



**ILLUSTRATED PARTS MANUAL**

**for**

**EMC 6ML and EMC 6MTL**

**EMBROIDERY PERIPHERALS**

Part Number: 110100-01

**A Complete Illustrated Parts Manual For The Melco EMC 6ML Series Embroidery Peripherals With Melco Heads. This Includes Trimmer Parts Information.**

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 models of the Melco EMC 6ML Sewing Peripherals built with the Melco Heads. This manual represents both models of the product. The EMC 6ML is identified as model part number 004807-01. The EMC 6MTL is identified as model part number 004510-01.

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 rear of the chassis, next to the power supply.

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-referencing" 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.

**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.**

## **Special Parts Handling**

If care is not taken in handling certain parts of the sewing head, there is a good probability the sewing head will not function properly or the parts will fail prematurely.

These parts are to have special handling considerations from the vendor, through quality control inspection, into spare parts inventories, then on to packaging for shipping, and finally to installation.

Handling of these parts (and for that matter all parts), is not limited to the considerations below. Please use common sense, good judgment, and accepted handling practices in handling all parts. If you have any questions or concerns, please call your area service department.

### **General Considerations**

- \* Painted surfaces need to be protected from dirt, other foreign matter, nicks, and scratches.
- \* Non-painted surfaces must not be touched by the human hand, to prevent corrosive body oils, dirt, and other foreign matter from contaminating the surfaces.
- \* Protect all bearings, bushings, cams, rails, gears, rollers, needle bars, pins, studs, connecting rods, guide shafts, and other surface finishes from dirt, other foreign matter, marring, scratches, and nicks, etc.
- \* Bearing surfaces and shaft bore surfaces need to be thoroughly cleaned and mating parts oiled before assembly.

### **Special Packaging**

Several parts are packaged in specially sealed packages. These packages keep lubricant on the parts and protect them from contamination during shipment. To install these parts, clean your hands and place a small amount of sewing machine oil on your fingers to keep the integrity of the part intact.

# MACHINE ASSEMBLIES (COVERS/TABLE TOP)

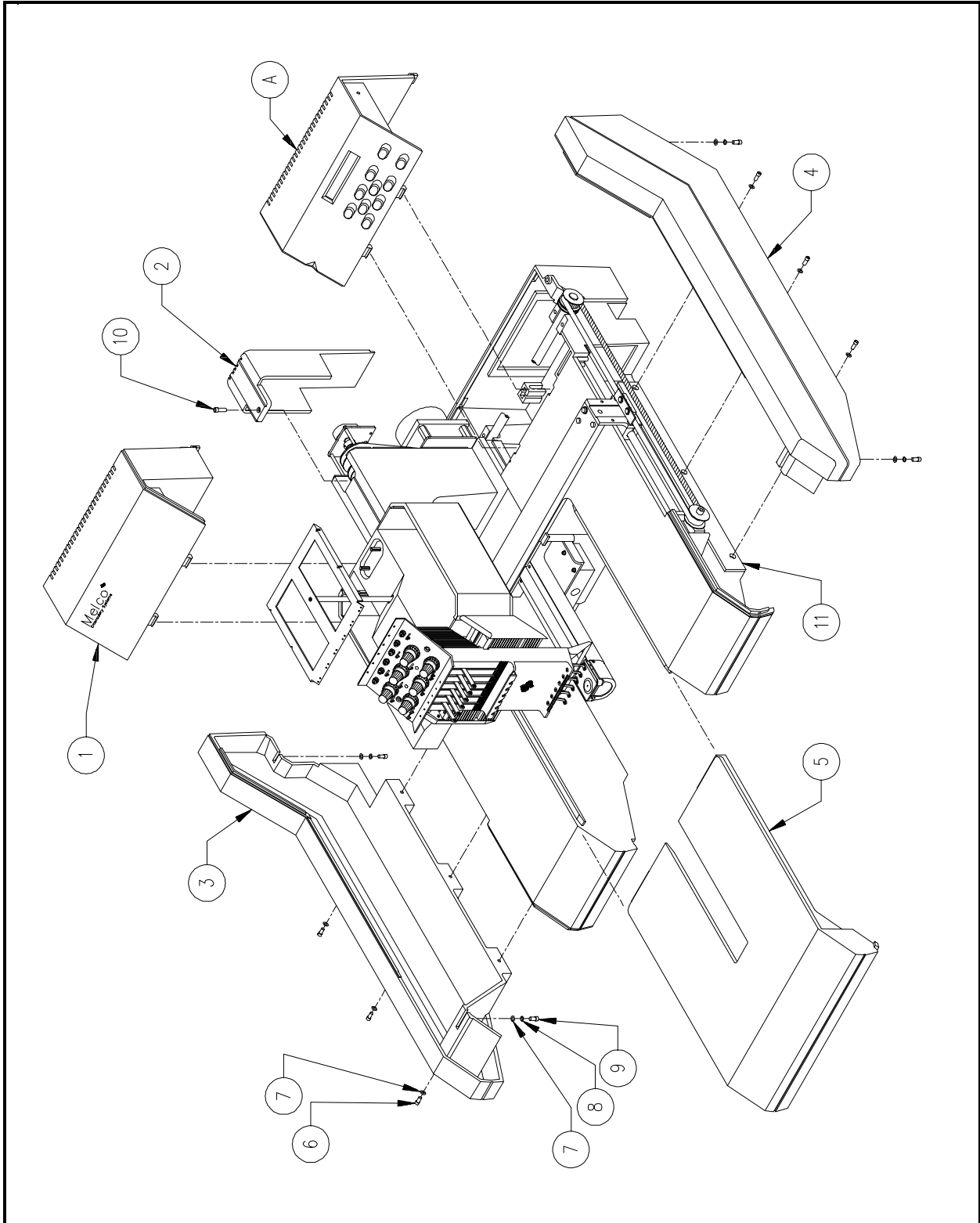


Figure P - 1



**Machine Assemblies (Covers/Table Top)****Reference Figure P-1**

Item No.	Part Number	Item Description	Comments
A	-----	Keyboard Cover Assembly	See Page P-3
1	004748-01	Cover, Electronics, Sub-assembly	
2	003618-01	Cover, Z Drive	
3	004520-01	Cap, End, Left	
4	004520-02	Cap, End, Right	
5	004521-01	Insert, Table Top	
6	670038-08	Screw, Socket Head Cap, 10-32 x 1/2"	
7	690034-03	Washer, Flat, #10	
8	690033-03	Washer, Lock, #10	
9	670038-12	Screw, Socket Head Cap, 10-32 x 3/4"	
10	672018-14	Screw, Socket Head Cap, M4 x 0.7 x 14 Lg	
11	003821-01	Pan, Bottom	

# KEYBOARD COVER ASSEMBLY

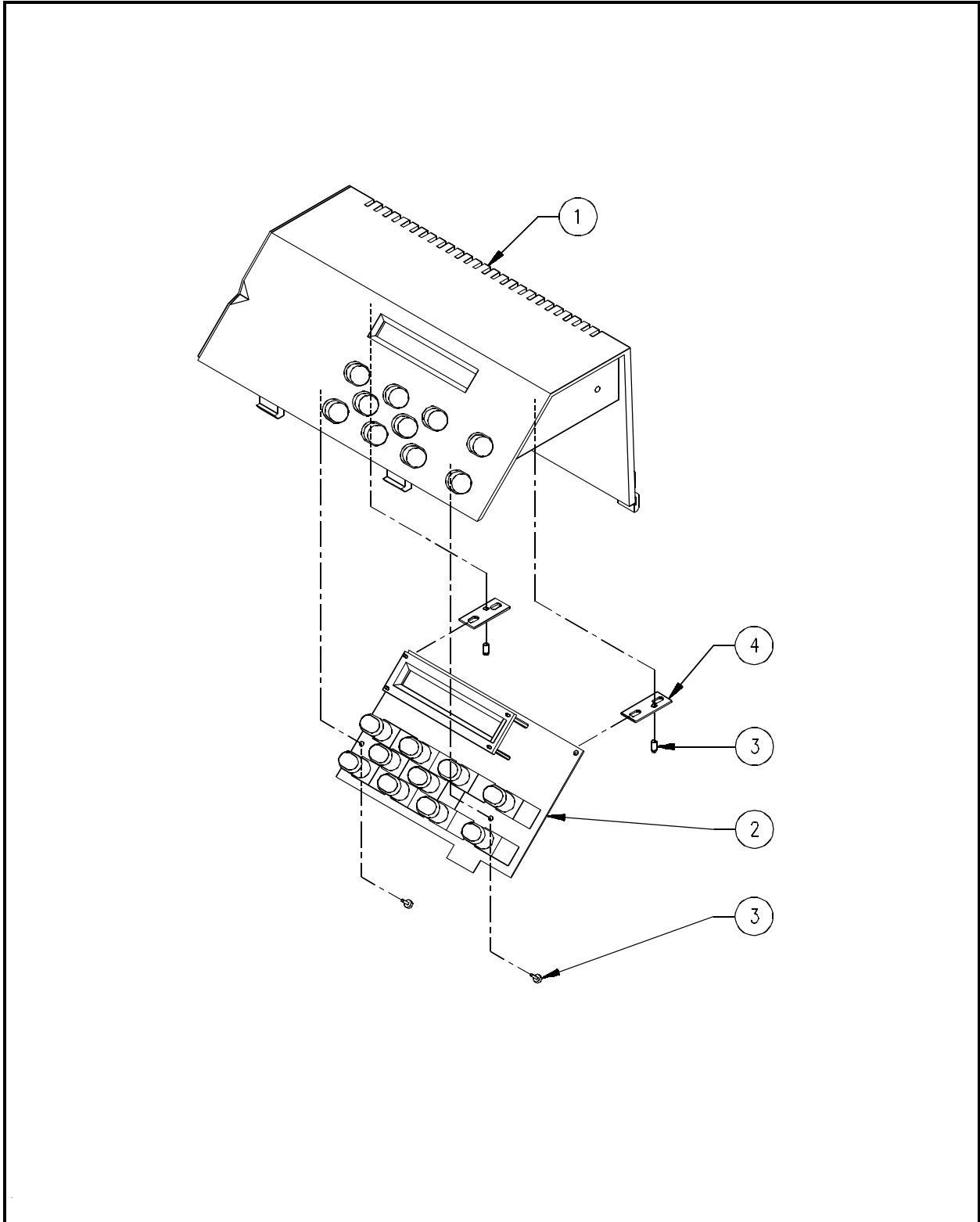


Figure P - 2

**Keyboard Cover Assembly****Reference Figure P-2**

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Item No.	Part Number	Item Description	Comments
1	004747-01	Cover, Keyboard, Sub-assembly	
2	384309-11	PCB, Keyboard	
3	674433-06	Screw, Thread Forming, #6 x 3/8"	
4	555325-01	Bracket, Retainer	

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# MACHINE ASSEMBLIES (GENERAL)

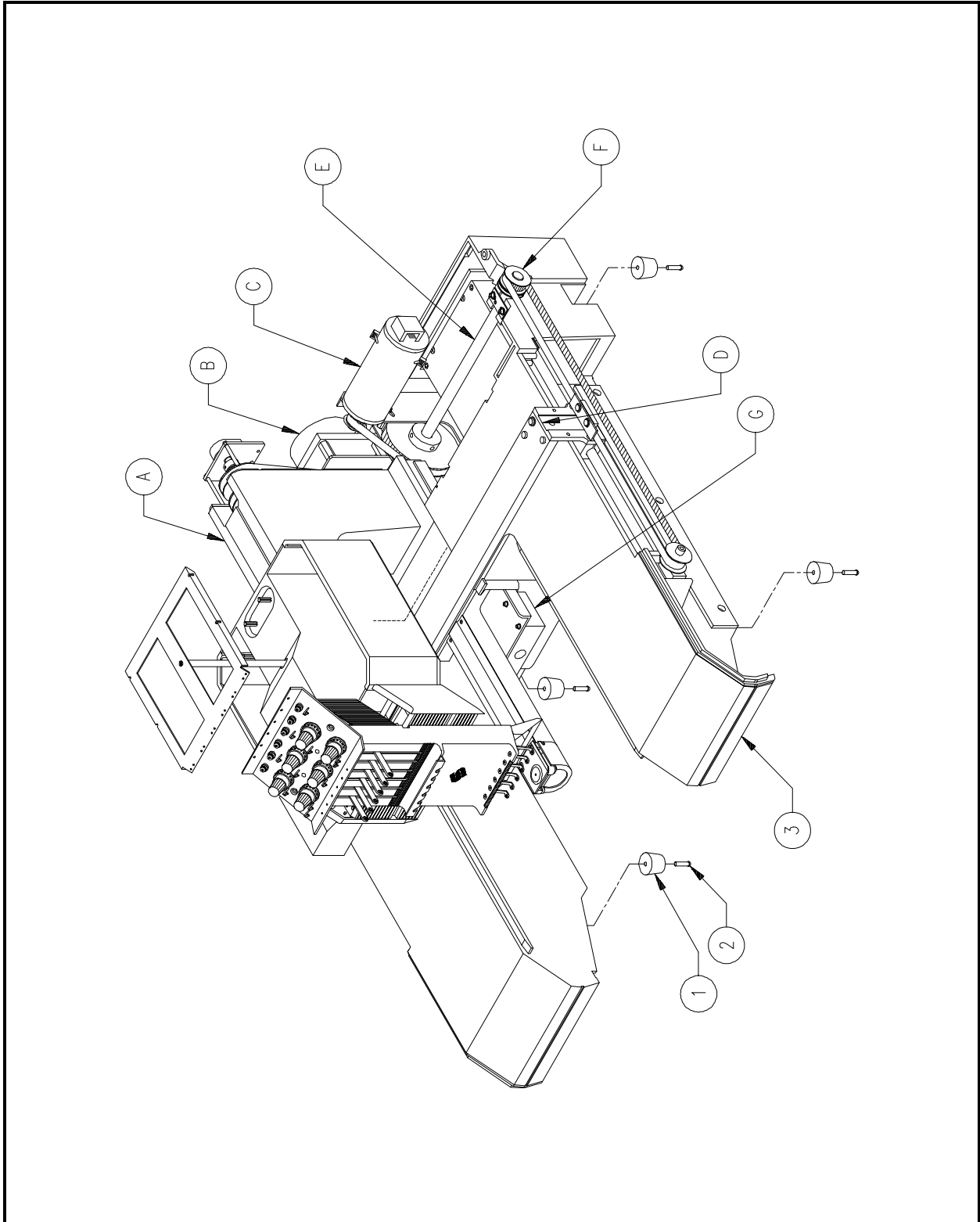


Figure P - 3

**Machine Assemblies (General)****Reference Figure P-3**

Item No.	Part Number	Item Description	Comments
A	-----	Sewing Head Assemblies	See Page P-7
B	-----	Z Drive/Encoder Assembly	See Page P-49
C	-----	Y Drive Motor Assembly	See Page P-35
D	004724-01S	X Beam Assembly	See Pages P-39 to P-47
E	-----	Y Drive Assembly	See Page P-51
F	-----	Y Carriage Assembly	See Page P-53 & P-55
G	-----	Cap Frame Mount Assembly	See Page P-57
1	341643-01	Foot, Rubber	
2	670149-16	Screw, Socket Head Cap, 8-32 x 3/4"	
3	003825-01	Chassis	

# SEWING HEAD ASSEMBLIES

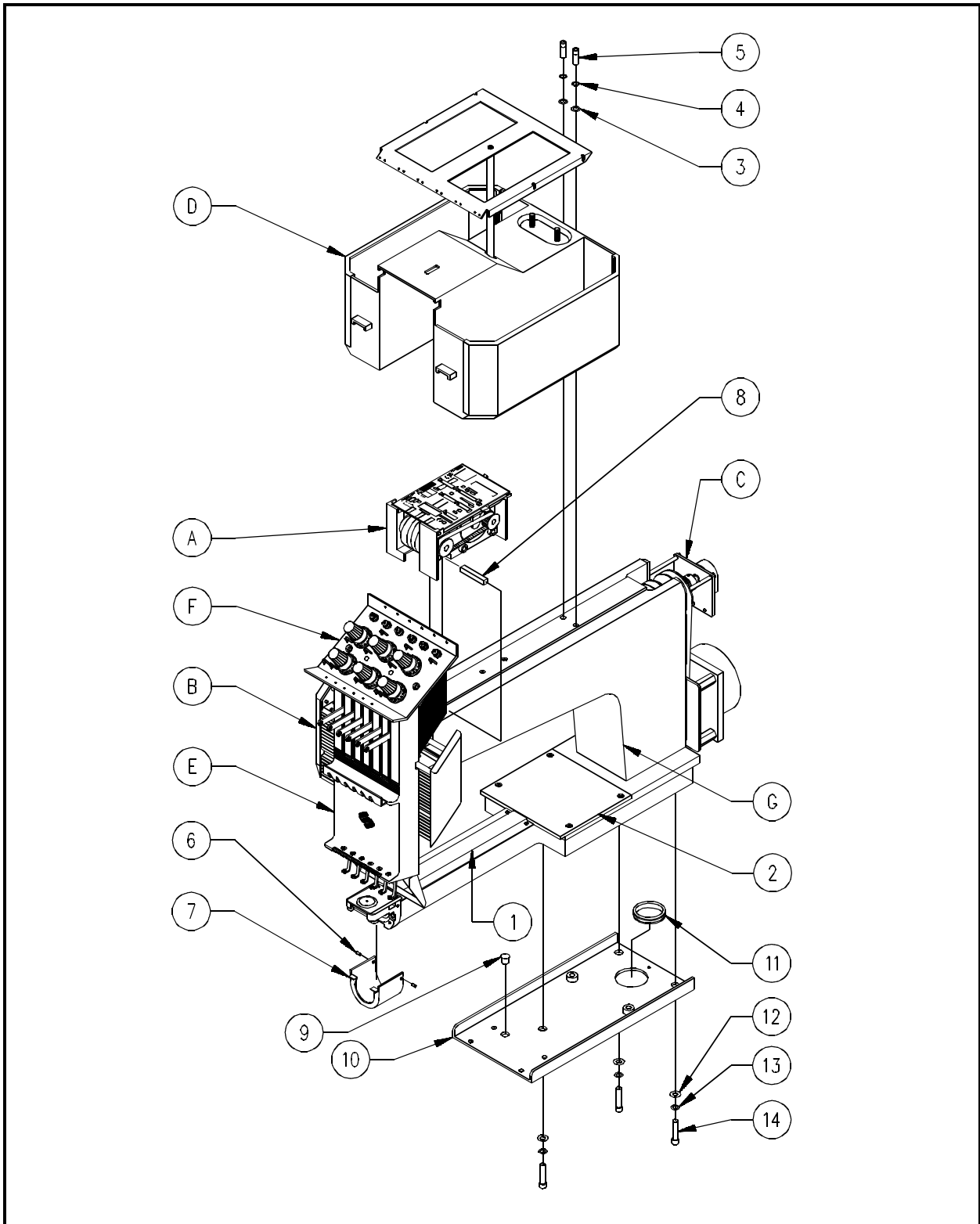


Figure P - 4

**Sewing Head Assemblies****Reference Figure P-4**

Item No.	Part Number	Item Description	Comments
A	002663-11S	Color Change Assembly	See Page P-9
B	-----	Front Facia Assembly	See Page P-11
C	-----	Z Drive/Encoder Assembly	See Page P-49
D	-----	Thread Tree Assembly	See Page P-13
E	004733-01S	Needle Case Assembly	See Page P-15
F	003650-01S	Thread Tensioner Assembly	See Page P-17
G	-----	Sewing Head Components	See Pages P-19 & P-23
1	001964-01	Cover, Bed, Front	
2	003669-01	Cover, Bed, Rear	
3	690439-04	Washer, Flat, M4	
4	690427-04	Washer, Lock, Split, M4	
5	672018-20	Screw, Socket Head Cap, M4 x 0.7 x 20 Lg	
6	671855-08	Screw, Pan Head Slotted, M3 x 0.5 x 8 Lg	
7	004831-01	Cover, Rotary Hook, Large Bobbin	
8	004779-01	Key, Color Change Mount	
9	004953-01	Plug, Dome	
10	004801-01	Plate, Base, Sewing Head	
11	342375-01	Grommet, Round, 1-1/8" ID	
12	690034-05	Washer, Flat, 5/16"	
13	690033-05	Washer, Lock, Split, 5/16"	
14	671687-30	Screw, Socket Head Cap, M8 x 30 Lg	

