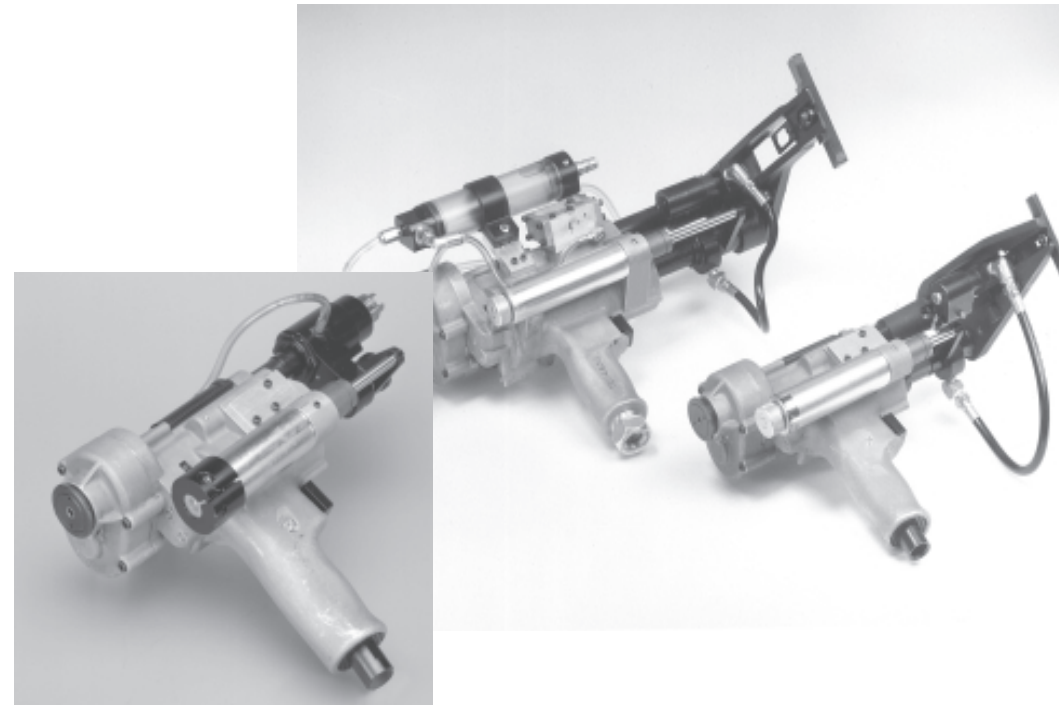


# AEROSPACE

## ULTRALITE™ DRILLING MACHINES

### Model 1000II



#### Standard Features

- ergonomic design
- consistent clamp force—min to max collet spacing
  - choice of template foot, concentric collet, Keller foot or taper lock
- 7 spindle speed selections
  - fully adjustable feed rate
- positive mechanical depth stop
  - spindle rotation during retract
- locking trigger for unattended operation
  - precision spindle bearings

#### Optional Features

- air pressure intensifier for increased thrust and clamp force
- drill point and thru spindle coolant systems
- spindles compatible to various cutter designs
  - variable clamp force control unit

#### Specifications

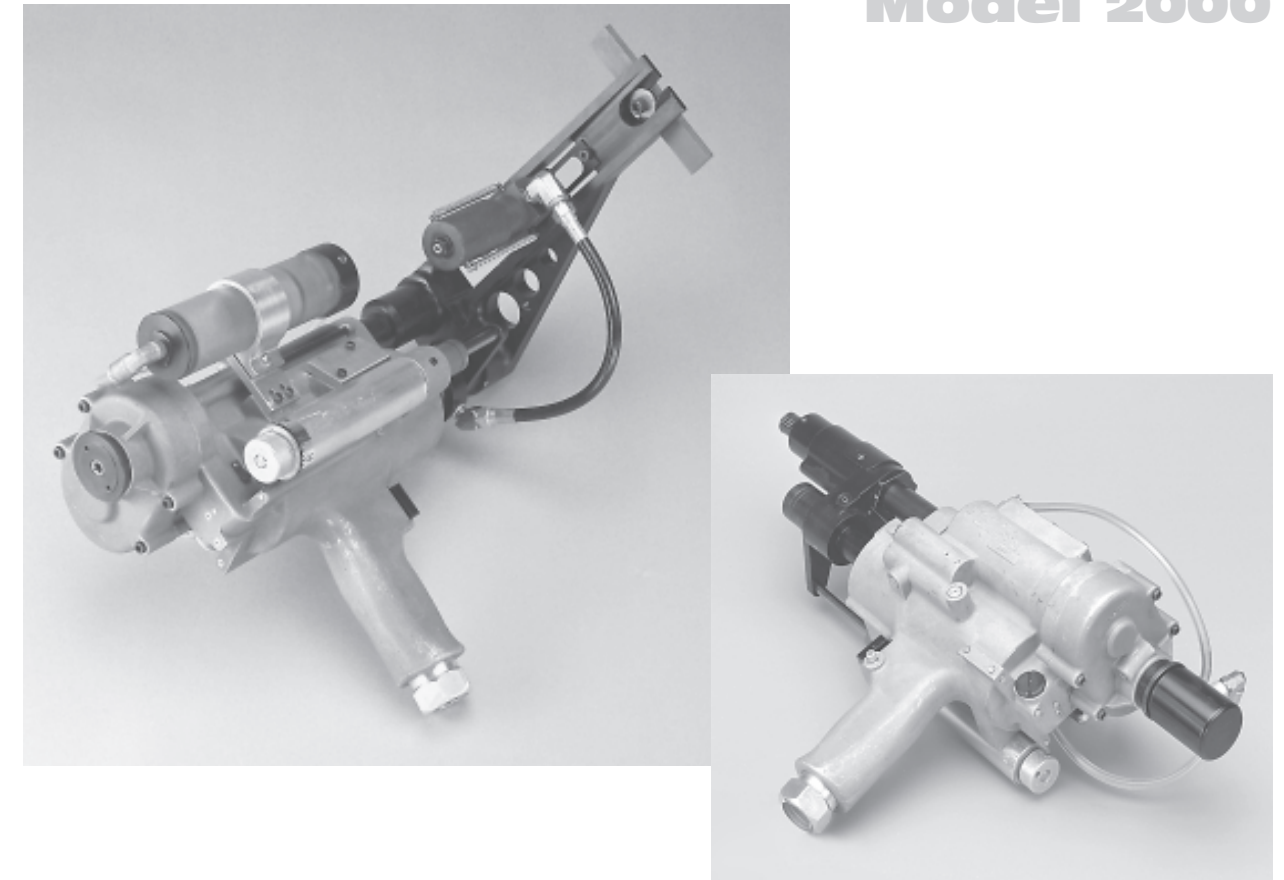
DRILL STROKE	SPINDLE SPEEDS	DRILL/C/SINK SIZE	DRILL THRUST/CLAMP FORCE	MOTOR POWER	AIR CONSUMPTION	DEPTH ACCURACY	COLLET STROKE	WEIGHT
1.180 in. 30mm	300 450 2500 4500 6000 9000 12500	.375/.750in.* 9.5/19.1 mm*	210 lbs/540lbs 95 kg/245 kg	1.5 HP 1.1 kw	45 CFM at 90 PSI (3/8" I.D. Hose) 1.27m³/min at 620 kPa	+0.000 -0.001 in. +0.00 -0.25 mm	.625 in. 12.5mm	10.7 lbs 4.9 kg
		.375/.625** 9.5/15.9 mm**						
		*with concentric collet **with template foot						

Hi-Shear Corporation . 2600 Skypark Drive . Torrance, CA 90509 USA . tel 310.326.8110 . Tool Div. fax 310.784.4270

# AEROSPACE

## ULTRALITE™ DRILLING MACHINES

### Model 2000



#### Standard Features

- ergonomic design
- consistent clamp force—min to max collet spacing
  - choice of template foot, concentric collet, Keller foot or taper lock
- 10 spindle speed selections
  - fully adjustable feed rate
- positive mechanical depth stop
  - spindle rotation during retract
- locking trigger for unattended operation
  - precision spindle bearings

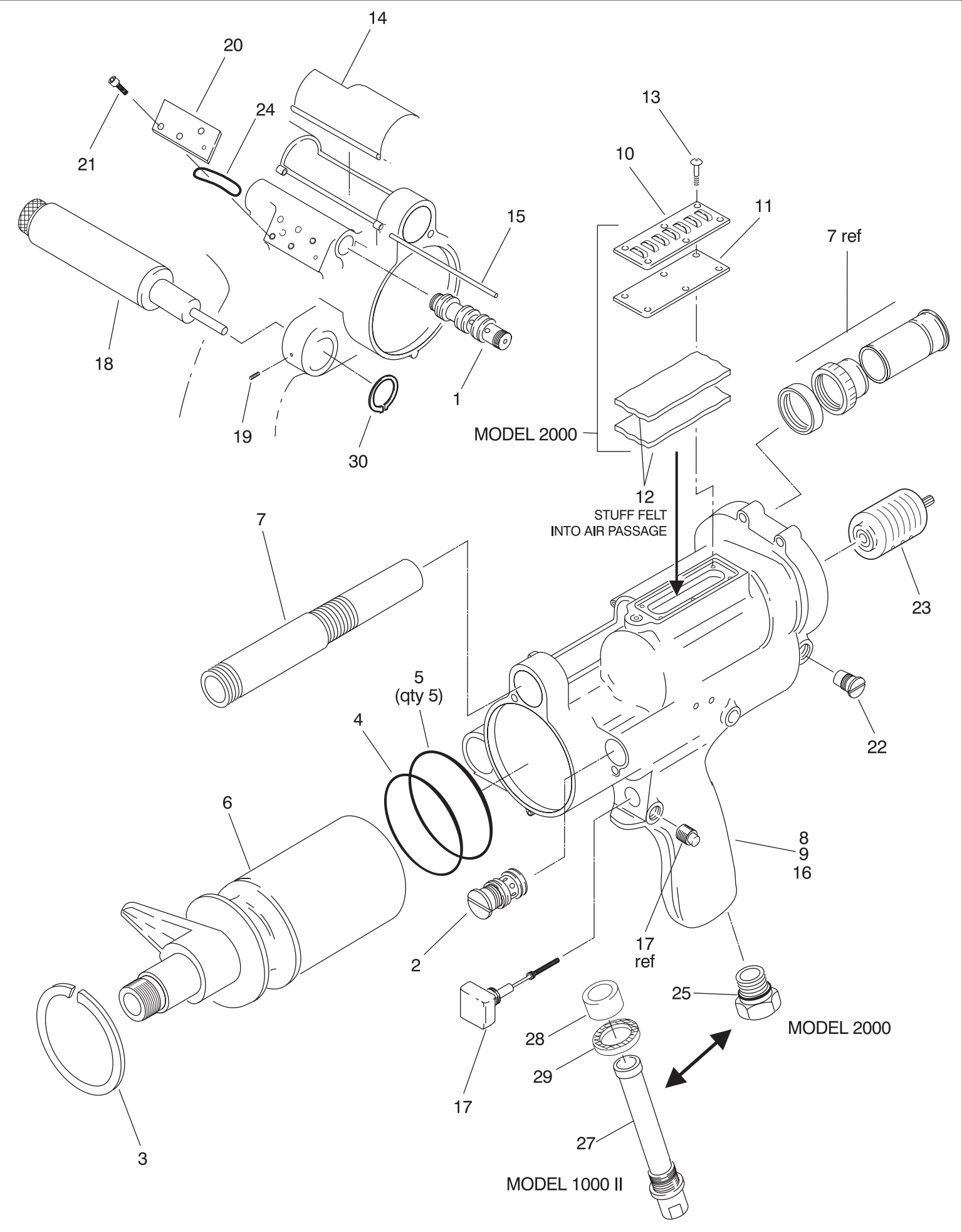
#### Optional Features

- air pressure intensifier for increased thrust and clamp force
- drill point and thru spindle coolant systems
- spindles compatible to various cutter designs
  - variable clamp force control unit

#### Specifications

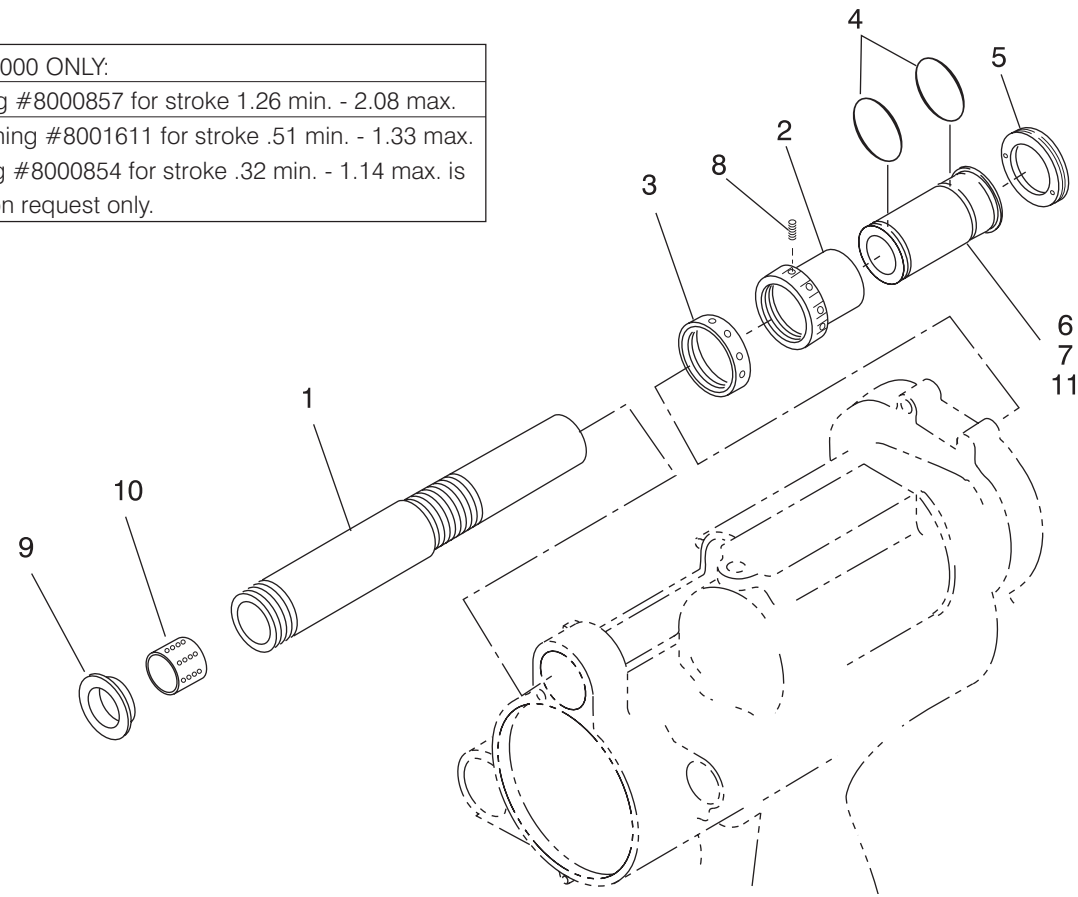
DRILL STROKE	SPINDLE SPEEDS	DRILL/C/SINK SIZE	DRILL THRUST/CLAMP FORCE	MOTOR POWER	AIR CONSUMPTION	DEPTH ACCURACY	COLLET STROKE	WEIGHT
2.08 in. 53mm	450 800 1250 1600 2000 2500 3500 4500 6000 9000	.500/.750 in. 12.7/19 mm	270 lbs/700lbs 95 kg/245 kg	2.5 HP 1.86 kw	60 CFM at 90 PSI (3/8" I.D. Hose) 1.70m³/min at 620 kPa	+0.000 -0.001 in. +0.00 -0.25 mm	.780 in. 19.8mm	16.5 lbs 3.8 kg

