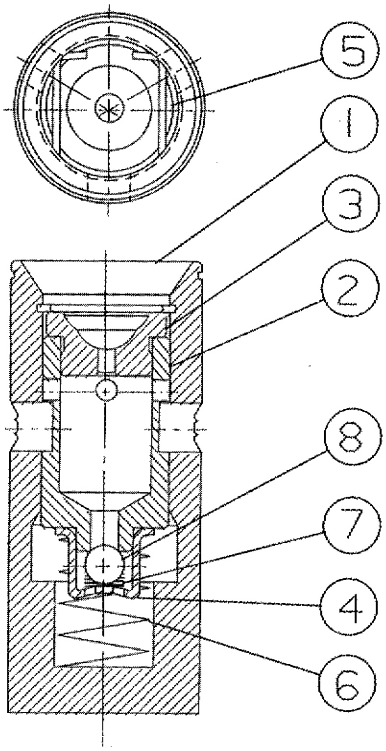
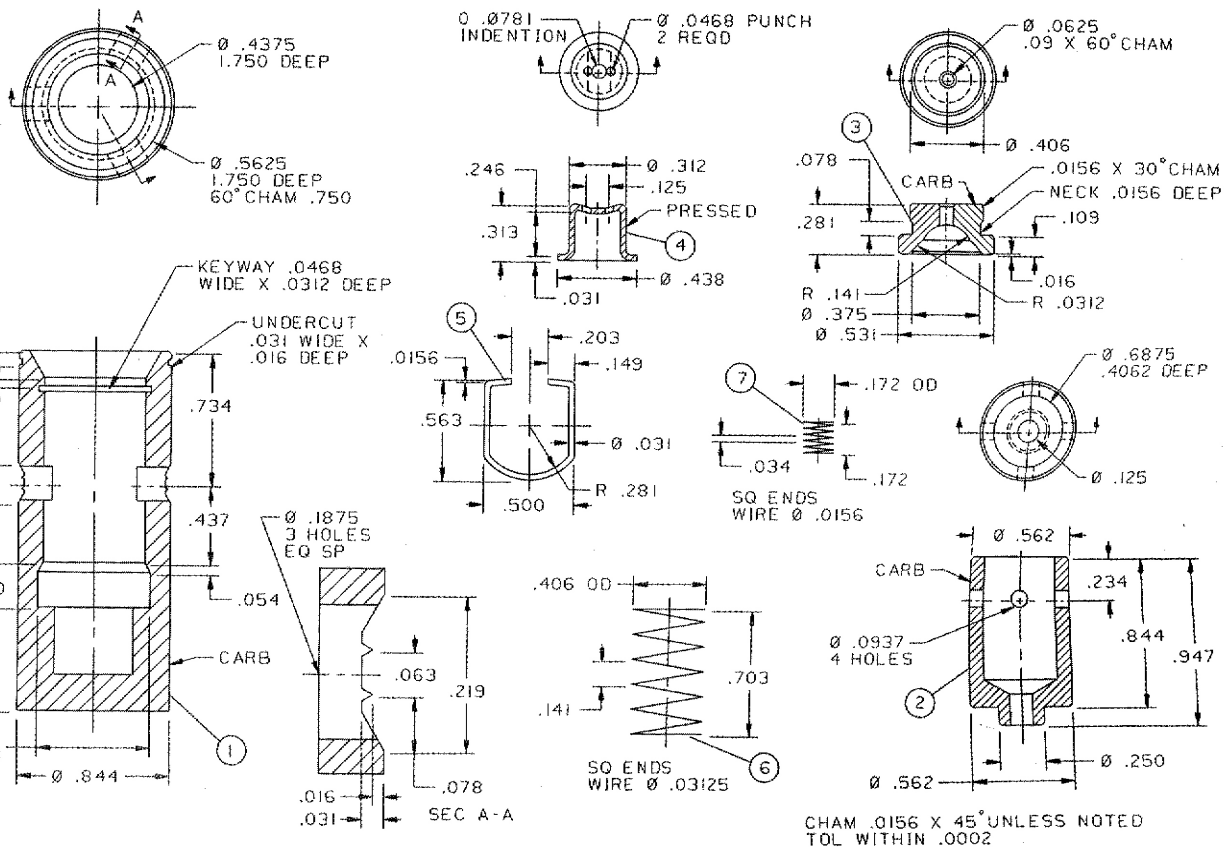
Assembly Drawing Projects

For assembly projects, prepare a layout assembly of the parts by blocking them in for each view required. Be sure to provide sufficient space on the sheet for the assembly and the parts list. The parts list can be generated on a word processor or a CAD system and printed on a separate sheet.