# COLOR CHANGE ASSEMBLY

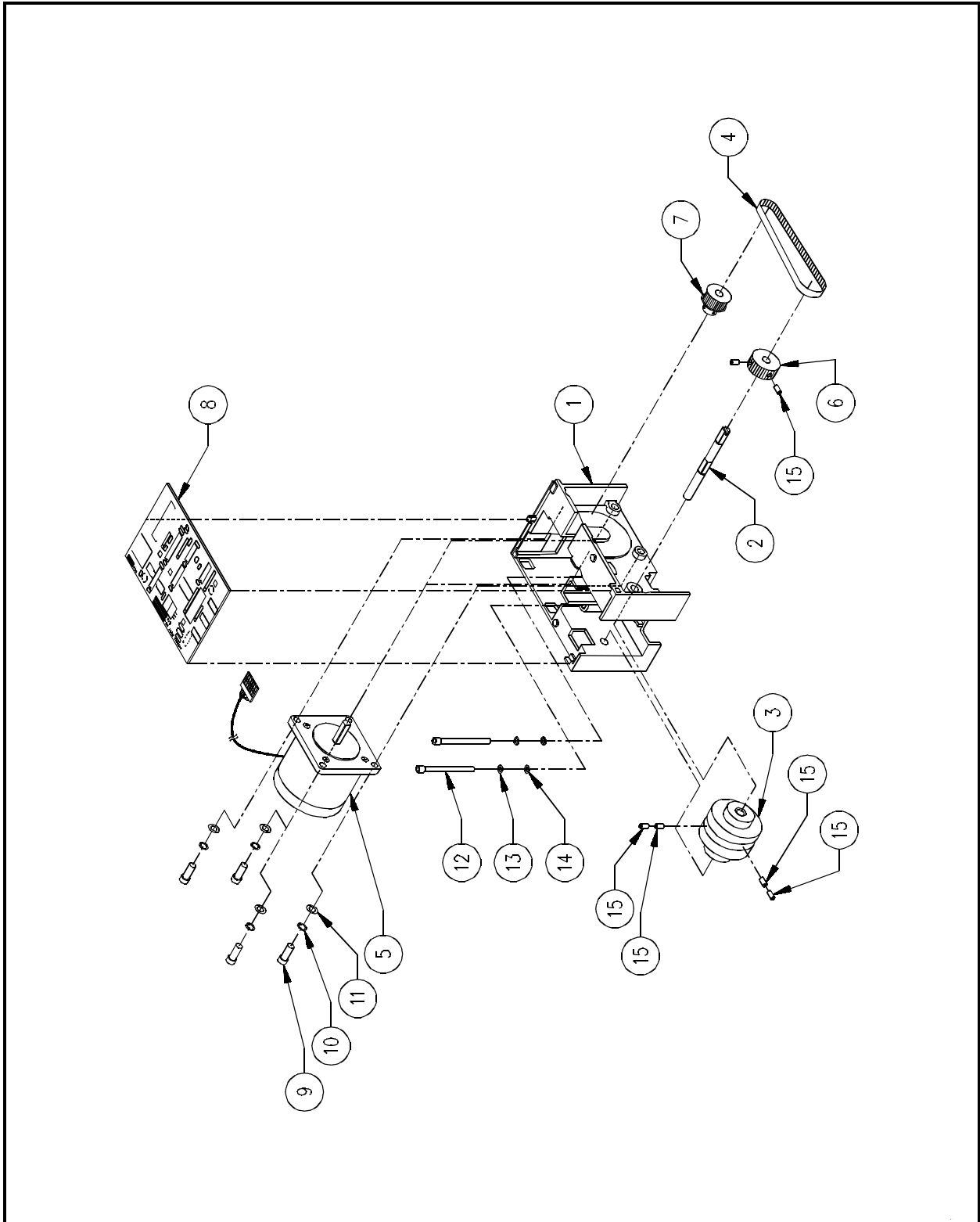


Figure P - 5



**Color Change Assembly (002663-11S)****Reference Figure P-5**

Item No.	Part Number	Item Description	Comments
1	002652-01	Mount, Color Change	
2	002899-01	Shaft, Cam, Color Change	
3	002661-01	Cam, Color Change	
4	342743-34	Belt, Timing, .080P, 1/4" Wide, 95 Tooth	
5	372773-02	Motor, Color Change, 12v, Assembly	
6	512637-01	Pulley, Cam, Color Change	
7	342638-24	Pulley, Timing, .080P, 24 Groove	
8	004125-01	PCB, Color Change	
9	672018-16	Screw, Socket Head Cap, M4 x 0.7 x 16 Lg	
10	690427-04	Washer, Lock, Split, M4	
11	690439-04	Washer, Flat, M4	
12	672018-50	Screw, Socket Head Cap, M4 x 0.7 x 50 Lg	
13	004648-01	Washer, Flat, #10	
14	004649-01	Washer, Conical, Spring	
15	671273-03	Screw, Set, Socket, 6-32 x 3/16" Lg	

# FRONT FACIA ASSEMBLY

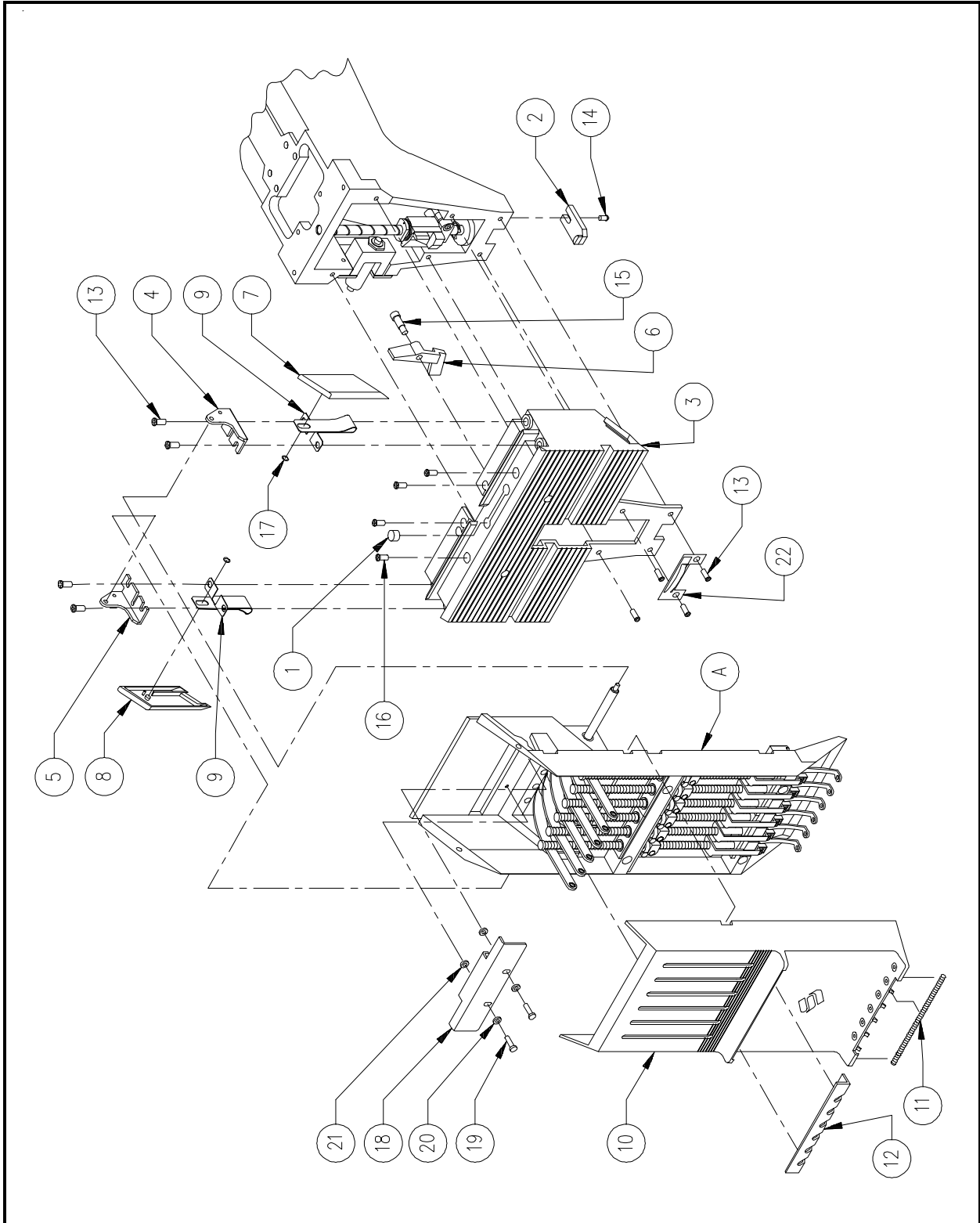


Figure P - 6

**Front Facia Assembly****Reference Figure P-6**

Item No.	Part Number	Item Description	Comments
A	004733-01S	Needle Case Assembly	See Page P-15
1	002821-01	Pad, Reservoir, Felt	
2	001942-01	Plate, Positioning	
3	004741-01	Facia, Front	
4	004714-01	Bracket, Support, Slide, Right	
5	004715-01	Bracket, Support, Slide, Left	
6	002876-01	Latch, Jump Stitch	
7*	004710-01	Cover, Bracket, Support, Right	
8*	004711-01	Cover, Bracket, Support, Left	
9*	005075-01	Spring, Cover, Side	
10*	004910-01	Cover, Needle Case, with Eyelet	
11*	001904-01	Spring, Lower Thread Guide	
12*	003105-01	Guide, Thread, Metal	
13	001924-08	Screw, Cheese Head, Slotted, M4 x 0.7 x 8 Lg	
14	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8 Lg	
15	003109-10	Screw, Shoulder, M4 x 0.7 x 5mm OD x 10 Lg	
16	671855-16	Screw, Pan Head, Slotted, M3 x 0.5 x 16 Lg	
17	702946-30	Spacer, Shaft, .187" ID x .312" OD x .03" Thick	
18	005013-01	Bracket, Detect, Color Change	
19	671855-06	Screw, Pan Head, Slotted, M3 x 0.5 x 6 Lg	
20	690439-04	Washer, Flat, M4	
21	690439-05	Washer, Flat, M5	
22	005932-01	Spring, Tab, Ground, Needle Case	

\*NOTE: Due to manufacturing processes, items 10-12 should be replaced as a factory built assembly: 003554-01S Cover, Needle Case Assembly

Items 7 and 9 should be replaced as a factory built assembly:  
005921-01 Cover, Bracket, Support, Right, Assembly

Items 8 and 9 should be replaced as a factory built assembly:  
005922-01 Cover, Bracket, Support, Left, Assembly

# THREAD TREE ASSEMBLY

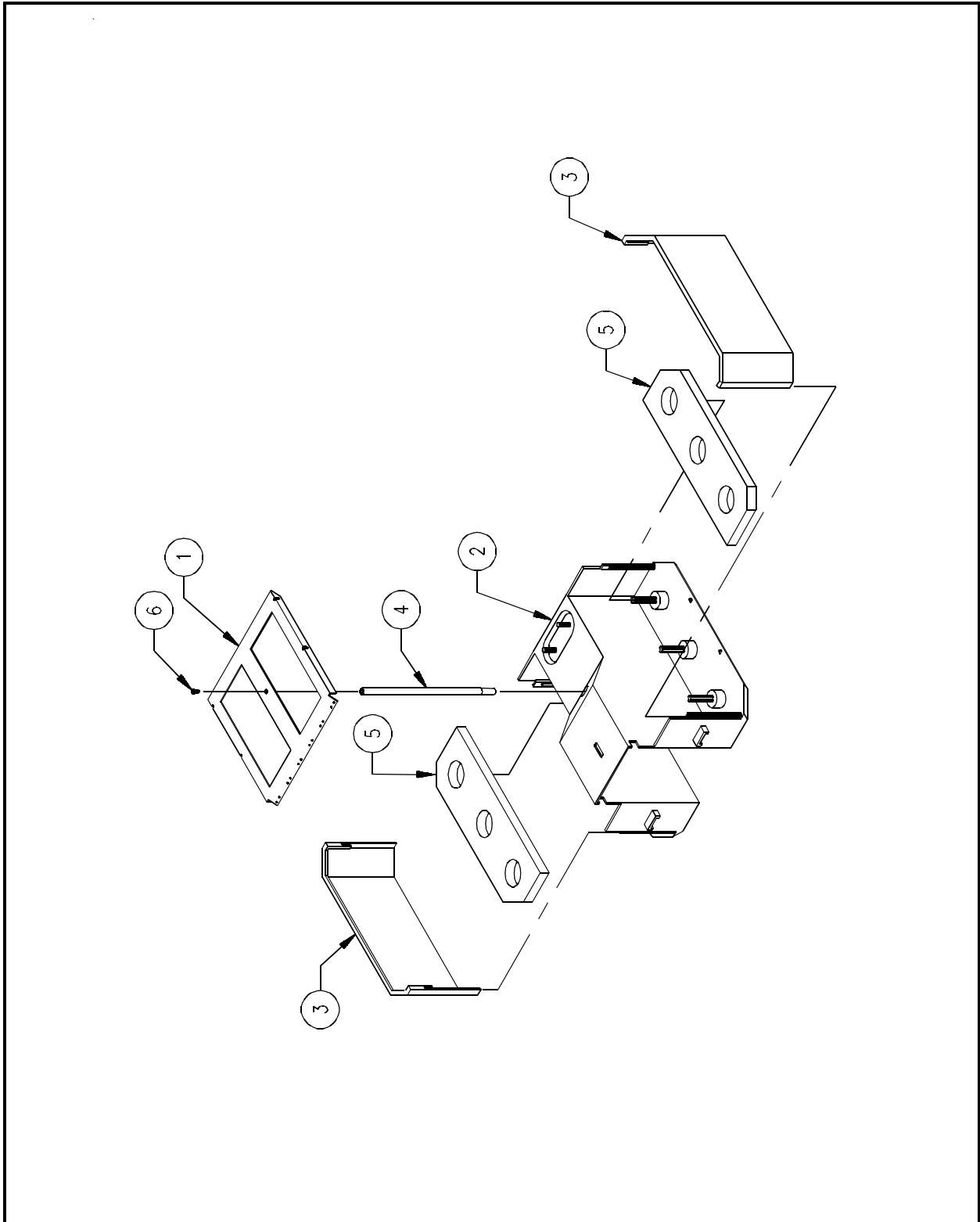


Figure P - 7

**Thread Tree Assembly****Reference Figure P-7**

Item No.	Part Number	Item Description	Comments
1	003572-01	Spreader, Thread Tree	
2*	003826-01	Base, Thread Tree	
3	001994-01	Panel, Side	
4	002653-01	Support, Thread Tree	
5*	003526-01	Pad, Thread Holder	
6	004480-08	Screw, Phillips, Truss Head, M5 x 0.8 x 8 Lg	

\*NOTE      Due to manufacturing processes, items 2 and 5 should be replaced as a factory built assembly: 005916-01 Base, Thread Tree, with Pad

# NEEDLE CASE ASSEMBLY

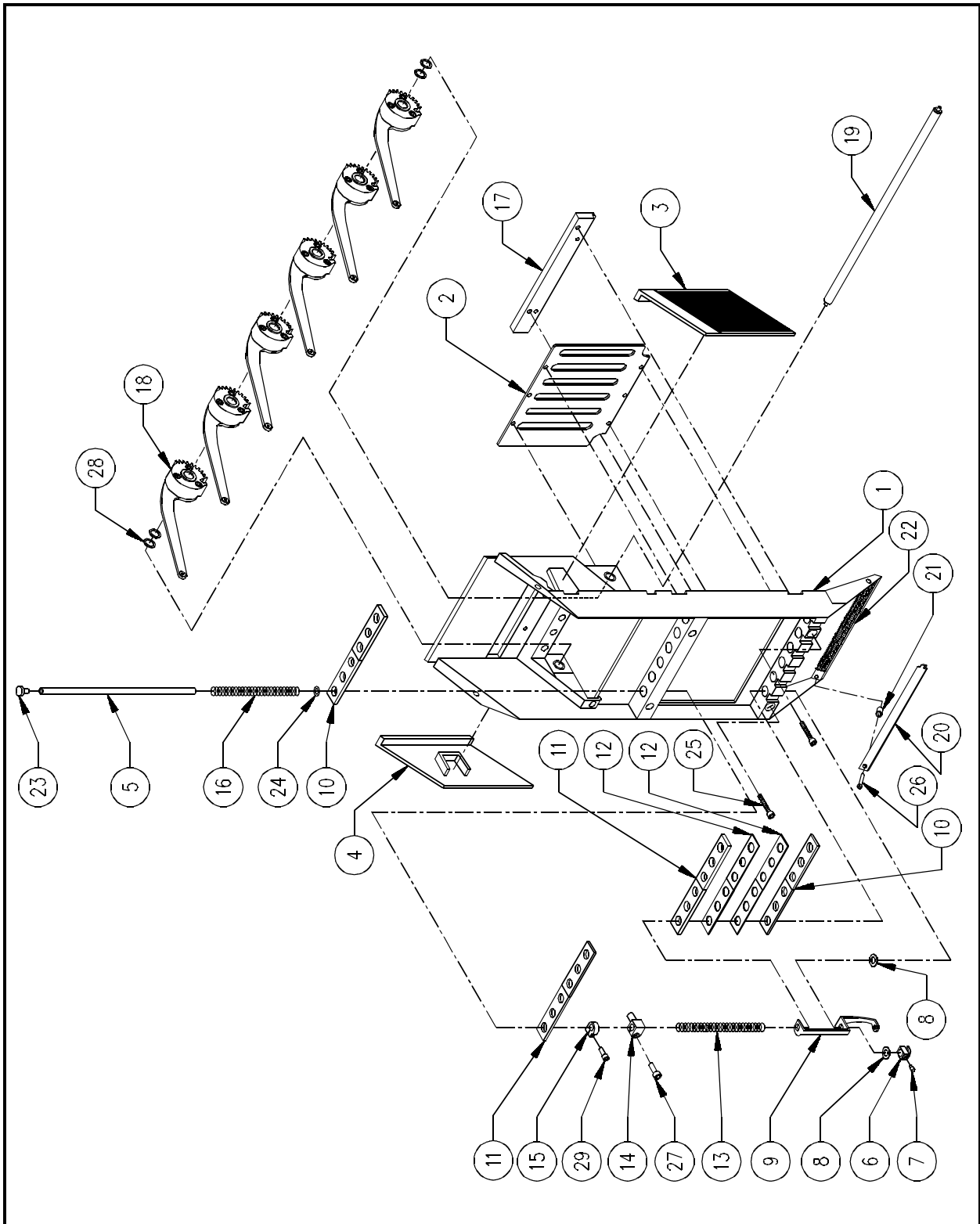


Figure P - 8

**Needle Case Assembly****Reference Figure P-8****(P/N 005494-01, Trimmer Needle Case Assembly)****(P/N 004733-01S, Needle Case Assembly)**

Item No.	Part Number	Item Description	Comments
1*	005283-01	Case, Needle, Diecast, Machined	
2*	002651-01	Plate, Guide, Needle	
3*	002638-01	Cover, Side, Needle Case, Right	
4*	002820-01	Cover, Side, Needle Case, Left	
5	001532-01	Bar, Needle	
6	001528-01	Clamp, Needle	
7	001828-01	Screw, Set, Needle Clamp	
8	001988-01	O Ring, Molded, Needle Bar	
9	001907-01	Foot, Presser	
10	001830-01	Felt, Needle Case	
11	001908-01	Damper, Needle Case	
12	002804-01	Shim, Needle Case	
13	001535-01	Spring, Presser Foot	
14	002808-02	Stud, Connecting, Needle Bar	
15	001840-01	Clamp, Stop, Needle Bar	
16	001537-01	Spring, Holding, Needle Bar	
17	001843-01	Rail, Guide, Lower	
18	003823-01	Lever, Take-Up, Assembly	
19	004712-01	Shaft, Cross Slide, Needle Case	
20*	003524-01	Grabber, Top, Velcro	
21*	002884-01	Spacer, Support, Velcro	
22*	003179-01	Velcro, Wiper, Pile	
23	002637-08	Screw, Socket Head Cap, M5 x 8 Lg	
24	005009-01	Washer, Flat, .260" ID x .420" OD x .03" Thick	
25	672018-20	Screw, Socket Head Cap, M3 x 0.5 x 20 Lg	
26*	671855-08	Screw, Pan Head, Slotted, M3 x 0.5 x 8 Lg	
27	001922-08	Screw, Socket Head Cap, M3 x 0.5 x 8 Lg	
28a	702876-05	Spacer, Precision, .313" ID x .010" Thick	Use as Required
28b	702876-08	Spacer, Precision, .313" ID x .016" Thick	Use as Required
29	001922-10	Screw, Socket Head Cap, M3 x 0.5 x 10 Lg	

\*NOTE: Due to manufacturing processes, items 1-4 should be replaced as a factory built assembly: 005363-01, Housing, Needle Case, Assembly

Items 20-22 and 26 are additional for Trimmer Machines Only.

