

# 16C UNIVERSAL SPINDLE STOP

The Hardinge Model 16C Universal Spindle Stop provides a fully adjustable positive stop for a wide range of long parts. Three separate configurations are possible. Refer to Tables 1 and 2.

Table 1 - CONQUEST<sup>®</sup> Machine Spindle Stop Configurations

DEPTH	USE
Up to 7-1/4 inch [184 mm]	16C solid stop or long stop
From 7-1/4 to 12-1/8 inch [184 to 308 mm]	Long stop rod
From 12-1/8 to 17-1/4 inch [308 to 438 mm]	Short stop rod

Table 2 - CHNC<sup>®</sup> Machine Spindle Stop Configurations

DEPTH	USE
Up to 7-1/4 inch [184 mm]	16C solid stop or long stop
From 7-1/4 to 11-5/8 inch [184 to 295 mm]	Long stop rod
From 11-5/8 to 16-3/4 inch [295 to 425 mm]	Short stop rod

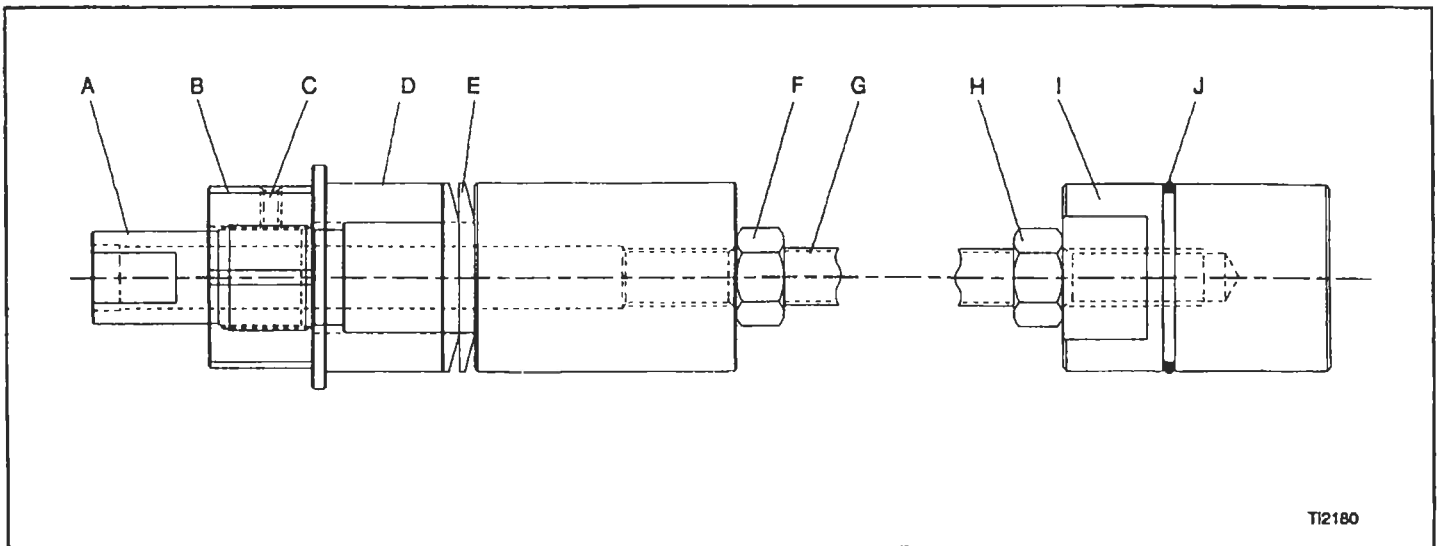


Figure 1 - 16C Spindle Stop Assembly

## ASSEMBLY and MOUNTING INSTRUCTIONS

1. Be sure execution of the active program has been completed; then, press the RESET key to stop spindle rotation.
2. Remove the access panel at the left (head-stock) end of the machine.
3. Refer to Table 1 to determine which stop arrangement is required.
4. Modify end stop "I", Figure 1, if required. Refer to Figure 2.

### - CAUTION -

**Always engage at least four threads of stop rod "G" into end stop "I" and body "A" .**

**Do not remove the end plug from body "A".**

5. Thread end stop "I" onto stop rod "G" and tighten jam nut "H".
6. Loosen jam nut "F" and adjust stop rod "G" to obtain the desired depth. See Figure 3. Retighten jam nut "F".

