

**Problem 16-5** Working drawing (in.)

Assembly Name: Mill Work Stop

**SPECIFIC INSTRUCTIONS:**

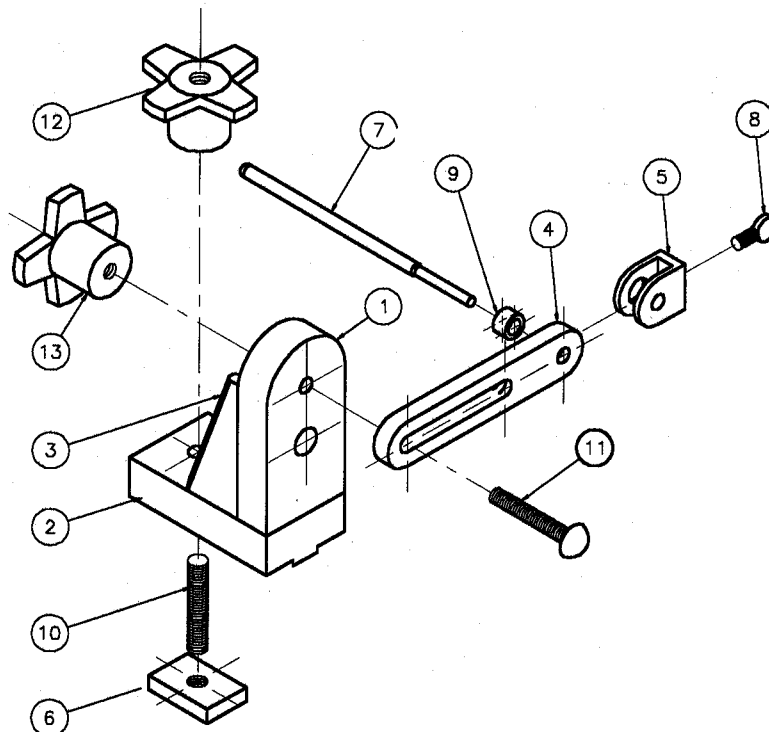
Prepare a complete set of working drawings with one detail drawing per sheet and the assembly drawing with parts list on one sheet. Notice: part number 10, TEE STUD, is cut from standard 3/8-16UNC ALL THREAD. Parts 12 and 13, BLANK KNOBS, are purchased as knobs without the threads machined. You will

draw the knobs as a "representation" of the purchase part and give the thread note as identified in the parts list. The actual dimensions of the knob to be purchased are not important; however, accurate specifications for the threads to be machined into the purchase part are important.

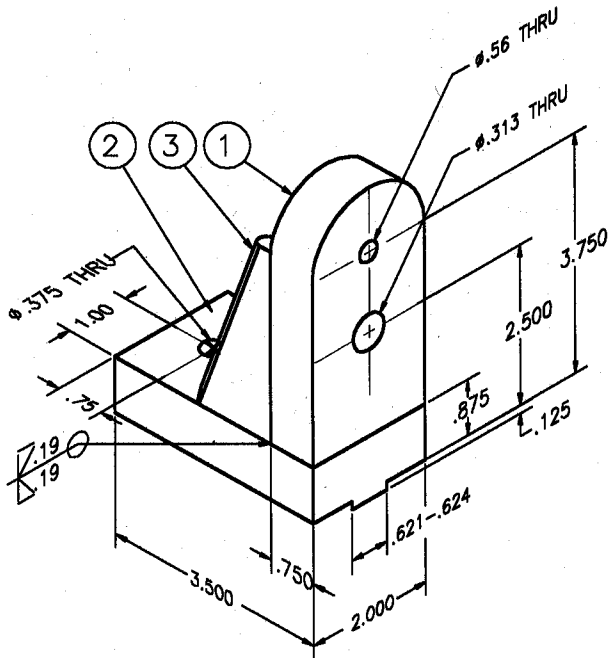
NOTE: Some design is required throughout the completion of the project.

