

TIP 90 — Heavy Cuts Can Force the Mill Column out of Alignment/Sherline Products

A Cautionary Tale

There is a possibility that the Z-axis column can be forced out of alignment on the 2000-series and the 5800-series Sherline mills while taking heavy cuts, especially under stepper motor operation (See Figure 1, refer to rotational axis #7). If this occurs, you will need to re-align the Z-axis column following these steps (see the Exploded view on page 2 for P/N references):

1. Loosen the flange nut (P/N 56230) located on the side of the ram arm (P/N 56330). (see Figure 2).
2. Square the Z-axis column bed per the instructions. <https://sherline.com/Wordpress/wp-content/uploads/2016/01/2000inst.pdf>
3. Tighten the flange nut to snug, for now, to hold the column in place.
4. Loosen one of the two 10-32 x 5/8" SHCS (P/N 40330) that sit atop the column adjustment block (P/N 56350). (**NOTE:** If these screws are not loosened prior to tightening the flange nut, you will not be able to fully lock down the flange nut.)
5. Tighten the flange nut down to full torque to lock the column in place.
6. Finally, re-tighten the 10-32 x 5/8" SHCS you loosened previously.

Thank you,
Sherline Products Inc.

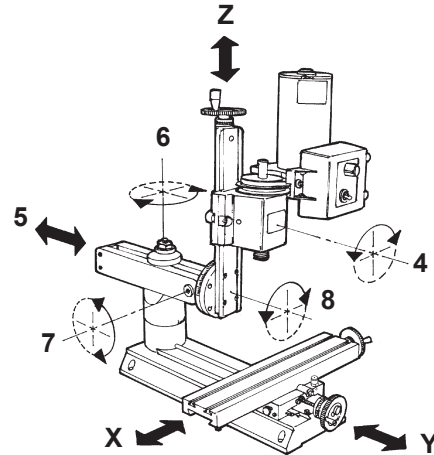


FIGURE 1—The axes of movement of a Sherline 8-direction mill.

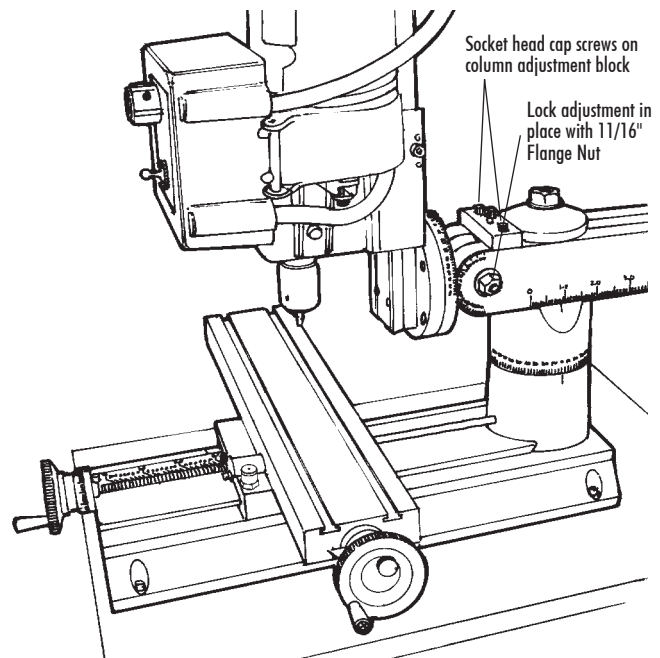


FIGURE 2—Shows the location of the flange nut and the SHC screws on the column adjustment block.