# THREAD TENSIONER ASSEMBLY

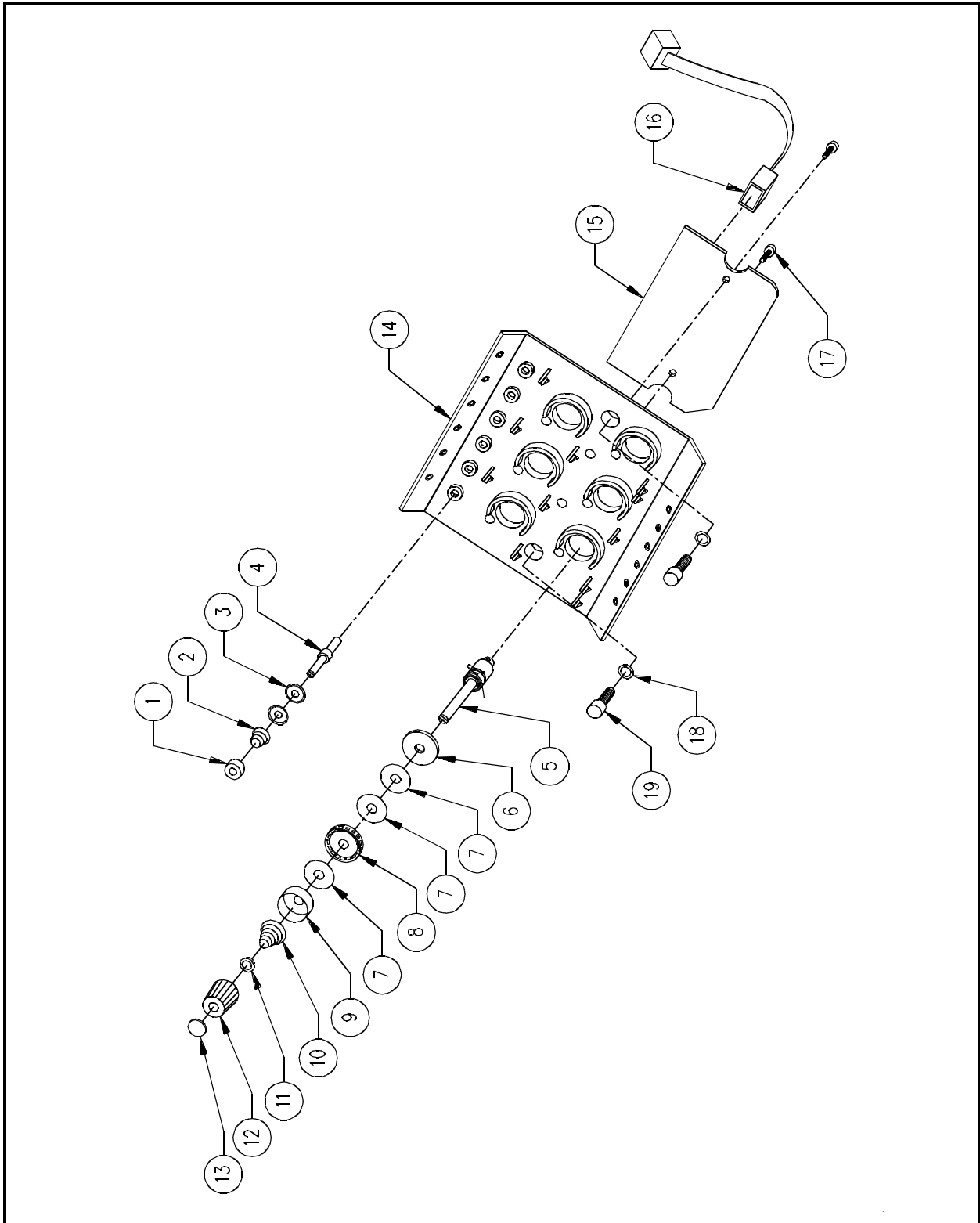


Figure P - 9



**Thread Tensioner Assembly (003650-01S)****Reference Figure P-9**

Item No.	Part Number	Item Description	Comments
1*	005139-01	Knob, Adjust, Pre-Tensioner	
2*	003654-01	Spring, Pre-Tensioner	
3*	005137-01	Disk, Pre-Tensioner	
4*	005138-01	Post, Pre-Tensioner	
5*	-----	Post, Tensioner, Spring, Assembly	
6*	004908-01	Disk, Plastic	
7*	005198-02	Pad, Felt, .095" Thick	
8*	004926-01	Wheel, Tensioner, Thread, Assembly	
9*	005196-01	Base, Tensioner	
10*	004854-01	Spring, Tensioner, Thread	
11*	005422-01	Cap, Spring	
12*	005197-01	Knob, Tensioner, Black, Assembly	
13*	003560-01	Tab, Tensioner	
14	003571-01	Bracket, Tensioner, Assembly	
15	002794-01	PCB, Thread Break	
16	002962-01	Cable, 16 Conductor, Thread Break	
17	003197-01	Screw, Thread Forming, #8 x 1/2"	
18*	690439-05	Washer, Flat, M5	
19*	671852-20	Screw, Socket Head Cap, M5 x 0.8 x 20 Lg	

\*NOTE: Due to manufacturing processes, items 1-4 should be replaced as a factory built assembly: 005136-01 Assembly, Pre-Tensioner

Items 5-13 should be replaced as a factory built assembly:  
005171-01 Assembly, Tensioner, Thread, Main

Items 18 and 19 are not included in Assembly p/n 003650-01S

# SEWING HEAD COMPONENTS (1 of 2)

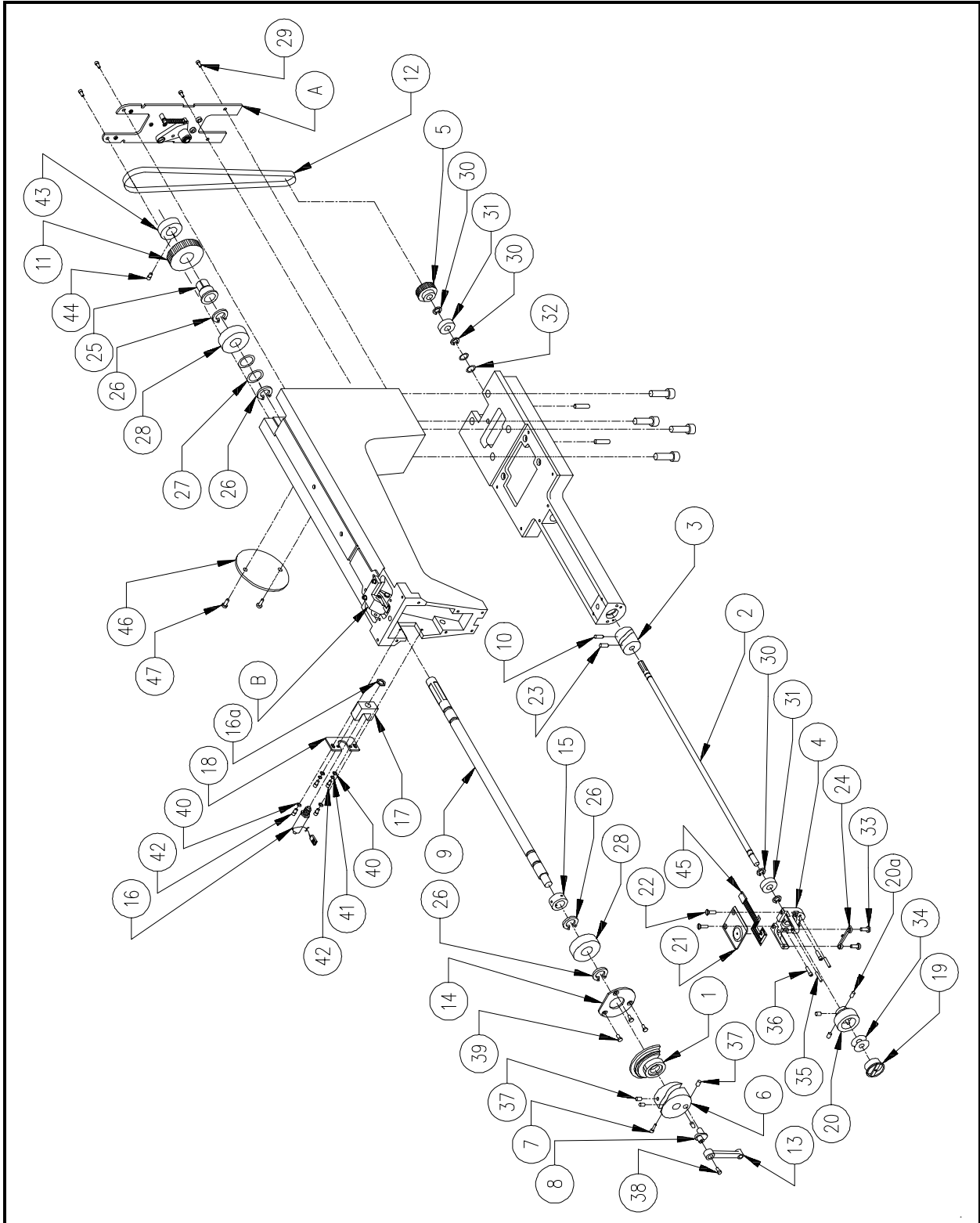


Figure P - 10

**Sewing Head Components (1 of 2)****Reference Figure P-10**

Item No.	Part Number	Item Description	Comments
A	004504-01S	Large Bobbin Idler Assembly	See Page P-25
B	-----	Take-Up Drive Lever Assembly	See Page P-27
1	003539-01	Counterweight, PHS II	
2	003680-01	Shaft, Bobbin, Trimmer	
3	003600-01	Cam, Trimmer	
4	003691-01	Bracket, Needle Plate, Large Bobbin	
5	001522-01	Pulley, Drive, Bobbin, Bottom, 16T, 1/5P	
6	003545-01	Cam, Drive, Take-Up Lever	
7	003546-01	Screw, Set, Cam	
8	002698-01	Rod, Crank, 90 Degrees	
9	003532-01	Shaft, Arm, PHS II	
10	004264-08	Screw, Set, Cone Point, M4 x 0.7 x 8 Lg	
11*	005332-01	Pulley, Adjustable, Top, 32T, 1/5P	Implemented on S/N 5100152
12	004503-01	Belt, Timing, 1/5P, 105 Groove, 3/8" Wide	
13	001939-01	Rod, Connecting	
14	003531-01	Plate, Retainer, Bearing, Arm Shaft	
15	004261-01	Collar, Shaft, Head Up	
16	001801-01	Solenoid, Jump Stitch	
16a	-----	Nut, Panel	Included in Item #16
17	001850-01	Bracket, Solenoid	
18	001851-01	Plate, Interface, Bracket, Solenoid	
19	002612-01	Case, Bobbin, Large	
20	002611-01	Hook, Rotary, Large Bobbin	
20a	-----	Screw, Rotary Hook	Included in Item #20
21*	003658-01	Plate, Needle, Bobbin Detect	
22	004643-01	Screw, Needle Plate	
23	001960-06	Screw, Set, Flat Point, M4 x 0.7 x 6 Lg	
24	001916-01	Support, Rotary Hook	
25*	005331-01	Pulley, Hub, Adjustable	Implemented on S/N 5100152
26	001955-18	Ring, Retainer, External, 5/16" ID	
27	002697-09	Washer, Wave, 35mm OD	
28	002696-15	Bearing, Ball, Radial, 15mm ID	
29	001926-12	Screw, Flat Head Socket, M4 x 0.7 x 12 Lg	
30	003534-10	Ring, Retaining, External, Bobbin Shaft	
31	002696-08	Bearing, Ball, Radial, 8mm ID	
32	002697-03	Washer, Wave, 22mm OD	
33	671855-06	Screw, Pan Head Slotted, M3 x 0.5 x 6 Lg	
34	004507-11	Thread, Bobbin, White, Style "M"	
35	002610-14	Pin, Spring, 3mm x 14mm Lg	
36	672018-16	Screw, Socket Head Cap, M4 x 0.7 x 16 Lg	
37	001971-06	Screw, Set, Flat Point, M6 UNF x 6 Lg	
38	002637-10	Screw, Socket Head Cap, Low Head, M5 x 0.8 x 10 Lg	

**Sewing Head Components (1 of 2) (cont)****Reference Figure P-10**

Item No.	Part Number	Item Description	Comments
39	001926-12	Screw, Flat Socket, M4 x 0.7 x 12 Lg	
40	702946-30	Spacer, Shaft, .187" ID x .312" OD x .03" Thick	
41	690427-04	Washer, Lock, Split, M4	
42	672018-08	Screw, Socket Head Cap, M4 x 0.7 x 8 Lg	
43	002668-01	Collar, Support, Gear	Implemented on S/N 5100152
44	670038-10	Screw, Socket Head Cap, 10-32 x 5/8"	Implemented on S/N 5100152
45*	004517-01	PCB, Flexible, Under Thread Control, Assembly	
46	003622-01	Cover, Solenoid	Non-Trimmer Only
47	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8 Lg	Non-Trimmer Only

\*NOTE: Due to manufacturing processes, items 11 and 25 should be replaced as a factory built assembly: 005191-01 Pulley, Adjustable, Assembly

Items 21 and 45 should be replaced as a factory built assembly: 005365-01 Assembly, Bobbin Detect, Needle Plate

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## SEWING HEAD COMPONENTS (2 of 2)

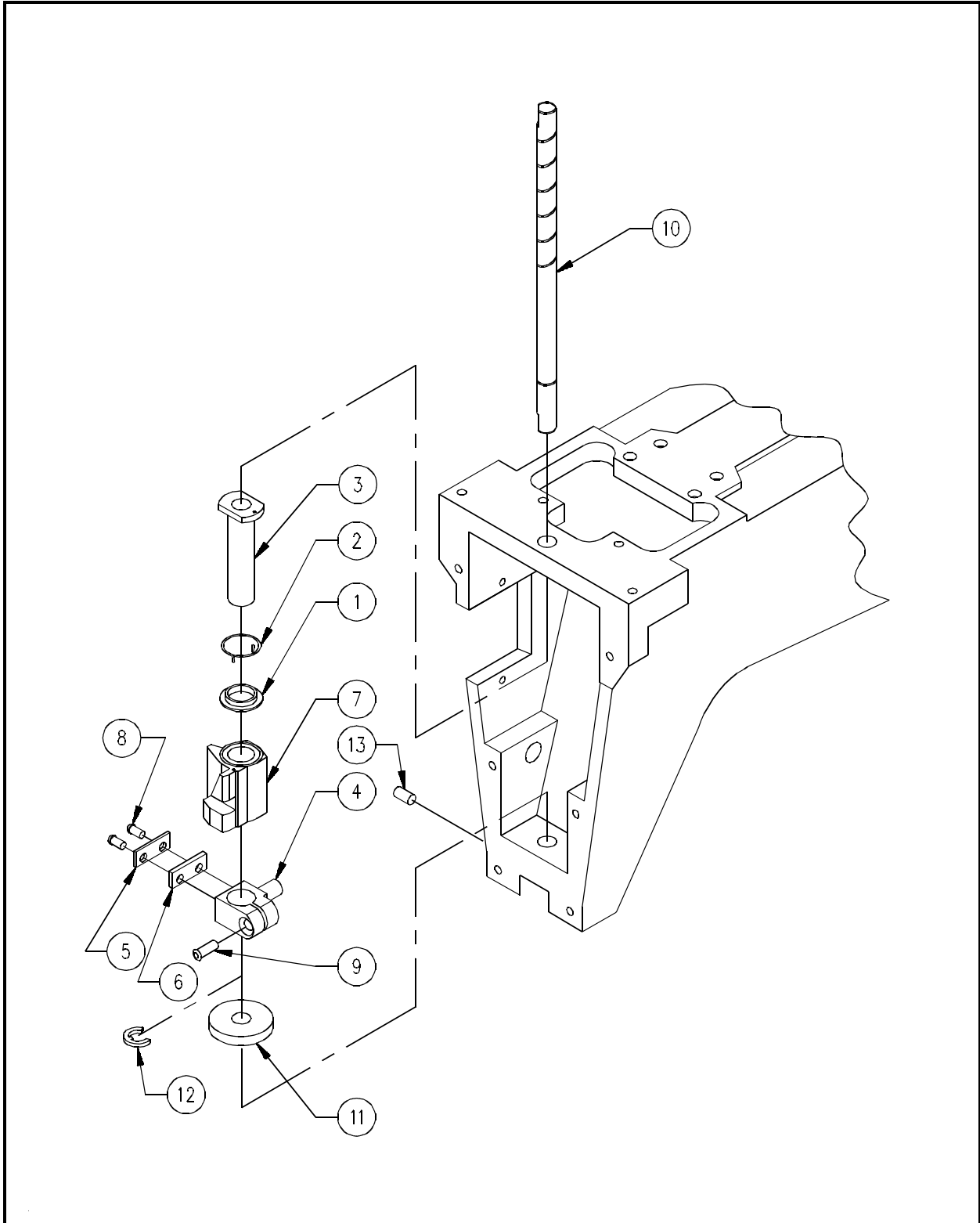


Figure P - 11

**Sewing Head Components (2 of 2)****Reference Figure P-11**

Item No.	Part Number	Item Description	Comments
1*	001845-01	Bushing, Spring Cradle	
2*	001864-01	Spring, Jump, Reciprocator	
3*	001865-01	Bushing, Shaft, Needle Bar	
4*	002807-01	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 6 Lg	
9*	672018-10	Screw, Socket Head Cap, M4 x 0.7 x 10 Lg	
10	001858-01	Shaft, Guide, Needle Bar	
11	001875-01	Bearing, Shaft, Guide	
12	001955-18	Ring, Retainer, External, 5/16" ID	
13	004264-08	Screw, Set, Cone Point, M4 x 0.7 x 8 Lg	

\*NOTE: Due to manufacturing processes, items 1-9 should be replaced as a factory built assembly: 001990-01S Assembly, Reciprocator

# LARGE BOBBIN IDLER ASSEMBLY

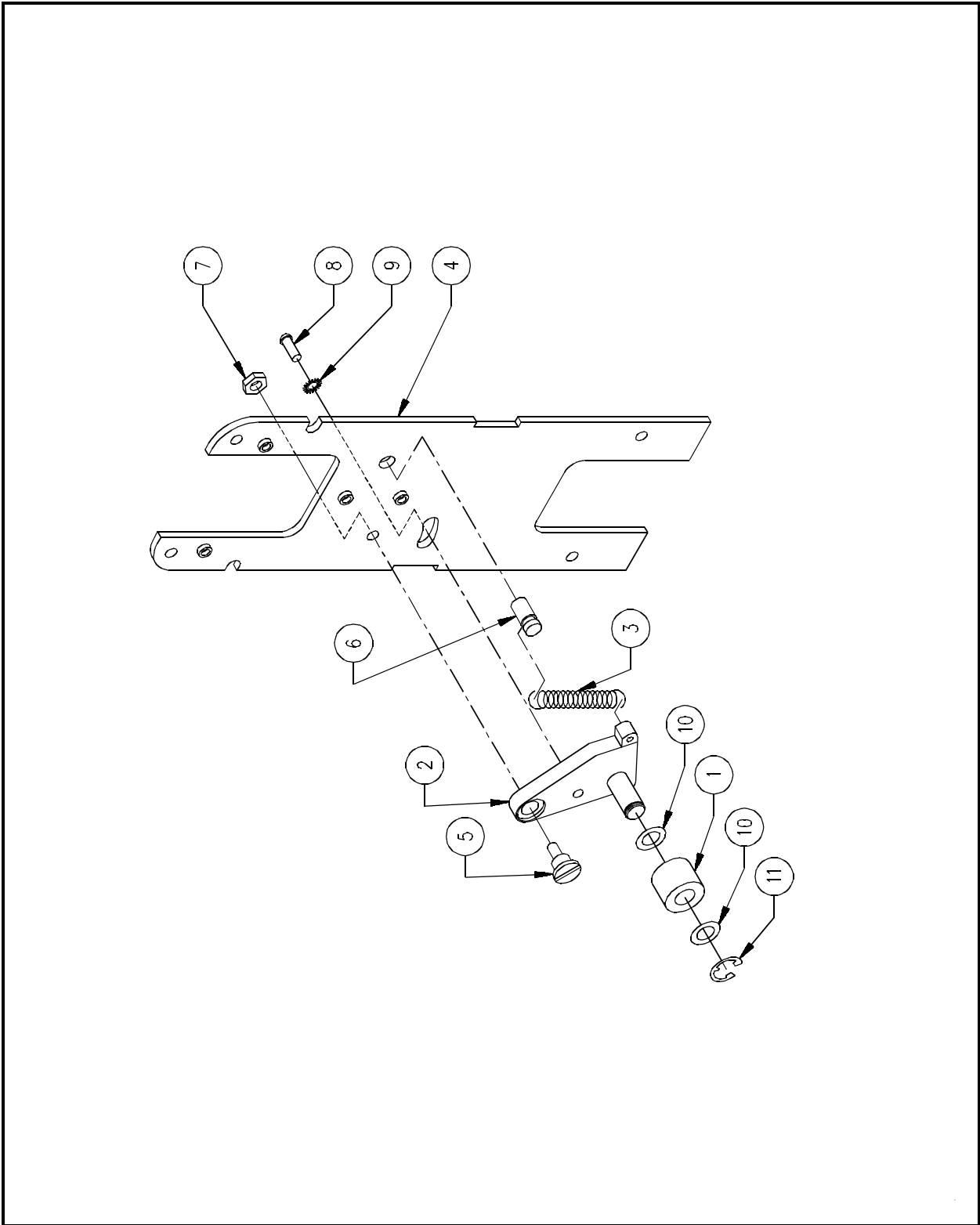


Figure P - 12



**Large Bobbin Idler Assembly (004504-01S)****Reference Figure P-12**

Item No.	Part Number	Item Description	Comments
1	003593-01	Roller, Idler	
2	002817-01	Bar, Idler, Assembly	
3	002816-06	Spring, Idler	
4	003668-01	Cover, Head, Rear	
5	003188-01	Screw, Shoulder, 7mm OD, M5 x 0.8	
6	660278-01	Stud, Press, 1/4" x 1/2" Lg	
7	003543-05	Nut, Jam, Hex, M5 x 0.8	
8	672036-10	Screw, Button Head Cap, M5 x 0.8 x 10 Lg	
9	690713-04	Washer, Lock, External Star, 1/4"	
10	702876-08	Spacer, Shaft, 5/16" ID x .016" Thick	
11	001955-18	Ring, Retainer, External, 5/16" ID	