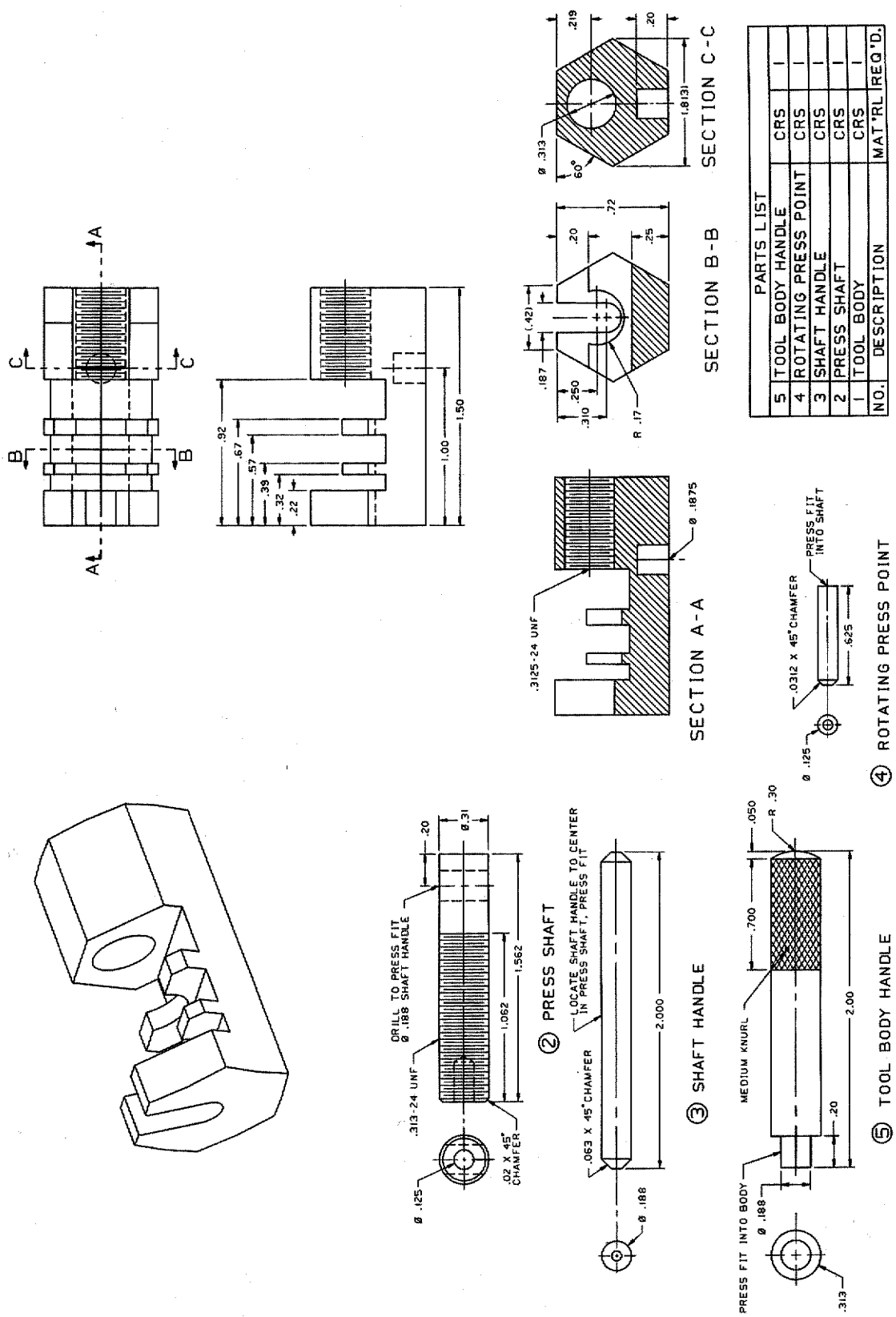
Problem 23.19(A) and (B) Do an assembly (A) and details (B) for the hydraulic valve assembly.

NO.	PART NAME	REQD	MATL
8	BALL BEARING Ø 3/16	1	STEEL
7	BALL CHECK VALVE SPRING	1	SPG STL
6	PLUNGER SPRING	1	SPG STL
5	RETAINER RING	1	SPG
4	BALL RETAINER	1	STL
3	PUSH ROD SEAT	1	STL
2	PLUNGER	1	STL
1	LIFTER BODY	1	STL

