

Catalog No. T143M  
Supplement For  
Puller Machines

## Illustrated Parts List

For Styles

HF611K101MF

LF611K118MF

HF611K118MF

LF611K152MF

HF611K152MF

LF612K101MBE-16

HF612K101MR-48

LF613K101HR-8

LF611K101MF

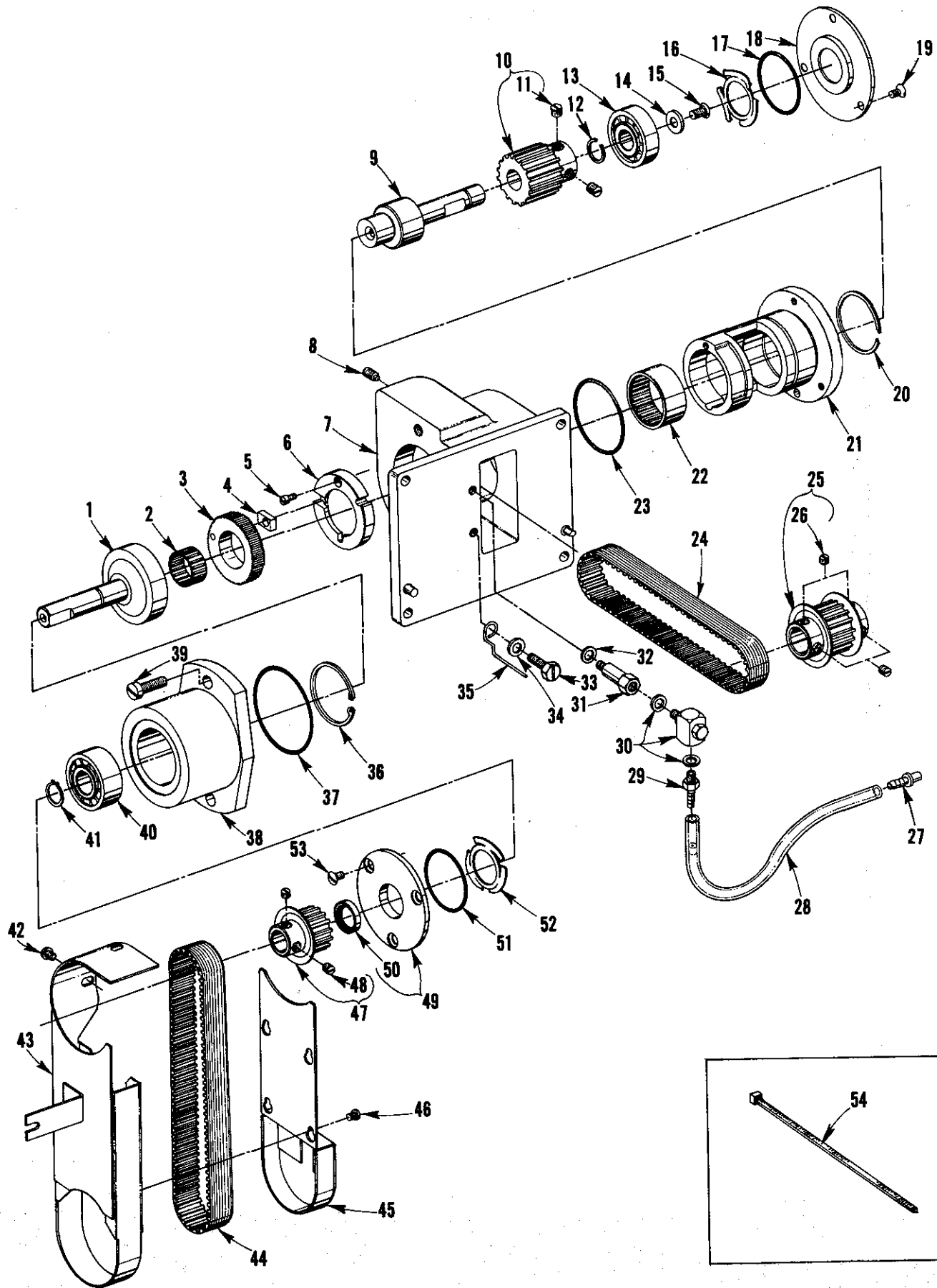
LF613K101HR-9