# TAKE-UP DRIVE LEVER ASSEMBLY

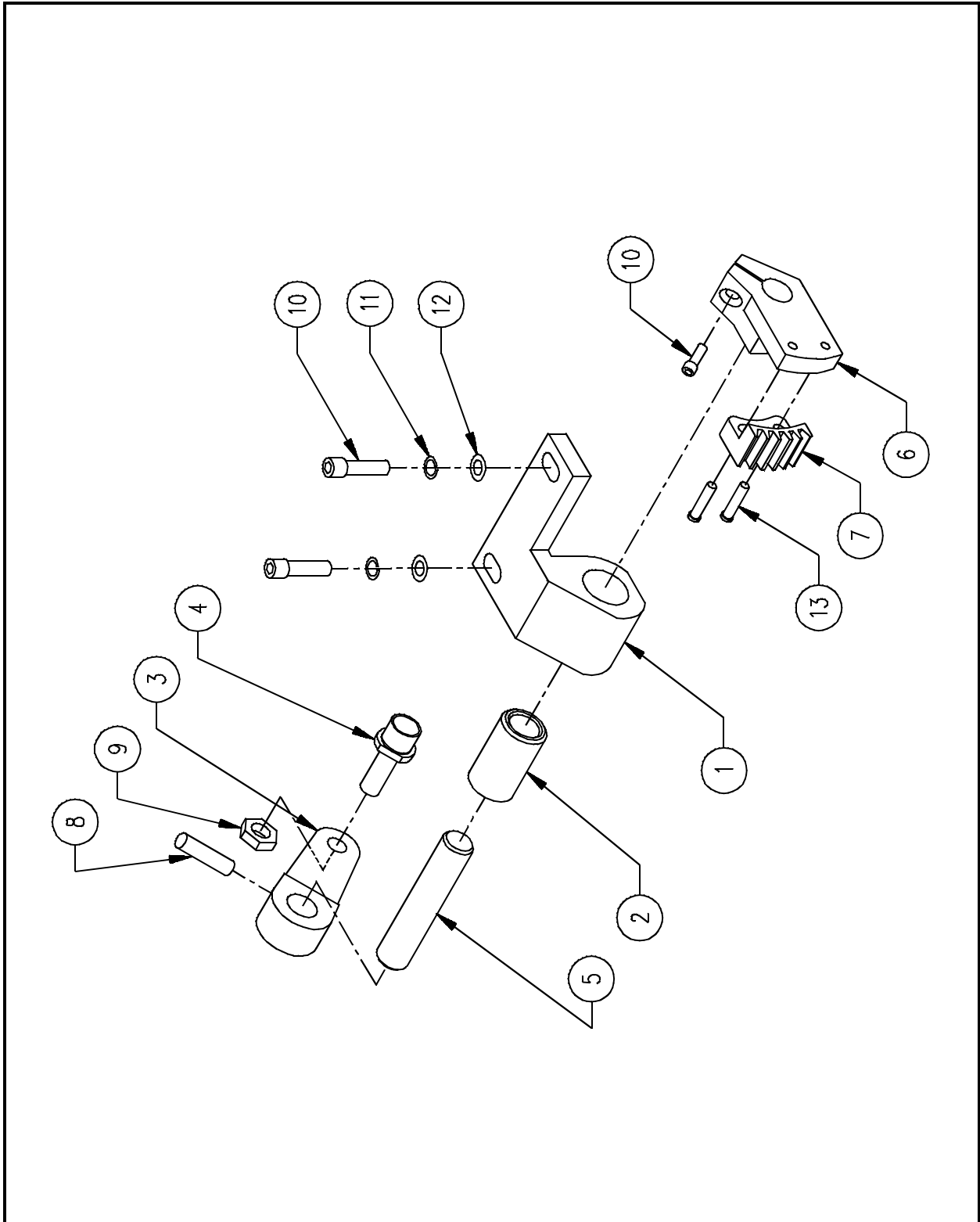


Figure P - 13

**Take-Up Drive Lever Assembly****Reference Figure P-13**

Item No.	Part Number	Item Description	Comments
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" Lg	
9	003543-05	Nut, Jam, Hex, M5 x 0.8	
10	672018-10	Screw, Socket Head Cap, M4 x 0.7 x 10 Lg	
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 6 Lg	

\*NOTE: Due to manufacturing processes, items 1 and 2 should be replaced as a factory built assembly: 005362-01 Assembly, Bushing, Take-Up Lever

Items 3, 5, and 8 should be replaced as a factory built assembly: 004768-01 Lever, Drive, Lever, Take-up, Assembly

# TRIMMERS, HEAD LEVEL PARTS (1 OF 2)

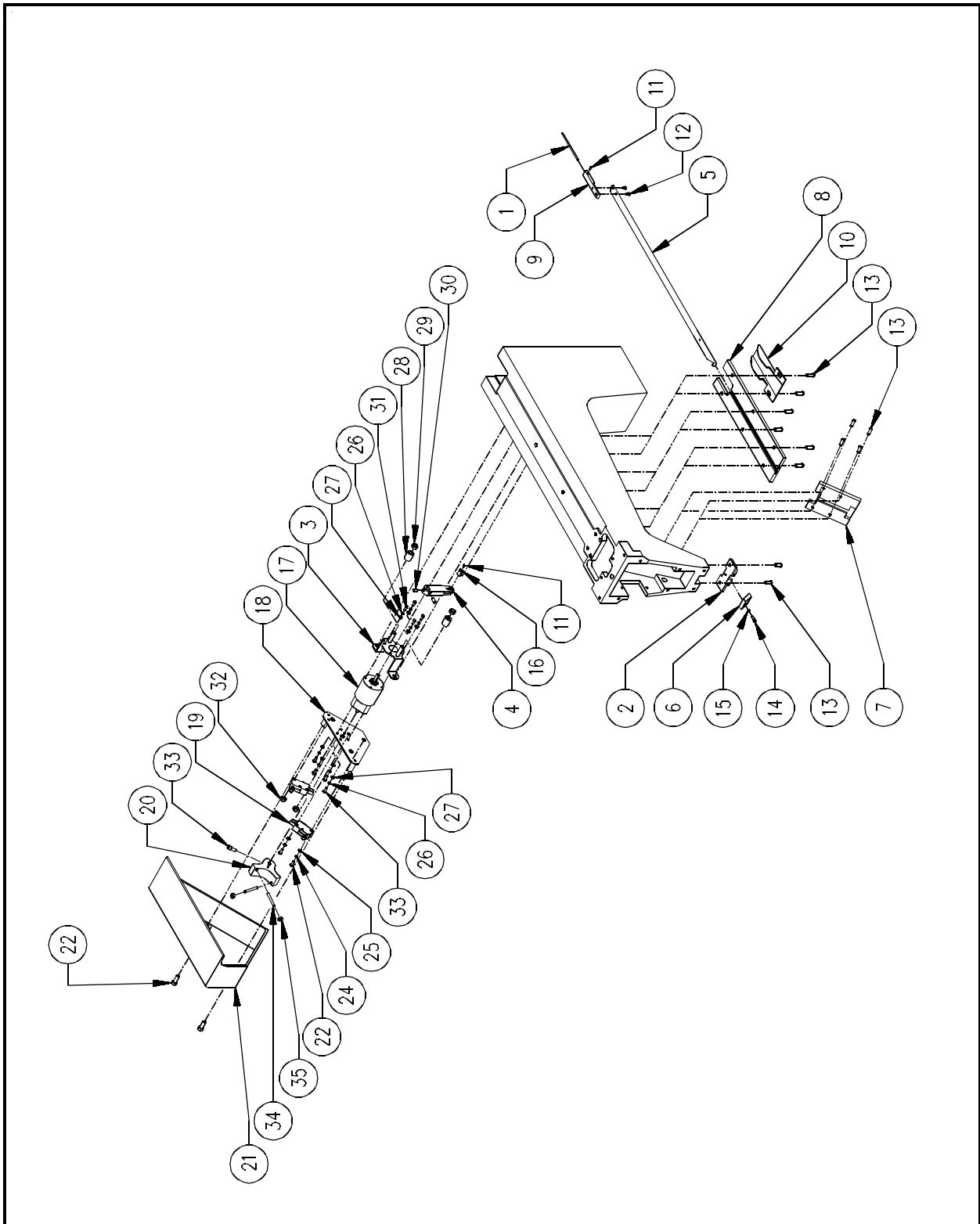


Figure P - 14

**Trimmers, Head Level Parts (1 of 2)****Reference Figure P-14**

Item No.	Part Number	Item Description	Comments
1	003185-01	Rod, Guide	
2	002892-01	Mount, Conduit, Front	
3	003676-01	Bracket, Mounting, Grabber Drive	
4	003692-01	Arm, Drive, Grabber	
5	003586-01	Blade, Grabber	
6	003587-01	Guide, Blade	
7	003588-01	Cover, Blade, Front	
8	003589-01	Cover, Blade, Top	
9	003590-01	Bracket, Transition	
10	003592-01	Cover, Blade, Rear	
11	001962-03	Screw, Set, Flat Point, M3 x 0.5 x 3 Lg	
12	670406-02	Screw, Button Head Cap, 4-40 x 1/8"	
13	003509-08	Screw, Button Head Socket, M4 x 0.7 x 8 Lg	
14	672018-10	Screw, Socket Head Cap, M4 x 0.7 x 10 Lg	
15	690439-04	Washer, Flat, M4	
16	003155-01	Swivel, Wire	
17*	005123-01	Motor, Grabber, Assembly	
18	003811-01	Bracket, Mounting, Switch	
19	282911-01	Switch, Limit, Roller	
20	003812-01	Arm, Actuator, Switch	
21	004719-01	Cover, Drive, Grabber Motor	
22	672018-14	Screw, Socket Head Cap, M4 x 0.7 x 14 Lg	
23	670131-12	Screw, Pan Head Phillips, 4-40 x 3/4"	
24	690033-34	Washer, Lock, Split, #4	
25	690034-34	Washer, Flat, #4	
26	690033-32	Washer, Lock, Split, #2	
27	690034-32	Washer, Flat, #2	
28	003176-01	Bumper, Motor Stop	
29	003573-05	Nut, Nylock, M5 x 0.8	
30	001960-04	Screw, Set, Flat Point, M4 x 0.7 x 4 Lg	
31	672386-04	Screw, Pan Head Phillips, 2-56 x 1/4"	
32	680043-34	Nut, Lock, 4-40	
33	670068-08	Screw, Socket Head Cap, 6-32 x 1/2"	
34	004709-01	Screw, Set, 8-32 x 1", Brass Tip	
35	680032-38	Nut, Hex, 8-32	

\*NOTE: The following Serial Number indicates the first production machine using the identified item:  
EMC 6MTL S/N 5100332

# TRIMMERS, HEAD LEVEL PARTS (2 of 2)

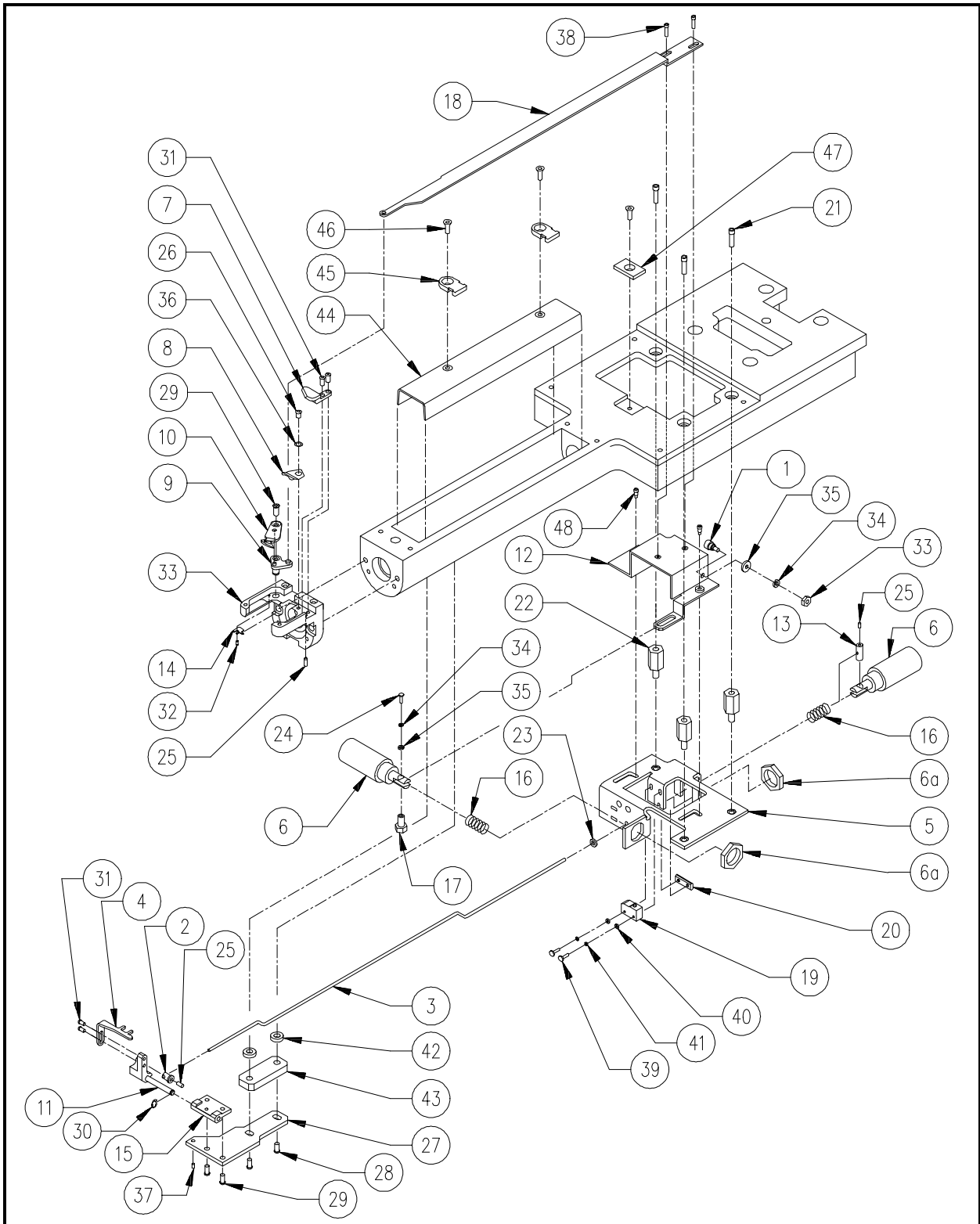


Figure P - 15

**Trimmers, Head Level Parts (2 of 2)****Reference Figure P-15**

Item No.	Part Number	Item Description	Comments
1	003677-01	Follower, Cam, Assembly	
2	003131-01	Pin, Swivel, Front	
3	003687-01	Link, Picker Drive	
4	005372-01	Picker, Large Bobbin	
5	003623-01	Bracket, Mounting, Solenoid	
6	005390-01	Cutter/Picker, Solenoid, Assembly	
6a	-----	Nut, Panel, Solenoid	Included with Item 6
7	003120-01	Knife, Fixed	
8	003119-01	Presser, Under Thread	
9	003832-01	Arm, Drive, Movable Knife	
10	004233-01	Knife, Movable	
11	004826-01	Base, Picker	
12	004109-01	Bracket, Mount, Cam Follower	
13	003627-01	Clamp, Swivel, Picker	
14	003685-01	Clip, Fixing, Drive Arm	
15	004827-01	Mount, Picker	
16	003686-01	Spring, Return, Solenoid	
17	004111-01	Pin, Retainer, Solenoid Shaft	
18	003624-01	Link, Connecting	
19	001639-01	Switch, Needle Positioning	
20	001660-01	Plate, Nut	
21	671852-16	Screw, Socket Head Cap, M5 x 0.8 x 16 Lg	
22	004746-01	Standoff, 10mm Hex, M/F, M5 x 0.8 x 16 Lg	
23	690364-32	Washer, Flat, #2, .032" Thick	Implemented on S/N 5100217
24	675310-01	Screw, Pan Head Phillips, M3 x 0.5 x 6 Lg	
25	001962-03	Screw, Set, Flat Point, M3 x 0.5 x 3 Lg	
26	003691-01	Bracket, Needle Plate, Large Bobbin	
27	004806-01	Bracket, Picker	
28	671853-14	Screw, Button Head Socket, M4 x 0.7 x 14 Lg	
29	001935-06	Screw, Flat Head Phillips, M3 x 0.5 x 6 Lg	
30	001955-08	Ring, Retainer, External, .125"	
31	003136-06	Screw, Button Head Socket, M3 x 0.5 x 6 Lg	
32	003122-06	Screw, Pan Head, M2 x 6 Lg	
33	680430-03	Nut, Hex, M3 x 0.5	
34	690427-03	Washer, Lock, Split, M3	
35	690439-03	Washer, Flat, M3	
36	003118-01	Washer, Presser, Thread, Under	
37	001962-06	Screw, Set, Flat Point, M3 x 0.5 x 6 Lg	
38	670172-02	Screw, Socket Head Cap, 4-40 x 1/8"	
39	672386-08	Screw, Pan Head Phillips, 2-56 x 1/2"	
40	690034-32	Washer, Flat, #2	
41	690033-32	Washer, Lock, Split, #2	

**Trimmers, Head Level Parts (2 of 2) (cont)****Reference Figure P-15**

Item No.	Part Number	Item Description	Comments
42	702875-09	Spacer, Shaft, 3/16" ID x .031" Thick	
43	003833-01	Spacer, Bracket, Picker	
44	003656-01	Bracket, Bed, Cable, Support	
45	004550-01	Mount, Cable Tie	
46	001926-10	Screw, Flat Head Socket, M4 x 0.7 x 10 Lg	
47	003657-01	Link, Support	
48	003679-01	Screw, Shoulder, 4-40 x 1/8" x 1/8" Lg	