BASIC HOUSING ASSY.			MODEL 2000		MODEL1000II			
			8001566	8001505	8000722	8001785	8000910	8001714
ITEM	PART NUMBER	DESCRIPTION	QTY	QTY	QTY	QTY	QTY	QTY
1	544528	Retract valve group	1	1	1	1	1	1
2	8000746	Main air valve assy.	1	1	1	1	1	1
3	16030	Ring, retaining (5000-250)	1	1	-	-	-	-
3	8001018	Ring, retaining (5000-200)	-	-	1	1	1	1
4	3090	Seal, O-ring (2-035)	1	1	-	-	-	-
5	10070	Seal, O-ring (2-037)	5	5	-	-	-	-
5	6537	Seal, O-ring (2-033)	-	-	4	4	4	4
6	8001618	Clamp and feed group	1	-	-	-	-	-
6	8000860	Clamp and feed group	-	1	-	-	-	-
6	8000724	Clamp and feed group	-	-	1	-	-	-
6	8001797	Clamp and feed group	-	-	-	1	-	-
6	8000911	Clamp and feed group	-	-	-	-	1	1
7	8001567	Spindle sleeve and depth stop	1	-	-	-	-	-
7	8001506	Spindle sleeve and depth stop	-	1	-	-	-	-
7	8000755	Spindle sleeve and depth stop	-	-	1	-	1	-
7	8001784	Spindle sleeve and depth stop	-	-	-	1	-	-
7	8001715	Spindle sleeve and depth stop	-	-	-	-	-	1
8	8000741	Housing sub-assy.	-	-	1	1	1	1
9	8001399	Housing sub-assy.	1	1	-	-	-	-
10	8000877	. Cover	1	1	-	-	-	-
11	8000878	. Muffler, bronze	1	1	-	-	-	-
12	8000976	. Muffler, felt	2	2	-	-	-	-
13	6352	. Screw (6-32 x 1/4)	6	6	-	-	-	-
14	8000874	. Cover, depth stop	1	1	-	-	-	-
14	8000744	. Cover, depth stop	-	-	1	1	1	1
15	8000875	. Pin, hinge, cover	1	1	-	-	-	-
15	8000745	. Pin, hinge, cover	-	-	1	1	1	1
16	8000876	. Housing, machined	1	1	-	-	-	-
16	8000742	. Housing, machined	-	-	1	1	1	1
17	8000764	Trigger valve assy.	1	1	1	1	1	1
18	8000879	Kinechek - 2 1/4 stroke	1	1	-	-	-	-
18	8000367	Kinechek, modified	-	-	1	1	1	1
19	8000462	Screw, set, nylon (10-32 x 1/4)	1	1	1	1	1	1
20	8000768	Plate, by-pass (booster pump)	1	1	1	1	1	1
21	16161	Screw, cap, socket head (6-32 x 1/16)	3	3	3	3	3	3
22	8000748	Feed valve assy.	1	1	1	1	1	1
23	8000819	Air motor group	1	1	-	-	-	-
23	8000750	Air motor group	-	-	1	1	1	1
24	10063	Seal, O-ring (2-023)	1	1	1	1	1	1
25	1257882	Main air inlet group	1	1	-	-	-	-
27	8000767	Adaptor	-	-	1	1	1	1
28	16926	Ring, muffler	-	-	2	2	2	2
29	17343	Exhaust deflector	-	-	1	1	1	1
30	16603	Ring, retaining (5100-81)	-	-	1	1	1	1



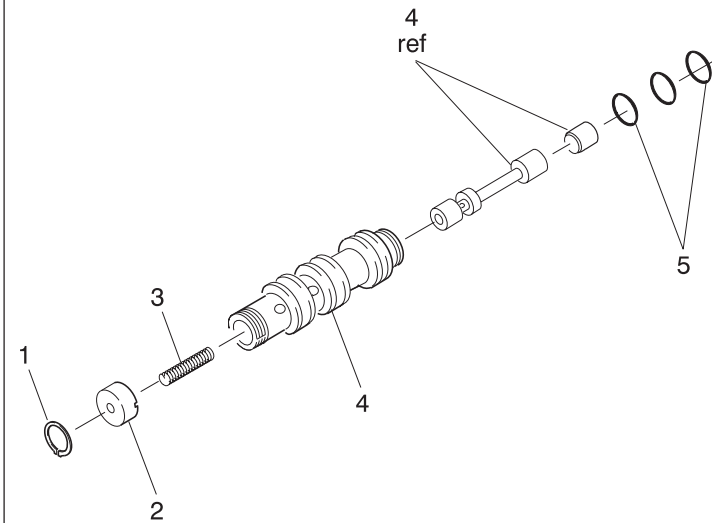
BASIC HOUSING ASSY- MODEL 1000II/2000

FOR MODEL 2000 ONLY:  
 \* Short bushing #8000857 for stroke 1.26 min. - 2.08 max.  
 \*\* Medium bushing #8001611 for stroke .51 min. - 1.33 max.  
 Long bushing #8000854 for stroke .32 min. - 1.14 max. is available upon request only.



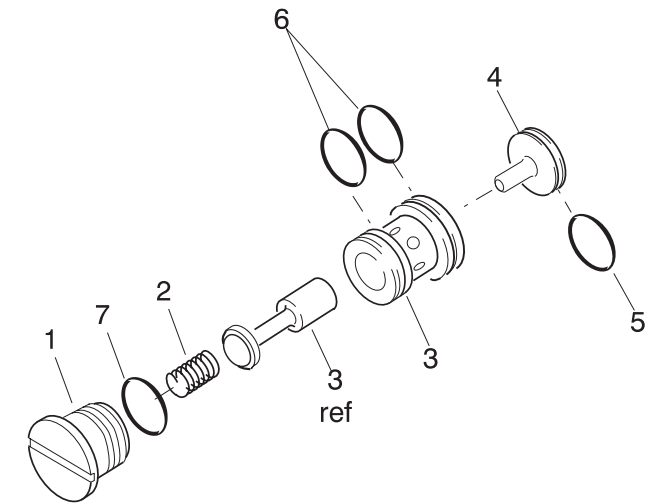
**SPINDLE SLEEVE & DEPTH STOP ASSEMBLY**

ITEM	PART NUMBER	DESCRIPTION	MODEL 2000		MODEL 1000II		
			8001567	8001506	8000755	8001715	8001784
1	8001568	Spindle sleeve assy.	1	-	-	-	-
1	8001507	Spindle sleeve assy.	-	1	-	-	-
1	8000759	Spindle sleeve	-	-	1	-	-
1	8001716	Spindle sleeve assy.	-	-	-	1	1
2	8001609	Depth stop	1	-	-	-	-
2	8000852	Depth stop	-	1	-	-	-
2	8000762	Depth stop	-	-	1	1	1
3	8001610	Jam nut	1	1	-	-	-
3	8001324	Jam nut	-	-	-	1	-
4	6888	Seal, O-ring (2-020)	2	2	-	-	-
4	2225	Seal, O-ring (2-019)	-	-	2	2	2
5	8000853	Nut, retainer	1	1	-	-	-
5	8000761	Nut, retainer	-	-	1	1	1
6	8000857	Bushing, short*	1	1	-	-	-
7	8001611	Bushing, medium**	1	1	-	-	-
8	1285701	Set screw	-	3	3	-	3
9	8000760	Retainer, wiper	-	-	1	-	-
10	8000763	Ball cage	-	-	1	-	-
11	8000756	Bushing assy., depth stop	-	-	1	1	1



**RETRACT VALVE MODEL 2000/1000II 5445528**

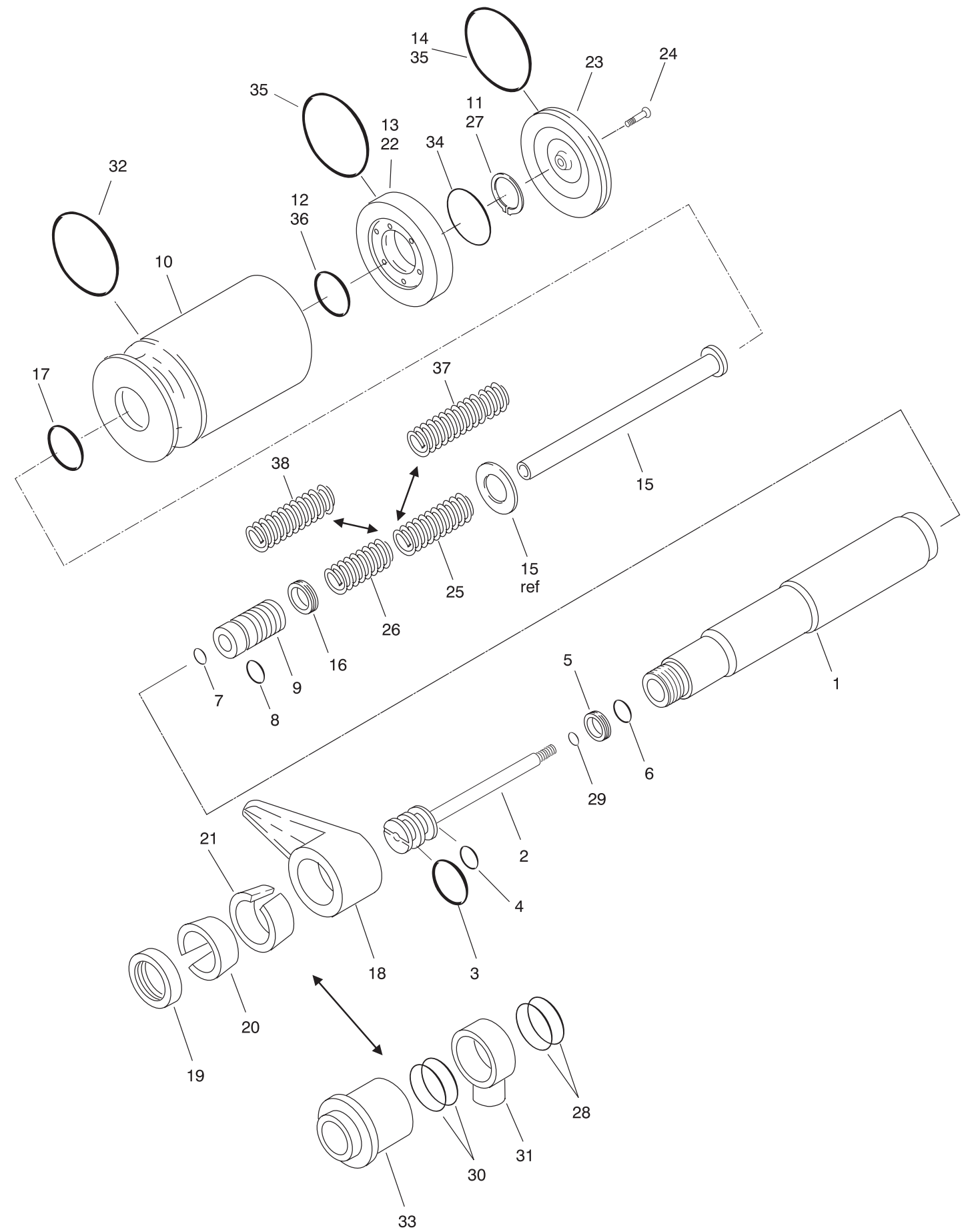
ITEM	PART NUMBER	DESCRIPTION	QTY
1	9532	Ring, retaining	1
2	1075615	Retainer, retract valve	1
3	1175530	Spring	1
4	1067460	Retract valve assembly (set consists of items 5 - 7)	1
5	1067473	. Sleeve (part of item 4)	1
6	1067485	. Spool (part of item 4)	1
7	1067497	. Piston (part of item 4)	1
8	491	O-ring	3

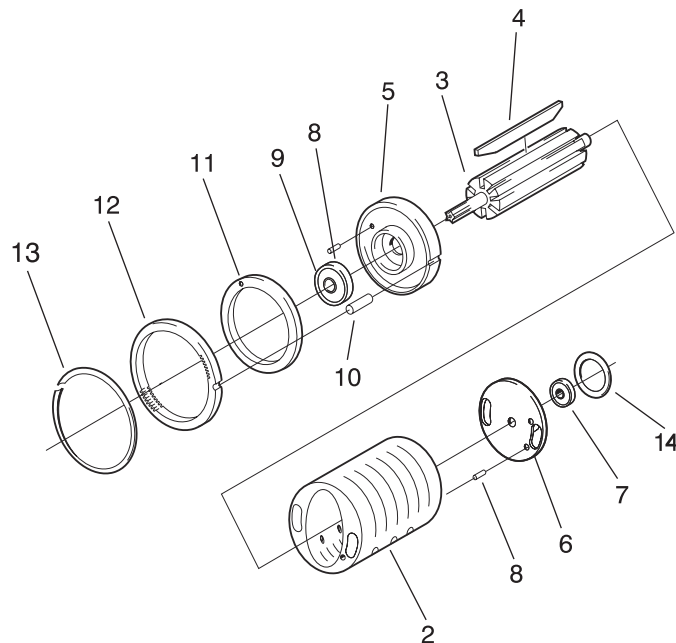
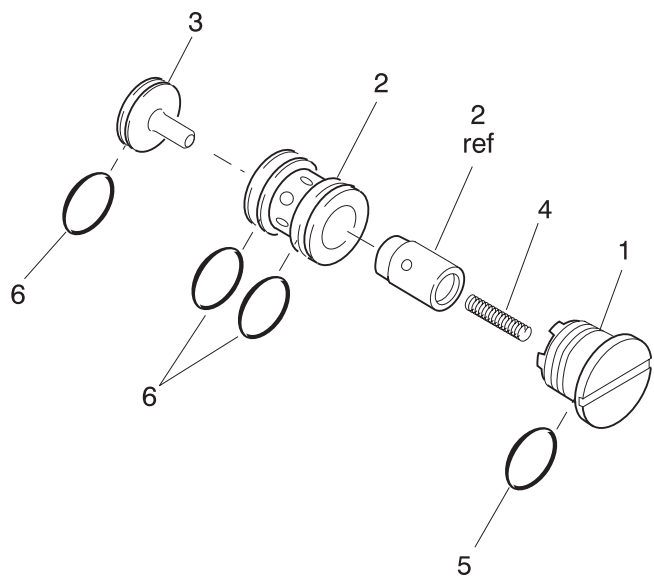