 **Union Special**<sup>®</sup>  
Finest Quality Industrial Sewing Equipment

September 1, 1989

Union Special Corporation, One Union Special Plaza, Huntley, IL 60142, U.S.A.  
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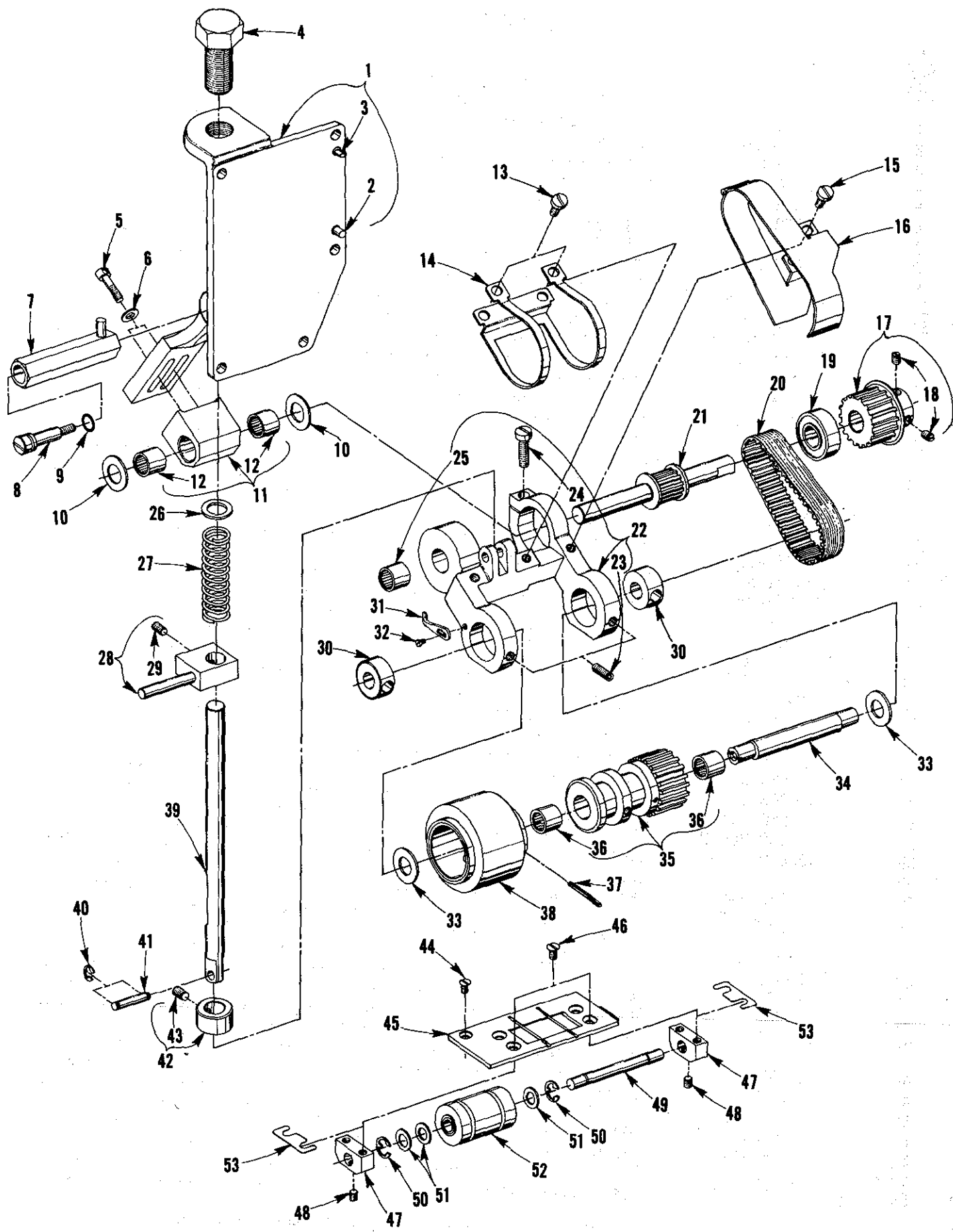
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PULLER DRIVE