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# Y DRIVE MOTOR ASSEMBLY

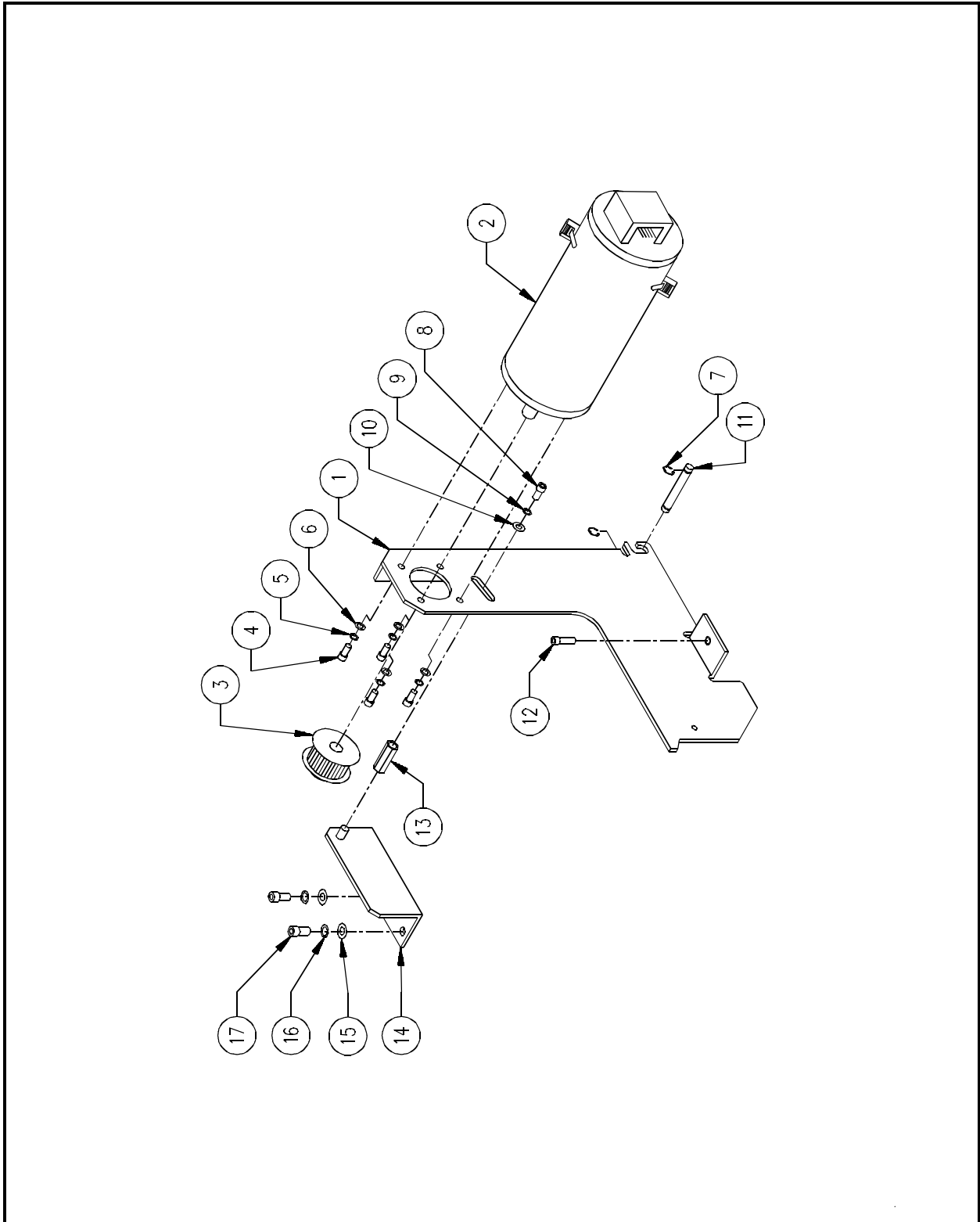


Figure P - 16

**Y Drive Motor Assembly****Reference Figure P-16**

Item No.	Part Number	Item Description	Comments
1	003664-01	Bracket, Mounting, Y Motor	
2	000465-01	Motor, X-Y Servo	
3	004962-01	Pulley, 5.08mm P, 15 Groove	
4	670174-06	Screw, Pan Head Phillips, 6-32 x 3/8"	
5	690033-36	Washer, Lock, Split, #6	
6	690034-36	Washer, Flat, #6	
7	344378-02	Ring, Retaining, .238" ID	
8	670038-08	Screw, Socket Head Cap, 10-32 x 1/2"	
9	690033-03	Washer, Lock, Split, #10	
10	690034-03	Washer, Flat, #10	
11	662744-24	Pin, Dowel, .250" OD x 1.5" Lg	
12	670038-14	Screw, Socket Head Cap, 10-32 x 7/8"	
13	712145-16	Standoff, Female, 10-32 x 1" Lg, 3/8" Hex	
14	004519-01	Bracket, Support, Y Motor	
15	690034-38	Washer, Flat, #8 Nom.	
16	690033-38	Washer, Lock, Split, #8 Nom.	
17	670149-06	Screw, Socket Head Cap, 8-32 x 3/8"	

# ELECTRONICS

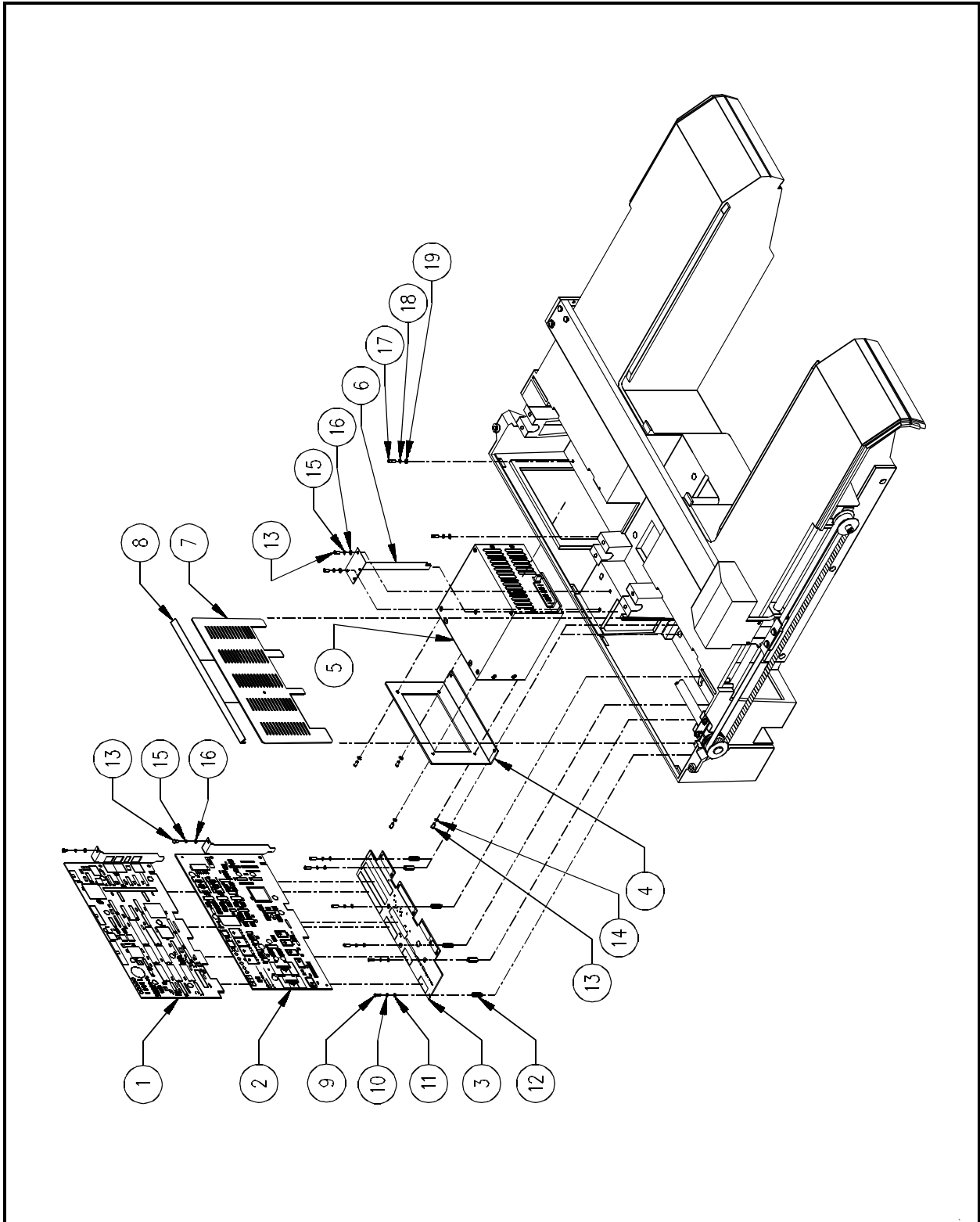


Figure P - 17

**Electronics****Reference Figure P-17**

Item No.	Part Number	Item Description	Comments
1	005106-01	PCB, CPU188/Disk	
2	003663-01	PCB, XYZ Interface	
3	003675-01	PCB, Backplane	
4	004523-01	Bracket, Power Supply	
5	005570-01	Power Supply	
6	004526-01	Bracket, Slot Cover, Single	
7	004525-01	Wall, Shielding, RFI	
8	345095-11	Seal, EM-1, 10"	
9	670131-10	Screw, Pan Head Phillips, 4-40 x 5/8"	
10	690033-34	Washer, Lock, Split, #4	
11	690034-34	Washer, Flat, #4	
12	710420-15	Standoff, Female, 4-40 x 15/16" Lg, 1/4" Hex	
13	670174-06	Screw, Pan Head Phillips, 6-32 x 3/8"	
14	690713-36	Washer, Lock, External Star, #6	
15	690033-36	Washer, Lock, Split, #6	
16	690034-36	Washer, Flat, #6	
17	670149-10	Screw, Socket Head Cap, 8-32 x 5/8"	
18	690033-38	Washer, Lock, Split, #8	
19	690034-38	Washer, Flat, #8	

# X DRIVE SYSTEM (1 of 5)

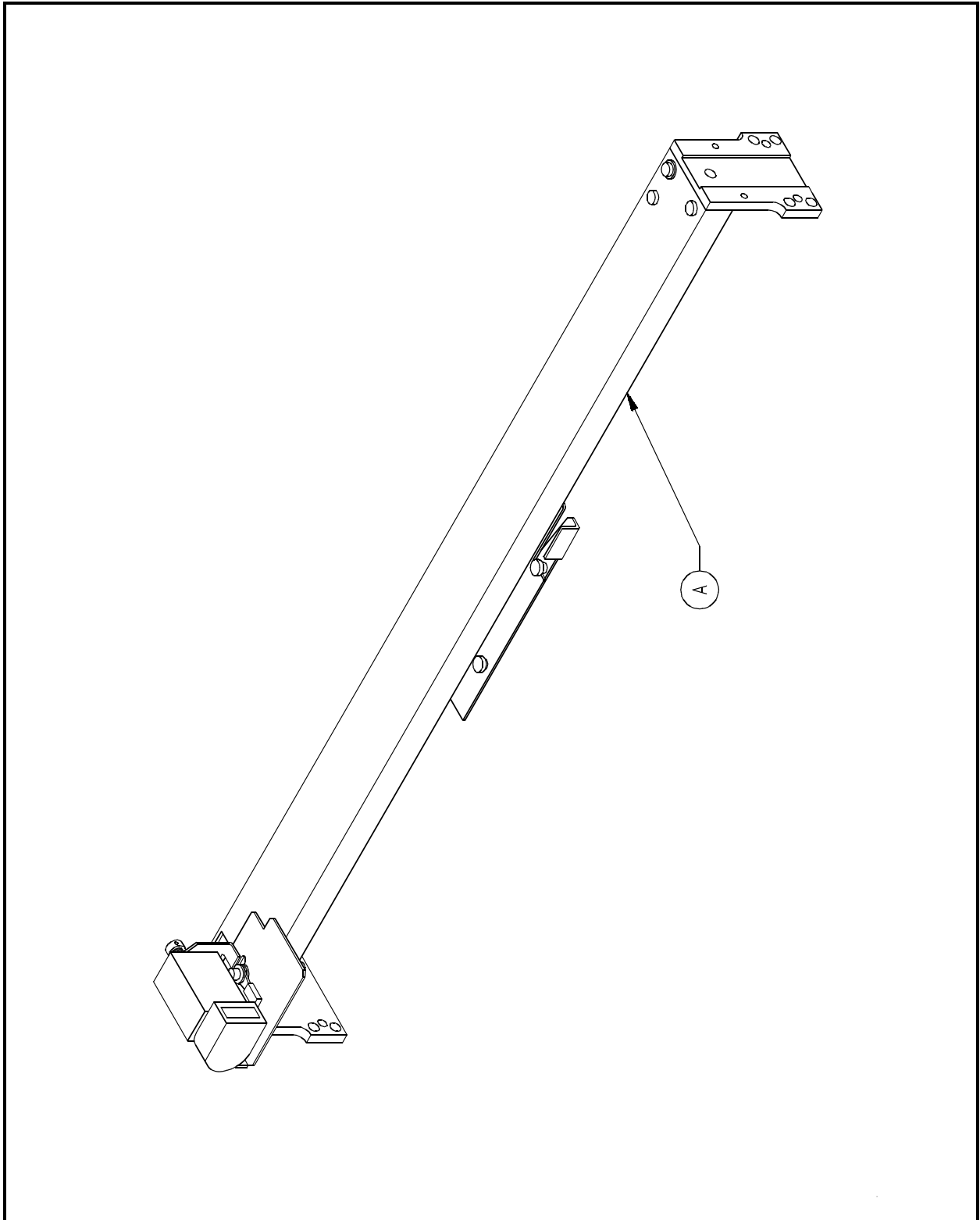


Figure P - 18

**X Drive System (1 of 5)****Reference Figure P-18**

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Item No.	Part Number	Item Description	Comments
A	004724-01S	X Drive Assembly, Safety Compliant	

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## X DRIVE SYSTEM (2 of 5)

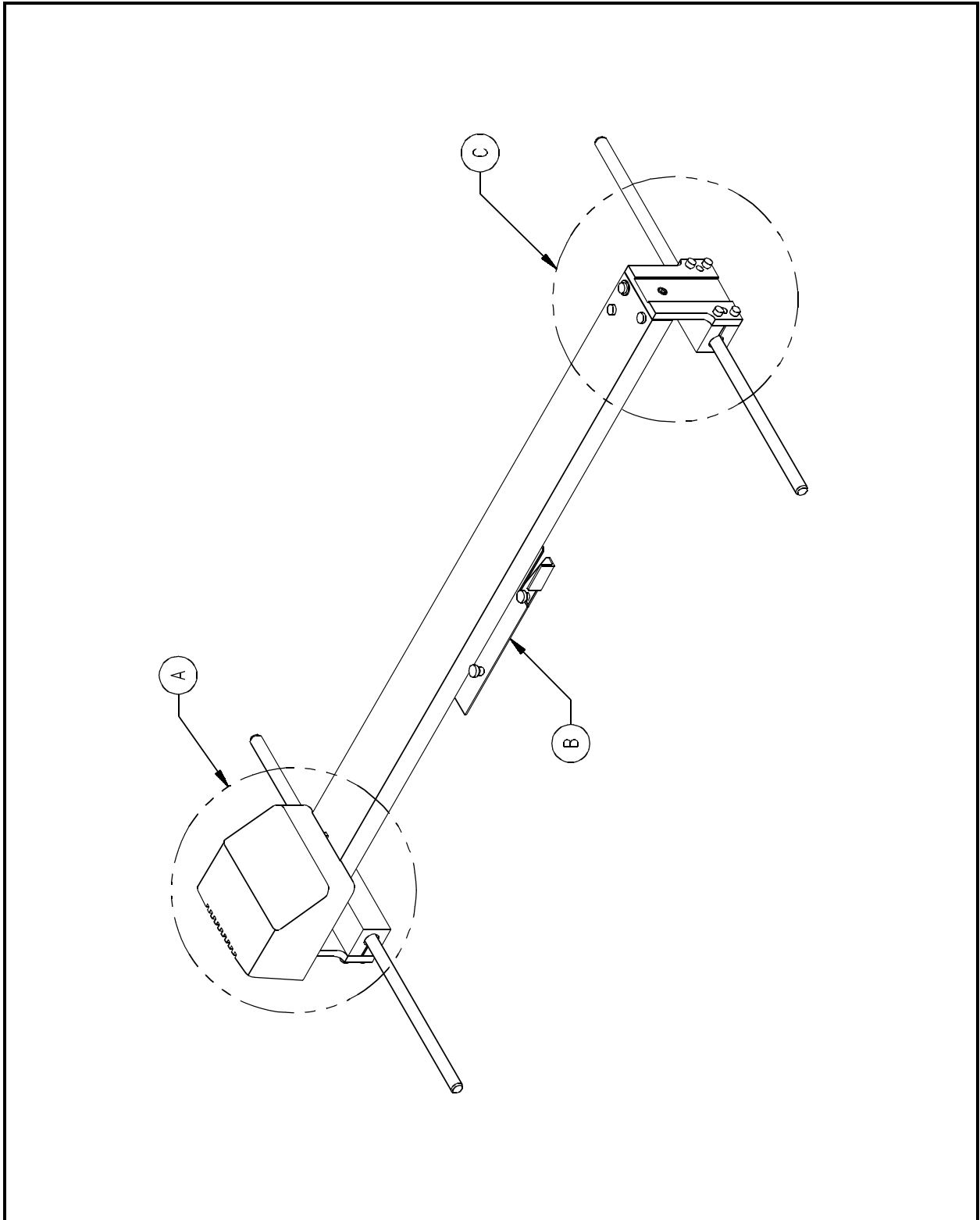


Figure P - 19



**X Drive System (2 of 5)****Reference Figure P-19**

Item No.	Part Number	Item Description	Comments
A	-----	X Drive Sub-Assembly (Motor End)	See Page P-43
B	004835-01S	Assembly, X Carriage, Safety Compliant	See Page P-45
C	-----	X Drive Sub-Assembly (Idler End)	See Page P-47

# X DRIVE SYSTEM (3 of 5)

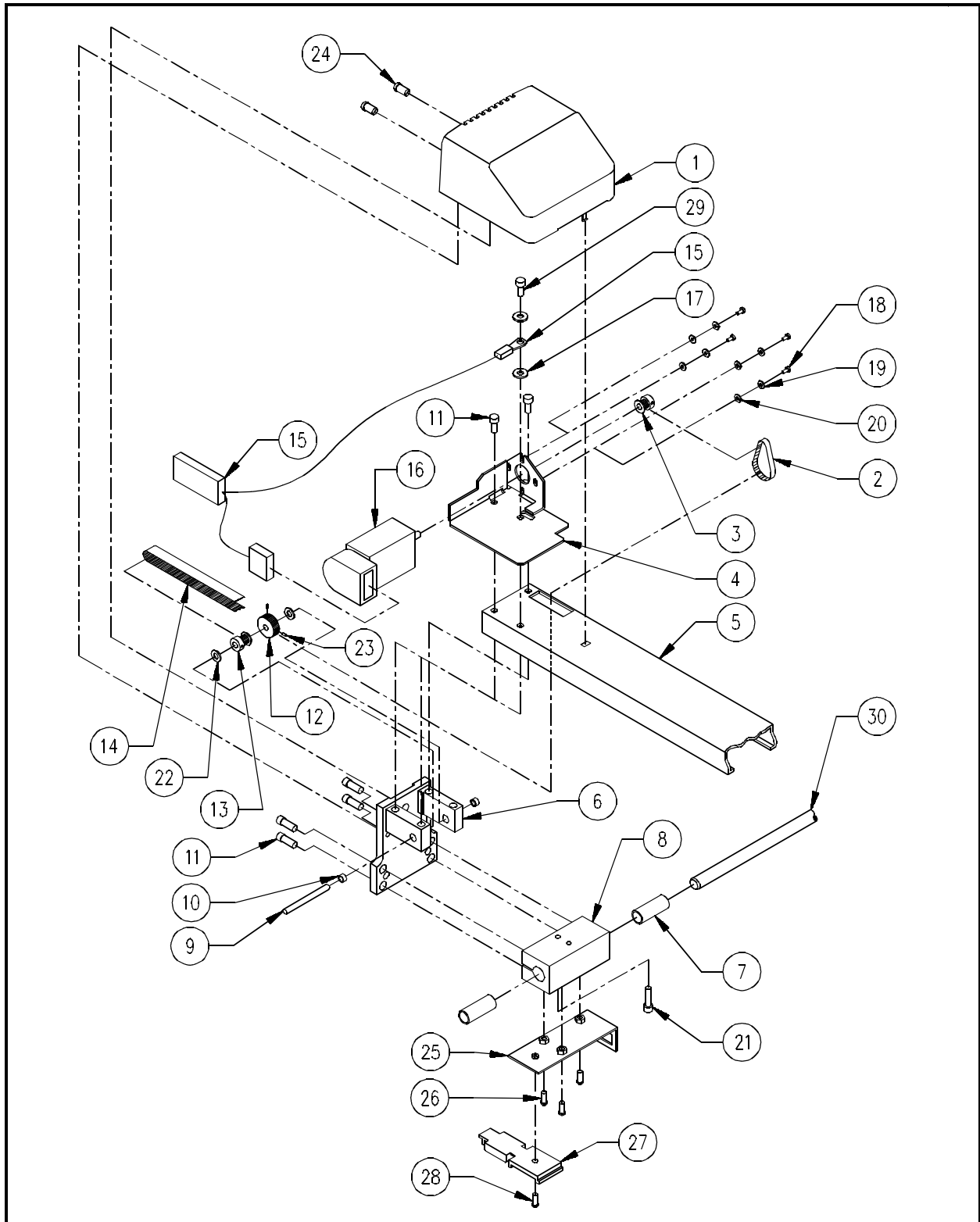


Figure P - 20

**X Drive System (3 of 5)****Reference Figure P-20**

Item No.	Part Number	Item Description	Comments
1	004813-01	Cover, X Motor	
2	005156-01	Belt, Timing, 63 Groove, .080P, 1/4" Wide	
3	344371-15	Pulley, Timing, 15 Groove, .080P, 1/4" Wide	
4	004812-01	Mount, X Motor	
5	005070-01	Channel, X Drive	
6	005119-01	Carriage, Y Axis, Safety Compliant	
7	504370-12	Bearing, 3/8" x 3/4" Lg, Self Lube	
8	454326-01	Housing, Bearing	
9	005066-01	Shaft, Drive, X Axis	
10	006416-01	Bearing, X Drive	
11	670149-06	Screw, Socket Head Cap, 8-32 x 3/8"	
12	344373-15	Pulley, Timing, 15 Groove, .080P, 3/8" Wide	
13	005065-01	Pulley, Drive, X Axis	
14*	005117-01	Belt, Timing, X Drive, 577 Groove	
15	003804-01	Harness, X Beam	
16	005121-01	Motor/Encoder, X Axis	
17	690713-38	Washer, Lock, External Star, #8	
18	672386-04	Screw, Pan Head Phillips, 2-56 x 1/4"	
19	690033-32	Washer, Lock, Split, #2	
20	690034-32	Washer, Flat, #2	
21	670149-08	Screw, Socket Head Cap, 8-32 x 1/2"	
22	702875-05	Spacer, Shaft, 3/16" ID x .010" Thick	
23	670166-03	Screw, Set, Knurled Cup Point, 4-40 x 3/16"	
24	670406-04	Screw, Button Head Cap, 4-40 x 3/16"	
25	003814-01	Bracket, Connector	
26	670174-06	Screw, Pan Head Phillips, 6-32 x 3/8"	
27	004725-01	Strain Relief	
28	670131-04	Screw, Pan Head Phillips, 4-40 x 1/4"	
29	670267-06	Screw, Button Head Cap, 8-32 x 3/8"	
30	441423-02	Rail, Y-Axis	