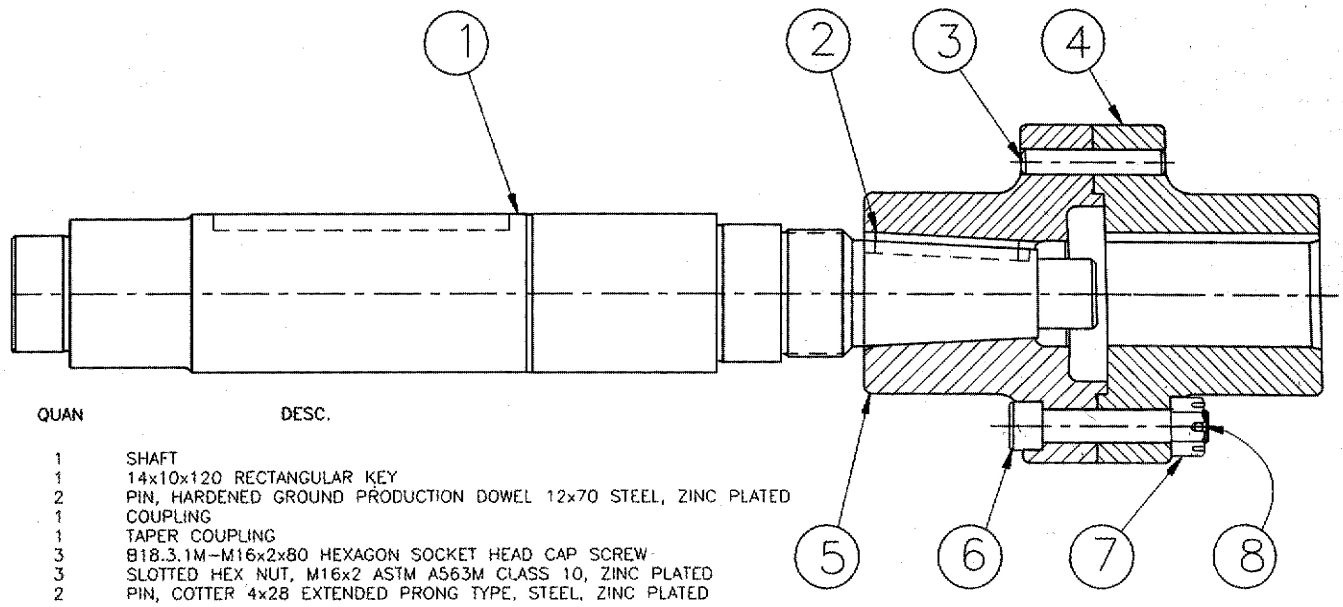




Problem 23.20 Do an assembly and details of the bike chain puller assembly.

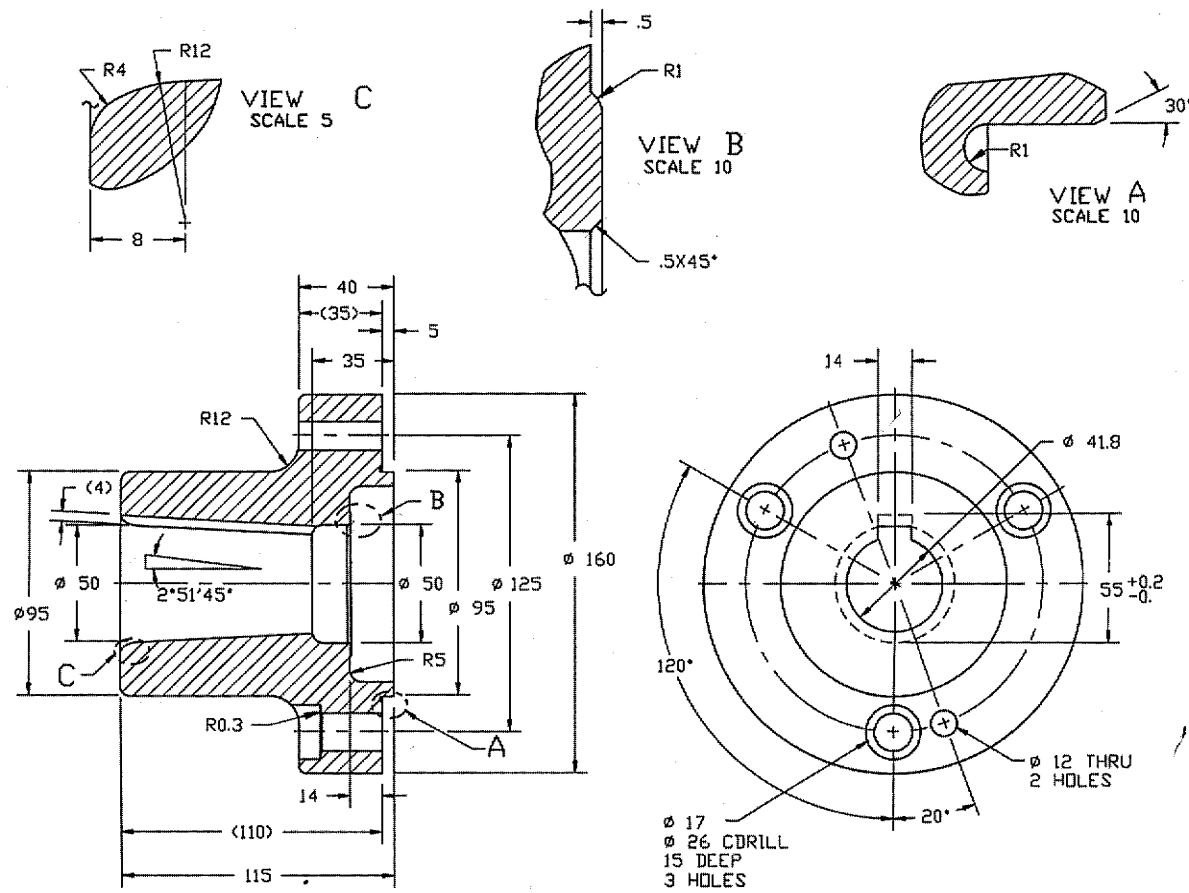


Problem 23.21(A) and (B) Draw and detail the assembly and details for the coupling.