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	C50078 L	Gear, internal -----	1
2	660-889	Bearing, cage -----	1
3	C50078 M	Gear -----	1
4	C50078 J	Block, slide -----	1
5	22593	Screw -----	1
6	C50078 N	Ring, guide -----	1
7	C50078 G	Housing, bearing -----	1
8	22894 J	Screw -----	1
9	C50022 L	Shaft, eccentric drive -----	1
10	C50042 AC-16	Sprocket -----	1
11	98	Screw -----	2
12	660-891 C	Ring, retaining -----	1
13	660-888	Bearing, ball -----	1
14	59451 F	Washer -----	1
15	22574 D	Screw (left hand threads) -----	1
16	660-914	Spring, finger -----	1
17	660-886 A	"O" Ring -----	1
18	C50082 AR	Cover -----	1
19	22524	Screw -----	3
20	661-70 A	Ring, snap -----	1
21	C50078 P	Housing, eccentric -----	1
22	660-892 C	Bearing -----	1
23	660-886 C	"O" Ring -----	1
24	C50042 AF	Belt, timing -----	1
25	C50042 AB-16	Sprocket -----	1
26	98	Screw -----	4
27	50394 D	Connector, oil tube -----	1
28	C50094 AG	Tube, oil -----	1
29	671 F-19	Connector -----	1
30	RM3633-1	Fitting, oil -----	1
31	671 F-64	Fitting, extension -----	1
32	RM2964 B	Washer -----	1
33	22824 B	Screw -----	1
34	53634 C	Washer -----	1
35	C50093 CS	Protector, tube -----	1
36	660-891 B	Ring, snap -----	1
37	660-886 B	"O" Ring -----	1
38	C50078 H	Housing, bearing -----	1
39	136	Screw -----	2
40	660-890	Bearing, ball -----	1
41	660-918	Ring, retaining -----	1
42	22825	Screw -----	3
43	21375 BX	Guard, belt -----	1
44	C50042 AG	Belt, timing -----	1
45	21375 BY	Cover -----	1
46	604	Screw -----	4
47	C50042 Z-13	Sprocket, puller driving (See sprocket chart for stitch length combinations) -----	1
48	22560 B	Screw -----	2
49	C50082 AP	Cover -----	1
50	660-893	Seal, lip -----	1
51	660-886 A	"O" Ring -----	1
52	660-914	Spring -----	1
53	22524	Screw -----	3
54	670 E-2	Tie, cable; to secure Ref. No. 28 -----	1

NOTE: Ref No. 1-24, 36-41 and 49-53 can be ordered under Assembly No. 29476 PK.