\*NOTE: Implemented on EMC 6MTL S/N 5100069 and EMC 6ML S/N 4800058

# X DRIVE SYSTEM (4 of 5)

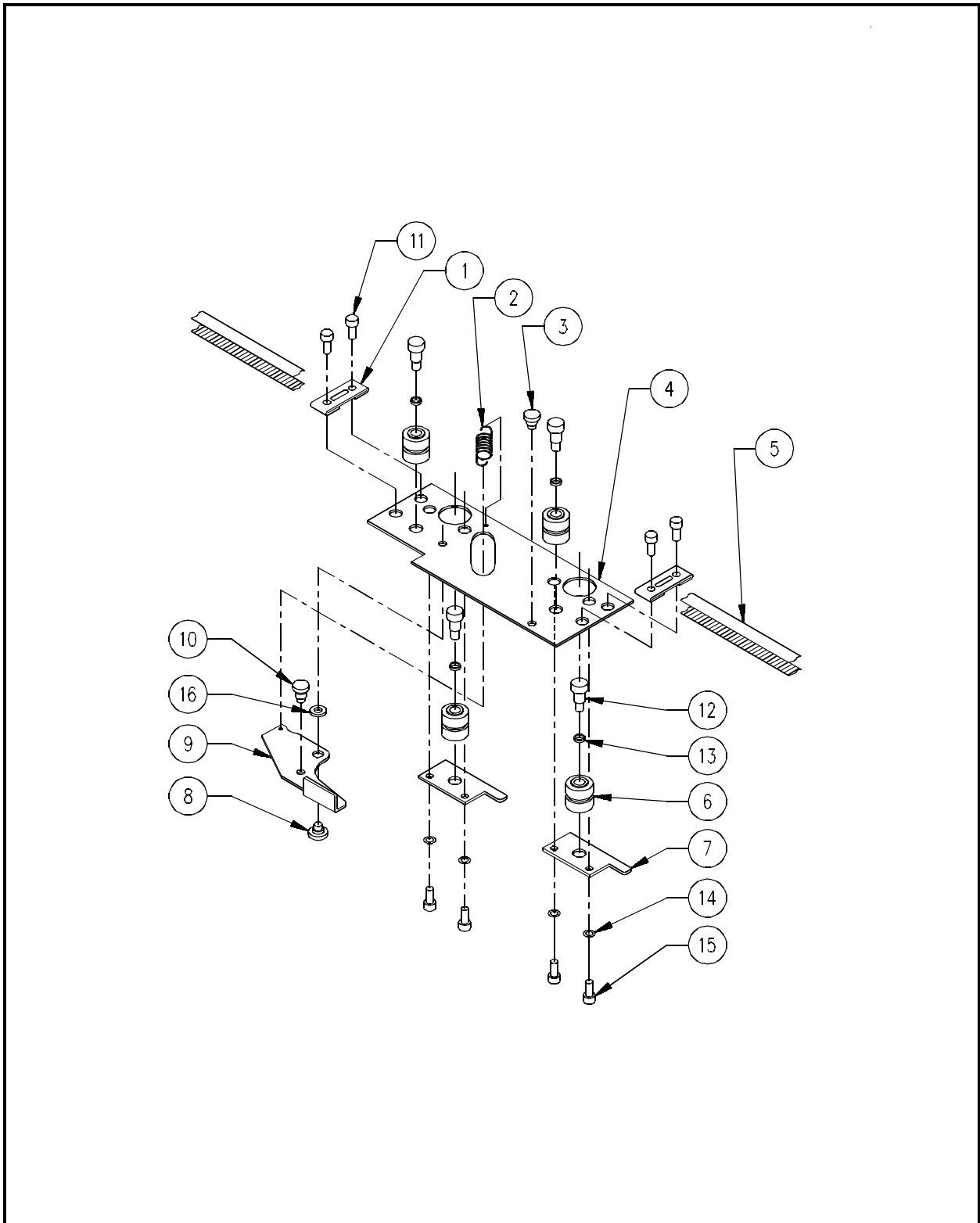


Figure P - 21

**X Drive System (4 of 5) (004835-01S)****Reference Figure P-21**

Item No.	Part Number	Item Description	Comments
1*	554305-01	Clamp, Belt, X Drive	
2	504396-01	Spring, Extension	
3	454308-01	Pin, Hoop Holder, Carriage	
4	004815-01	Carriage, X Axis	
5*	005117-01	Belt, Timing, X Drive, 577 Groove	
6	444302-01	Roller, X Carriage	
7	554306-01	Plate, Roller, Adjustable	
8	454307-01	Pivot, Hoop Holder	
9	554304-01	Actuator, Hoop Holder	
10	454308-02	Pin, Hoop Holder, Actuator	
11*	670267-06	Screw, Button Head Cap, 8-32 x 3/8"	
12	674395-05	Screw, Shoulder, 1/4" Dia x .312" Lg	
13a	702875-01	Spacer, Shaft, 3/16" x .002"	Use as Required
13b	702875-02	Spacer, Shaft, 3/16" x .004"	Use as Required
13c	702875-03	Spacer, Shaft, 3/16" x .006"	Use as Required
13d	702875-04	Spacer, Shaft, 3/16" x .008"	Use as Required
13e	702875-05	Spacer, Shaft, 3/16" x .010"	Use as Required
14	690811-38	Washer, Internal Star, #8	
15	670149-06	Screw, Socket Head Cap, 8-32 x 3/8"	
16	344377-01	Washer, Flat, Teflon	

\*NOTE: Items 1, 5, and 11 are not included in Assembly 004835-01S, and must be replaced seperately.

Item 5 was implemented on EMC 6MTL S/N 5100069 and EMC 6ML S/N 4800058

# X DRIVE SYSTEM (5 of 5)

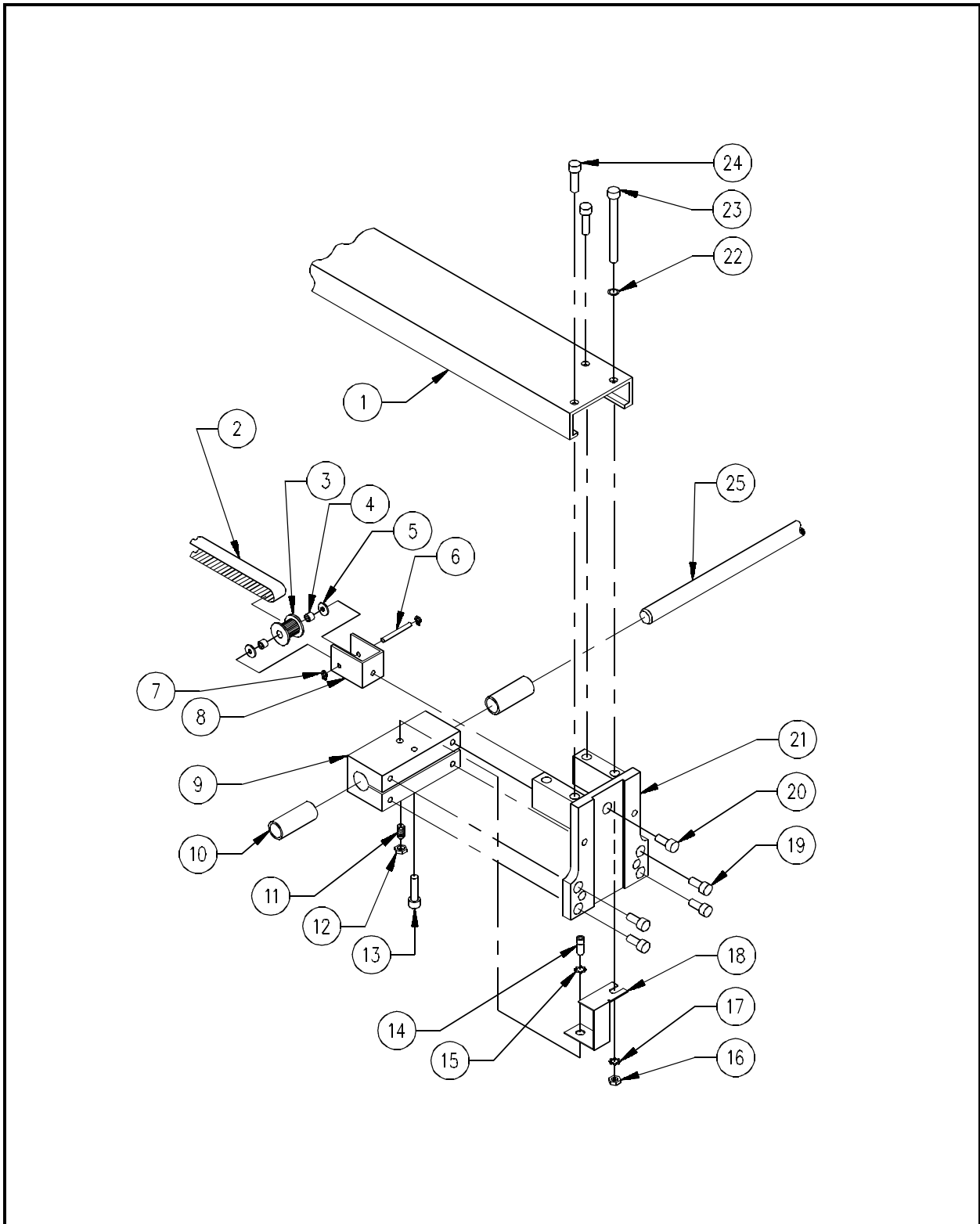


Figure P - 22

**X Drive System (5 of 5)****Reference Figure P-22**

Item No.	Part Number	Item Description	Comments
1	005070-01	Channel, X Drive	
2*	005117-01	Belt, Timing, X Drive, 577 Groove	
3*	-----	Pulley, X Drive	
4*	005095-01	Bearing, X Drive, Idler	
5*	003419-30	Spacer, Shaft, .190" x .310"	
6*	000378-14	Pin, Dowel, 1/8" Nom	
7*	344378-03	Ring, Retaining, .125"	
8*	554327-01	Tensioner, Belt, X Axis	
9	454326-01	Housing, Bearing	
10	504370-12	Bearing, 3/8" x 3/4"	
11	344883-01	Plunger, Ball, 1/4-20	
12	680032-04	Nut, Hex, 1/4-20	
13	670149-08	Screw, Socket Head Cap, 8-32 x 1/2"	
14	670038-06	Screw, Socket Head Cap, 10-32 x 3/8"	
15	690713-03	Washer, External Star, #10	
16	680032-38	Nut, Hex, 8-32	
17	690713-38	Washer, External Star, #8	
18	555044-01	Strap, Ground	
19	670149-06	Screw, Socket Head Cap, 8-32 x 3/8"	
20*	670149-10	Screw, Socket Head Cap, 8-32 x 5/8"	
21	004522-01	Carriage, Y Axis	
22	690811-38	Washer, Internal Star, #8	
23	670267-18	Screw, Button Head Cap, 8-32 x 1-1/8"	
24	670267-06	Screw, Button Head Cap, 8-32 x 3/8"	
25	441423-02	Rail, Y Axis	

\*NOTE: Due to manufacturing processes, items 3-8, & 20 should be replaced as a factory built assembly: 855185-01 Assembly, Pulley, X Idler

Item 2 was implemented on EMC 6MTL S/N 5100069 and EMC 6ML S/N 4800058

# Z-DRIVE/ENCODER ASSEMBLY

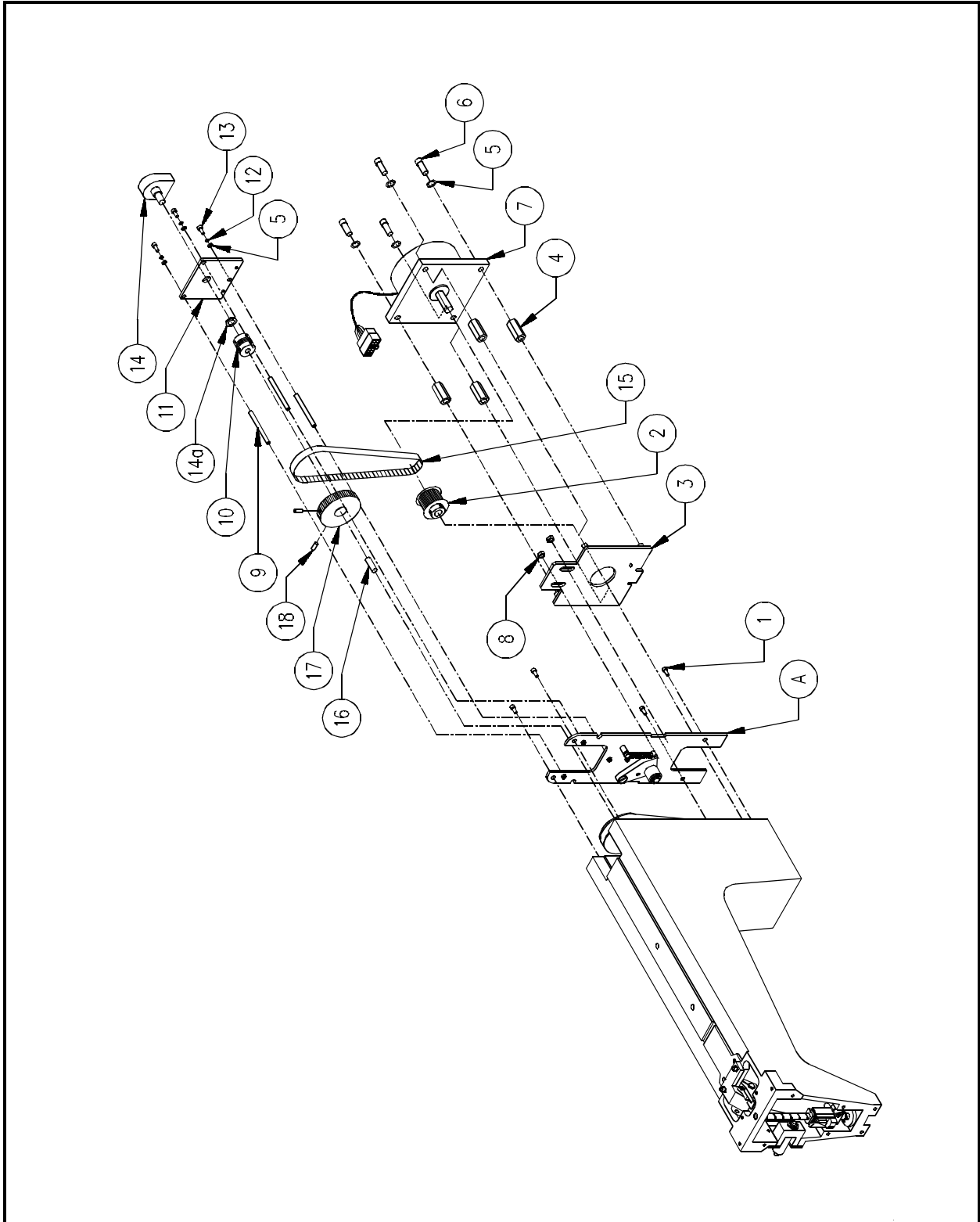


Figure P - 23



**Z Drive/Encoder Assembly****Reference Figure P-23**

Item No.	Part Number	Item Description	Comments
A	004504-01S	Large Bobbin Idler Assembly	See Page P-25
1	001926-01	Screw, Flat Head Socket, M4 x 0.7 x 12 Lg	
2	340090-01	Pulley, 16T, 3/8" ID, with Hub	
3	003667-01	Plate Mounting, Z Drive Motor	
4	714399-16	Standoff, F/F, 1/2" Hex, 1/4-20 x 1" Lg	
5	690033-04	Washer, Lock, Split, 1/4"	
6	670035-08	Screw, Socket Head Cap, 1/4-20 x 1/2"	
7	003688-01	Motor, Z Drive	
8	005284-01	Nut, Lock, M6	
9	004829-01	Standoff, Encoder	
10	003553-01	Coupler, Shaft, Helical, 1/4" x 1/4"	
11	004730-01	Plate, Encoder	
12	690427-04	Washer, Lock, Split, M4	
13	672018-16	Screw, Socket Head Cap, M4 x 0.7 x 16 Lg	
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" Dia x .750" Lg	
17	001523-01	Pulley, Drive, Bobbin, Top, 32T, 1/5P	
18	001927-12	Screw, Set, Socket, Flat Point, M5 x 0.8 x 12 Lg	

