

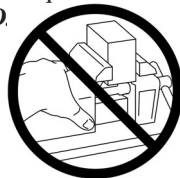
SPD11-QC Large Capacity, Self-Reversing Tapping Unit Operator Instructions

This Tapmatic Tapping Attachment can be used on all manually operated or automated machines with rotating, non-reversing spindles. It should not be used on machines which reverse on the back stroke. This attachment incorporates in its design a planetary gear reverse with a 1 to 1 reverse ratio. Reversing speed, then, is equal to the machine's spindle speed. Therefore, the in-feed and out-feed of the machine spindle may remain the same. The "bore-cycle" on most NC machines can be employed for tapping.

MOUNTING THE STOP ARM:

The positive drive units have a serial number stamped on the top of the housing. There are three (3) screws provided with the unit to properly mount the stop arm onto the housing.

Extend strong torque bar from machine quill or machine table to engage stop arm securely as full power of the machine is transmitted in reverse. **DO NOT HOLD PART BY HAND.** **DO NOT HOLD STOP ARM BY HAND.**



THROUGH HOLES:

Through holes are easily tapped without machine stops or dwells; merely feed in and out, as desired. For programmed machine operation, program the machine spindle to feed at, or slightly less than, the taps feed per revolution to insure production of quality threads.

Manual tapping with this attachment does not require the operator to apply any lead pressure on the tap during the tapping operation. The free axial float in the attachment will automatically permit the tap to follow its own lead. The operator merely moves the machine's spindle behind the lead of the tap until the desired depth is reached. To reduce wear within the taper it is recommended that a short, quick, upward movement of the machine spindle be made during transition from drive to reverse. The tap will return to a forward rotation as soon as it is withdrawn from the hole.

BOTTOM HOLES:

For accurate and efficient bottom hole tapping, a machine feed stop must be used to allow the attachment's spindle to disengage in neutral before the tap bottoms in the hole. To achieve this, set the machine stop so that the machine feed plus the attachment's self-feed will equal the desired thread depth. This greatly simplifies the tapping operation and affords maximum tap protection. For the SPD11-QC, allow for .500 (12mm) of self-feed beyond the machine feed. Then check tapping depth on first hole and make any necessary adjustment to machine feed depth.

CNC TAPPING

If tapping on a CNC machine, please be sure to use a clearance plane of 1.50 or 38mm to insure that tap is clear of hole before moving to a new hole location.

CHANGING TAP HOLDERS:

Requires lifting of the knurled collar on the drive spindle. Two types of tap holders are available, the standard positive drive type and the torque release type. The SPD11-QC uses number 4 size adapters.

For added tap protection the torque release tap adapters may be employed. The tap will stop without breaking if the bottom of the hole is accidentally engaged.

LUBRICATION:

This unit is pre-packed at the factory and only needs periodic addition to maintain proper lubrication. It is suggested that after approximately 600 hours of operation, a small amount (from 1/4 to 3/4 ounces) of Tapmatic grease be added. Remove the set screw at the side of the housing (#25), then inject the grease into the unit. An excess amount of lubricant will create internal friction and overheating.

TAP LUBRICATION:

To insure maximum tap life, the proper lubricant should be used. For an all purpose cutting fluid that is also environmentally safe, we recommend DRY-CUT minimum quantity lubricant offered by Tapmatic.