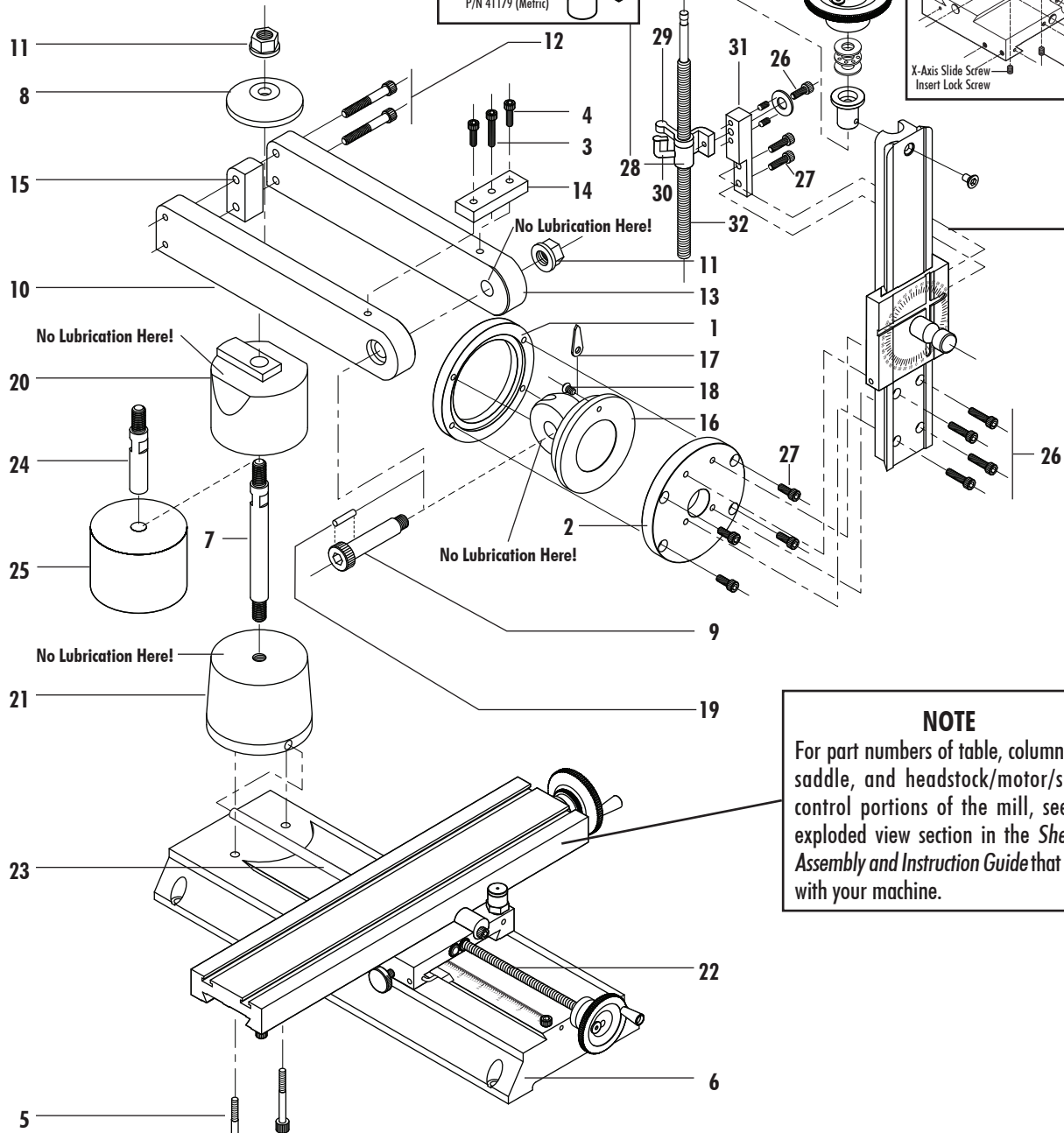
Sherline Model 2000 Mill Column

Exploded View and Part Listing

Saddle Nut Assembly
40177 (Inch), 41177 (Metric)
 1/8" Ball, P/N 40178
 Spring, P/N 22630
 Saddle Nut Body
 P/N 40179 (Inch)
 P/N 41179 (Metric)

Mill Saddle Oiler Detail

50930
 50920
 40520
 40520
 40520



NOTE
 For part numbers of table, column bed, saddle, and headstock/motor/speed control portions of the mill, see the exploded view section in the *Sherline Assembly and Instruction Guide* that came with your machine.

REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
1	35160	1	Graduated Clamping Ring
2	35170	1	Movable Clamping Disk
3	40340	1	10-32 x 1" SHCS
4	40330	2	10-32 x 5/8" SHCS
5	56240	2	1/4-20 x 1-1/2" SHCS
6	56010	1	#2000 Mill Base (Metric P/N 5602)
7	56130	1	Arm Hold-down Bolt #2000
8	56200	1	Arm Hold-down Washer #2000
9	56210	1	3/8-16 x 2" Shouldered Bolt
10	56220	1	Swing Arm side #2000
11	56230	2	Flange Nut

REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
12	50220	2	1/4-20 x 1-3/4" SHCS
13	56330	1	Swing Arm side #2000
14	56350	1	Column Adjustment Block
15	56400	1	Arm Spacer Block #2000
16	56440	1	Arm Mount #2000
17	56450	1	Index Tab
18	50211	1	8-32 x 1/4" Button Head Screw
19	56470	1	3/32" x 1/2" Dowel Pin
20	56550	1	Model 2000 Column Top
21	56700	1	Model 2000 Column Base
22	56160	1	Y-axis leadscrew (Metric P/N 5615)

REF. NO.	PART NO.	NO. REQ.	DESCRIPTION
23	56165	1	Brass Y-axis leadscrew cover
24	56110	1	Extension bolt
25	56770	1	Column spacer
26	40690	5	10-32 x 3/4" SHCS
27	40670	6	10-32 x 1/2" SHCS
28	40177	1	Saddle nut w/ ball (Metric P/N 41177)
29	40175	1	Saddle locking lever (Metric P/N 41175)
30	40165	1	Z-axis oiler
31	40176	1	Saddle travel extension
32	45011	1	Z-axis leadscrew (Metric P/N 45161)