# Y DRIVE ASSEMBLY

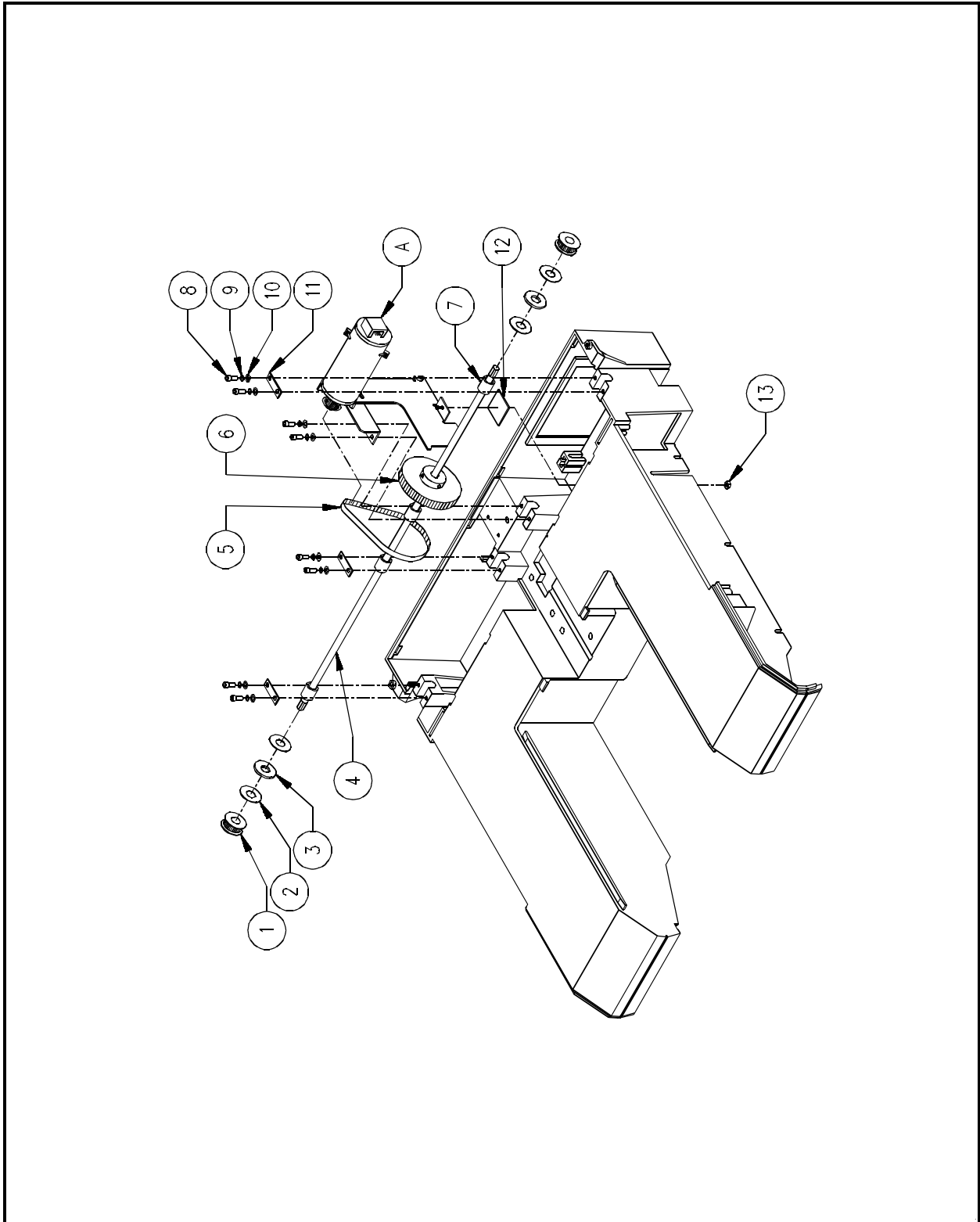


Figure P - 24

**Y Drive Assembly****Reference Figure P-24**

Item No.	Part Number	Item Description	Comments
A	-----	Y Drive Motor Assembly	See Page P-35
1	504358-01	Pulley, Idler, Y Drive	
2	694397-08	Washer, Thrust, .50" x .031"	
3	344402-08	Bearing, Thrust, .50" ID	
4	444404-01	Shaft, Drive, Y Axis	
5	341781-01	Belt, Timing, 74T, 1/5P, 3/8" Wide	
6	344349-01	Pulley, Timing, 60 Groove, 1/5P, 1/2" Bore	
7	344403-12	Bearing, Roller, 1/2" x 3/4"	
8	670149-06	Screw, Socket Head Cap, 8-32 x 3/8"	
9	690033-38	Washer, Lock, Split, #8	
10	690034-38	Washer, Flat, #8	
11	555325-01	Bracket, Retainer	
12	003666-01	Plate, Tensioner, Y Belt	
13	680043-38	Nut, Lock, 8-32	

# LEFT Y CARRIAGE ASSEMBLY

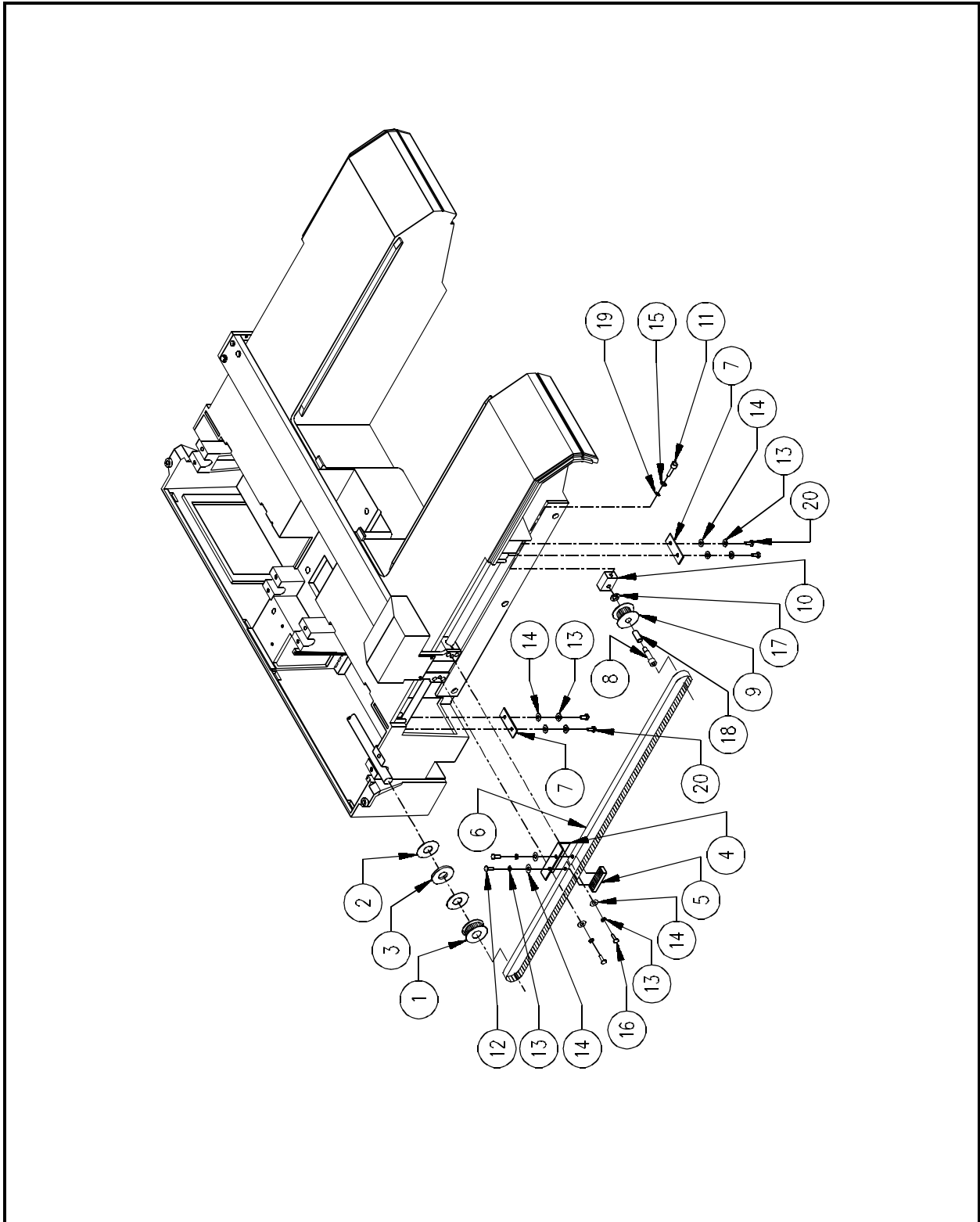


Figure P - 25

**Left Y Carriage Assembly****Reference Figure P-25**

Item No.	Part Number	Item Description	Comments
1	504358-01	Pulley, Idler, Y Drive	
2	694397-08	Washer, Thrust, .50" ID x .031"	
3	344402-08	Bearing, Thrust, .50" ID	
4	554329-01	Bracket, Belt	
5	000372-01	Clamp, Belt	
6	504449-01	Belt, Y Drive, 199 Groove	
7	555325-01	Bracket, Retainer	
8	672852-01	Screw, Shoulder, 1/4-20 x 5/16" x 5/8" Lg	
9*	504358-01	Pulley, Idler, Y Drive	
10	452165-01	Block, Pulley, Idler	
11	670038-14	Screw, Socket Head, Cap, 10-32 x 7/8"	
12	670267-06	Screw, Button Head Cap, 8-32 x 3/8"	
13	690033-38	Washer, Lock, Split, #8	
14	690034-38	Washer, Flat, #8	
15	690034-03	Washer, Flat, #10	
16	670149-12	Screw, Socket Head Cap, 8-32 x 3/4"	
17	693158-03	Washer, Precision, 5/16" ID x .048" Thick	
18*	342877-09	Bearing, Roller, 5/16" ID x 9/16" Lg	
19	690713-03	Washer, Lock, External Star, #10	
20	670149-06	Screw, Socket Head Cap, 8-32 x 3/8"	

\*NOTE: Due to manufacturing processes, items 9 and 18 should be replaced as a factory built assembly: 005294-01 Assembly, Pulley, Idler

# RIGHT Y CARRIAGE ASSEMBLY

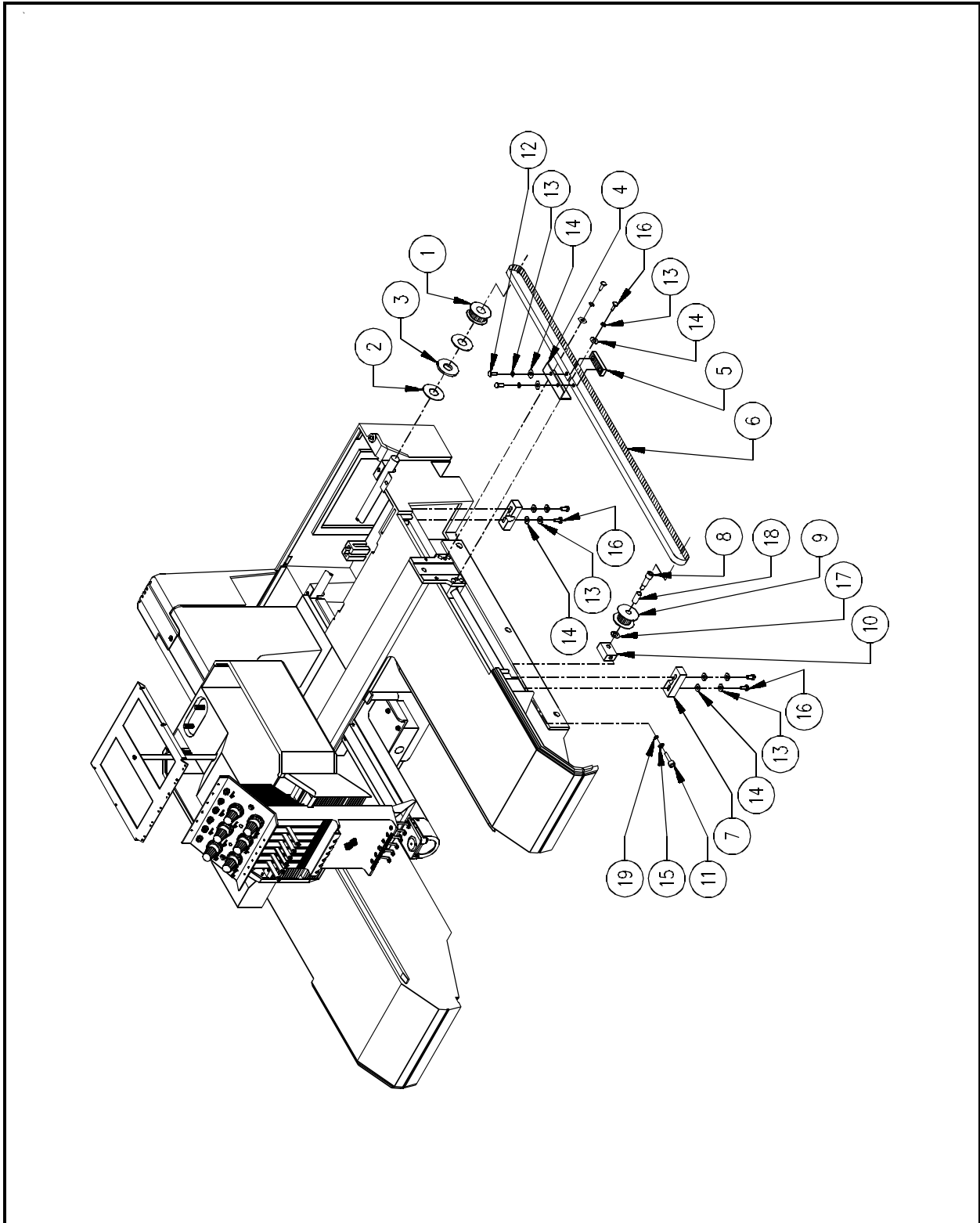


Figure P - 26

**Right Y Carriage Assembly****Reference Figure P-26**

Item No.	Part Number	Item Description	Comments
1	504358-01	Pulley, Idler, Y Drive	
2	694397-08	Washer, Thrust, .50" ID x .031"	
3	344402-08	Bearing, Thrust, .50" ID	
4	554329-01	Bracket, Belt	
5	000372-01	Clamp, Belt	
6	504449-01	Belt, Y Drive, 199 Groove	
7	000530-01	Retainer, Y Rail	
8	672852-01	Screw, Shoulder, 1/4-20 x 5/16" x 5/8" Lg	
9*	504358-01	Pulley, Idler, Y Drive	
10	452165-01	Block, Pulley, Idler	
11	670038-14	Screw, Socket Head, Cap, 10-32 x 7/8"	
12	670267-06	Screw, Button Head Cap, 8-32 x 3/8"	
13	690033-38	Washer, Lock, Split, #8	
14	690034-38	Washer, Flat, #8	
15	690034-03	Washer, Flat, #10	
16	670149-12	Screw, Socket Head Cap, 8-32 x 3/4"	
17	693158-03	Washer, Precision, 5/16" ID x .048" Thick	
18*	342877-09	Bearing, Roller, 5/16" ID x 9/16" Lg	
19	690713-03	Washer, Lock, External Star, #10	

\*NOTE: Due to manufacturing processes, items 9 and 18 should be replaced as a factory built assembly: 005294-01 Assembly, Pulley, Idler

# CAP FRAME MOUNT ASSEMBLY

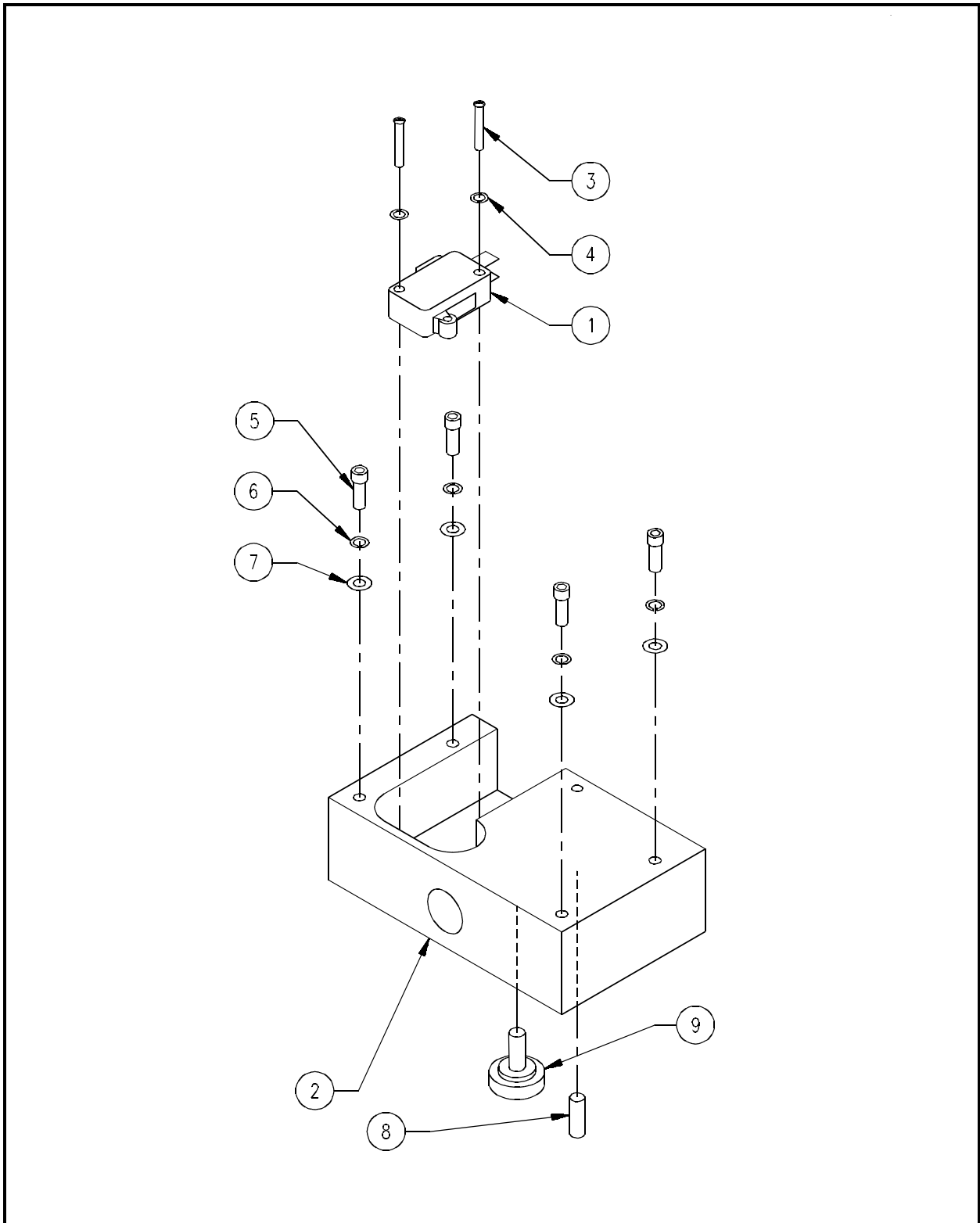


Figure P - 27



**Cap Frame Mount Assembly****Reference Figure P-27**

Item No.	Part Number	Item Description	Comments
1	282911-01	Switch, Limit, Roller	
2*	004427-01	Mount, Cap Frame	
3	670131-10	Screw, Pan Head Phillips, 4-40 x 5/8"	
4	690034-34	Washer, Flat, #4	
5	670149-06	Screw, Socket Head Cap, 8-32 x 3/8"	
6	690033-38	Washer, Lock, Split, #8	
7	690034-38	Washer, Flat, #8	
8*	660831-12	Pin, Press, 3/16" Dia x 3/4" Lg	
9	672927-33	Screw, Thumb, 10-32 x 1/2"	

\*NOTE: Due to manufacturing processes, items 2 and 8 should be replaced as a factory built assembly: 374981-01S Assembly, Mount, Cap Frame

# CAP FRAME DRIVE ASSEMBLY

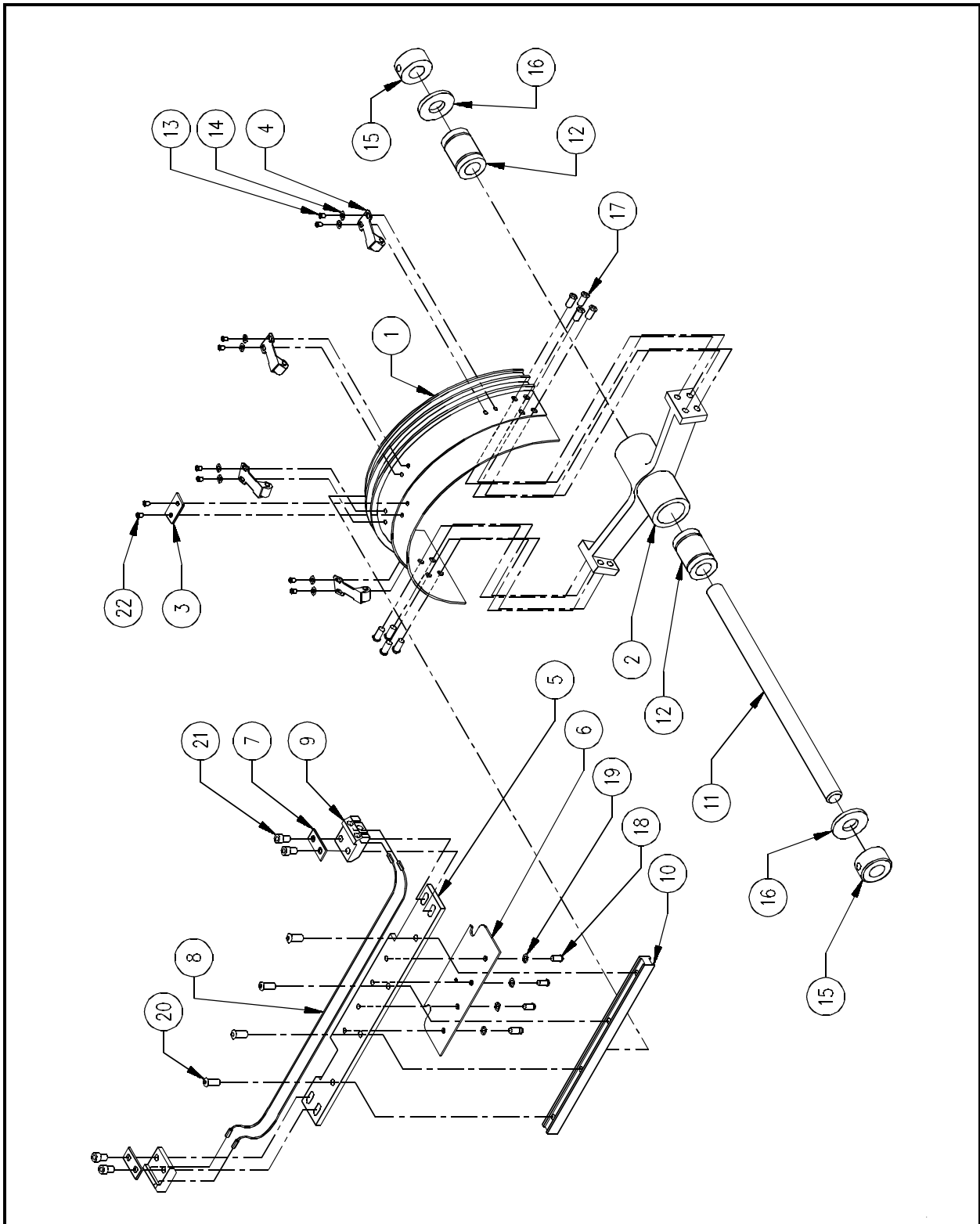


Figure P - 28

**Cap Frame Drive Assembly****Reference Figure P-28**

Item No.	Part Number	Item Description	Comments
1	452732-01	Ring, Cap Frame	
2	472897-01	Hub, Cap Frame	
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	452749-03	Rail, Shaft	
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	342872-08	Collar, Shaft, 1/2" ID	
16	342910-01	Washer, Rubber, 1/2" ID	
17	672982-06	Screw, Pan Head Phillips, 8-32 x 3/8"	
18	670174-04	Screw, Pan Head Phillips, 6-32 x 1/4"	
19	690033-36	Washer, Lock, Split, #6	
20	670267-06	Screw, Button Head Cap, 8-32 x 3/8"	
21	670149-06	Screw, Socket Head Cap, 8-32 x 3/8"	
22	670131-02	Screw, Pan Head Phillips, 4-40 x 1/8"	