ROLLER PULLER

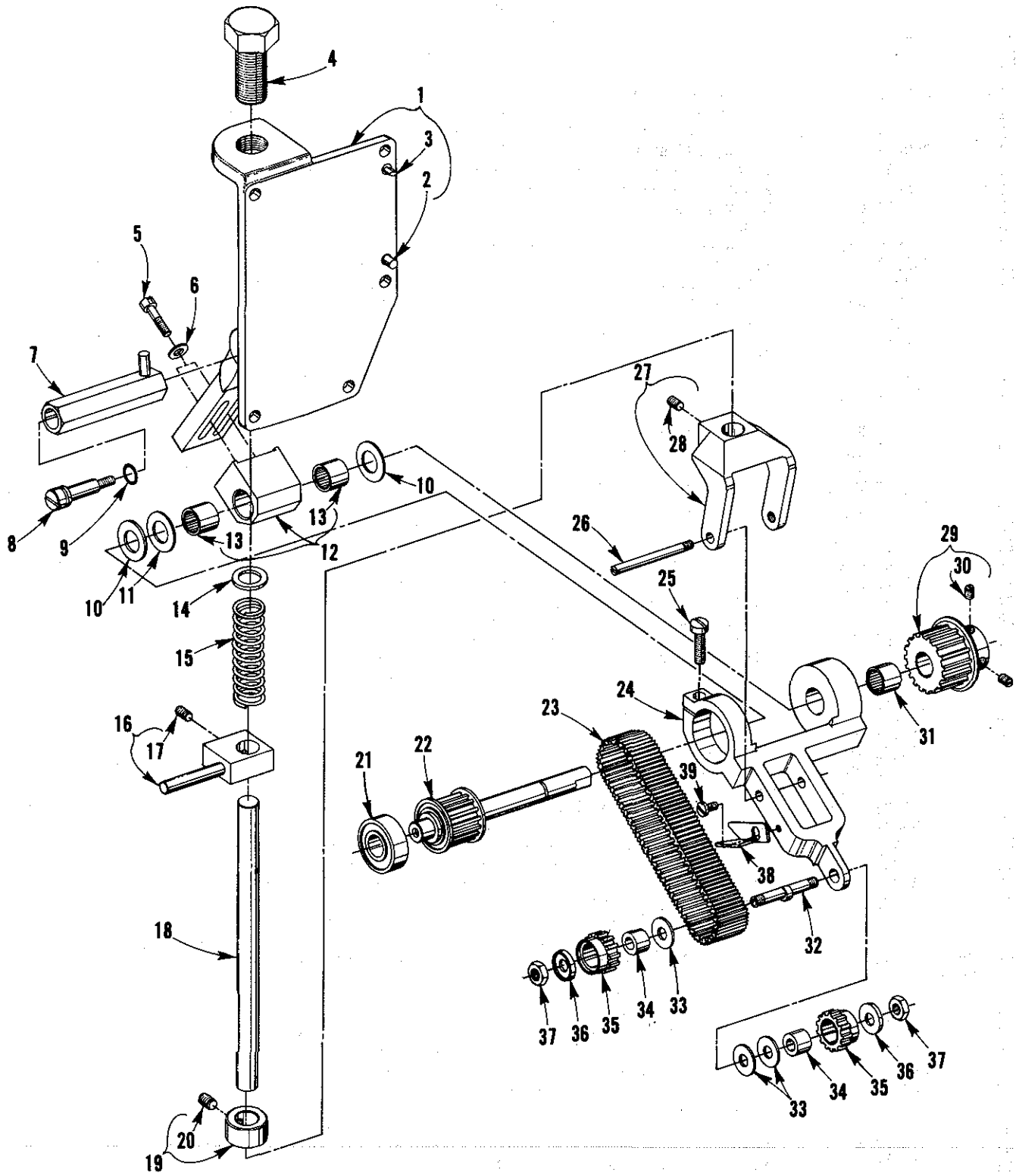
<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	C50078 F	Bracket, mounting -----	1
2	667 C-8	Pin, dowel -----	1
3	51-716 BLK	Pin, locating -----	1
4	C50077 D	Screw, adjusting -----	1
5	88 F	Screw -----	2
6	8372 A	Washer -----	2
7	C50077 C	Sleeve, stop -----	1
8	C50077 B	Stud, screw -----	1
9	660-220	"0" Ring -----	1
10	C50077 J	Washer -----	2
11	C50078 S	Block, mounting -----	1
12	660-892 A	Bearing, needle -----	2
13	94	Screw -----	4
14	C50078 V	Guard, feed roller -----	1
15	94	Screw -----	2
16	21375 BW	Guard, belt -----	1
17	C50042 Z-18	Sprocket, puller driven (see sprocket chart for stitch length combinations) -----	1
18	22560 B	Screw -----	2
19	660-887	Bearing, ball -----	1
20	C50042 AE	Belt, timing -----	1
21	C50022 K	Shaft, drive -----	1
22	C50078 E	Yoke, feed roller -----	1
23	22894 E	Screw -----	2
24	136	Screw -----	1
25	660-892 B	Bearing, needle -----	1
26	51242 L	Washer -----	1
27	28633 L	Spring -----	1
28	C50077 H	Collar, puller lifting -----	1
29	22894 AM	Screw -----	1
30	C50078 T	Block, thrust -----	1
31	39656 A	Knife, chain cutting -----	1
32	604	Screw -----	1
33	C50077 K	Washer -----	2
34	C50022 N	Shaft, upper roller -----	1
35	C50042 AL	Sprocket, drive -----	1
36	660-892 A	Bearing, needle -----	2
37	660-219 L	Pin, roll -----	1
38	C50075 B	Roller, upper (Smooth Polyurethane) -----	1
39	C50077	Shaft, puller lifter -----	1
40	660-416	Ring, retaining -----	2
41	C50036 AJ	Pin, roller lifter -----	1
*42	C50036 R	Collar, stop -----	1
*43	98	Screw, set (required to replace screw in Ref. No. 42) -----	1

