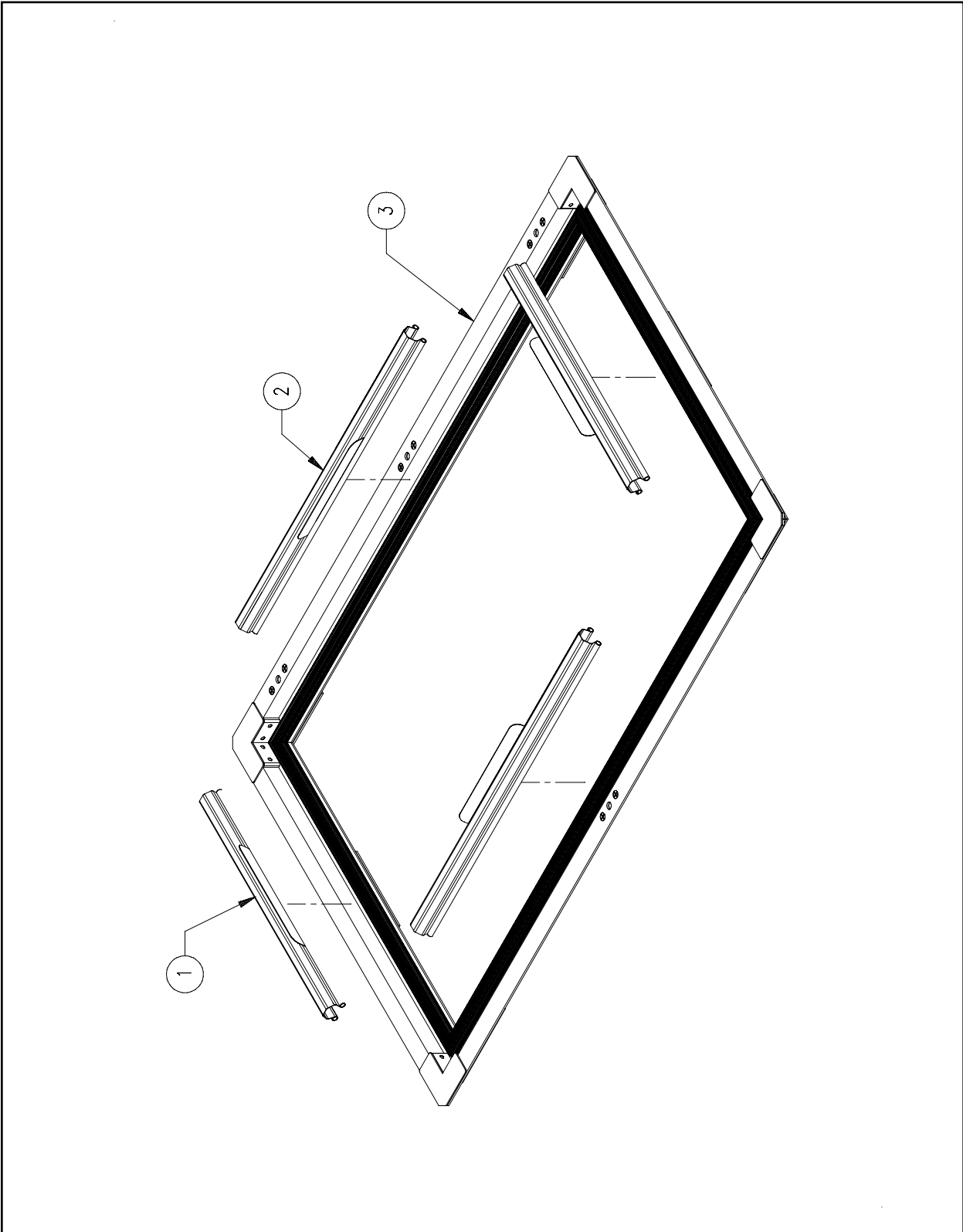


Figure 42

**Sash Frame****Reference Figure 42**

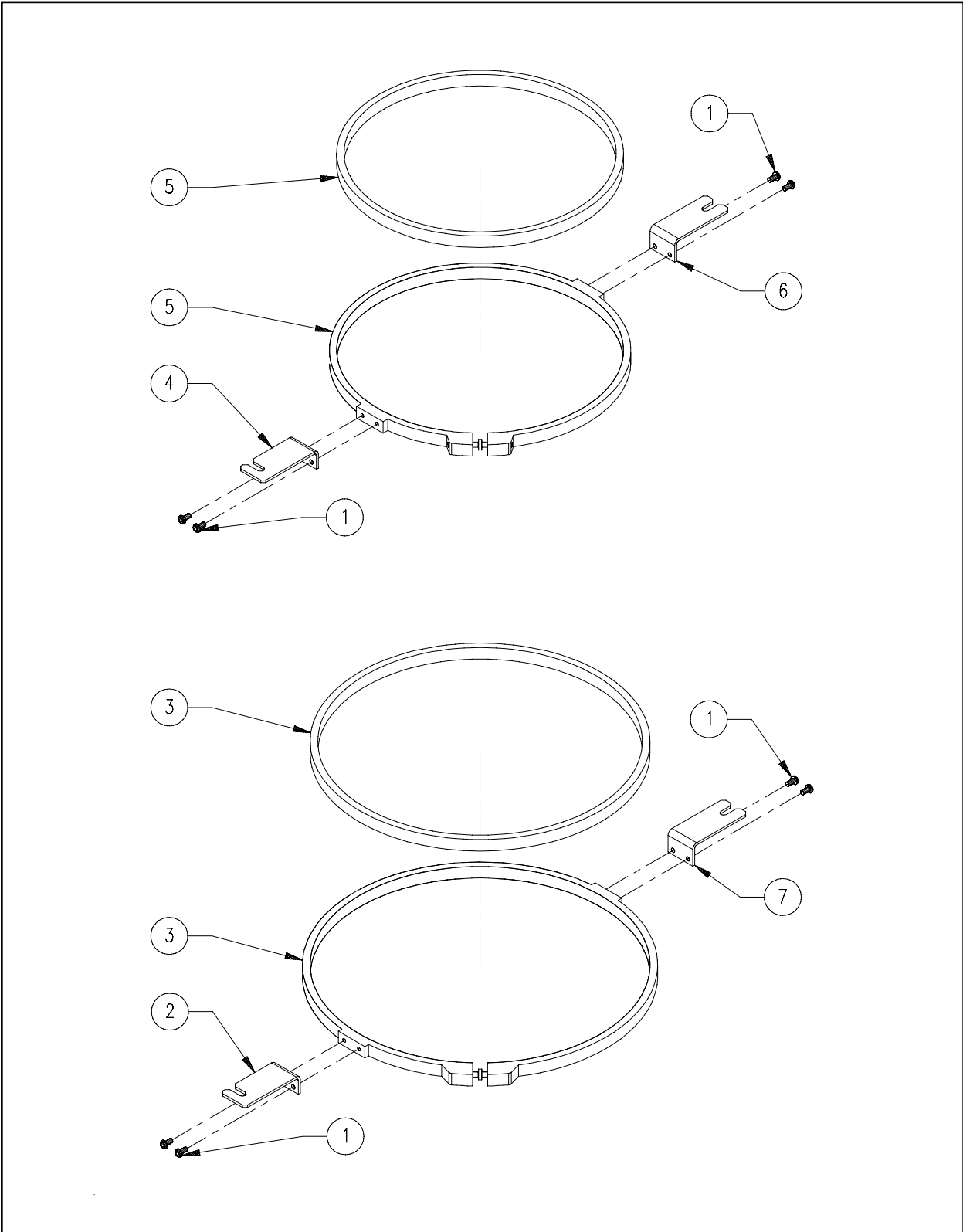
<b>Item No.</b>	<b>Part Number</b>	<b>Item Description</b>	<b>Comments</b>
1*	007598-01	Clip, Border Frame, 220mm	
2*	008177-01	Clip, Border Frame, 300mm	
3*	010764-01	Sash Frame, EMT 10T, Assembly	