**MAIN AIR VALVE M. 2000/1000II 8000746**

ITEM	PART NUMBER	DESCRIPTION	QTY
1	8000747	Retainer	1
2	5447355	Spring, compression	1
3	5447203	Valve, sub-assy.	1
4	5447112	Pilot piston	1
5	2266	Seal, O-ring (2-013)	1
6	922	Seal, O-ring (2-112)	2
7	8001000	Seal, O-ring (2-015)	1

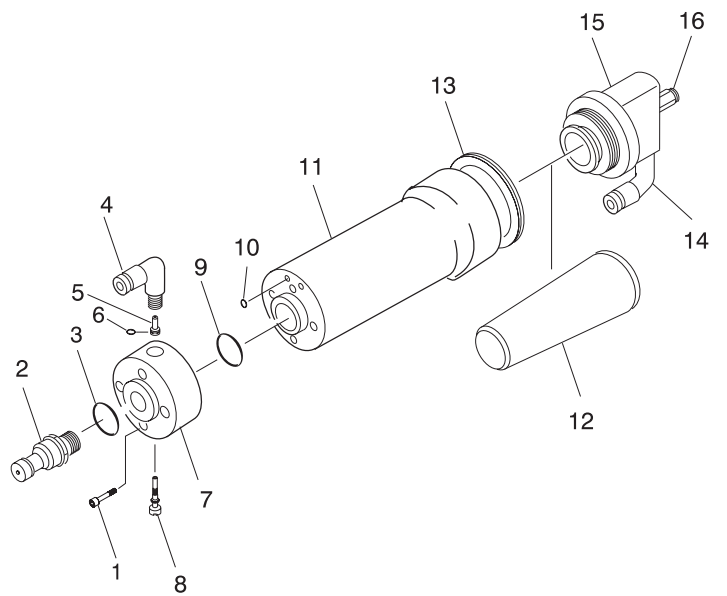
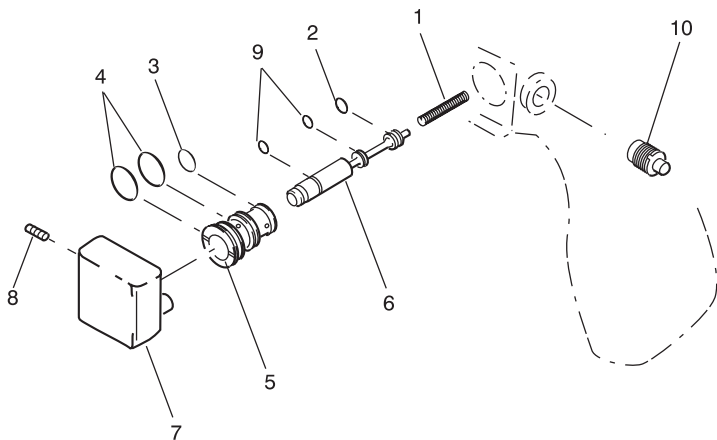
CLAMP & FEED GROUP			MODEL 2000		MODEL 1000II		
			8000860	8001618	8001797	8000911	8000724
ITEM	PART NUMBER	DESCRIPTION	QTY	QTY	QTY	QTY	QTY
1	8000863	Rod, piston	1	-	-	-	-
1	8001636	Rod, piston	-	1	-	-	-
1	8001796	Rod, piston	-	-	1	-	-
1	8000912	Rod, piston	-	-	-	1	-
1	8000725	Rod, piston	-	-	-	-	1
2	8000226	Piston	1	1	-	-	-
2	8001775	Piston	-	-	1	-	1
2	8000738	Piston	-	-	-	1	-
3	1259	Seal, O-ring (2-110)	1	1	-	-	-
4	16529	Bal-Seal	1	1	-	-	-
5	8000227	Nut	1	1	-	-	-
5	8000737	Nut	-	-	1	1	1
6	8000125	Bal-Seal	1	1	-	1	1
6	8000733	Bal-Seal	-	-	1	1	1
7	16526	Seal, O-ring (2-108)	1	1	1	-	1
8	2266	Seal, O-ring (2-013)	1	1	-	1	1
9	8000241	Bushing, threaded	1	1	-	-	-
9	8000739	Bushing, threaded	-	-	-	1	1
10	8000864	Bulkhead assy.	1	1	-	-	-
10	8000736	Bulkhead assy.	-	-	1	1	1
11	8893	Snap ring (5100-93)	1	1	-	-	-
12	1269	Seal, O-ring (2-021)	1	1	-	-	-
13	8000939	Piston, feed assy.	1	1	-	-	-
14	10096	Seal, O-ring (2-227)	1	1	-	-	-
15	8000869	Draw rod assy.	1	1	-	-	-
15	8000730	Draw rod	-	-	1	-	-
15	8000913	Draw rod	-	-	-	1	1
16	8000277	Nut, jam	1	1	-	1	-
17	1653	Seal, O-ring (2-214)	1	1	1	1	1
18	8001619	Bracket, feed control	-	1	-	-	-
18	8000868	Bracket, feed control	1	-	-	-	-
18	8000729	Bracket, feed control	-	-	1	1	1
18	8000914	Bracket, feed control	-	-	-	1	-
19	8000867	Nut, foot piston	1	1	-	1	-
19	8000728	Nut, foot piston	-	-	1	1	-
20	8001637	Cone, expanding - outer	-	1	-	-	1
21	5450895	Cone, expanding - inner	-	1	-	-	-
22	8000734	Piston, feed cylinder	-	-	1	1	1
23	7000429	Piston, draw rod	-	-	1	1	1
24	16335	Screw, button head (10-32 x 1/2)	-	-	1	1	1
25	8001798	Spring (3.5 long)	-	-	1	-	-
26	8001799	Spring (3.0 long)	-	-	1	-	-
27	10003	Retaining ring (5100-87)	-	-	1	1	1
28	2786	Seal, O-ring (2-018)	-	-	1	-	-
29	1786	Seal, O-ring (2-010)	-	-	2	-	-
30	8000740	Par-Bak (8-018)	-	-	2	-	-
31	8000726	Swivel	-	-	1	-	-
32	8001016	Seal, O-ring (2-031)	-	-	1	1	1
33	8000727	Bushing, piston rod	-	-	1	-	1
34	10082	Seal, O-ring (2-126)	-	-	1	1	1
35	8001017	Seal, O-ring (2-223)	-	-	2	2	2
36	6888	Seal, O-ring (2-020)	-	-	1	1	1
37	8000732	Spring, die	-	-	-	1	1
38	8000731	Spring, die	-	-	-	-	1





MODEL 2000				FEED VALVE ASSEMBLY				8000748				AIR MOTOR				8000750		8000819	
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ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	1000II	2000
1	8000749	Retainer	1	1	8000751	Air motor assy.	1	-
2	5447215	Valve sub-assembly	1	1	8000820	Air motor assy.	-	1
3	5447161	Pilot piston	1	2	8000823	. Cyinder, air-motor	-	1
4	1184520	Spring, compression	1	2	8000201	. Cyinder, air-motor	1	-
5	548	Seal, O-ring (2-111)	1	3	8000822	. Rotor	-	1
6	491	Seal, O-ring (2-012)	3	3	8000753	. Rotor	1	-
				4	8000821	. Blade	-	8
				4	8000202	. Blade	8	-
				5	8000754	. Plate, end, front	1	1
				6	8000825	. Plate, end, rear	-	1
				6	8000204	. Plate, end rear	1	-
				7	777	. Bearing,ball	1	1
				8	718	. Pin, roll	2	2
				9	1161325	. Bearing, ball	1	1
				10	16178	Pin, dowel (1/8 dia. x 1/4 lg.)	1	1
				11	1180022	Bearing, ball	1	1
				12	1074957	Gear, ring, planetary	1	1
				13	8001032	Ring, retaining (UR 187)	1	1
				14	8000752	Seal, O-ring (2-208)	1	1
				15	16179	Pin, dowel (1/8 dia. x 3/8 lg.)	1	1