Ref. Nos. 1 thru 43 to be ordered under Assembly No. 29476-PH with Smooth Polyurethane Roller and 29476 PW with Bakelite Saw Tooth Roller.

44	AS22 D	Screw -----	1
45	C50078 R	Plate, feed -----	1
46	22526	Screw -----	4
47	C50078 U	Block, bearing -----	2
48	22894 W	Screw -----	2
49	C50074	Shaft -----	1
50	660-330	Ring, retaining -----	2
51	6042 A	Washer -----	3
52	C50076	Roller, lower (Smooth Polyurethane) -----	1
-	50375 C	Roller, lower (Steel Diamond Knurled) -----	1
-	50375 D	Roller, lower (Bakelite Saw Tooth) -----	1
53	C50078 AF-15	Shim -----	1
-	C50078 AF-10	Shim -----	1

Ref Nos. 44 thru 52 can be ordered under Assembly No. 29476-PJ with Smooth Polyurethane Roller and 29476 PV with Bakelite Saw Tooth Roller.

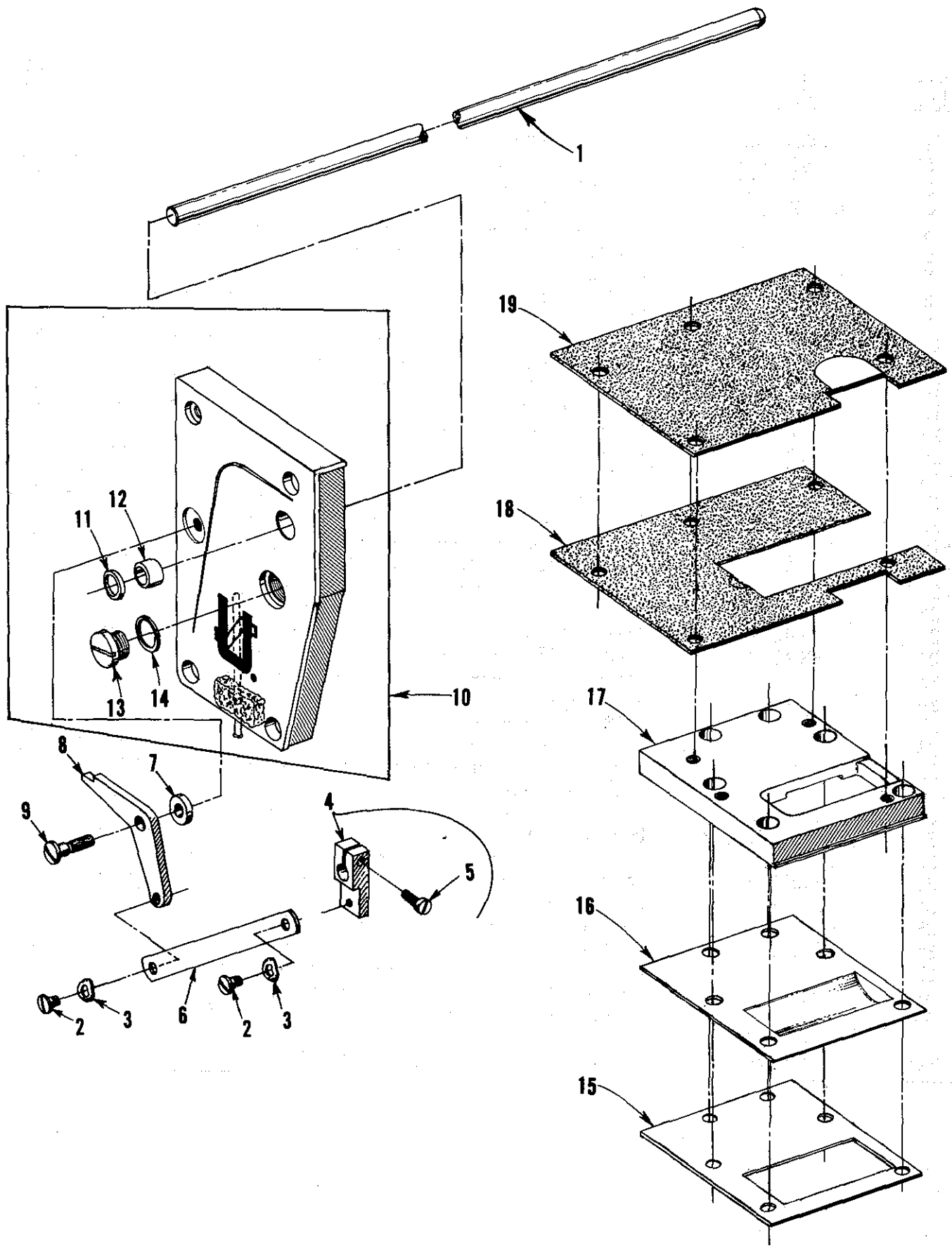
-	50375 A	Roller, upper (Steel Diamond Knurled) -----	1
-	50375 B	Roller, upper (Bakelite Saw Tooth) -----	1
-	50375	Roller, upper (Steel Saw Tooth) -----	1



BELT PULLER

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	C50078 AE	Bracket, mounting -----	1
2	667 C-8	Pin, dowel -----	1
3	51-716 BLK	Pin, locating -----	1
4	C50077 D	Screw, adjusting -----	1
5	88 F	Screw -----	2