Note:

The following can be replaced as a factory built assembly:

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

# Sash Hoops (21cm, 25cm)



**Figure 43**

**Sash Hoops (21cm, 25cm)****Reference Figure 43**

<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**

Assembly, Lever, Take-Up .....12-2

**B**

Bar, Drive Ring .....36-2

Bar, Guide .....27-2

Bar, Idler, Assembly .....11-2

Bar, Needle .....7-2

Base, Cap Frame, Assembly .....28-2

Base, Drive Ring .....30-2, 31-2

Base, Drive, Lever, Take-Up, PHS II .....12-2

Base, Power Supply .....15-2

Base, Strain Relief, Operator I/F .....4-2

Base, Tensioner .....8-2

Base, Thread Tree .....6-2

Bearing, Ball, Radial, 15mm ID..... 9-2

Bearing, Ball, Radial, 8mm ID .....9-2

Bearing, Ball, Radial, Flanged, 3/16" ID ... 16-2

Bearing, Flange Cartridge, 2-Hole .....19-2

Bearing, Flanged .....30-2

Bearing, Flanged, 6mm ID  
x 12mm OD .....35-2

Bearing, Linear ..... 30-2

Bearing, Panel, 1/4" ID .....35-2

Bearing, Roller, 1/2" ID x 1/2" ..... 20-2, 21-2

Bearing, Shaft, Guide .....10-2

Bearing, Sleeve, Frelon .....27-2

Belt, 80T, 1/5P .....19-2

Belt, Timing, 1/5P, 104 Groove,  
3/8" Wide .....9-2

Belt, Timing, 80 Groove, 1/5P,  
3/8" Wide .....18-2

Belt, X-Axis .....16-2

Belt, Y-Axis .....20-2, 21-2

Block Interface, Pin Type ..... 41-2

Block, Carriage, Y-Axis .....20-2, 21-2

Block, Drive ..... 20-2, 21-2

Block, Locator, Brim ..... 28-2

Block, Mount, Cap Gauge .....37-2

Block, Mounting, Cap Gauge,  
Assembly ..... 29-2

Block, Mounting, Switch..... 26-2

Block, Return .....16-2

Block, Return, Y-Rack .....20-2, 21-2

Bobbin, Aluminum .....26-2

Bracket, Angle, Table Top, Long..... 1-2

Bracket, Angle, Table Top, Short .....1-2

Bracket, Base, Winder .....26-2

Bracket, Blank, PC .....13-2

Bracket, Cable .....27-2

Bracket, Clamp, Left Hand .....32-2, 33-2

Bracket, Clamp, Right Hand ..... 32-2

Bracket, Drive ..... 27-2

Bracket, Drive Ring .....32-2

Bracket, Enclosure, Disk Drive ..... 3-2

Bracket, Ethernet Card Connector .....14-2

Bracket, Frame Holder, Gauge Set ..... 29-2

Bracket, Front, 21cm Hoop..... 43-2



Bracket, Front, 25cm Hoop .....	43-2	Bracket, Tubular Hoop, Right .....	39-2
Bracket, Hinge .....	28-2	Bracket, Tubular, I/F, Left .....	38-2
Bracket, Holder, Bar .....	31-2	Bracket, Tubular, I/F, Right .....	38-2
Bracket, Interface, Cap Frame .....	36-2	Breaker, On/Off, 4A .....	25-2
Bracket, Jump Stitch Solenoid .....	9-2	Bulb, 12V .....	5-2
Bracket, Latch .....	28-2	Bushing, Base, Drive, Lever, Take-Up .....	12-2
Bracket, Left .....	16-2	Bushing, Cradle, Spring .....	10-2
Bracket, Motor Board Connector .....	14-2	Bushing, Shaft, Bobbin Winder .....	26-2
Bracket, Mount .....	20-2	Bushing, Shaft, Needle Bar .....	10-2
Bracket, Mount, D-Sub .....	25-2	Bushing, Tensioner .....	8-2
Bracket, Mount, Right Rack .....	21-2	<b>C</b>	