**MODEL 2000/1000II TRIGGER VALVE ASSEMBLY**

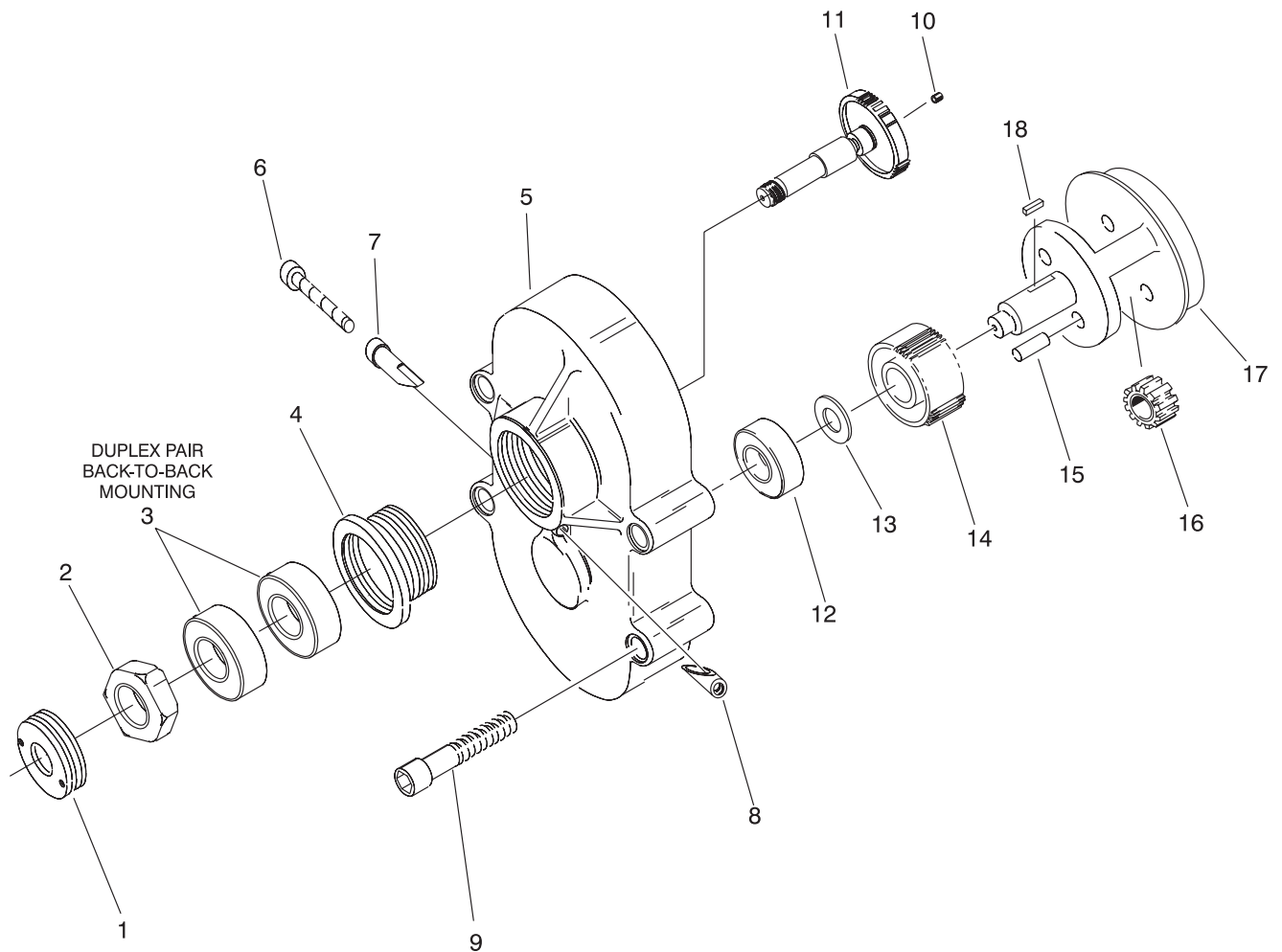
**8000764**

**MODEL 2000**

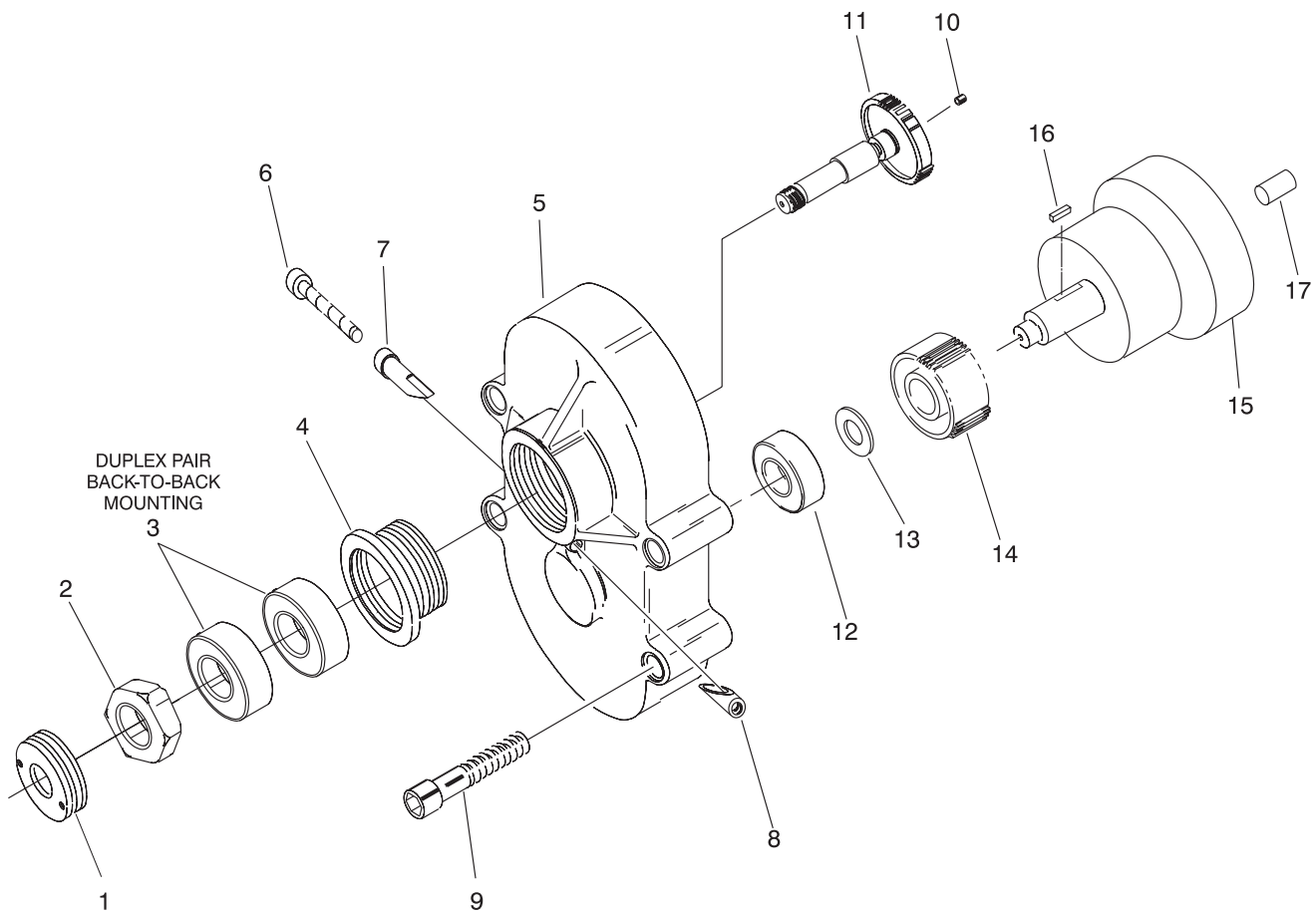
**LUX EMITTER AUTO SHUT-OFF**

**8001767**

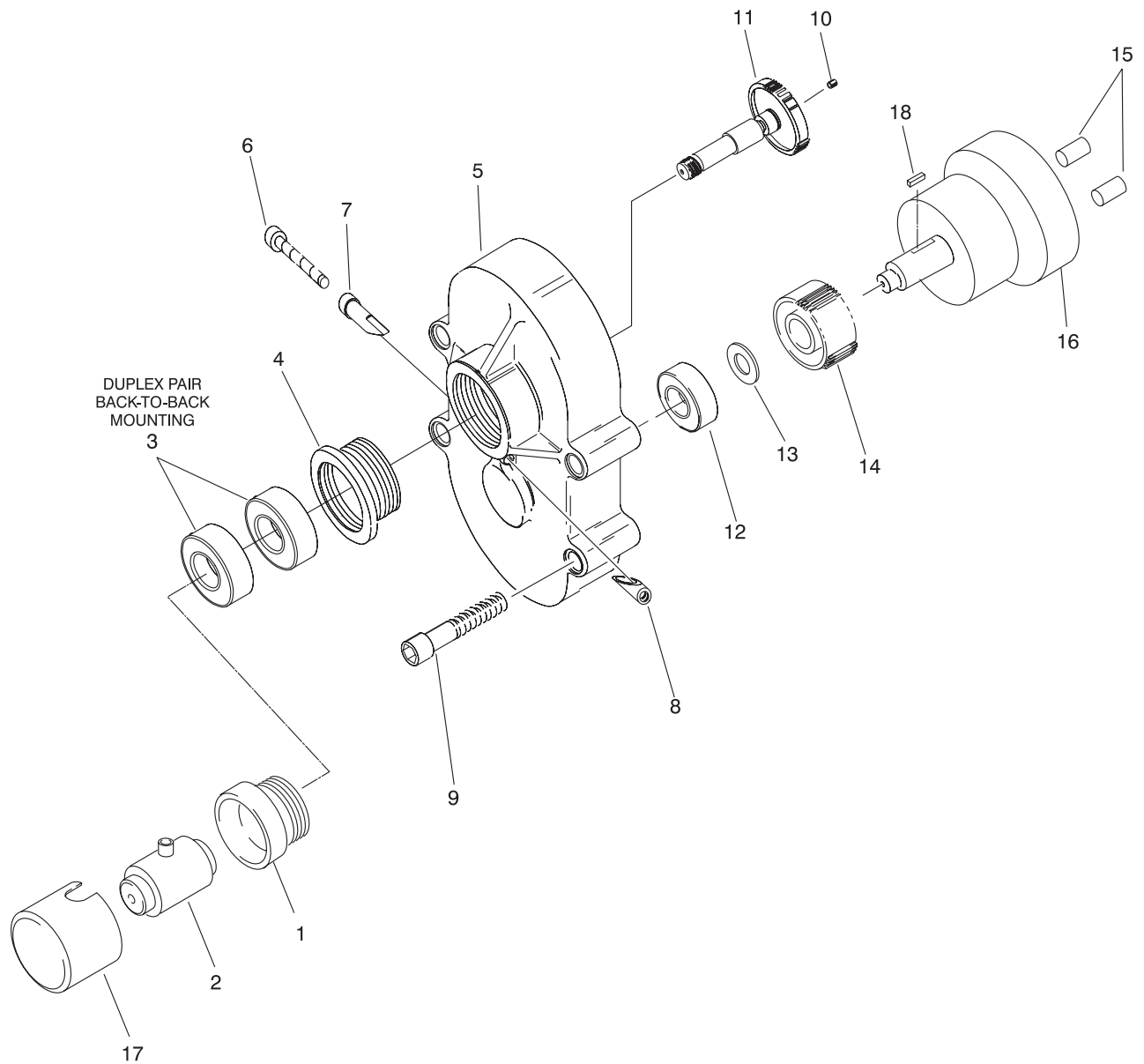
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	5453045	Spring, compression	1	1	J-967	Screw, socket head cap	4
2	1156	Seal, O-ring (2-007)	1	2	17104	Nipple	1
3	1786	Seal, O-ring (2-010)	1	3	629	Seal, O-ring (2-011)	1
4	629	Seal, O-ring (2-011)	2	4	17540	Elbow, push-in	1
5	7002187	Sleeve, trigger	1	5	1248832	Oil fitting	1
6	7002186	Pin, trigger	1	6	566	Seal, O-ring (2-008)	1
7	8000765	Trigger & pin assy.	1	7	8001790	Front, bulkhead	1
8	16119	Screw, set, sc, cup pt. (4-40 x 3/16)	1	8	8001788	Metering screw assy.	1
9	564	Seal, O-ring (2-006)	2	9	1814	Seal, O-ring (2-016)	1
10	7001616	Insert assy., button lock	1	10	1427	Seal, O-ring (2-004)	2
				11	8001170	Cylinder, housing	1
				12	8001847	Bladder assy.	1
				13	8001669	Shim	as req'd.
				14	17539	Tube, elbow	1
				15	8001850	Bulkhead, rear assy.	1
				16	17546	Tube connector	1



MODEL 1000II		GEARS & GEAR CAP GROUP	8001513	8001514	8001675	8001118	
			RPM:	700	1800	1500	2500
ITEM	PART NUMBER	DESCRIPTION	QTY	QTY	QTY	QTY	
1	1074878	Retainer ring, bearing	1	1	1	1	
2	1074945	Retainer nut, bearing	1	1	1	1	
3	8000085	Bearing, duplex set (PAIR)	1	1	1	1	
4	1074866	Carrier, bearing	1	1	1	1	
5	8000904	Gear cap Assy.	1	1	1	-	
5	1074829	Gear cap Assy.	-	-	-	1	
6	8001022	Screw, socket head cap	1	1	1	1	
7	1075263	Carrier lock (L.H.), bearing	1	1	1	1	
8	1075275	Carrier lock (R.H.), bearing	1	1	1	1	
9	16160	Screw, socket head cap	4	4	4	4	
10	16115	Screw, socket head cap	1	1	1	1	
11	8000903	Gear, spindle	1	-	-	-	
11	8001516	Gear, spindle	-	1	-	-	
11	8001241	Gear, spindle	-	-	1	-	
11	8001119	Gear, spindle	-	-	-	1	
12	1180174	Bearing, ball	1	1	1	1	
13	1074994	Spacer	1	1	1	1	
14	8000902	Gear, drive	1	-	-	-	
14	8001515	Gear, drive	-	1	-	-	
14	5454633	Gear, drive	-	-	1	-	
14	8001120	Gear, drive	-	-	-	1	
15	16175	Pin, dowel	2	2	2	2	
16	1074969	Gear Assy., planet	2	2	2	2	
17	1074982	Gear case, planetary	1	1	1	1	
18	1073667	Key, drive gear	1	1	1	1	



MODEL 1000II		GEARS & GEAR CAP GROUP - 6000 RPM	8000899
ITEM	PART NUMBER	DESCRIPTION	QTY
1	1074878	Ring, retainer, bearing	1
2	1074945	Nut, retainer, bearing	1
3	8000085	Bearing, duplex set (PAIR)	1
4	1074866	Carrier, bearing	1
5	1074829	Cap, gear assy.	1
6	8001022	Screw, cap, socket head (6-32 x 7/8)	1
7	1075263	Lock, carrier, bearing (left hand)	1
8	1075275	Lock, carrier, bearing (right hand)	1
9	16160	Screw, cap, socket head (8-32 x 1/4)	2
10	16115	Screw, set, socket cap, flat pt. (1/4-28 x 1/4)	1
11	8000900	Gear, spindle	1
12	1180174	Bearing, ball	1
13	1074994	Spacer, drive gear	1
14	1075019	Gear, drive	1
15	1016027	Drive shaft	1
16	1073667	Key, gear, drive	1
17	16177	Pin, dowel (3/32 x 1/2)	2

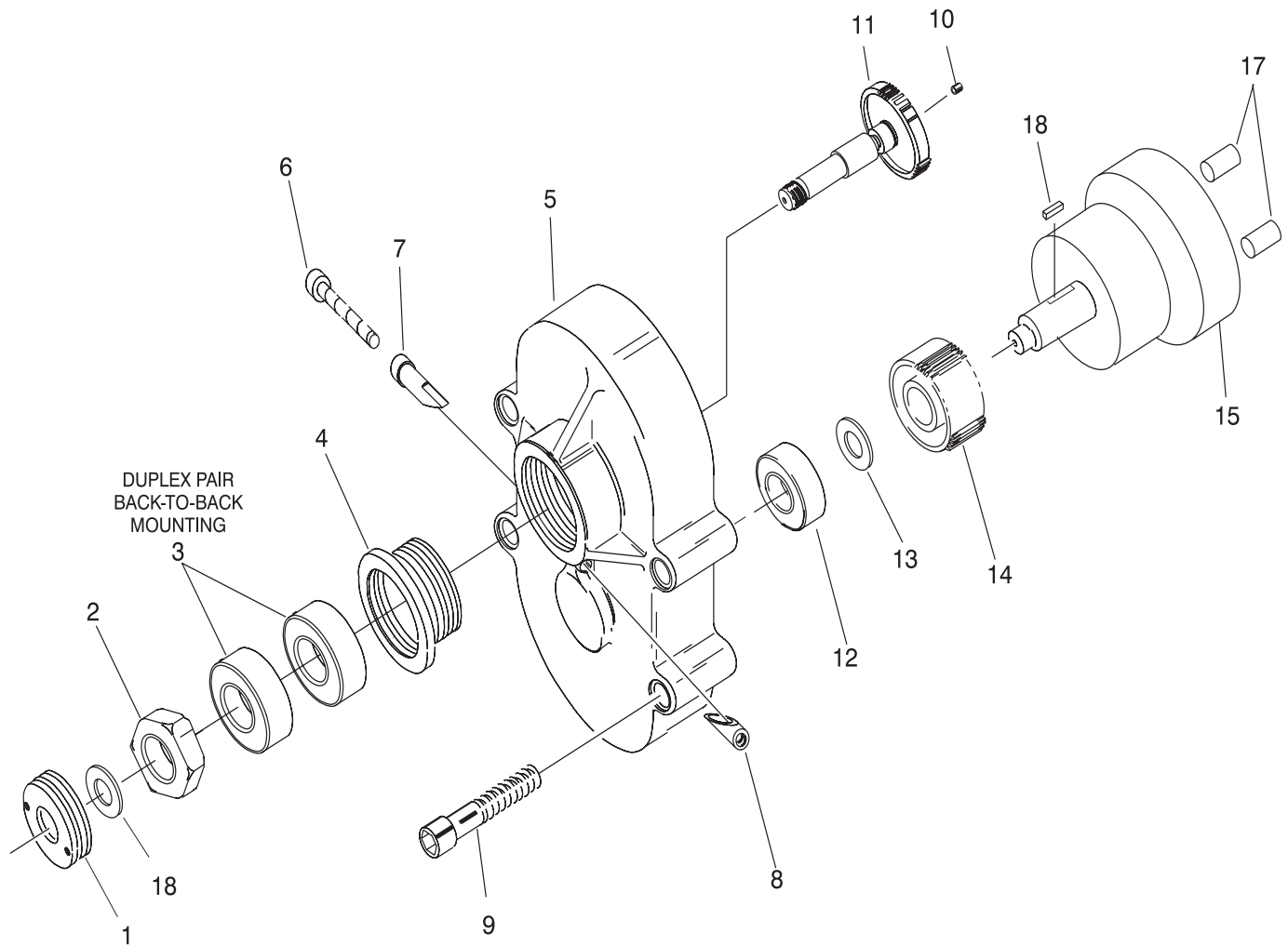


**MODEL 1000II**

**GEARS & GEAR CAP GROUP - 4500 RPM**

**8001494**

ITEM	PART NUMBER	DESCRIPTION	QTY
1	8001340	Case, coolant head	1
2	8001342	Rotary, coolant head	1
3	8000085	Bearing, duplex set (PAIR)	1
4	1074866	Carrier, bearing	1
5	8000904	Gear cap assy.	1
6	8001022	Screw, socket head cap	1
7	1075263	Lock, carrier (L.H.)	1
8	1075275	Lock, carrier (R.H.)	1
9	16160	Screw, socket head cap	4
10	8001341	Screw, spindle lock	1
11	8001495	Gear, coolant spindle	1
12	1180174	Bearing, ball	1
13	1074994	Spacer, drive gear	1
14	8000902	Gear, drive	1
15	16177	Pin, dowel	2
16	1016027	Drive shaft	1
17	5454529	Cap, coolant head	1
18	1073667	Key, drive gear	1