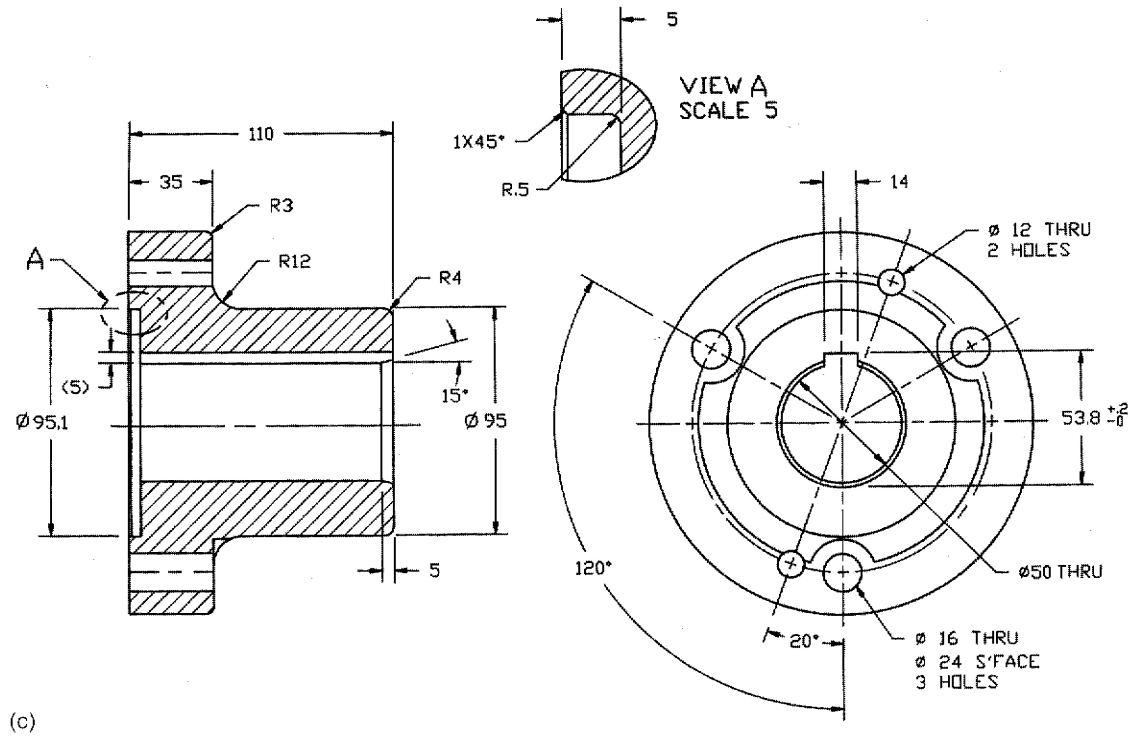
#	QUAN	DESC.
1	1	SHAFT
2	1	14x10x120 RECTANGULAR KEY
3	2	PIN, HARDENED GROUND PRODUCTION DOWEL 12x70 STEEL, ZINC PLATED
4	1	COUPLING
5	1	TAPER COUPLING
6	3	818.3.1M–M16x2x80 HEXAGON SOCKET HEAD CAP SCREW
7	3	SLOTTED HEX NUT, M16x2 ASTM A563M CLASS 10, ZINC PLATED
8	2	PIN, COTTER 4x28 EXTENDED PRONG TYPE, STEEL, ZINC PLATED

(a)

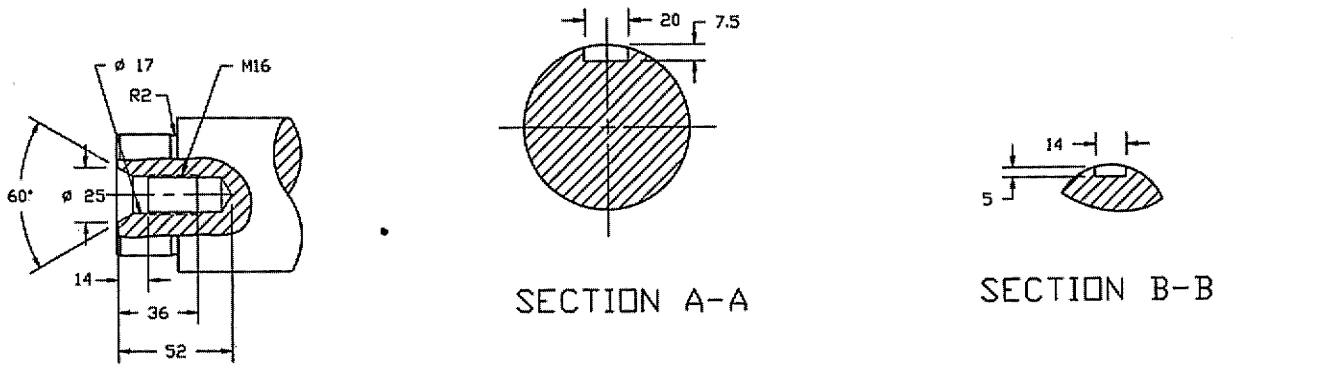


(b)