6	8372 A	Washer -----	2
7	C50077 C	Sleeve, stop -----	1
8	C50077 B	Stud, screw -----	1
9	660-220	"O" Ring -----	1
10	C50077 M	Washer -----	2
11	C50077 J	Washer -----	1
12	C50078 AC	Plate, binder -----	1
13	660-892 A	Bearing, needle -----	2
14	51242 L	Washer -----	1
15	28633 L	Spring -----	1
16	C50077 H	Collar, lifting -----	1
17	22894 AM	Screw -----	1
18	C50078 Y	Rod, lifter -----	1
*19	C50036 R	Collar, stop -----	1
*20	98	Screw, set (required to replace screw in Ref No. 19)	1
21	660-887	Bearing, ball -----	1
22	C50078 AB	Shaft, drive -----	1
23	C50042 AK	Belt, timing -----	1
24	C50078 W	Yoke, roller -----	1
25	136	Screw -----	1
26	22570 E	Screw -----	1
27	C50078 AA	Lifter -----	1
28	22894 R	Screw -----	1
29	C50042 Z-16	Sprocket, puller driven (see sprocket chart for stitch length combinations) -----	1
30	22560 B	Screw -----	2
31	660-892 B	Bearing -----	1
32	C50078 X	Shaft -----	1
33	C50077 N	Washer -----	3
34	C50037 D	Ferrule -----	2
35	C50042 AJ-12	Sprocket -----	2
36	C50063 Y	Washer -----	2
37	18	Nut -----	2
38	52930 AC	Knife, chain cutting -----	1
39	604	Screw -----	1

#Ref No. 1 thru 39 can be ordered under Assembly No. 29476 PL.