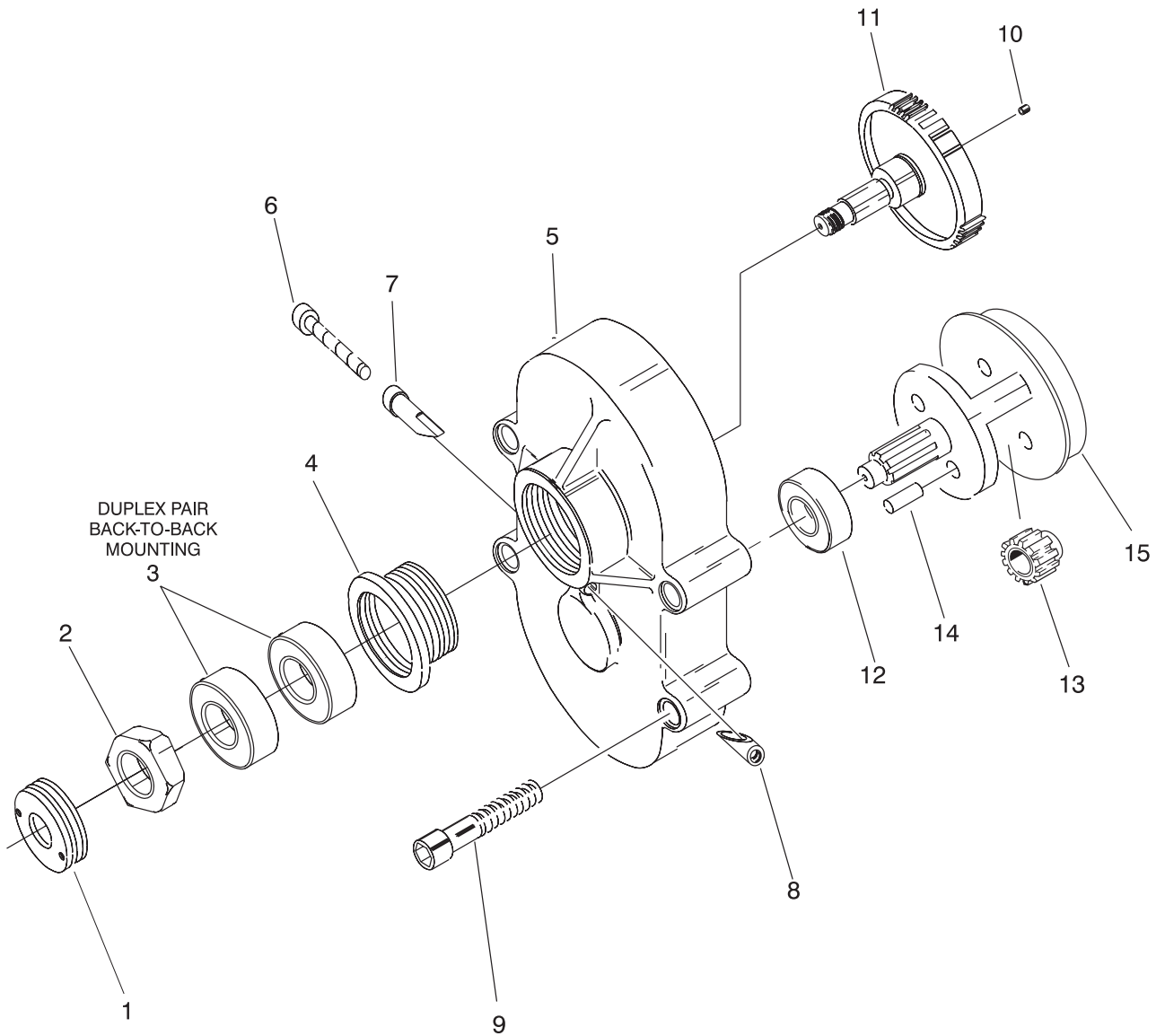
**MODEL 1000II**

**GEARS & GEAR CAP GROUP**

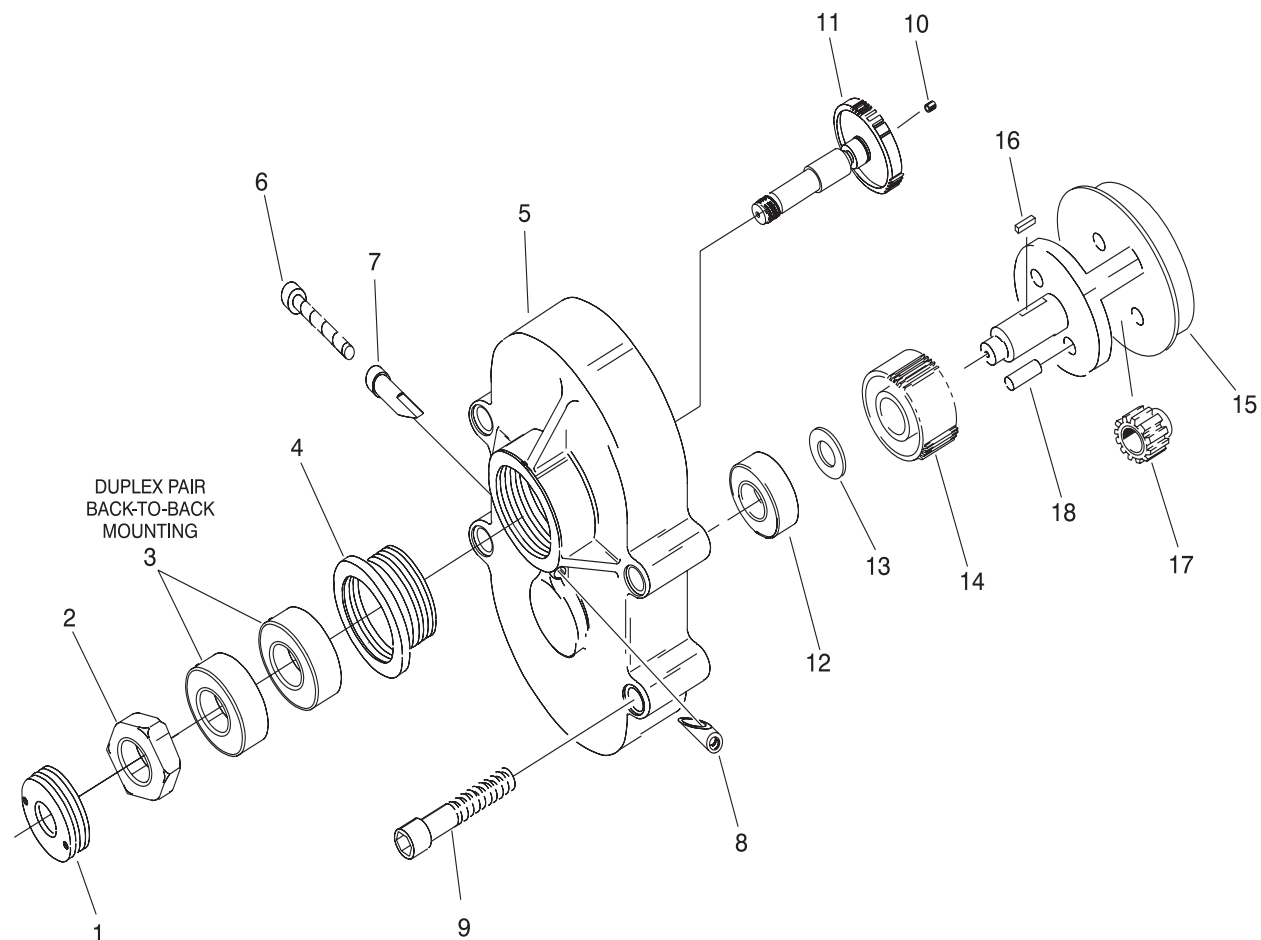
**8000901**

**8001115**

ITEM	PART NUMBER	DESCRIPTION	RPM:	4500	9000
				QTY	QTY
1	1044878	Retainer ring, bearing		1	1
2	1044945	Retainer nut, bearing		1	1
3	8000085	Bearing, duplex set (PAIR)		1	1
4	1074866	Carrier, bearing		1	1
5	8000904	Cap, gear assy.		1	-
5	1074829	Cap, gear assy.		-	1
6	8001022	Screw, cap, socket head		1	1
7	1075263	Lock, carrier, bearing (L.H.)		1	1
8	1075275	Lock, carrier, bearing (R.H.)		1	1
9	16160	Screw, cap, socket head		4	4
10	16115	Screw, set, socket cap, flat pt.		1	1
11	8000903	Gear, spindle		1	-
11	8001116	Gear, spindle		-	1
12	1180174	Bearing, ball		1	1
13	1074994	Spacer, drive gear		1	1
14	8000902	Gear, drive		1	-
14	8001117	Gear, drive		-	1
15	1016027	Shaft, drive		1	1
16	1073667	Key, drive gear		1	1
17	16177	Pin, dowel		1	1
18	8001487	Air shield		1	-



MODEL 2000		GEARS & GEAR CAP GROUP (450 RPM)	8000941
ITEM	PART NUMBER	DESCRIPTION	QTY
1	8000833	Retainer	1
2	8000834	Nut, retainer	1
3	8000835	Bearing, duplex set (PAIR)	1
4	8000832	Carrier, bearing	1
5	8000961	Gear cap Assy.	1
6	8001022	Screw, cap, socket head	1
7	1075263	Lock, carrier (L.H.)	1
8	1075275	Lock, carrier (R.H.)	1
9	16101	Screw, cap, socket head	4
10	16115	Screw, set, flat pt.	1
11	8000959	Gear, spindle	1
12	1180174	Bearing, ball	1
13	1074969	Planet gear Assy.	2
14	16175	Pin, dowel	2
15	8000958	Cage, gear, planetary	1
			2011 rev —



**MODEL 2000**

**GEARS & GEAR CAP GROUP**

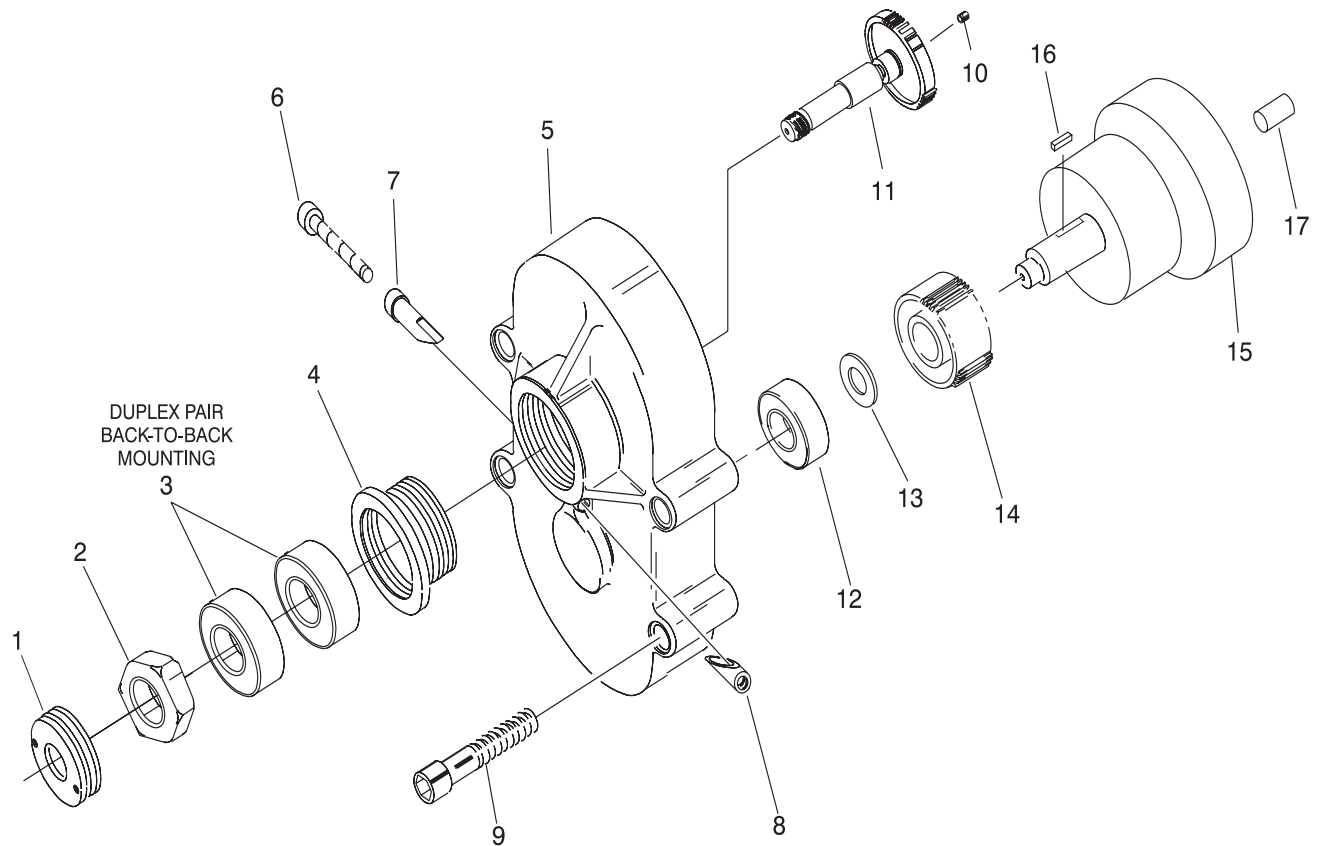
**8001136**

**8001133**

**8001130**

**8001127**

ITEM	PART NUMBER	DESCRIPTION	RPM:	1250	1600	2000	2500
			QTY	QTY	QTY	QTY	
1	8000833	Retainer		1	1	1	1
2	8000834	Nut, retainer		1	1	1	1
3	8000835	Bearing, duplex set (PAIR)		1	1	1	1
4	8000832	Carrier, bearing		1	1	1	1
5	8000827	Gear cap assy.		1	1	1	1
6	8001022	Screw, cap, soc hd (6-32 x 7/8 lg.)		1	1	1	1
7	1075263	Lock, carrier, bearing (L.H.)		1	1	1	1
8	1075275	Lock, carrier, bearing (R.H.)		1	1	1	1
9	16101	Screw, cap, soc hd (8-32 X 1 1/8 lg.)		4	4	4	4
10	16115	Screw, set, fl. pt. (1/4-28 x 1/4 lg.)		1	1	1	1
11	8001137	Gear, spindle		1	-	-	-
11	8001134	Gear, spindle		-	1	-	-
11	8001131	Gear, spindle		-	-	1	-
11	8001128	Gear, spindle		-	-	-	1
12	1180174	Bearing, ball		1	1	1	1
13	1074994	Spacer, gear drive		1	1	1	1
14	8001138	Gear, drive		1	-	-	-
14	8001135	Gear, drive		-	1	-	-
14	8001132	Gear, drive		-	-	1	-
14	8001129	Gear, drive		-	-	-	1
15	1074982	Gear, cage		1	1	1	1
16	1073667	Key, gear drive		1	1	1	1
17	1074969	Planet gear assy.		2	2	2	2
18	16175	Pin, dowel (3/16 x 3/4)		2	2	2	2