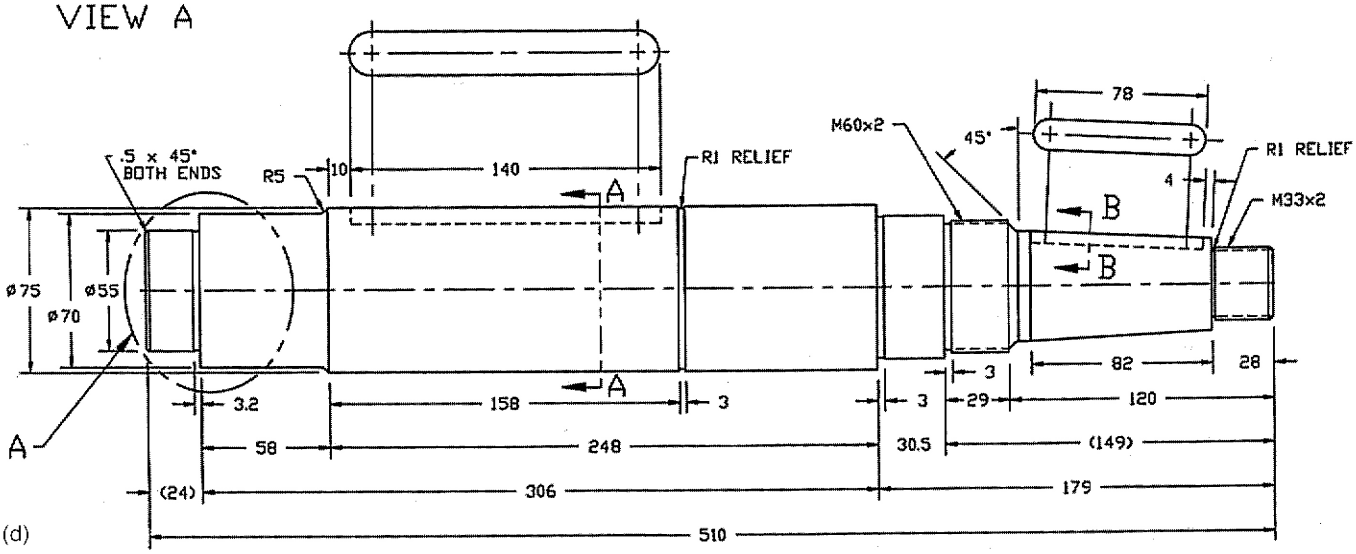
Problem 23.21(C) and (D) Draw and detail the assembly and details for the coupling.



(c)

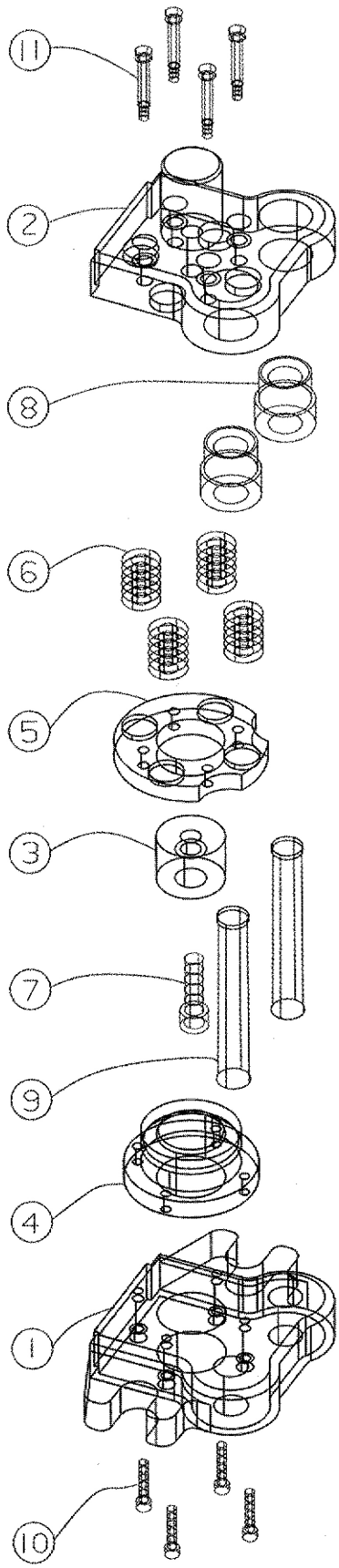


VIEW A



(d)

Problem 23.22(A) Through (I) Draw and detail the die set. Do a complete assembly and set of details.

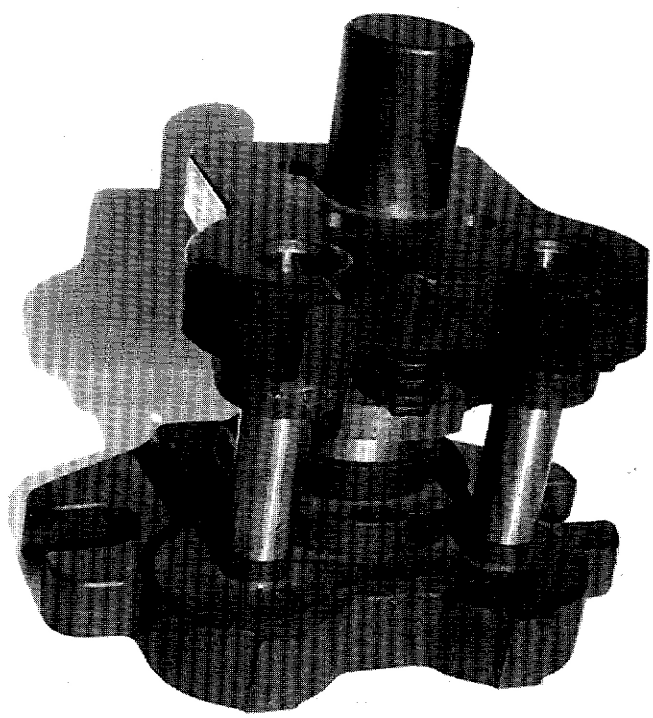


(a)