Bracket, Mounting, Disk Drive .....	3-2	Cable, Drive Ring .....	27-2
Bracket, Mounting, Display .....	4-2	Cable, Drive Ring, Assembly .....	32-2
Bracket, Mounting, Z-Cover .....	1-2, 2-2	Cable, E-Stop .....	25-2
Bracket, Needle Plate .....	9-2	Cable, Ethernet, Network, Interface .....	24-2, 25-2
Bracket, Picker .....	9-3, 22-2	Cable, Floppy Drive .....	24-2, 25-2
Bracket, Pivot, Display .....	4-2	Cable, Ground, Braid, 6.5" .....	4-2
Bracket, Rear, 21cm Hoop .....	43-2	Cable, Grounding, 3" .....	25-2
Bracket, Rear, 25cm Hoop .....	43-2	Cable, Jump Stitch .....	24-2
Bracket, Right .....	16-2	Cable, Jump Stitch, TB, CC .....	25-2
Bracket, Stopper, Delrin .....	10-2	Cable, Low Voltage Power .....	23-2, 24-2
Bracket, Stopper, Steel .....	10-2	Cable, Power, Backplane .....	23-2, 24-2
Bracket, Strap, Rubber .....	34-2	Cable, X-Axis Flex .....	25-2
Bracket, Support, Left Hand .....	31-2	Cam, Drive, Take-Up Lever .....	9-2
Bracket, Support, Right Hand .....	31-2	Cap, Spring .....	8-2
Bracket, Tubular Frame, Left .....	17-2	Card Cage, Bottom Cover .....	14-2
Bracket, Tubular Frame, Right .....	17-2	Card Cage, Front Cover, Single Head .....	14-2
Bracket, Tubular Hoop, Left .....	39-2		

Card Cage, Top Cover .....	14-2	Coupler, Shaft, Helical, 1/4" x 1/4" .....	18-2
Carriage, X-Axis .....	17-2	Cover, Bed, Front .....	2-2
Carriage, X-Axis Rack .....	41-2	Cover, Bed, Rear .....	2-2
Case, Bobbin, Small .....	9-2	Cover, Cable, Operator I/F .....	4-2
Case, Gear, Drive, Lever, Take-Up .....	12-2	Cover, Cap Frame Bracket .....	22-2
Case, Needle, Machined .....	7-2	Cover, Cap, Hex, M6 .....	30-2
Castor, 4", w/Brake .....	40-2	Cover, E-Stop.....	2-2
Castor, 4", w/o/Brake .....	40-2	Cover, LEDs .....	1-2
Catch, Pull .....	28-2	Cover, Needle Case .....	7-2
Clamp, Belt .....	16-2	Cover, Operator Interface .....	3-2
Clamp, Hold Down, Left Hand .....	32-2, 33-2	Cover, Power Supply .....	15-2
Clamp, Hold Down, Right Hand .....	32-2	Cover, Rear .....	11-2
Clamp, Needle, Assembly .....	7-2	Cover, Side .....	1-2
Clamp, Stop, Needle Bar .....	7-2	Cover, Solenoid .....	9-3
Clamp, Y-Belt .....	20-2, 21-2	Cover, X-Beam, PCB .....	16-2
Clip, Border Frame, 220mm .....	42-2	Cover, Z-Motor .....	2-2
Clip, Border Frame, 300mm .....	42-2	Cylinder, Drive Ring .....	32-2, 33-2
Clip, Cap Frame .....	34-2	Cylinder, Gauge .....	37-2
Clip, Roller, Assembly.....	32-2, 33-2, 37-2	<b>D</b>	
Clip, Roller, Cap Frame Driver, Assembly .....	27-2, 29-2	Damper, Needle Case .....	7-2
Clip, Spring, Tubular .....	17-2	Disc, Tensioner .....	26-2
Collar, Shaft, 1/2" ID .....	27-2	Disk, Plastic .....	8-2
Collar, Shaft, Headup .....	9-2	Disk, Pretensioner.....	8-2
Connector, Dual Cap Frame.....	22-2	Disk, Tensioner, Thread, Assembly .....	8-2
Cord, Shock, Cap Frame .....	28-2, 34-2	Disk, Thread Suspender .....	7-2
Counterweight, Phase II .....	9-2	Door, Disk Drive.....	3-2
Coupler, In-Line, 6 Position .....	25-2	Drive, Disk, 3-1/2" .....	3-2