**MODEL 2000**

**GEARS & GEAR CAP GROUP**

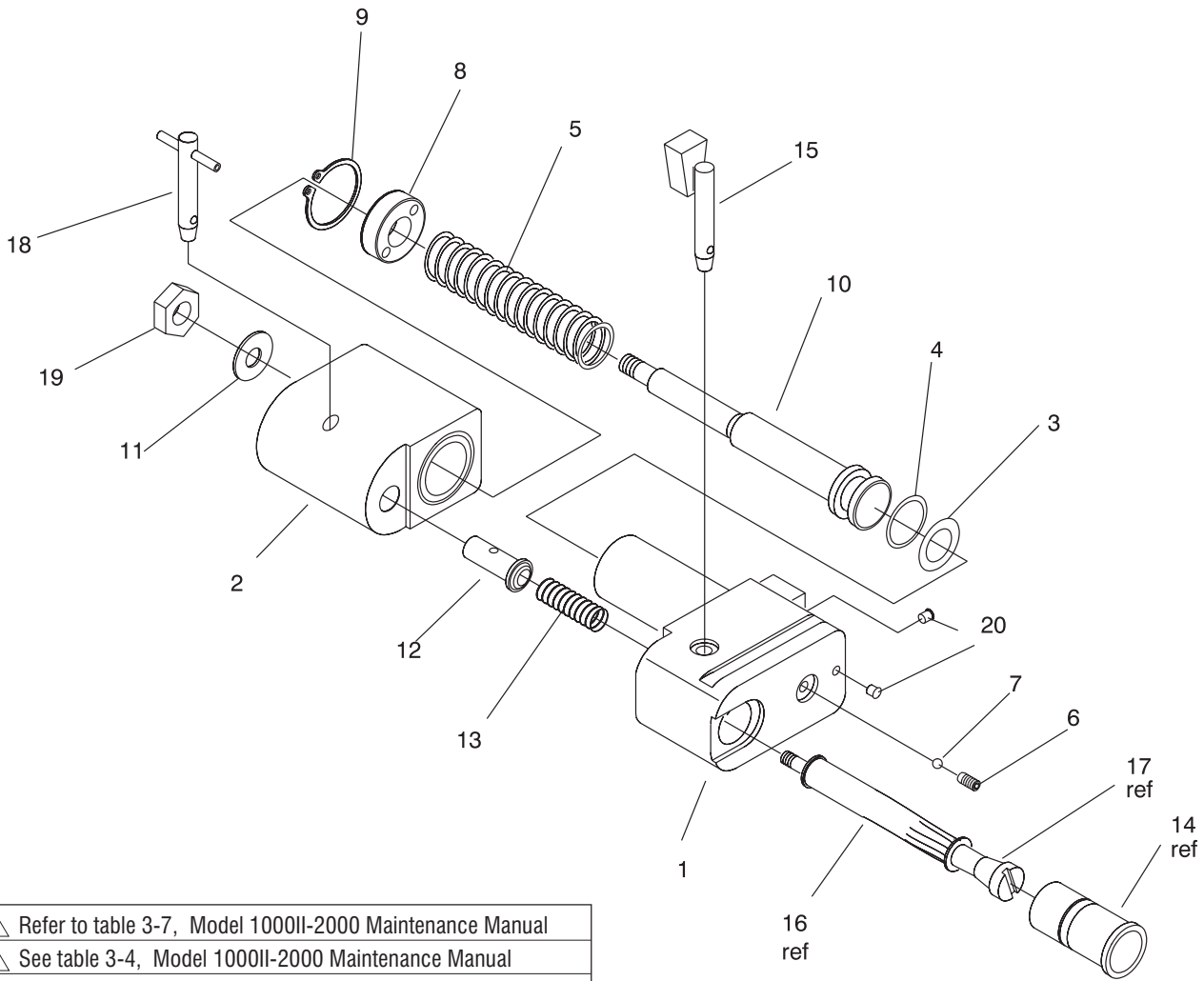
**8000826**

**8000836**

**8001562**

**8000839**

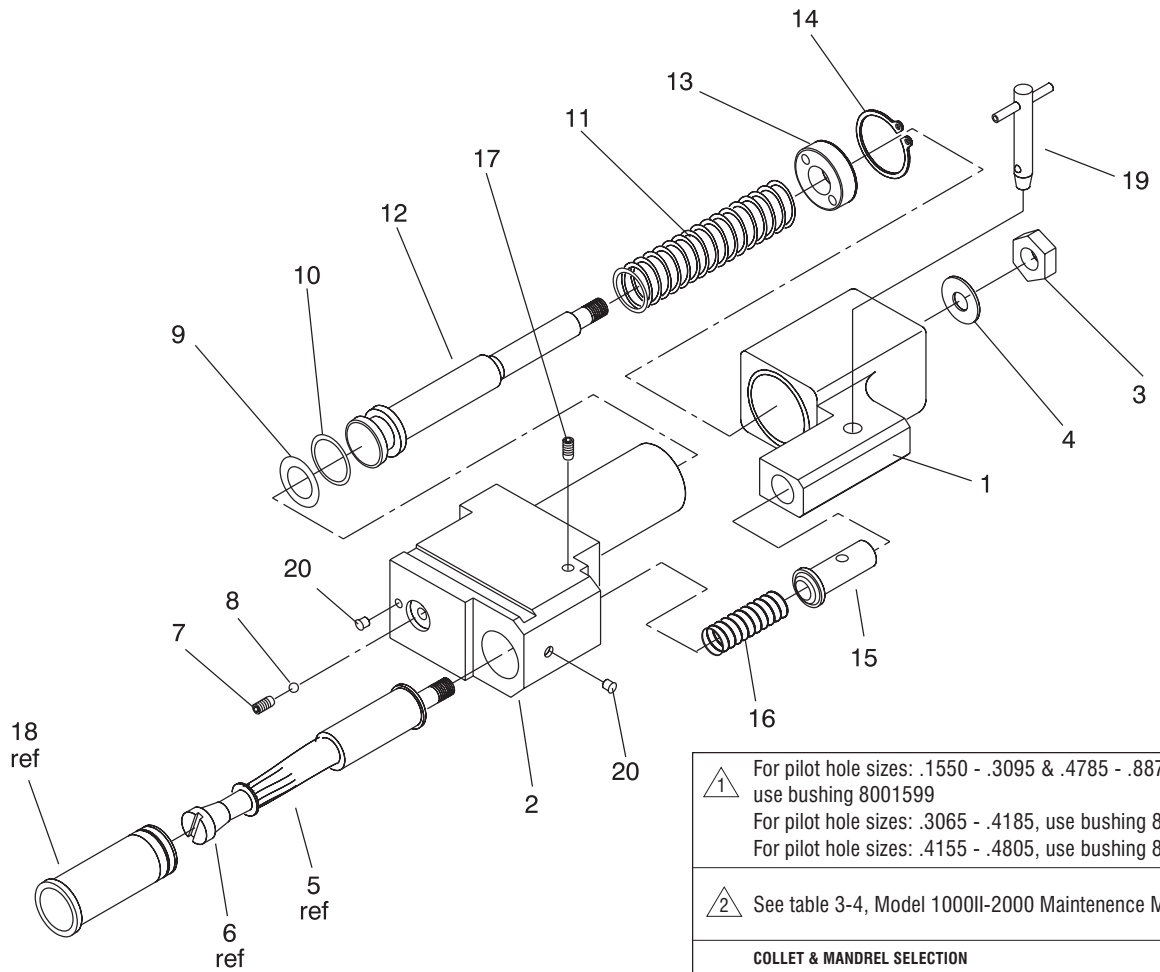
ITEM	PART NUMBER	DESCRIPTION	RPM:	3500	4600	6000	9000
			QTY	QTY	QTY	QTY	
1	8000833	Retainer		1	1	1	1
2	8000834	Nut, retainer		1	1	1	1
3	8000835	Bearing, duplex set (PAIR)		1	1	1	1
4	8000832	Carrier, bearing		1	1	1	1
5	8000827	Gear cap assy.		1	1	1	1
6	8001022	Screw, cap, socket head (6-32 x 7/8)		1	1	1	1
7	1075263	Lock, carrier, bearing (L.H.)		1	1	1	1
8	1075275	Lock, carrier, bearing (R.H.)		1	1	1	1
9	16101	Screw, cap, socket head (8-32 x 1 1/8)		4	4	4	4
10	16115	Screw, set, fl. pt. (1/4-28 x 1/4)		1	1	1	1
11	8000830	Gear, spindle		1	-	-	-
11	8000837	Gear, spindle		-	1	-	-
11	8000840	Gear, spindle		-	-	-	1
11	8001563	Gear, spindle		-	-	1	-
12	1180174	Bearing, ball		1	1	1	1
13	1074994	Spacer, gear drive		1	1	1	1
14	8000831	Gear, drive		1	-	-	-
14	8000838	Gear, drive		-	1	-	-
14	8000841	Gear, drive		-	-	-	1
14	8001564	Gear, drive		-	-	1	-
15	1016027	Drive shaft		1	1	1	1
16	1073667	Key, drive gear		1	1	1	1
17	16177	Pin, dowel (3/32 x 1/2)		2	2	2	2



- 1 Refer to table 3-7, Model 1000II-2000 Maintenance Manual
- 2 See table 3-4, Model 1000II-2000 Maintenance Manual
- 3 Use spring #1190453 for hole sizes .1230 - .1655  
Use spring #1184520 for hole sizes .1655 - .3225.

**MODEL 1000II      HYDRAULIC CLAMP WITH QUICK RELEASE      8001537**

ITEM	PART NUMBER	DESCRIPTION	QTY
1	8001730	Clamp, cylinder sub-assy.	1
2	8001731	Finger, lift, collet assy.	1
3	16526	Seal, O-ring (2-108)	1
4	8001738	Parbak (8-108)	1
5	8001726	Spring, return	1
6	16294	Screw, set (8-32 x 3/16)	1
7	860	Ball (5/32 dia.)	1
8	8001727	Piston guide	1
9	9532	Ring, retaining (5000-50)	1
10	8001728	Piston	1
11	2781	Washer	1
12	8001736	Retainer assy.	1
13	3	Collet, spring	1
14	1	Collet, bushing	1
15	8001795	Pin, clevis assy.	1
16	1 2	Collet	1
17	1	Mandrel	1
18	8001792	Pin, clevis - quick release	1
19	16564	Nut, hex	1
20	1175117	Lee, plug	2



1 For pilot hole sizes: .1550 - .3095 & .4785 - .8875, use bushing 8001599  
 For pilot hole sizes: .3065 - .4185, use bushing 8001600  
 For pilot hole sizes: .4155 - .4805, use bushing 8001601

2 See table 3-4, Model 1000II-2000 Maintenance Manual

COLLET & MANDREL SELECTION			
	Pilot Hole Dia.	Collet Series No.	Mandrel Series No.
3	.1550 - .3095	1263031	1263055
	.3065 - .4185	1263031	1263055
	.4155 - .4805	1263031	1263055
	.4785 - .8875	1263043	1263067