# MELCO CAP FRAME ASSEMBLY

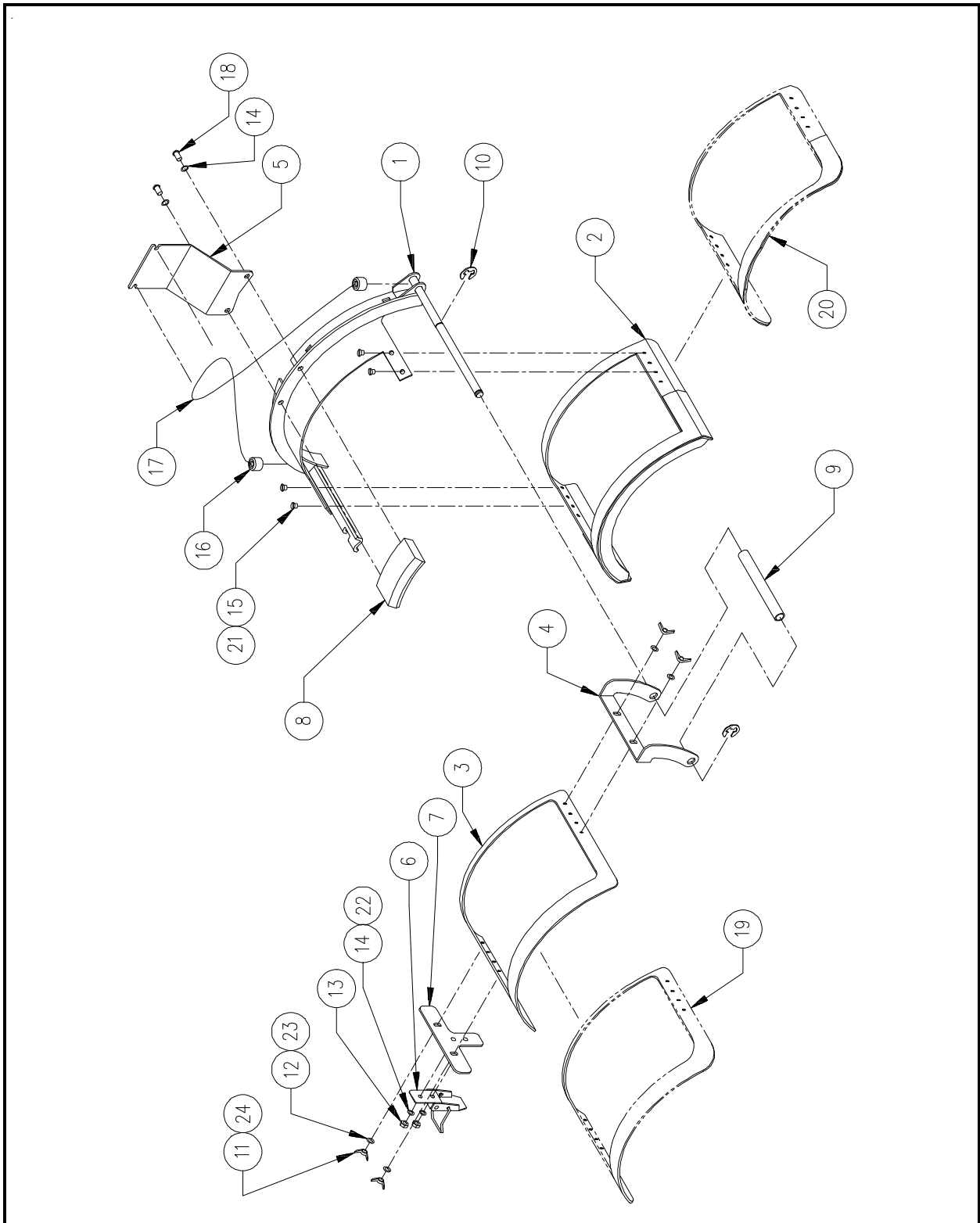


Figure P - 29

**Melco Cap Frame Assembly (005938-01)****Reference Figure P-29**

Item No.	Part Number	Item Description	Comments
1	004938-01	Base, Cap Frame	
2	005485-01	Frame, Weldment, with Rubber	
3	005480-01	Strap, Clamping, 82mm, with Rubber	
4	002629-01	Bracket, Hinge	
5	005071-01	Holder, Visor Clamp Cord	
6	004239-01	Catch, Pull	
7	002631-01	Bracket, Latch	
8	004904-01	Block, Locator, Brim	
9	002632-01	Spacer	
10	004240-01	Ring, Retainer, E-Style	
11	004238-01	Nut, Wing, #6-32	
12	690034-36	Washer, Flat, #6 Nom	
13	680032-36	Nut, Hex, #6-32, 1/4" OD	
14	690033-36	Washer, Lock, Split, #6 Nom	
15	004963-01	Screw, Special, Cap Frame	
16	005068-01	Terminal, Shock Cord	
17	005073-01	Cord, Shock, Cap Frame	
18	670174-06	Screw, Pan Head, Phillips, 6-32 x 3/8"	
19*	005948-01	Strap, Clamping, 82mm, 6 Panel	
20*	006010-01	Frame, Lower, with Rubber, 6 Panel	
21*	006019-01	Screw, Flat Head Phillips, 3mm x 0.5 x 8 Lg	
22*	006020-01	Washer, Lock, M3	
23*	006022-01	Washer, Flat, M3	
24*	006021-01	Nut, Wing, M3	

NOTE: Items 19 thru 24 are only for the 6 Panel Option, Assembly p/n 006004-01

# HARNES ASSEMBLY (1 of 3)

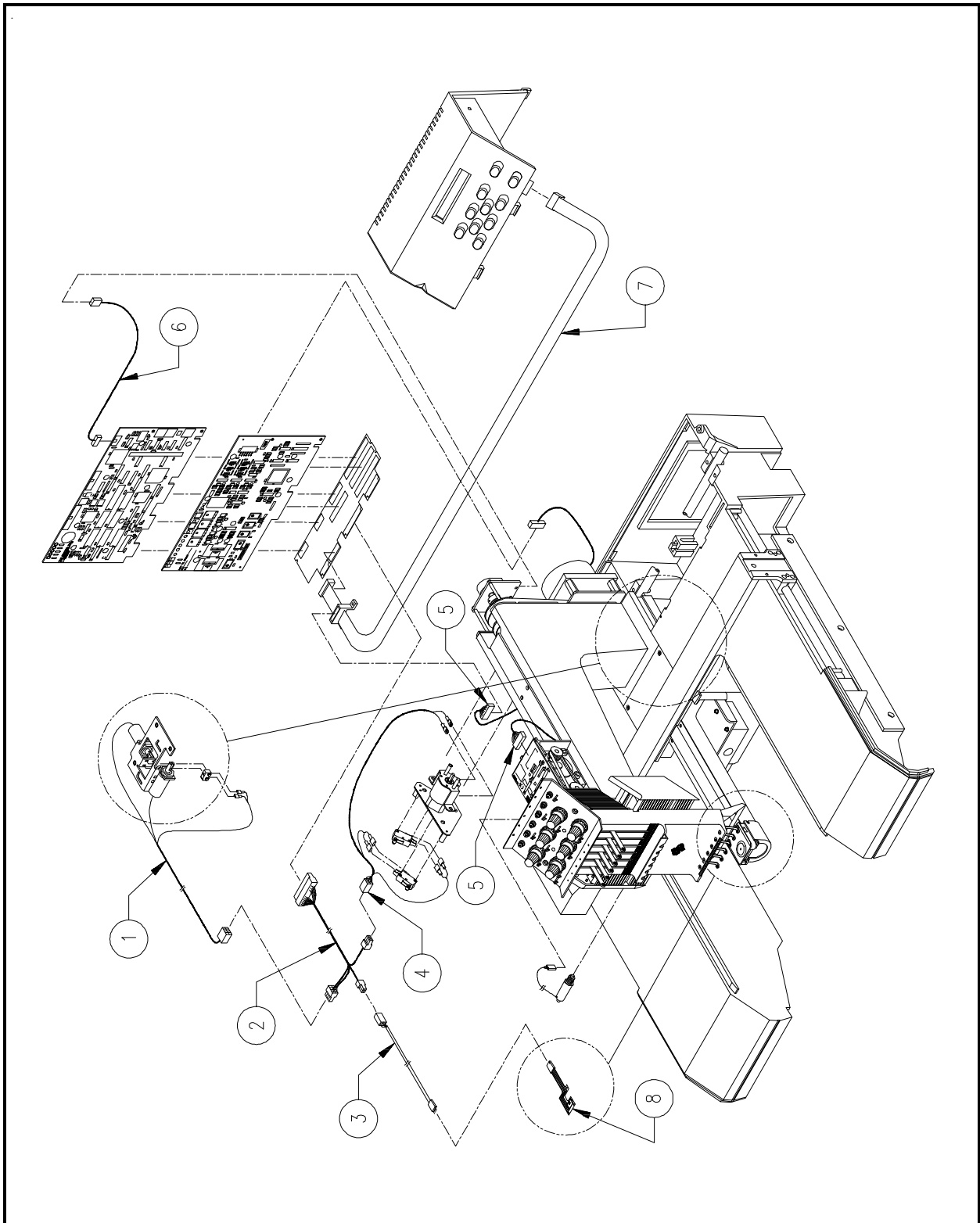


Figure P - 30

**Harness Assembly (1 of 3)****Reference Figure P-30**

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Item No.	Part Number	Item Description	Comments
1	005390-01	Cutter/Picker, Solenoid, Assembly	
2	005389-01	Harness, Trimmer	
3	003801-01	Harness, Arm, Under Thread Control	
4	005123-01	Motor, Grabber, Assembly	
5	003614-01	Cable, Color Change, Assembly	
6	005104-01	Harness, Z-Encoder, 13.5"	
7	003807-01	Harness, Keyboard	
8	-----	PCB, Under Thread Control, Assembly	

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# HARNES ASSEMBLY (2 of 3)

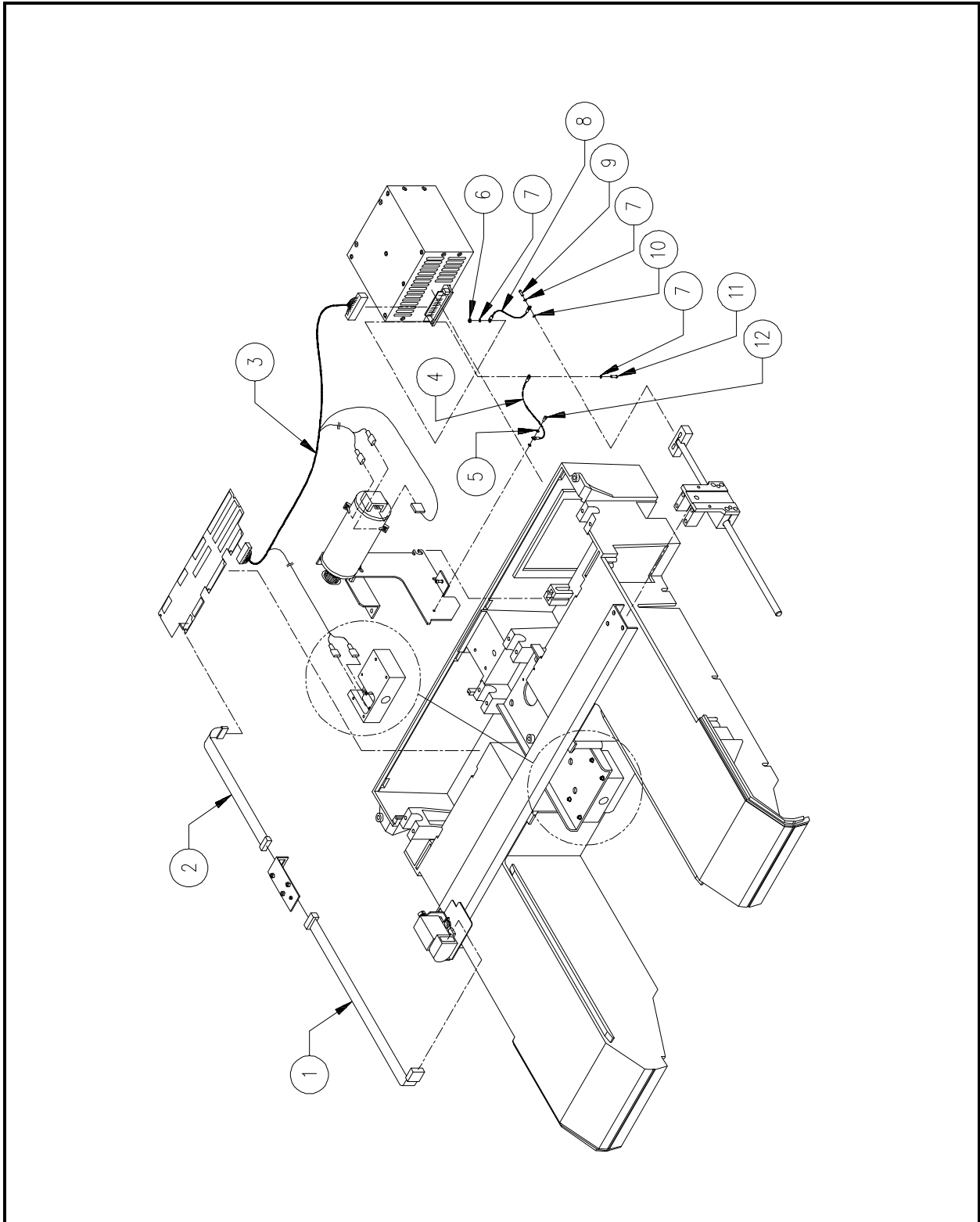


Figure P - 31



**Harness Assembly (2 of 3)****Reference Figure P-31**

Item No.	Part Number	Item Description	Comments
1	003804-01	Harness, X-Beam	
2	003809-01	Harness, X-Drive	
3	003805-01	Harness, Power	
4	004720-01	Cable, Ground, Pan	
5	690713-38	Washer, Lock, External Star, #8	
6	680043-36	Nut, Lock, 6-32	
7	690713-36	Washer, Lock, External Star, #6	
8	004720-02	Cable, Ground, Pan	
9	670174-12	Screw, Pan Head Phillips, 6-32 x 3/4"	
10	690034-36	Washer, Flat, #6 Nom	
11	670174-07	Screw, Pan Head Phillips, 6-32 x 7/16"	
12	670149-06	Screw, Socket Head Cap, 8-32 x 3/8"	

# HARNES ASSEMBLY (3 of 3)

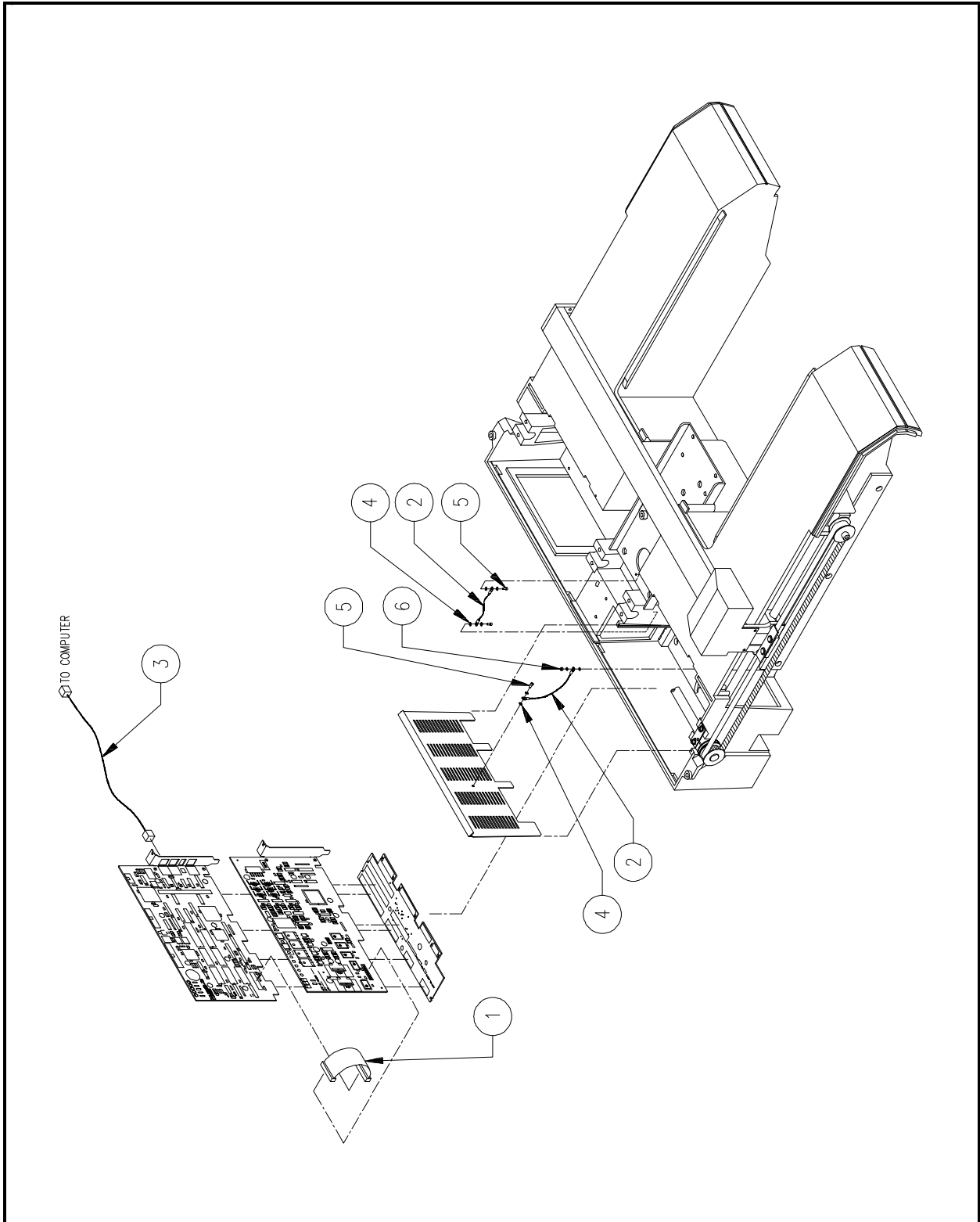


Figure P - 32

**Harness Assembly (3 of 3)****Reference Figure P-32**

Item No.	Part Number	Item Description	Comments
1	004722-01	Harness, Jumper, CPU/XYZ	
2	004720-01	Cable, Ground, Pan	
3	345068-10	Cable, Data, 5 Conductor, with Drain, 10 Ft.	
4	690713-38	Washer, Lock, External Star, #8	
5	670149-06	Screw, Socket Head Cap, 8-32 x 3/8"	
6	680043-38	Nut, Lock, 8-32	