**E**

Encoder, Z-Axis .....18-2  
 Extrusion, Base .....16-2, 17-2  
 Extrusion, Cover .....17-2

**F**

Felt, Needle Case .....7-2  
 Ferrite, Split, Large .....25-2  
 Flag, Y-Limit .....20-2  
 Flange, Pulley, X-Axis Motor .....16-2  
 Follower, Assembly .....12-2  
 Foot, Presser, Assembly .....7-2  
 Frame, Assembly .....1-2  
 Frame, Lower, w/Rubber, 6-Panel .....28-2  
 Fuse, 5A, TD .....15-2

**G**

Gasket, Rack, X-Axis .....17-2  
 Gauge, Cap Frame, Weldment .....29-2  
 Gear, Drive, Lever, Take-Up .....12-2  
 Grommet, 3.3" ..... 3-2  
 Grommet, Actuator Lever .....26-2  
 Guard, Switch .....25-2  
 Guide, Thread, Middle .....7-2  
 Guide, Thread, Winder .....26-2

**H**

Harness, Bobbin Winder ..... 23-2, 25-2  
 Harness, Circuit Breaker ..... 23-2, 25-2  
 Harness, Hatswitch .....25-2  
 Harness, Head .....24-2

Harness, Jumper, Thread Break .....7-2  
 Harness, Keyboard/Display .....24-2, 25-2  
 Harness, Power Entry, PC ..... 15-2, 25-2  
 Harness, Start/Stop/Frame..... 25-2  
 Harness, Thread Break/Jump Stitch... 8-2, 25-2  
 Harness, X-Axis Collector .....24-2, 25-2  
 Harness, Y-Z Axis .....24-2, 25-2  
 Hinge, Cap Frame .....34-2  
 Holder, Cable Tie, .75" Square ..... 26-2  
 Holder, Clip .....34-2  
 Holder, Cord, Visor Clamp .....28-2  
 Holder, Fuse .....15-2  
 Holder, Visor .....34-2  
 Hook, Rotary, Small Bobbin .....9-2  
 Hoop, 21cm, w/Arms .....43-2  
 Hoop, 25cm, w/Arms .....43-2  
 Hoop, 36cm x 30cm, w/Insert .....38-2  
 Hoop, Oval, 44cm x 30cm .....39-2  
 Hoop, Screw/Barrel Nut, Assembly .....39-2  
 Hoop, Tubular, 12cm, w/Interface  
 Brackets .....38-2  
 Hoop, Tubular, 15cm, w/Interface  
 Brackets .....38-2  
 Hoop, Tubular, 18cm, w/Interface  
 Brackets .....38-2  
 Hoop, Tubular, 22cm, w/Interface  
 Brackets .....38-2  
 Housing, Bearing .....30-2  
 Hub, Cap Driver, Phase II .....27-2