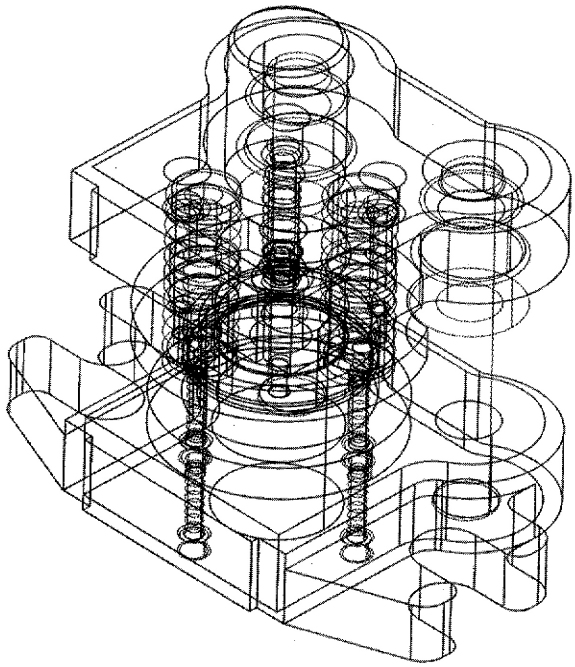
REV.	ITEM	QTY	PART NO.	DESCRIPTION
SH 1	1	1		DIE BASE, CAST STEEL
	2	1		UPPER DIESHOE, CAST STEEL
	3	1		DIE PUNCH, STEEL
	4	1		WASHER DIE, STEEL
DWG. NO.	5	1		DIE PLATE, STEEL
	6	2	9-1606-21	SPRING, DANLY MEDIUM-HIGH PRESSURE, STEEL RETANGULAR WIRE, HOLE Ø 1.00, ROD Ø .500, 1.50 FREE LENGTH (REF .980 OD .150 ID)
	7	1		SCREW, SOCKET HEAD CAP .500-20 X 2.00
	8	2	6-07-61	BUSHING, DANLY PRECISION PRESS FIT SHORT SHOULDER, STEEL, .875 ID. 1.375 OD, 1 9/16 SHOULDER ID. LENGTH 1.75, 13/16 LONG SHOULDER
	9	2	5-0720-1	GUIDE POST, DANLY MICROME PRECISION STEEL, Ø .875 X 5.00
	10	4		SCREW, SOCKET HEAD CAP SHOULDER Ø .3125 X 1.50
	11	1		SCREW, SOCKET HEAD CAP Ø .250-20 X 1.25

		SIZE A	FSCM NO.	DIE SET REV.
DRAWN	8-2-91			
ISSUED	8-15-91	SCALE 1:1		JAIME GUERRERO

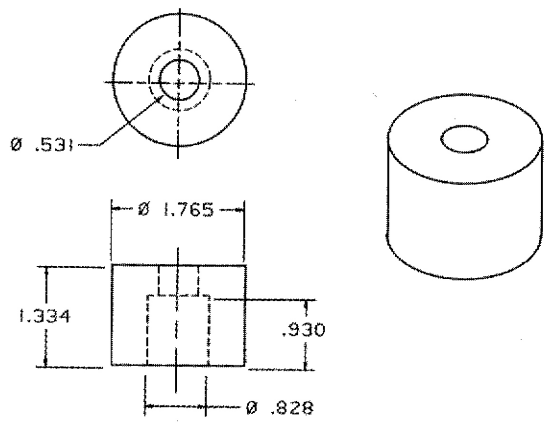
(b)



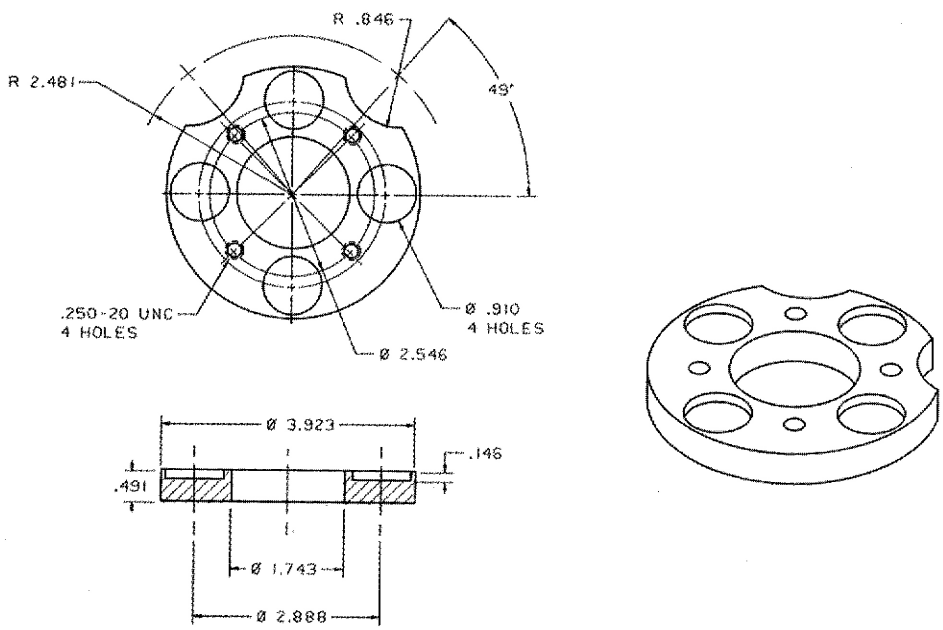
(c)



