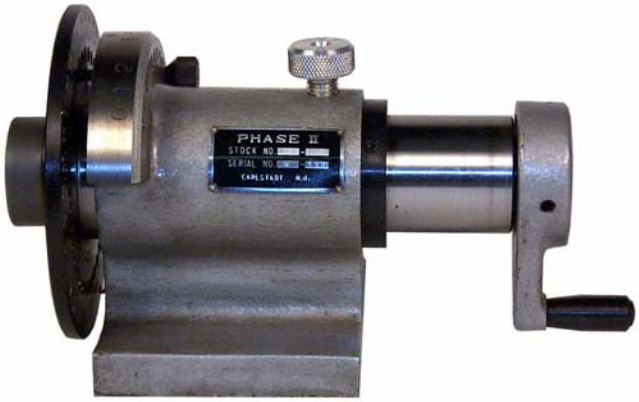
5C Spin Index Operating Instructions and Parts Manual

225-204 5C Spin Index



The Phase II 5C Spin Index is a multi-purpose indexing fixture designed to extend the work capabilities of milling machines, surface grinders and drill presses. Accepts 5C collets to 1-1/8" capacity. Indexing plate has a 36 hole pattern for direct indexing in 10 steps, graduated in 5° increments. Vernier is calibrated to 1° settings. Hardened and ground spindle with lock for accuracy under load travels 2-1/16" for flute grinding.

Unpacking Instructions

Check for shipping damage. If damage has occurred, a claim must be filed with carrier immediately. Check for completeness. Immediately report missing parts to dealer. **IMPORTANT: The tool has been coated with a protective coating. In order to ensure proper fit and operation, the coating must be removed. Remove the coating with mild solvents such as mineral spirits and a soft cloth. Non-flammable solvents are recommended. After cleaning, cover all exposed surfaces with a light coating of oil.**

CAUTION! Never use highly volatile solvents. Avoid getting cleaning solution on paint, as it may tend to deteriorate these finishes. Use soap and water on painted components.

Specifications

	Max. Variation
Dividing Spindle Concentricity	0.0004"
Cylindrical Center Bore Concentricity (Per 1")	0.0012"
Spindle center line parallelism to base	0.0008"

General Safety Information

1. Read and follow all operating instructions before operating tool.
2. Understand and obey all safety instructions supplied with mill or other machines on which the tool is used.
3. Always secure tool to machine table or other surfaces with the use of standard clamping kit.
4. Maintain and lubricate tool properly.

Operation

Refer to Figure 2.

The spindle (Ref. No. 4) accepts 5C collets. Clean the spindle before inserting collet. Be sure collet is free of any dirt or metal chips. Tighten knob (Ref. No. 10) before inserting the collet into spindle and rotate until keyway in collet engages key in spindle. Slide collet into spindle and rotate crankhandle clockwise (Ref. No. 8) to secure collet with drawtube (Ref. No. 7). Rotating the crankhandle after loosening the knob (Ref No. 10) will turn the indicator disc.

The indicator disc (Ref No. 3) has 36 holes marked 0-35. The center angle between one hole and the adjacent hole is 10°. The vernier scale in the housing (Ref No. 1) has ten holes marked 0-9. The center angle in the vernier scale between one hole and the adjacent hole is 1°.

Align hole '0' of the vernier scale with hole '0' of the indicator disc by rotating the crankhandle . Insert the indicator pin (Ref. No. 11) so that it passes through both the holes in the vernier scale and indicator disc. This will prevent the indicator disc from any movement. The next operation should be referenced from this point.

The 36 holes in the indicator disc permits division into 2, 3, 4, 6, 9, 12, 18 and 36 divisions. Using the formula 36÷D=I, where D is the number of divisions, the interval of holes (I) in the indicator disc can be determined. For example, to divide the indexing into nine divisions, using the above mentioned formula (36÷9=4), the indicator disc has to be turned at the interval of every 4 holes.

Slide the indicator pin out of the indicator disc and turn the crankhandle until the pin can be inserted in hole '4'. Inserting the indicator pin at intervals of four holes will divide into nine equal divisions.