COVERS AND PULLER LIFTER PARTS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	50322 F	Shaft, presser foot lift (upper) -----	1
2	22758	Screw -----	2
3	660-718	Washer, spring -----	2
4	C50077 E	Lever, lifter -----	1
5	93	Screw -----	1
6	C50077 F	Link, connecting -----	1
7	C50078 AD	Spacer -----	1
8	C50077 G	Lever, lifter roller -----	1
9	22557 J	Screw, shoulder -----	1
10	50382 BM	Cover, head -----	1
11	660-739	Seal, oil -----	1
12	660-896	Bushing -----	1
13	22883 B	Screw, plug -----	1
14	C50082 AA	Gasket -----	1
15	50382 U	Gasket, for Roller Puller (only) -----	1
16	37-70 BLK	Trough, blank, for Roller Puller (only) -----	1
17	50382 V	Cover, feed chamber, for Roller Puller (only) -----	1
18	50301 P	Plate, cloth (left) for Styles LF611K101MF and HF611K101MF -----	1
-	50301 Z	Plate, cloth (left) for Style HF612K101MR-48 -----	1
-	50301 AD	Plate, cloth (left) for Style HF612K101MBE-16 -----	1
-	50301 AE	Plate, cloth (left) for Styles LF613K101HR-8 and 101HR-9 -----	1
19	50301 D	Plate, cloth (left) for Styles LF611K118MF and HF611K118MF -----	1
-	50301 T	Plate, cloth (left) for Styles LF611K152MF and HF611K152MF -----	1

**PULLER SPROCKETS COMBINATIONS**

This chart shows the stitch length produced by available sprocket combinations. Sprockets furnished in the machines produces approximately 9.2 S.P.I. If a different length is required, refer to the chart for appropriate dash number when ordering sprockets-C50042-Z-( ).

**Roller Puller Sprocket Variations**

		NUMBER OF STITCHES PER INCH								
<b>DRIVEN SPROCKET PART NUMBER</b>	- 18	14.69 SPI (1.73mm)	13.37 SPI (1.90mm)	12.25 SPI (2.07mm)	11.30 SPI (2.25mm)	10.50 SPI (2.42mm)	9.80 SPI (2.59mm)	9.18 SPI (2.77mm)	8.65 SPI (2.94mm)	
	- 17	13.87 SPI (1.83mm)	12.62 SPI (2.01mm)	11.56 SPI (2.20mm)	10.67 SPI (2.38mm)	9.91 SPI (2.56mm)	9.25 SPI (2.75mm)	8.67 SPI (2.93mm)	8.16 SPI (3.11mm)	7.71 SPI (3.30mm)
	- 16	13.06 SPI (1.94mm)	11.88 SPI (2.13mm)	10.89 SPI (2.53mm)	10.05 SPI (2.53mm)	9.34 SPI (2.72mm)	8.71 SPI (2.92mm)	8.16 SPI (3.11mm)	7.69 SPI (3.30mm)	7.26 SPI (3.50mm)
	- 15		11.14 SPI (2.28mm)	10.21 SPI (2.49mm)	9.42 SPI (2.70mm)	8.75 SPI (2.90mm)	8.16 SPI (3.11mm)	7.65 SPI (3.32mm)	7.21 SPI (3.52mm)	6.80 SPI (3.73mm)
	- 14			9.52 SPI (2.67mm)	8.76 SPI (2.89mm)	8.16 SPI (3.11mm)	7.62 SPI (3.33mm)	7.14 SPI (3.56mm)	6.72 SPI (3.78mm)	6.35 SPI (4.00mm)
	- 13				8.16 SPI (3.11mm)	7.59 SPI (3.35 mm)	7.08 SPI (3.59mm)	6.63 SPI (3.83mm)	6.25 SPI (4.07mm)	5.90 SPI (4.31mm)
	- 12					7.00 SPI (3.63mm)	6.53 SPI (3.89mm)	6.12 SPI (4.15mm)	5.76 SPI (4.41mm)	5.44 SPI (4.67mm)
	- 11						5.98 SPI (4.24mm)	5.61 SPI (4.53mm)	5.28 SPI (4.81mm)	4.99 SPI (5.09mm)
	- 10							5.10 SPI (4.98mm)	4.81 SPI (5.28mm)	4.54 SPI (5.60mm)
		- 10	- 11	- 12	- 13	- 14	- 15	- 16	- 17	- 18
		<b>DRIVE SPROCKET PART NUMBER</b>								