Hub, Shaft, Arm, Winder .....26-2

## **K**

Key, Shaft, 6mm x 6mm x 32mm .....22-2

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

Knob, Adjust, Pretensioner, Plastic ....8-2, 26-2

Knob, Extension, Pot .....3-2

Knob, Knurled, Black, M3 .....31-2

Knob, Knurled, Black, M5..... 30-2

Knob, Knurled, M5, Black .....22-2, 27-2

Knob, Tensioner, Black, Assembly ..... 8-2

## **L**

Lamp, Flexible, w/Switch, 12V/12W .....5-2

Latch, Takigen .....34-2

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 .....26-2

Lever, Drive, Lever, Take-Up .....12-2

Locator, Brim, Cap Frame .....34-2

Locator, Cap Frame .....27-2

Locator, Drive Ring .....33-2

Locator, Fixed Interface, Pin Type .....41-2

Locator, Left .....17-2

Locator, Movable Interface, Pin Type ..... 41-2

Locator, Right .....17-2

Lock, Shaft, .25" ID .....31-2

## **M**

Magnet, Cover, Needle Case .....7-2

Motor, Modified, Winder .....26-2

Motor, X-Axis .....16-2

Motor, Y-Axis .....19-2

Motor, Z-Drive .....18-2

Mount, Cable Tie, Nylon .....16-2

Mount, Dove Tail, Cap Frame .....22-2

Mount, Drive Ring ..... 27-2

Mount, Front, Drive Ring .....30-2

Mount, Male, Cap Frame .....27-2

Mount, Tensioner Post .....8-2

## **N**

Nipple, Support, Tensioner Disk .....31-2

Nut, Swivel, 3/8-16 .....29-2

Nut, Tensioner, Drive Ring .....32-2

## **O**

O-Ring, Molded, Needle Bar ..... 7-2

## **P**

Pad, Cone, Thread .....26-2

Pad, Cushion, Disk Drive .....	3-2	Pin, Pivot, Take-Up Lever .....	12-2
Pad, Cushion, Side, Thread Tree Base .....	6-2	Pin, Roll, 2mm x .315" .....	41-2
Pad, Cushion, Top, Thread Tree Base.....	7-2	Pin, Roll, 2mm x .472" .....	41-2
Pad, Felt, .065" Thick .....	8-2	Plate Mounting, Z-Drive Motor .....	18-2
Pad, Felt, .095" Thick .....	8-2	Plate, Base, Operator Interface .....	3-2
Pad, Guide, Shaft .....	30-2	Plate, Base, Winder .....	26-2
Pad, Holder, Bar .....	31-2	Plate, Coupler .....	1-2
Pad, Leveling .....	1-2	Plate, Cover, Arm .....	9-3
Pad, Support, Cylinder .....	31-2	Plate, Cover, Needle Case .....	7-2
Pad, Thread Holder .....	6-2	Plate, Encoder .....	18-2
Panel, Side.....	6-2	Plate, E-Stop .....	2-2
PCB, Backplane, Assembly .....	13-2, 24-2	Plate, Front, Z-Drive Cover .....	2-2
PCB, CPU, Assembly .....	13-2	Plate, Guide, Needle Bar .....	7-2
PCB, EMT Operator Interface, Assembly ....	3-2	Plate, Interface, Bracket, Solenoid .....	9-2
PCB, E-Stop-Power Supply, Assembly .....	15-2	Plate, Motor Mount #2 .....	19-2
PCB, Interface, Assembly .....	13-2	Plate, Needle, Pocketed .....	9-2
PCB, LV Drivers, Assembly .....	13-2	Plate, Retainer, Bearing, Arm Shaft .....	9-2
PCB, Motor Drive, Assembly .....	24-2	Plate, Strain Relief, Operator I/F .....	4-2
PCB, Motor Driver, Assembly .....	13-2	Plate, Table Top, Locator, Rear .....	1-2
PCB, Network, Intel, Pro 10 .....	13-2, 24-2	Plate, Table Top, Locator, Side .....	1-2
PCB, X-Beam, X-Rack, Assembly .....	16-2	Plug, Dome, .437" Dia. ....	7-2
PCB, Y-Limit, Assembly .....	20-2	Plunger, Ball, 1/4-20, 7lbs. 26-2	
Pedestal, Control Interface .....	4-2	Post, Bobbin, Storage .....	26-2
Pin, Dowel, 1/4" OD x .750" .....	18-2	Post, Cap Frame .....	34-2
Pin, Dowel, 3mm OD x 12mm Long .....	9-2	Post, Cap Frame, Weldment .....	34-2
Pin, Groove, 1/8" OD x 5/8" .....	12-2	Post, Guide .....	7-2, 26-2
Pin, Groove, 1/8" OD x 7/8" .....	27-2	Post, Pretensioner .....	8-2
Pin, Pivot, Door .....	3-2	Post, Tensioner .....	8-2