Indexing can also be accomplished in terms of angles. Turning the indicator disc by one hole causes the disc to rotate by 10°. Indexing from 0°-360° in increments of 10° can be accomplished by turning the indicator disc at intervals of one hole. For example, 40° indexing means turning the indicator disc at intervals of four holes.

The vernier scale can be used for more accurate indexing for all nine intermediatory angles between steps of 10°. For example, to achieve 48° index, first align hole '0' in the indicator disc. Next turn the crankhandle so that hole '4' in the indicator disc is aligned with hole '0' in the vernier scale. Without moving the indicator disc, insert the indicator pin in hole '8' of the vernier scale. The indicator pin will press against the wall of the indicator disc. Then, turn the disc clockwise gradually until the pin can be inserted in the next hole.

The vernier hole system is designed so that the desired indexing accuracy in steps of 1° can be achieved.

After completion of indexing, make sure knob is tightened and indicator pin stops movement of indicator disc. To unscrew collet from drawtube, turn crankhandle counterclockwise with

the knob tightened and indicator pin passed through indicator disc.

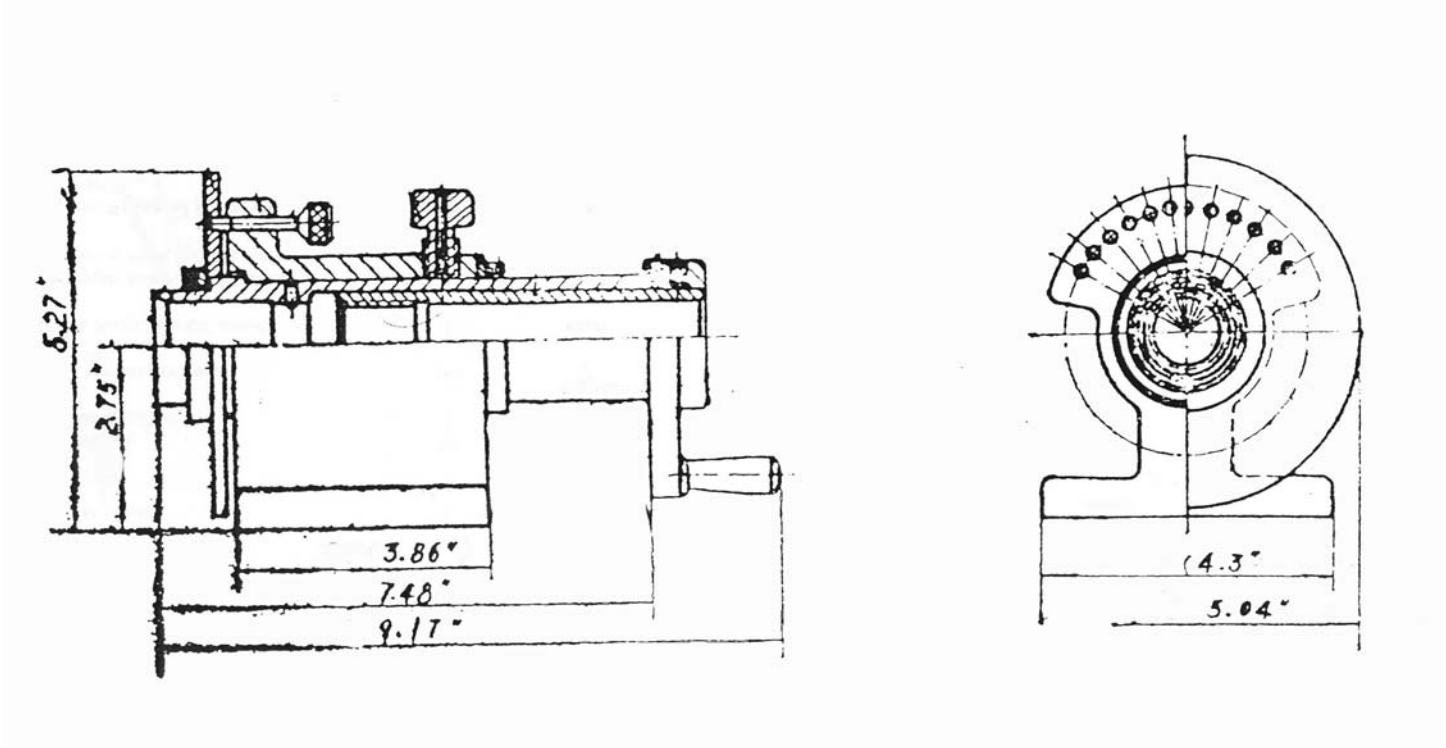
The spindle has a 2-1/16" travel in the direction of thrust for flute grinding. Adjusting the collar (Ref. No. 5) can regulate the travel using the set screws (Ref. No. 6).