**PULLER SPROCKETS COMBINATIONS**

This chart shows the stitch length produced by available sprocket combinations. Sprockets furnished in the machines produces approximately 9.2 S.P.I. If a different length is required, refer to the chart for appropriate dash number when ordering sprockets-C50042-Z-( ).

**Belt Puller Sprocket Variations**

		NUMBER OF STITCHES PER INCH								
<b>DRIVEN SPROCKET PART NUMBER</b>	-18	13.10 SPI (1.94mm)	11.92 SPI (2.13mm)	10.92 SPI (2.33mm)	10.08 SPI (2.52mm)	9.37 SPI (2.71mm)	8.74 SPI (2.91mm)	8.19 SPI (3.10mm)	7.71 SPI (3.29mm)	
	-17	12.37 SPI (2.05mm)	11.26 SPI (2.26mm)	10.31 SPI (2.46mm)	9.52 SPI (2.67mm)	8.84 SPI (2.87mm)	8.25 SPI (3.08mm)	7.73 SPI (3.28mm)	7.28 SPI (3.49mm)	6.88 SPI (3.69mm)
	-16	11.65 SPI (2.18mm)	10.60 SPI (2.40mm)	9.71 SPI (2.62mm)	8.96 SPI (2.83mm)	8.33 SPI (3.05mm)	7.77 SPI (3.27mm)	7.28 SPI (3.49mm)	6.86 SPI (3.70mm)	6.48 SPI (3.92mm)
	-15		9.94 SPI (2.56mm)	9.10 SPI (2.79mm)	8.40 SPI (3.02mm)	7.81 SPI (3.25mm)	7.28 SPI (3.49mm)	6.83 SPI (3.72mm)	6.43 SPI (3.95mm)	6.07 SPI (4.19mm)
	-14			8.49 SPI (2.99mm)	7.84 SPI (3.24mm)	7.28 SPI (3.49mm)	6.79 SPI (3.74mm)	6.37 SPI (3.99mm)	6.00 SPI (4.24mm)	5.66 SPI (4.49mm)
	-13				7.28 SPI (3.49mm)	6.77 SPI (3.75 mm)	6.31 SPI (4.02mm)	5.92 SPI (4.29mm)	5.57 SPI (4.56mm)	5.26 SPI (4.83mm)
	-12					6.24 SPI (4.07mm)	5.83 SPI (4.30mm)	5.46 SPI (4.65mm)	5.14 SPI (4.94mm)	4.86 SPI (5.23mm)
	-11						5.34 SPI (4.76mm)	5.00 SPI (5.08mm)	4.71 SPI (5.39mm)	4.45 SPI (5.71mm)
	-10							4.55 SPI (5.58mm)	4.29 SPI (5.92mm)	4.05 SPI (6.27mm)
			-10	-11	-12	-13	-14	-15	-16	-17
		<b>DRIVE SPROCKET PART NUMBER</b>								