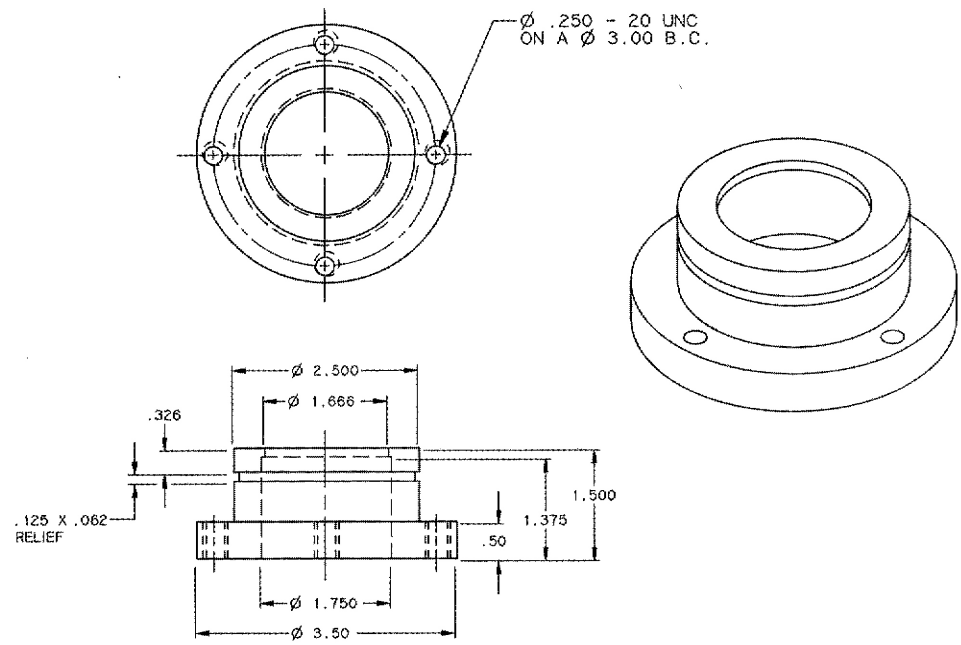
(d)


Ø .531
Ø 1.765
1.334
.930
Ø .828

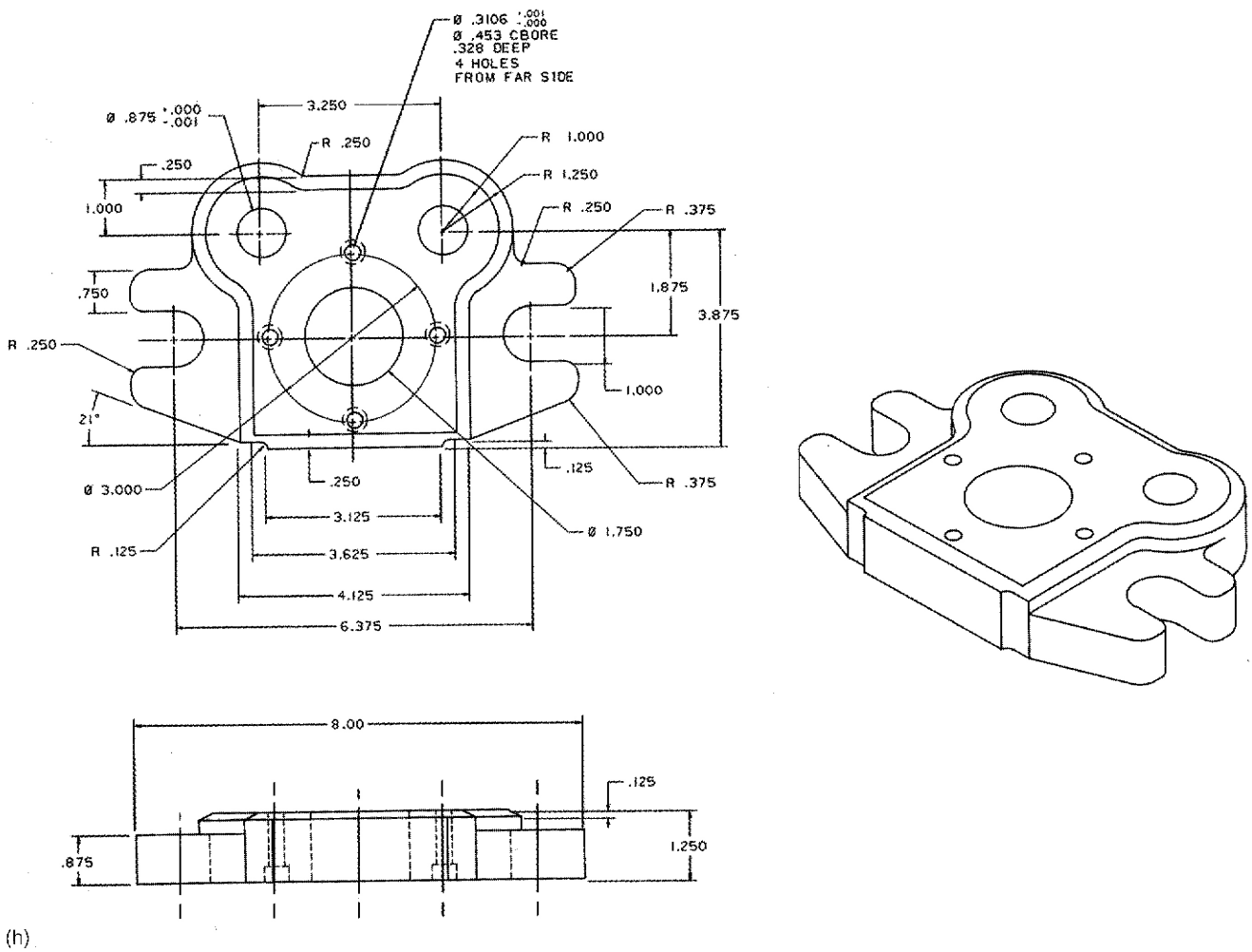
(e)