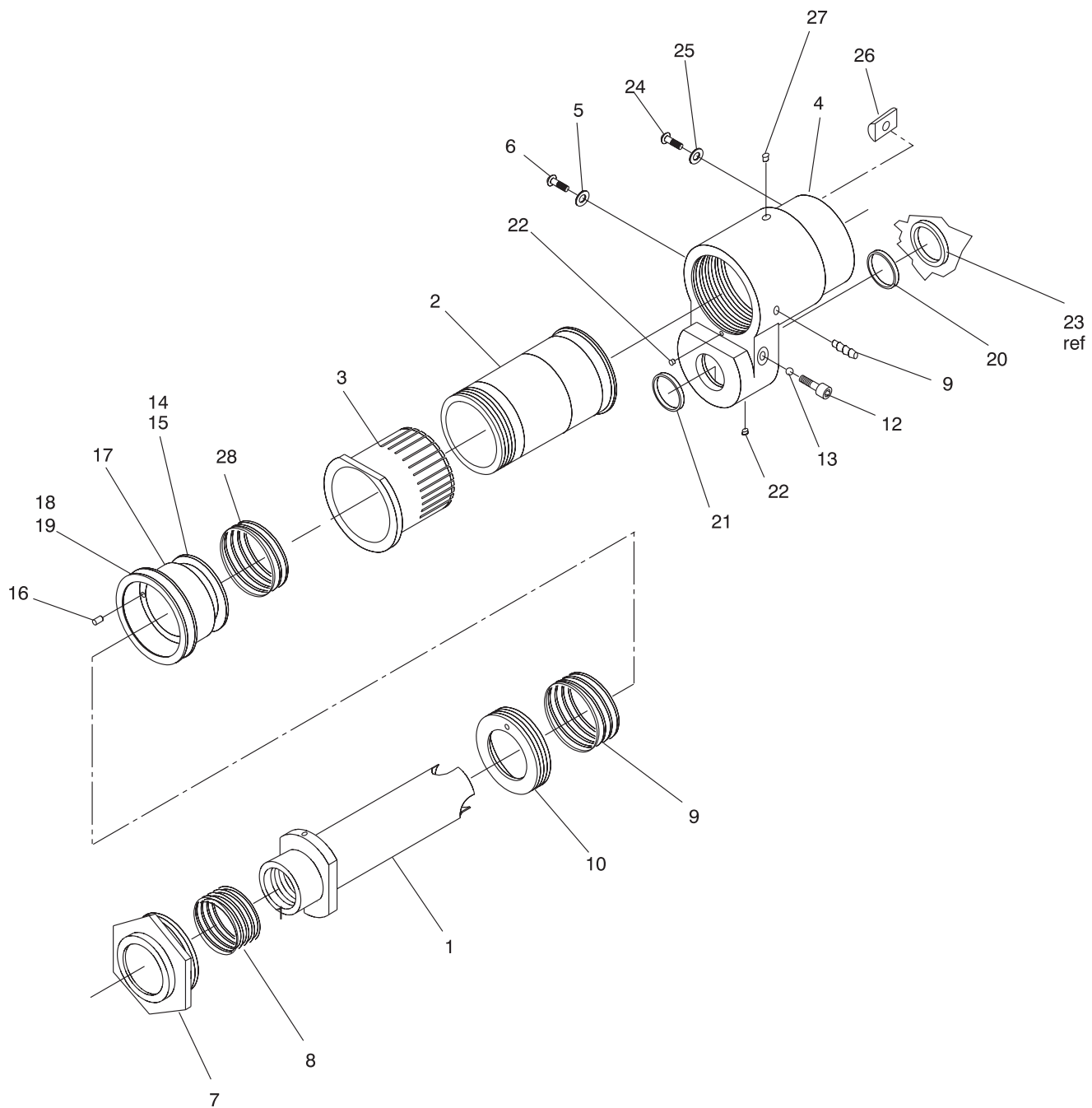
**MODEL 2000**

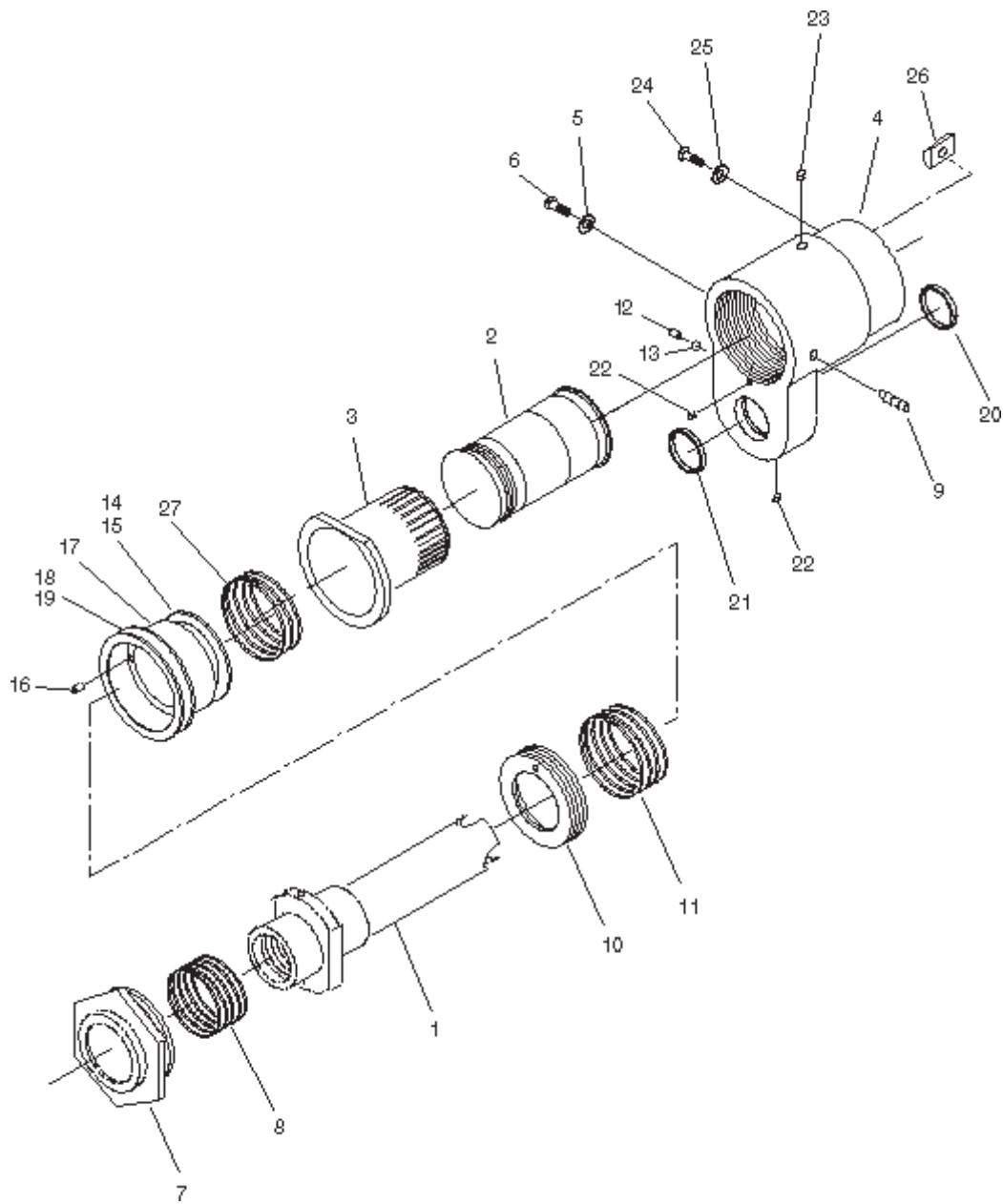
**HYDRAULIC CLAMP CYLINDER ASSEMBLY**

8001598

ITEM	PART NUMBER	DESCRIPTION	QTY
1	8001603	Finger, lift assy.	1
2	8001602	Clamp, cylinder	1
3	J-1146	Nut	1
4	1067	Washer	1
5	2 3	Collet	1
6	2 3	Mandrel	1
7	16129	Screw, set, socket head	1
8	860	Ball, steel	1
9	548	Seal, O-ring (2-111)	1
10	8001579	Parbak (8-111)	1
11	8001578	Spring, return	1
12	8001606	Piston	1
13	8000253	Guide, piston	1
14	3079	Ring, retaining	1
15	8001607	Retainer assy.	1
16	1028558	Collet, spring	1
17	16195	Screw, set	1
18	1	Collet bushing	1
19	8001792	Pin, quick release	1
20	1175117	Plug, lee	2

<b>MODEL 2000 JIG COLLET FOOT ASSEMBLIES</b>			<b>8001144</b>	<b>8001702</b>	<b>8001751</b>	
			<b>DIA:</b>	<b>1.25</b>	<b>1.375</b>	<b>1.125</b>
<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QTY</b>	<b>QTY</b>	<b>QTY</b>	
1	8001145	Depth-sensing sleeve	1	-	-	
1	8001708	Depth-sensing sleeve	-	1	-	
1	8001756	Depth-sensing sleeve	-	-	1	
2	8001396	Mandrel	1	-	-	
2	8001705	Mandrel	-	1	-	
2	8001754	Mandrel	-	-	1	
3	8001397	Collet	1	-	-	
3	8001704	Collet	-	1	-	
3	8001753	Colet	-	-	1	
4	8001479	Housing, machined	1	1	1	
5	16337	Washer, lock (#6)	1	1	1	
6	8000928	Screw, special	1	1	1	
7	8001157	Spring holder	1	1	1	
8	8000955	Spring, compression	1	1	1	
9	8854	Fitting	1	1	1	
10	8001707	Nut	1	1	1	
11	8001712	Spring, retract	1	1	1	
12	16129	Screw, set	1	1	1	
13	860	Ball (5/32" dia.)	1	1	1	
14	1746	Seal, O-ring (2-220)	1	1	1	
15	8001152	Parbak (8-220)	1	1	1	
16	7002721	Insert, nylon	1	1	1	
17	8001480	Piston (1.12-32 thd.)	1	-	-	
17	8001706	Piston (1.25-32 thd.)	-	1	-	
17	8001755	Piston (1-32 int. thd.)	-	-	1	
18	8001017	Seal, O-ring (2-223)	1	1	1	
19	8001153	Parbak (8-223)	1	1	1	
20	8000849	Parbak (8-020)	2	2	2	
21	6888	Seal, O-ring (2-020)	2	2	2	
22	1175129	Plug, lee	2	2	2	
23	8001186	Spacer	1	1	1	
24	16081	Screw, cap, button head	1	1	1	
25	8001471	Washer, spring (#4)	1	1	1	
26	8001483	Insert	1	1	1	
27	1175117	Plug, lee	1	1	1	
28	8001800	Spring, clamp	1	-	-	
28	8001711	Spring, clamp	-	1	-	
28	8001481	Spring, clamp	-	-	1	