**PARTS LIST:**

ITEM	QTY	NAME	DESCRIPTION	MATERIAL
1	1	VERTICAL MEMBER	3/4 × 2 × 4	SAE 6061
2	1	BASE MEMBER	1 × 2 × 3.5	SAE 6061
3	2	RIB	1/4 PLATE	SAE 6061
4	1	ARM	3/8 × 1 × 5-1/2	SAE 1018
5	1	CLAMP	1/2 × 1 × 1-5/16	SAE 1018
6	1	TEE PLATE	5/16 × 1 × 1-1/4	SAE 1018
		DRILL AND TAP AT CENTER FOR 5/16-18UNC-2 THREAD THRU		
7	1	STOP ROD	∅5/16 × 6	SAE 303 SS
8	1	WING NUT	1/4-28 × 1/2	
9	1	BUSHING	∅1/2 × .31	SAE 1018
10	1	TEE STUD	3/8-16 × 2 LG ALL THREAD	
11	1	CARRIAGE BOLT	5/16-18UNC-2	
12	21	BLANK KNOB	VLIER HK-3 (DRILL AND TAP FOR 3/8-16UNC-2B)	
13	1	BLANK KNOB	VLIER HK-3 (DRILL AND TAP FOR 5/16-18UNC-2B)	

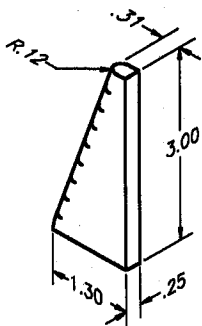


Problem 16-5 (Continued)

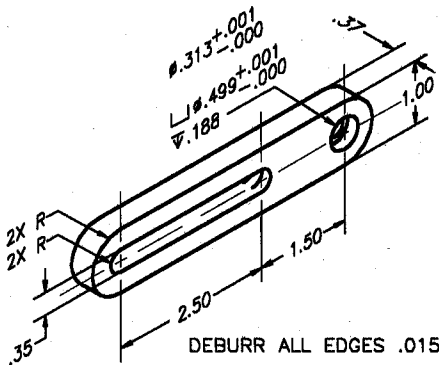


DEBUR ALL EDGES .020

BODY ASSEMBLY WELDMENT  
FINISH: COLOR ANODIZED



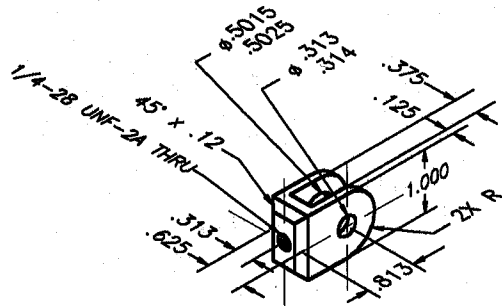
③ RIB



DEBURR ALL EDGES .015

④ ARM

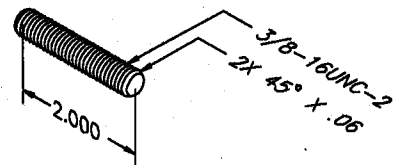
FINISH: C HARDEN .005/.010  
BLACK OXIDE



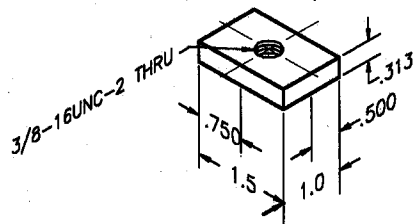
DEBUR ALL EDGES .015  
EXCEPT  $\phi .313-.314$

⑤ CLAMP

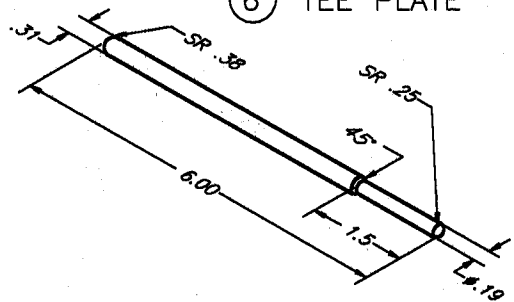
FINISH: C HARDEN .005/.010  
BLACK OXIDE



⑩ TEE STUD

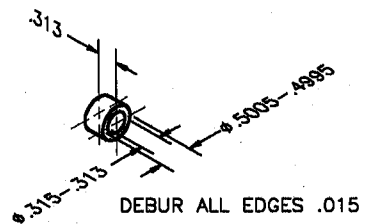


⑥ TEE PLATE



⑦ STOP ROD

FINISH: POLISH



DEBUR ALL EDGES .015

⑨ BUSHING

FINISH: C HARDEN .005/.010  
BLACK OXIDE