R .846
R 2.481
49°
.250-20 UNC
4 HOLES
Ø .910
4 HOLES
Ø 2.546
Ø 3.923
.146
.491
Ø 1.743
Ø 2.888

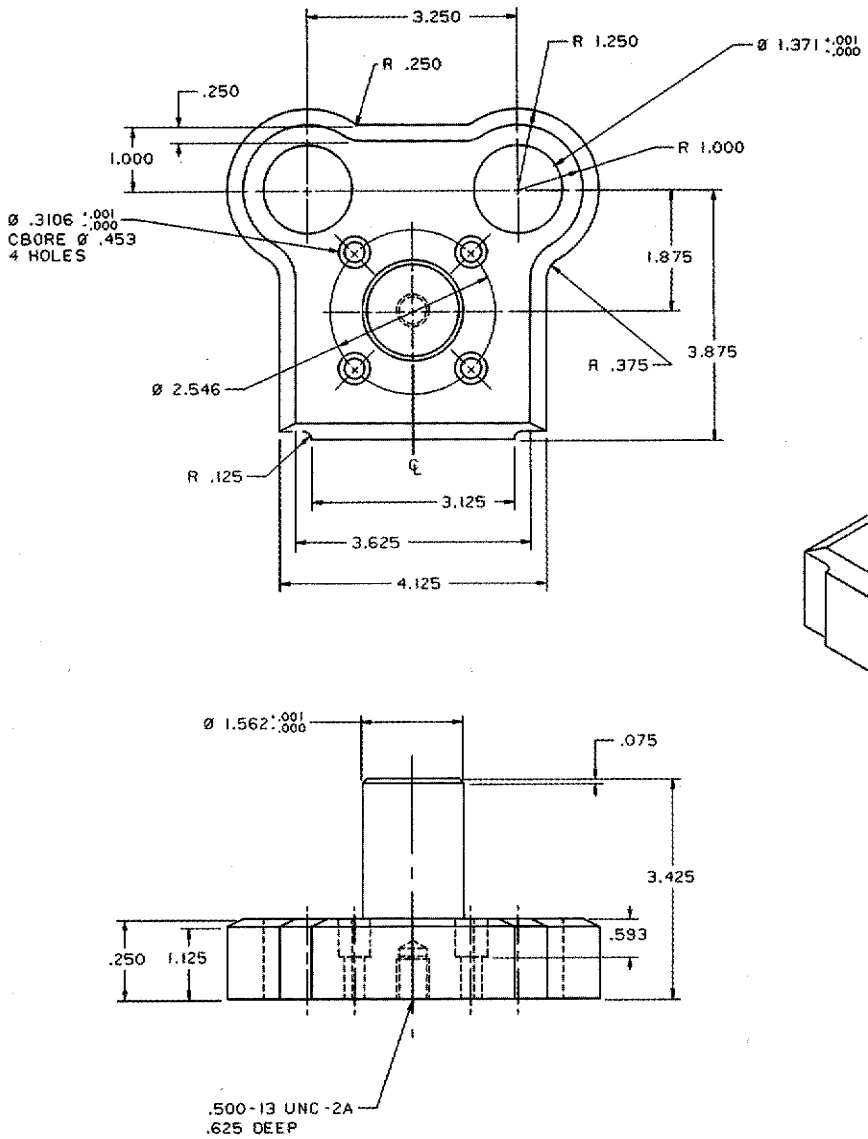
(f)

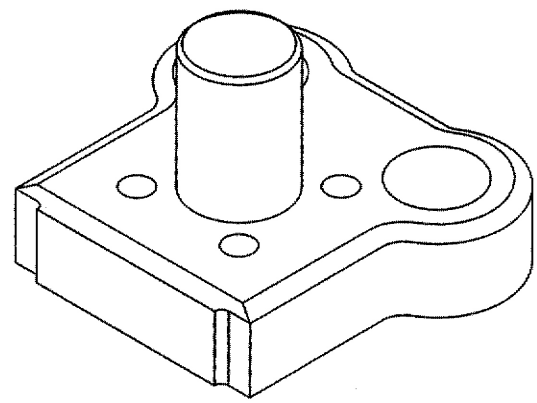

Ø .250 - 20 UNC
ON A Ø 3.00 B.C.
Ø 2.500
Ø 1.666
.326
.125 X .062
RELIEF
1.500
1.375
.50
Ø 1.750
Ø 3.50

(g)


Ø .3106 +.001 -.000
Ø .453 CBORE
.328 DEEP
4 HOLES
FROM FAR SIDE
Ø .875 +.000 -.001
3.250
R .250
R 1.000
R 1.250
R .250
R .375
.250
1.000
.750
1.875
3.875
R .250
21°
1.000
.125
R .375
Ø 3.000
.250
3.125
Ø 1.750
R .125
3.625
4.125
6.375
8.00
.125
.875
1.250

(h)


3.250
R .250
R 1.250
Ø 1.371 +.001 -.000
.250
1.000
R 1.000
Ø .3106 +.001 -.000
CBORE Ø .453
4 HOLES
1.875
3.875
R .375
Ø 2.546
R .125
3.125
3.625
4.125



Ø 1.562 +.001 -.000
.075
3.425
.593
.250
1.125
.500-13 UNC-2A
.625 DEEP

(i)