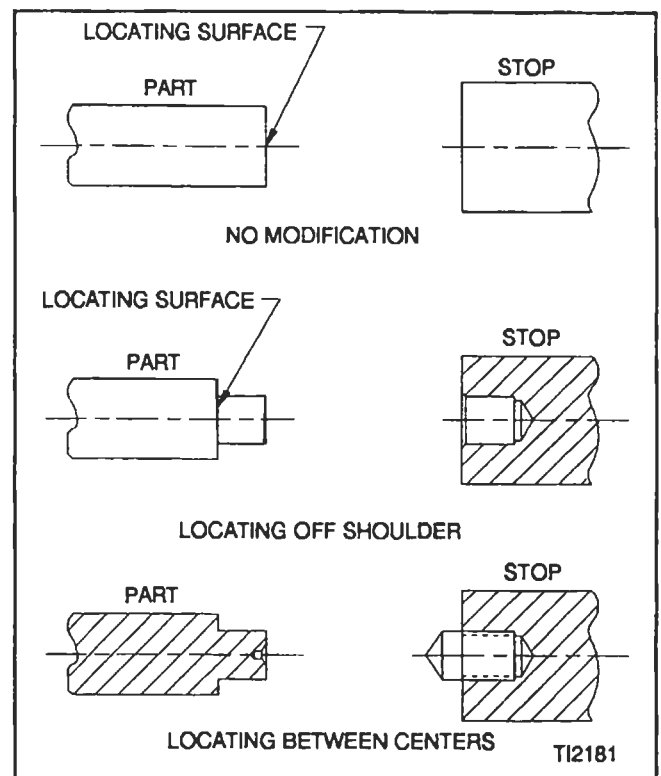


Figure 2 - Typical End Stop Modifications

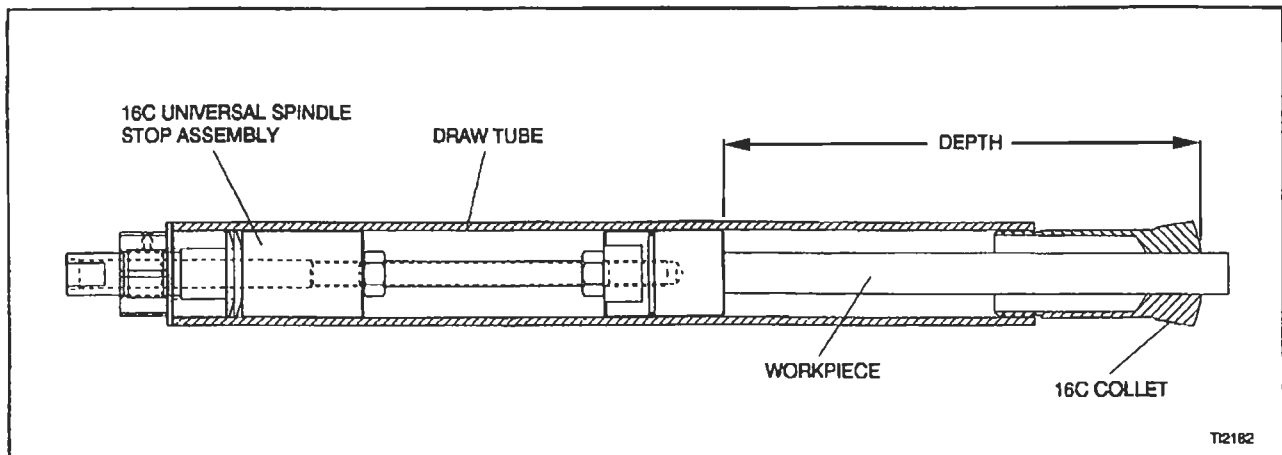


Figure 3 - Spindle Stop Assembled in Draw Tube

**- CAUTION -**

**If the machine will not be operated with the spindle stop in place, the spindle draw tube plug must be installed in the draw tube to prevent coolant and chips from entering the spindle drive compartment.**

7. Remove the spindle draw tube plug from the rear of the spindle.
8. Apply a light coating of O-ring lubricant to O-ring "J", Figure 2.
9. Loosen three set screws "C" enough to permit nut "B" to be tightened against pusher "D".
10. Slide the spindle stop assembly into the back of the draw tube.
11. Use a wrench to prevent body "A" from turning and tighten nut "B" finger tight to expand ring span discs "E".
12. Slide a workpiece into the collet against the stop and check the depth. If the depth adjustment is satisfactory, go to step 16. If further adjustment is required go to step 13.
13. Loosen nut "B" and remove the assembly from the spindle.
14. Loosen jam nut "F", adjust stop rod "G" as necessary.
15. Retighten jam nut "F" and repeat steps 10 through 12. If further fine adjustment is required, it can be accomplished using the control work shift offset.
16. Use a wrench to prevent body "A" from turning and tighten nut "B" approximately 1/6 to 1/8 turn using a 1-5/8 inch wrench.
17. Tighten one set screw "C" to secure the setting.

## **16C SPINDLE STOP REMOVAL**

1. Be sure execution of the active program has been completed; then, press the RESET key to stop spindle rotation.
2. Remove the access panel at the left (headstock) end of the machine.
3. Loosen set screw "C".
4. Use a wrench to prevent body "A", Figure 1, from turning and loosen nut "B" using a 1-5/8 inch wrench.
5. Remove the spindle stop assembly from the spindle.

**- CAUTION -**

**If the machine will not be operated with a bar feed, the spindle draw tube plug must be in place to prevent coolant and chips from entering the spindle drive compartment.**

6. Install the spindle draw tube plug in the spindle.
7. Re-install the access panel.

# PARTS LIST

## 16C UNIVERSAL SPINDLE STOP

KEY	PART NUMBER	PART NAME	QUANTITY PER ASSEMBLY
1	1717-66-01-000000	PLUG	1
2	1717-66-02-000000	BODY	1
3	1717-66-03-000000	NUT	1
4	0570303	SCREW, SET 10-32 X 3/16	3
5	N37 0000483	PLUG	3
6	1717-66-04-000000	PUSHER	1
7	1717-66-08-000000	DISC, RINGSPAN	2
8	MD 0003182	NUT, JAM	2
9	1717-66-05-000000	ROD, SHORT STOP	1
9	1717-66-06-000000	ROD, LONG STOP	1
10	1717-66-07-000000	STOP, END	1
11	OR 0002427	O-RING	1