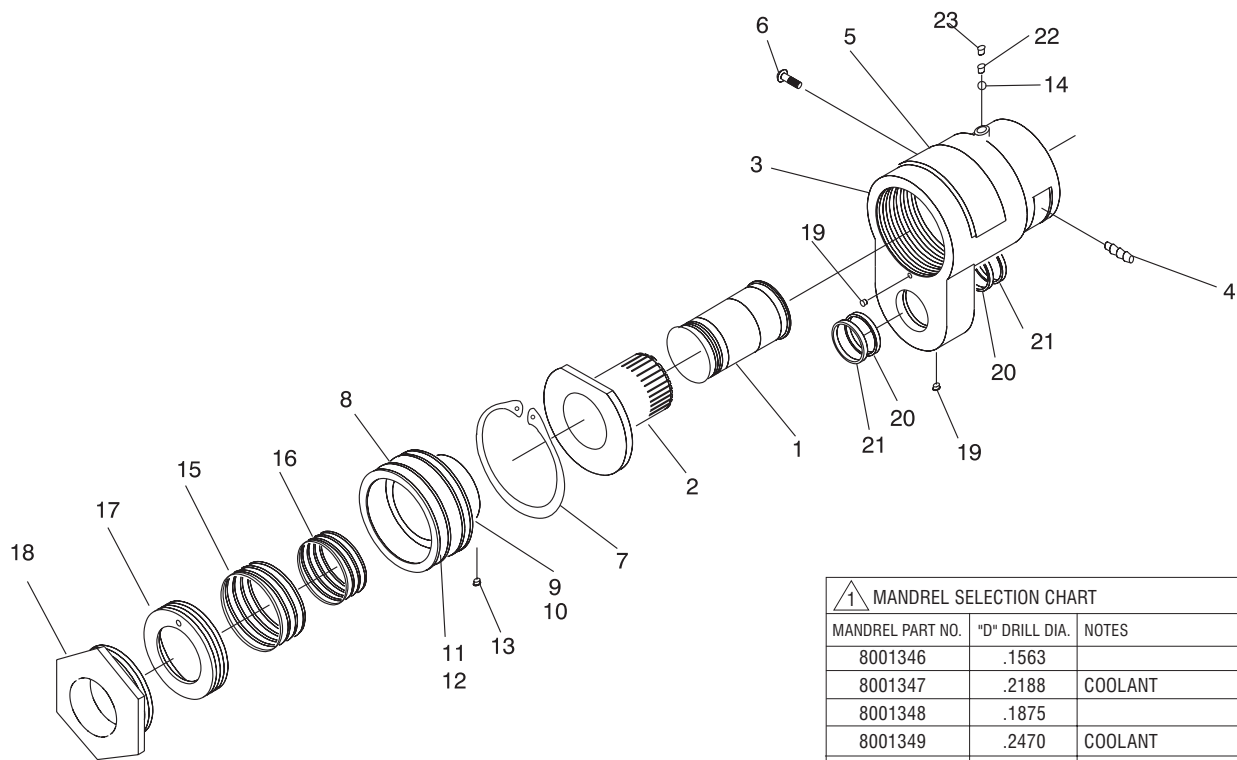


**MODEL 1000II**

**DEPTH-SENSING, STRAIGHT, .670 DIA. JIG COLLET FOOT ASSEMBLY**

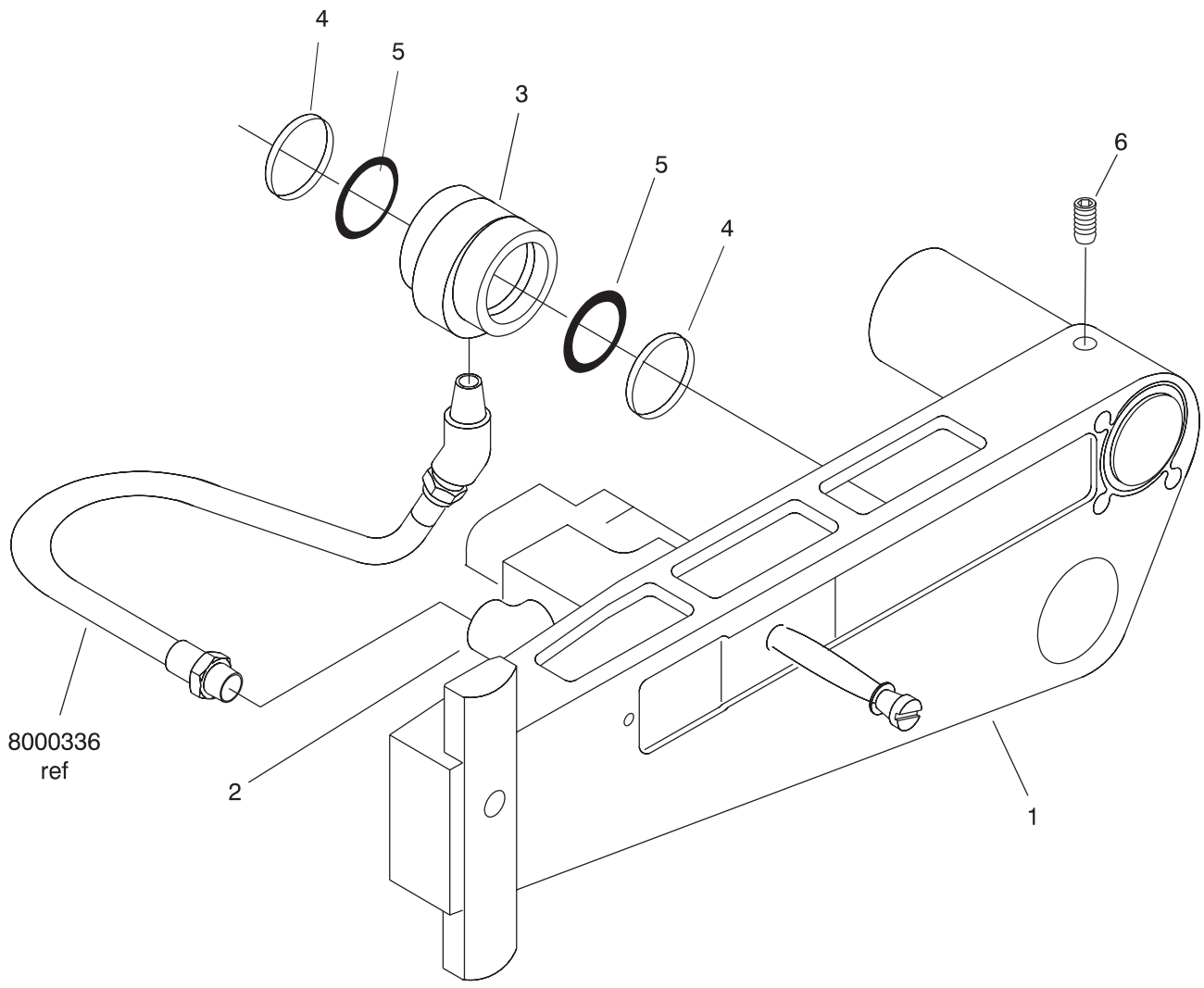
8001718

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	8001723	Depth-sensing sleeve	1	15	8000933	Parbak (8-214)	1
2	8001721	Mandrel	1	16	7002721	Insert, nylon	1
3	8001720	Collet	1	17	8001722	Piston	1
4	8001473	Housing, machined	1	18	5761	Seal, O-ring (2-216)	1
5	16337	Washer, lock (#6)	1	19	8000932	Parbak (8-216)	1
6	8000928	Screw, special	1	20	8000740	Parbak (8-018)	2
7	8000927	Spring, holder	1	21	2786	Seal, O-ring (2-018)	2
8	8000930	Spring, compression	1	22	1175129	Plug, lee	2
9	17308	Fitting	1	23	1175117	Lee, plug	1
10	8001279	Nut	1	24	8001472	Screw, cap, button head	1
11	8001470	Spring, retract	1	25	8001471	Washer, spring (#4)	1
12	16129	Screw, set	1	26	8001468	Insert	1
13	860	Ball (5/32" dia.)	1	27	8001469	Spring, clamp	1
14	16253	Seal, O-ring (2-214)	1				



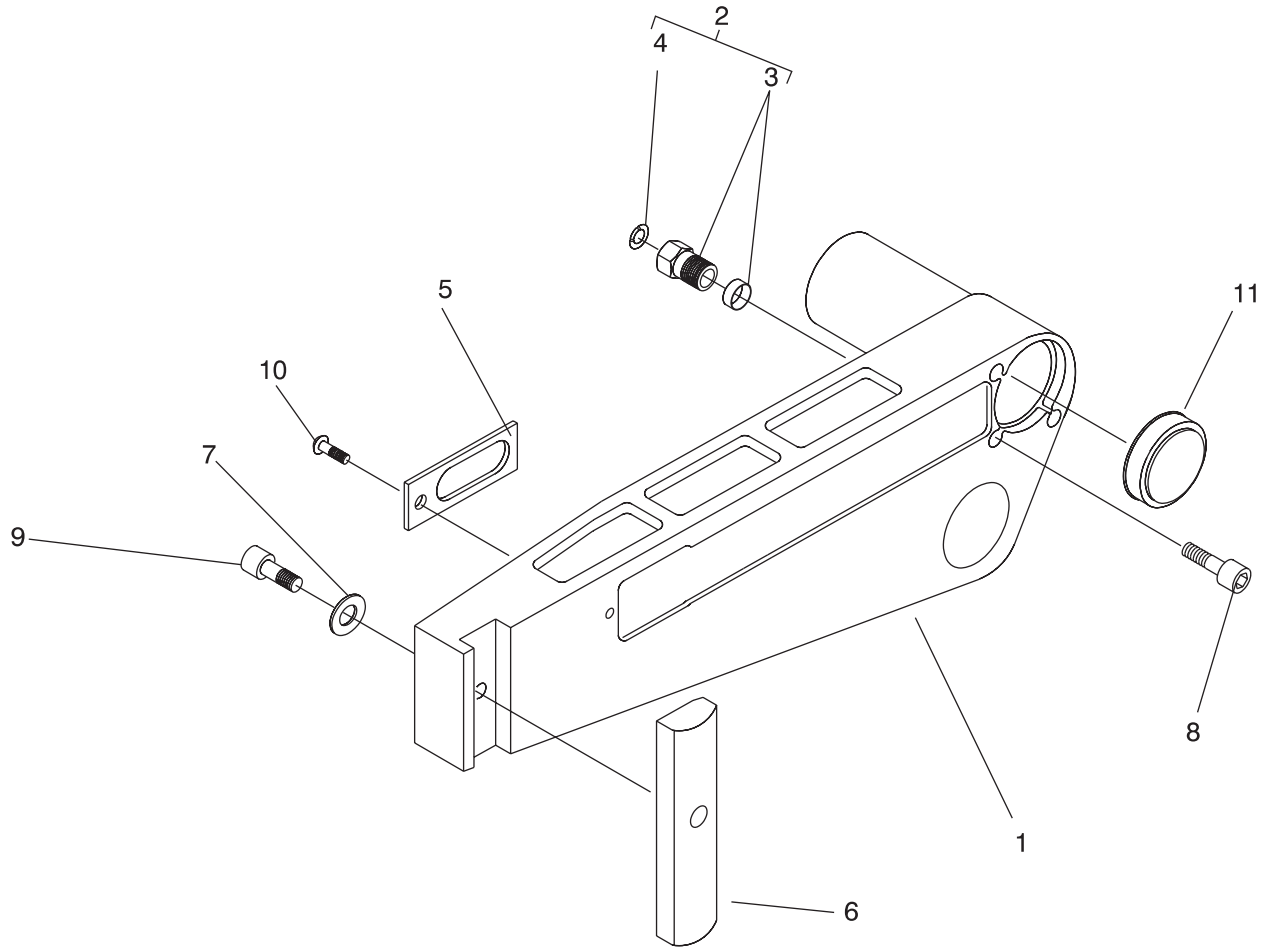
1 MANDREL SELECTION CHART		
MANDREL PART NO.	"D" DRILL DIA.	NOTES
8001346	.1563	
8001347	.2188	COOLANT
8001348	.1875	
8001349	.2470	COOLANT
8001370	.1720	
8001371	.2188	
8001372	.1876	COOLANT
8001803	.1876	COOLANT, CHIP BREAKER
8001857	.1876	COOLANT, FOR 3/4" JIG HGT.

MODEL 1000II		BASIC NON-DEPTH-SENSING JIG COLLET FOOT ASSEMBLY	8001345
ITEM	PART NUMBER	DESCRIPTION	QTY
1	△	Mandrel	1
2	8001352	Collet, 500 jig	1
3	8001354	Housing, machined	1
4	17308	Fitting, steel	1
5	8001357	Cover	1
6	16084	Screw, cap, button head (6-32 x 3/16")	2
7	9177	Ring, retaining (5000-125)	1
8	8001353	Piston (3/8-32 int. thread)	1
9	16253	Seal, O-ring (2-214)	1
10	8000933	Parback (8-214)	1
11	5761	Seal, O-ring (2-216)	1
12	8000932	Parback (8-216)	1
13	1172372	Screw, set	1
14	860	Ball (5/32" dia.)	1
15	8000931	Spring, compression	1
16	8000929	Spring, compression	1
17	8000926	Nut	1
18	8001351	Adaptor, threaded	1
19	1175129	Lee plug	2
20	2786	Seal, O-ring (2-018)	2
21	8000740	Parback (8-018)	2
22	16129	Screw, set	1
23	1175117	Lee plug	1
			<b>2019 rev —</b>




8000336  
ref

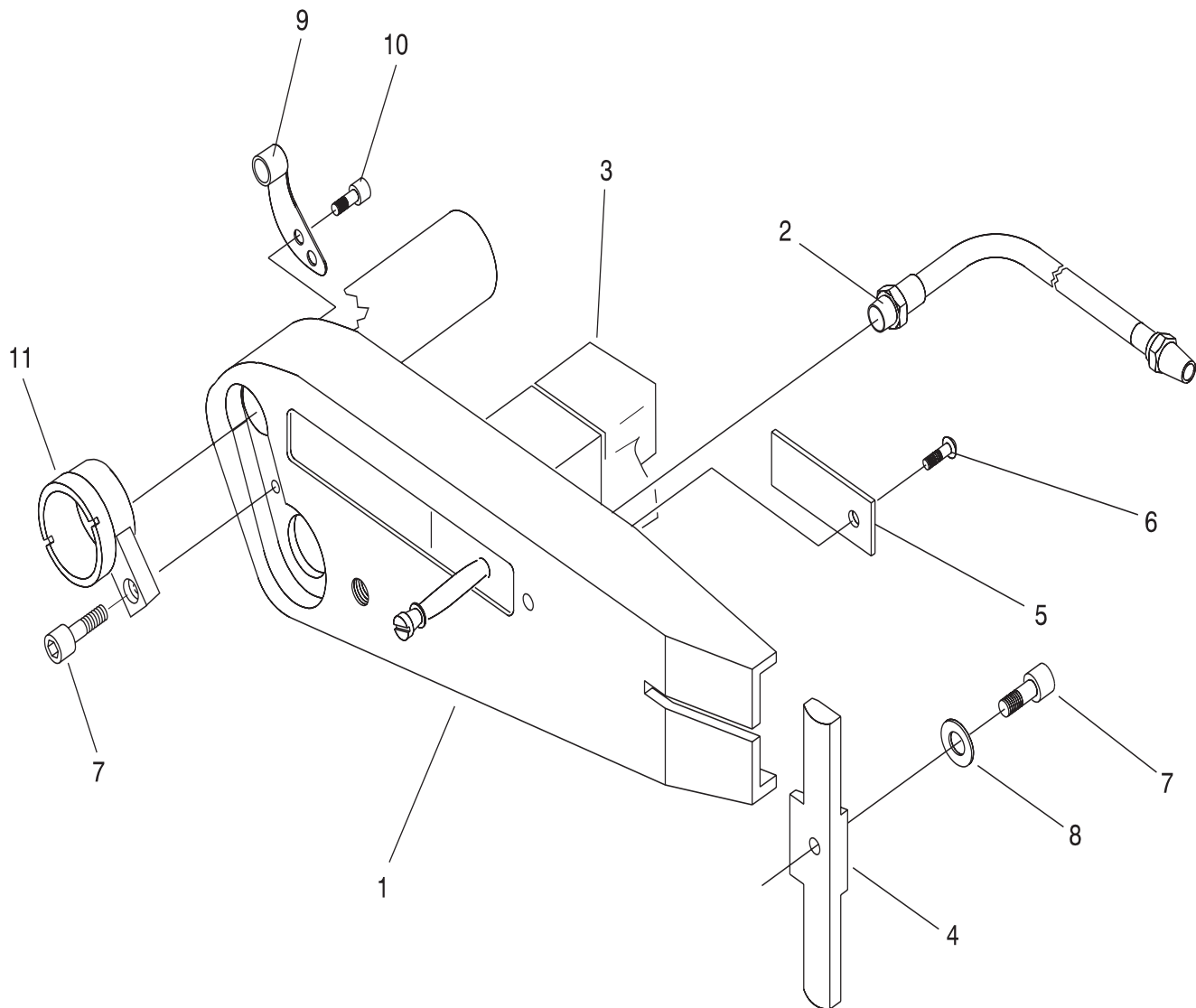
MODEL 2000		TEMPLATE, FOOT ASSY. 1"-4.50" COLLET SPACING	8001682	8001683
ITEM	PART NUMBER	DESCRIPTION	L - R QTY	R - L QTY
1	8001695	Foot, temp., L-R sub-assembly	1	-
1	8001695	Foot, temp., R-L sub-assembly	-	1
2	8001572	Clamp, cylinder and hose	1	1
3	8000845	Swivel	1	1
4	8000849	Parbak (8-020)	2	2
5	6888	Seal, O-ring (2-020)	2	2
6	8000462	Screw, set, nylon tip (10-32 x 1/4)	1	1



 See Table 3-2, Model 1000II-2000 Maintenance Manual, for template boss

MODEL 2000		TEMPLATE FOOT, 4 1/2 SPACING, SUBASSY	8001695	8001696
ITEM	PART NUMBER	DESCRIPTION	L - R QTY	R - L QTY
1	8001697	Template foot, L-R and bushing	1	-
1	8001698	Template foot, R-L and bushing	-	1
2	1065063	Adaptor, nozzle, assembly	1	1
3	7002568	. Adaptor	1	1
4	1175439	. O-ring	1	1
5	8000119	Plate, retainer	1	1
6	8001699	Tail pad	1	1
7	8001027	Washer, flat, alum. (1/4)	1	1
8	369	Screw, cap, socket head (10-32 x 3/8)	3	3
9	16075	Screw, cap, socket head (1/4-28 x 3/4)	1	1
10	8001029	Screw, cap, socket head (8-32 x 3/8)	1	1
11		Boss, template	1	1





⚠ See table 3-3, Model 1000II-2000 Maintenance Manual, for template boss

MODEL 1000II		FOOT, TEMPLATE ASSEMBLY	8000662	8000720
ITEM	PART NUMBER	DESCRIPTION	L - R	R - L
1	8000663	Foot, template, L-R	1	-
1	8000721	Foot, template, R-L	-	1
2	8000706	Hose, hydraulic assy.	1	1
3	8001537	Hydraulic clamp group	1	1
4	8000906	Pad, tail, adjustable	1	1
5	8000707	Retainer	1	1
6	16085	Screw, cap, button head (6-32 x 3/8)	1	1
7	88	Screw, cap, socket head (8-32 x 1/4)	2	2
8	16213	Washer, flat (#8)	1	1
9	7000473	Adaptor assy. (left)	1	-
9	7000519	Adaptor assy. (right)	-	1
10	16214	Screw, cap, flat head (6-32 x 1/4)	2	2
11	⚠ Series 7000666	Boss, template	1	1