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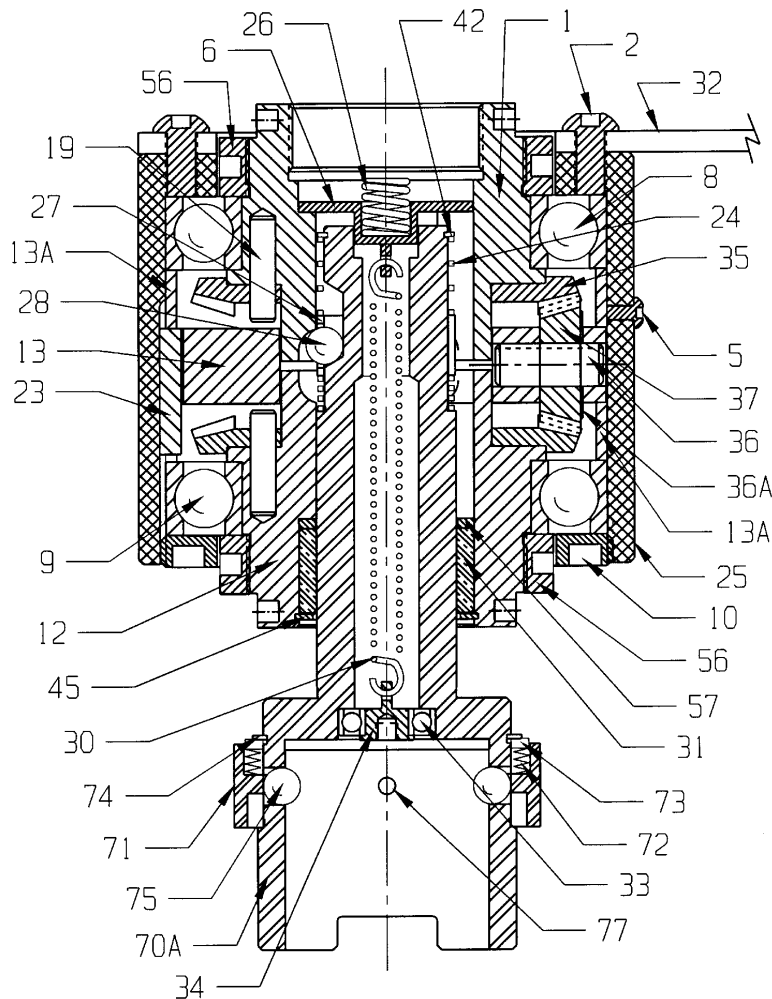
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Distributed By:

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SPD11-QC Parts Listing



IDENT	PART NAME	ORDER NO.
1	Input Driver	67101
2	Stop Arm Screw (4 required)	51902
5	Grease Screw	51302
6	Spring Hanger	67106
8	Drive Bearing	61108
9	Reverse Bearing	61108
10	Lock Ring	67110
12	Reversing Driver	67112
13	Gear Carrier	67113
13A	Spacer (2 required)	671131
19	Roll Pin (3 set, 2 sets required)	67119
*23	Key	67123
24	Ball Drive Spring (2 required)	62124
25	Housing	67125
26	Cushion Spring	65826
27	Ball Retainer	62127
28	Feed Balls (3 required)	62128
30	Return Spring	62130
31	Drive Spindle Bearing	67131
332	Stop Arm	67132
33	Spring Bearing	62133
34	Lower Spring Hanger	62134
35	Ring Gear (2 required)	67135
36	Gear Axle (3 required)	67136
36A	Gear Washer (3 required)	671361
37	Planet Gear (3 required)	67137
42	Spirolox Ring	62142
45	Truarc Ring	67145
56	Bearing Lock Ring (2 required)	67156
57	Thrust Washer	67157
70A	QC Drive Spindle	62170
71*	Locking Ring	621711
*72	Locking Spring (8 required)	58972
*73	Washer	67111
*74	Truarc Ring	62174
*75	Balls (2 required)	62175
*77	1/4" Ball	60528
	*Not Shown	

INSTRUCTIONS FOR DISASSEMBLY:

1. Remove threaded arbor and cushion spring (#26).
2. Remove return spring (#30) by threading spring puller (supplied with unit) into spring hanger (#34) and pulling out to expose spring for removal with spring hook (also supplied with unit).
3. Using a spanner wrench, loosen and remove lock nut (#10).
4. Pull on drive spindle (#70A) and about 30% of internal parts will come out with the drive spindle.
5. Remove remaining internal parts as required, noting order of removal.

INSTRUCTIONS FOR ASSEMBLY:

1. Assemble parts into housing (#25) per step 5, step 4 and step 3 above.
2. It is easiest to reassemble the return spring (#30) from the opposite end from disassembly.
3. Lay SPD11 on its side. Insert the spring bearing (#33), spring hanger (#34) and return spring (#30) into the quick change end of the drive spindle (#70). With the spring hook, reach down the centerline of the drive spindle from the threaded arbor end and hook the free end of the return spring.
4. Keeping tension on the spring hook set the SPD11 up on the drive spindle and pull the return spring up far enough to attach the upper spring hanger (#6).
5. Insert cushion spring (#26) and thread arbor into place.