Maintenance

Keep tool free of dirt and metal chips to prevent premature wear.

Lubrication

Lubricate spindle frequently to ensure proper operation. The hole in the center of the knob (Ref. No. 10) is for lubrication purposes. In addition, prevent rusting of any part of spin index, as it will affect the normal functions.



Address Parts Inquiries to:
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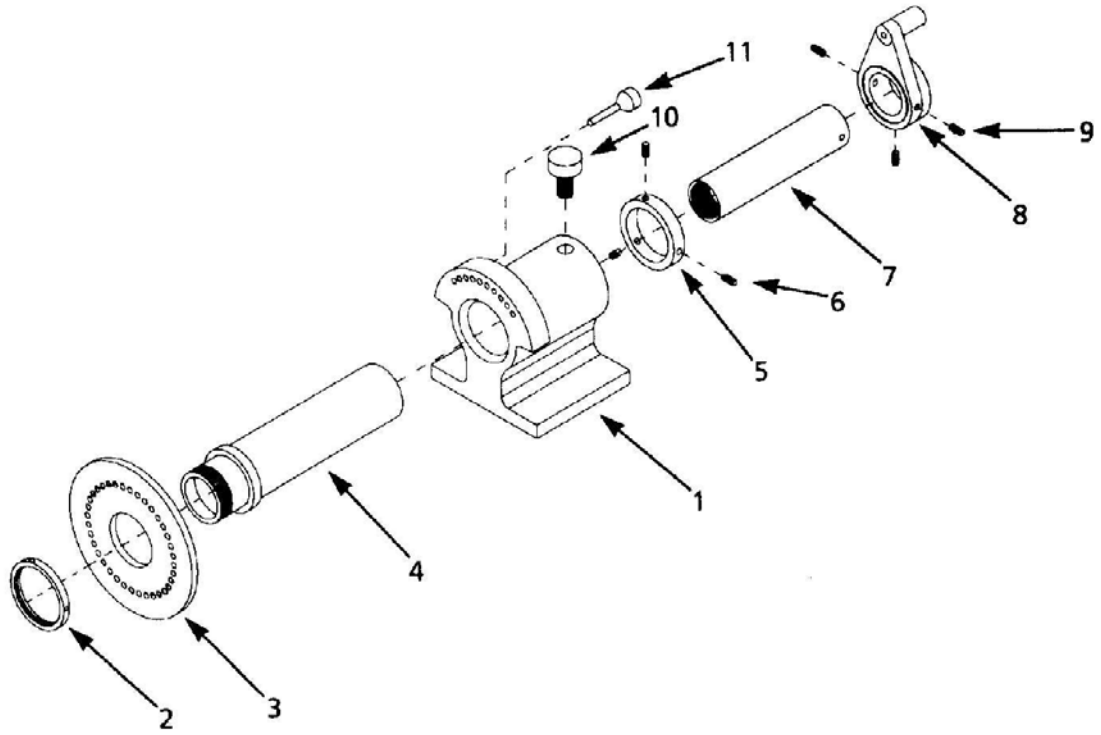
Figure 2-Exploded View Drawing



Replacement Parts List for 225-204 5C Spin Index

When ordering parts, please indicate stock number, serial no., and part description and reference no. as shown above.

Reference No.	Description	Part No.	Qty
1	Housing	♦	1
2	Spindle locknut	8121	1
3	Indicator Disc	8122	1
4	Spindle	♦	1
5	Collar	8123	1
6	6-1.0 x 6mm set screw	*	3
7	Drawtube	8124	1
8	Crank Handle	8125	1
9	6-1.0 x 10mm set screw	*	3
10	Knob	8126	1
11	Indicator pin	8127	1

♦ Available as assembly only and can be ordered by Part No.

*** Standard hardware item available locally**