Post, Tensioner, Winder .....	26-2	Screw, Set, Cam .....	9-2
Post, Thread, Winder .....	26-2	Screw, Set, Mounting Post .....	8-2
Power Entry Module, Filtered, 6A .....	15-2, 25-2	Screw, Shoulder, 1/8" OD x .188", 4-40 Thread.....	7-2
Presser, Spring .....	7-2	Screw, Shoulder, M5 x 7mm OD x 0.8mm .....	11-2
Pretensioner, Assembly .....	7-2	Screw, Special, Cap Frame .....	28-2
Pulley, 16T, 3/8" ID, w/Hub .....	18-2	Screw, Thumb, Knurl, 8mm .....	17-2
Pulley, Drive .....	19-2	Screw, Thumb, Wing-Head, 3/8-16 x 1.5" .....	29-2
Pulley, Drive, Bobbin, Bottom, 16T, 1/5P .....	9-2	Screwlock, 4-40 ID x 5/16" .....	14-2
Pulley, Drive, Bobbin, Top, 32T, 1/5P .....	9-2, 18-2	Seal, Rubber, 3/8" x 1/2" .....	14-2
Pulley, Drive, Y-Rail .....	19-2	Seat, Cone, Thread.....	26-2
Pulley, Idler, Return, Assembly .....	20-2, 21-2	Sensor, Optical Switch, Assembly .....	16-2
Pulley, Pinion, Y-Axis .....	19-2	Set, Cover, Rotary Cover .....	2-2
Pulley, Return .....	16-2	Shaft Cover, Frame Holder .....	29-2
<b>R</b>		Shaft, Arm .....	9-2
Rail, X-Drive .....	17-2	Shaft, Arm, Winder .....	26-2
Rail, Y-Carriage .....	20-2, 21-2	Shaft, Bobbin, Phase II .....	9-2
Reciprocator .....	10-2	Shaft, Cap Frame .....	27-2
Ring, Drive, Cap Frame .....	27-2	Shaft, Drive .....	19-2
Rod, Connecting.....	9-2	Shaft, Drive Ring .....	30-2
Rod, Crank, 90 Deg .....	9-2	Shaft, Drive, Lever, Take-Up .....	12-2
Roller, Drive Ring .....	30-2	Shaft, Frame Holder, Gauge Set.....	29-2
Roller, Idler .....	11-2	Shaft, Guide, Drive Ring .....	30-2
<b>S</b>		Shaft, Guide, Needle Bar .....	10-2
Sash Frame, EMT 10T, Assembly.....	42-2	Shaft, Return .....	20-2, 21-2
Screw, Needle Plate .....	9-2	Shaft, Return, X-Axis .....	16-2
Screw, Rotary Hook .....	9-2	Shaft, Roller .....	30-2

Shaft, Roller, Eccentric .....	30-2	Spring, Tensioner, Thread .....	8-2
Shelf .....	40-2	Spring, Thread Suspender .....	7-2
Shim, Needle Case .....	7-2	Standoff, Encoder, M-F, M4 x 0.7 x 2.01" .....	18-2
Side .....	40-2	Standoff, F/F, 1/2" Hex, 1/4-20 x 1" .....	18-2
Slide Interface, Pin Type .....	41-2	Standoff, Fem., 4-40 ID x 3/16" OD x 1/8" .....	7-2
Solenoid, Jump Stitch .....	9-2	Standoff, M/F, M4 x 0.7 x 31mm .....	3-2
Spacer .....	28-2	Stiffener, Table Insert .....	1-2
Spacer, 3/16" ID x .25" OD x .031" Thick .....	17-2	Strap, Clamping, 72mm, 6-Panel .....	28-2
Spacer, Belt .....	16-2	Strap, Clamping, 82mm, 6-Panel .....	28-2
Spacer, Interface, Wide Angle Cap Frame .....	36-2	Strap, Clamping, Cap Frame, <sup>w</sup> /Rubber ....	34-2
Spacer, Nylon, .14" ID x .25" OD x .75" .....	31-2	Strap, Rubber, Gauge, 2.38" x 18.00" x .0625" Thick .....	37-2
Spacer, Shaft, .187" ID x .312" OD x .03" Thick .....	9-2	Strap, Rubber, Gauge, 2.38" x 18.00" x .125" Thick .....	37-2
Spacer, Shaft, 5/16" ID x .016" Thick .....	11-2	Stud, Connecting, Needle Bar .....	7-2
Spacer, Thread, Tie-off .....	7-2	Stud, Connector, Reciprocator .....	10-2
Spreader, Thread Tree .....	6-2	Stud, Press, 1/4" OD x 1/2" .....	11-2
Spring, Check, Tensioner, Thread .....	8-2	Support, Cap, Large, Machined .....	31-2
Spring, Compression .....	32-2, 35-2	Support, Cap, Small, Machined .....	31-2
Spring, Extension, .125" OD x 1.75" .....	41-2	Support, Rotary Hook .....	9-2
Spring, Holding, Needle Bar.....	7-2	Support, Shaft, Rear .....	30-2
Spring, Idler .....	11-2	Support, Thread Tree .....	6-2
Spring, Jump, Reciprocator .....	10-2	Switch, Cap Frame, Dual .....	22-2
Spring, Presser Foot .....	7-2	Switch, E-Stop Block, 24mm.....	2-2
Spring, Pretensioner .....	8-2	Switch, E-Stop, 24mm .....	2-2
Spring, Shaft, Arm, Winder .....	26-2	Switch, Full, Bobbin, Assembly .....	26-2
Spring, Tensioner .....	26-2	Switch, Momentary, <sup>w</sup> /Full Guard .....	3-2

Switch, Pushbutton, Momentary .....	3-2	Washer, Flat, Rectangle.....	27-2
Switch, Winder, On/Off, Assembly .....	26-2	Washer, Holder, Cable .....	32-2
<b>T</b>			
Tab, Tensioner .....	7-2, 8-2	Washer, Neoprene .....	26-2
Table Top, Main .....	1-2	Washer, Shoulder, Nylon, .116" ID x .047" .....	7-2
Table Top, Rear, Left .....	1-2	Washer, Shoulder, Nylon, .156" ID x .188" .....	2-2
Table Top, Rear, Right .....	1-2	Washer, Support, Spring .....	35-2
Table Top, Side, Left .....	1-2	Washer, Wave, 22mm OD .....	9-2
Table Top, Side, Right .....	1-2	Washer, Wave, 35mm OD .....	9-2
TableTop, Rear, Right .....	5-2	Weldment, Cap Frame, w/Rubber .....	34-2
Tape, Adhesive, 2.25" .....	31-2	Wrench, Hex, 4mm .....	30-2
Tape, Static, LCD .....	3-2	Wrench, L-Hex, 3mm, Short Arm .....	36-2
Template, Panel .....	3-2		
Tensioner Disk .....	35-2		
Tensioner Disk Shaft .....	35-2		
Tensioner Disk Support .....	35-2		
Tensioner, Thread, Main, Black, Assembly .....	7-2		
Tensioner Disk Hub .....	35-2		
Terminal, Shock Cord .....	28-2		
Thread, Bobbin, White .....	9-2		
Tie, Cable, 3.1" .....	16-2, 26-2		
Tray, Table .....	1-2		
Trim, Hand Hold .....	1-2		
<b>W</b>			
Washer, AIN .....	16-2, 19-2, 20-2, 21-2		
Washer, Bellville, M6.....	4-2		
Washer, Flat, Fender, M4 .....	31-2		