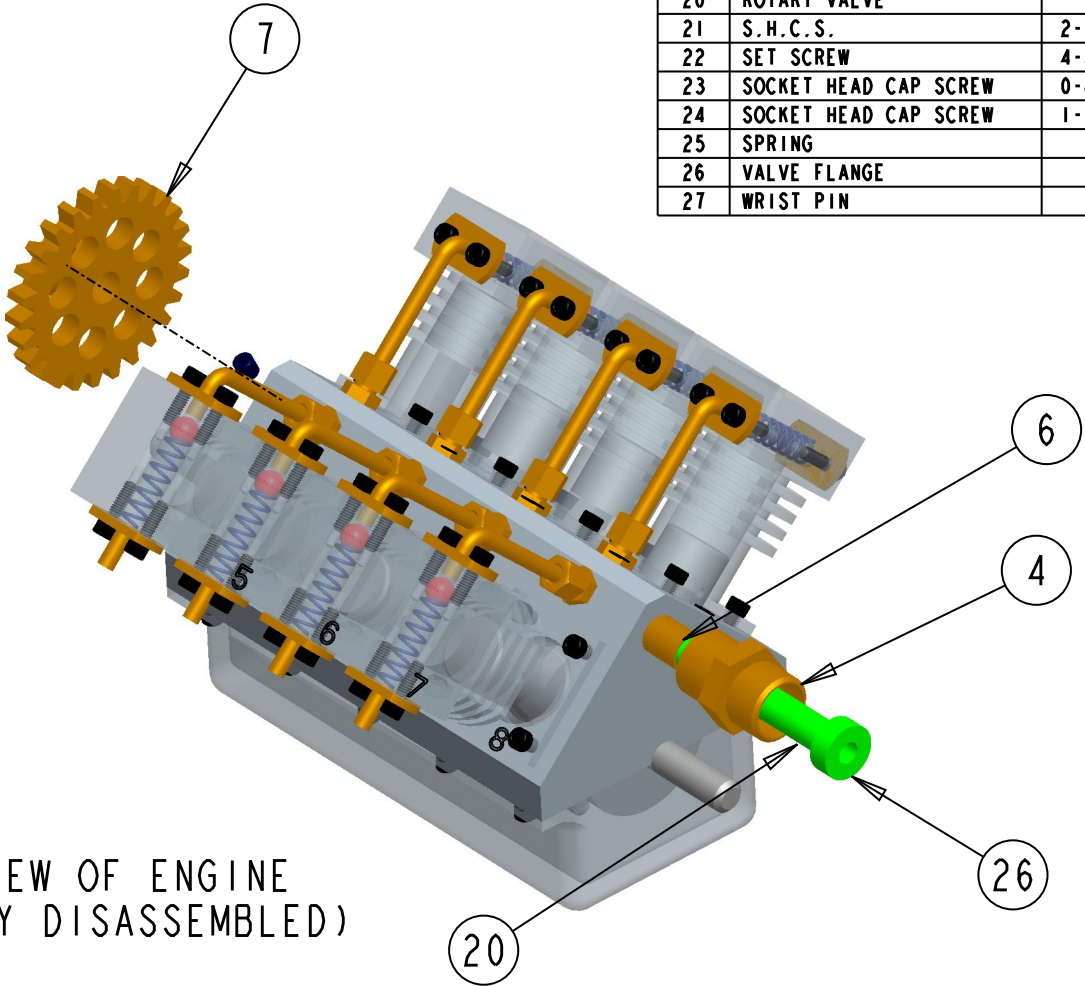
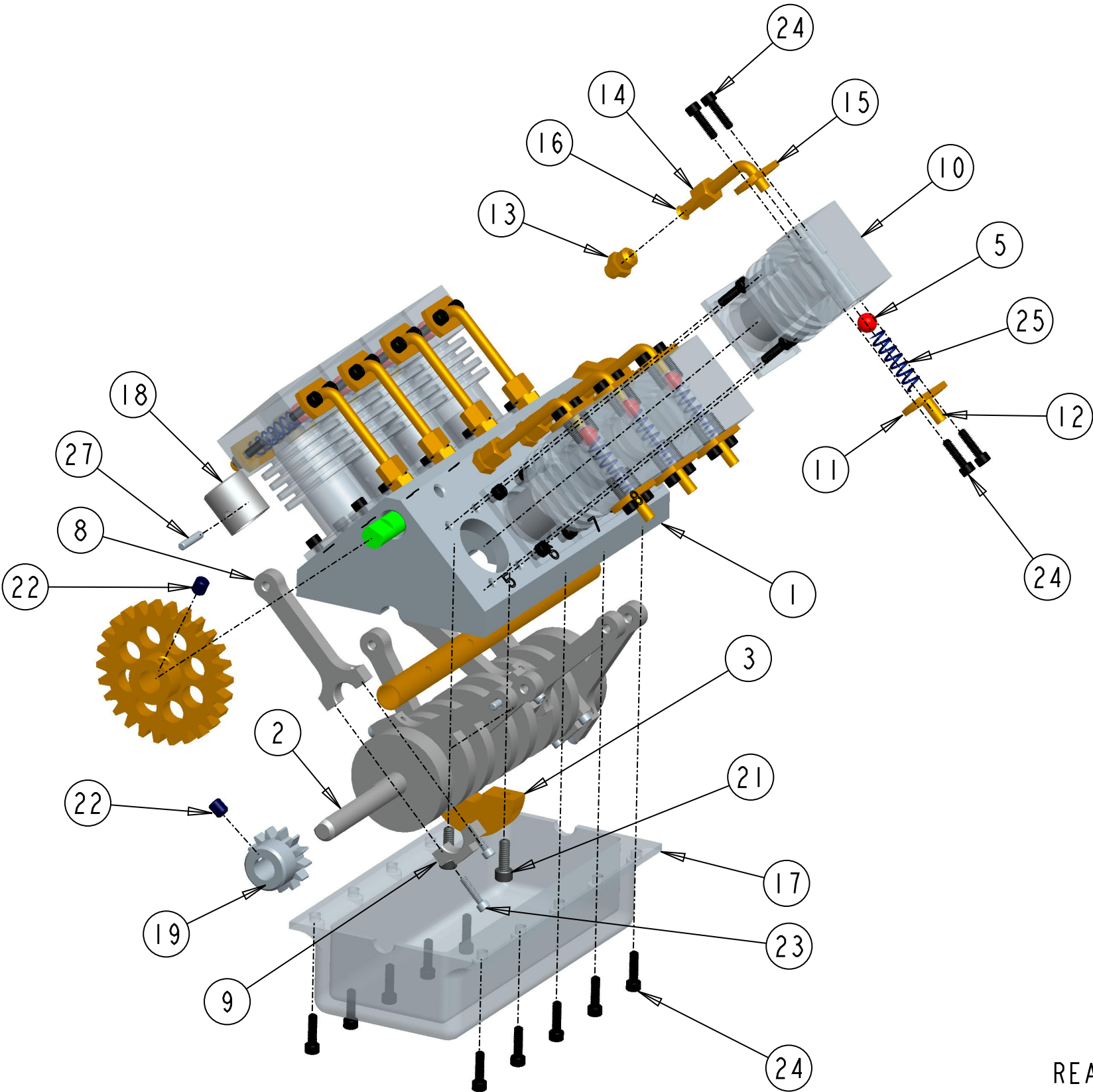


Rev.	DATE	NOTES
0	11-16-12	INITIAL RELEASE

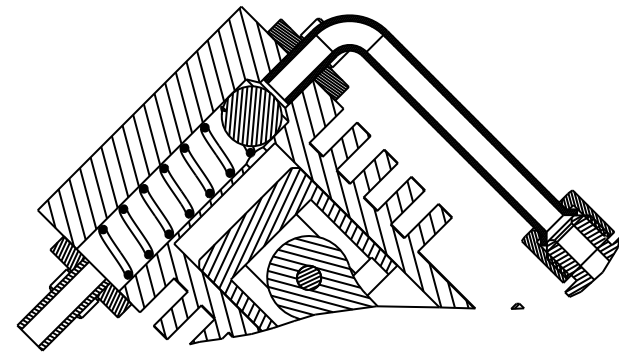
ITEM NO.	DESCRIPTION	MATERIAL	QN'TY
1	ENGINE BLOCK	AL.	1
2	CRANKSHAFT	12L14 C.R.S.	1
3	MAIN BEARING	BRASS	1
4	AIR INLET FITTING	BRASS	1
5	BALL BEARING	STK.	8
6	CAM BEARING	BRASS	1
7	CAM GEAR	BRASS	1
8	CONNECTING ROD	AL.	8
9	CONNECTING ROD CAP	AL.	8
10	CYLINDER	AL.	8
11	EXHAUST FLANGE	BRASS	8
12	EXHAUST PIPE	BRASS	8
13	FLARE FITTING	BRASS	8
14	FLARE NUT	BRASS	8
15	INTAKE FLANGE	BRASS	8
16	INTAKE TUBE	BRASS	8
17	OIL PAN	AL.	1
18	PISTON	DRILL ROD	8
19	PRIMARY GEAR	12L14 C.R.S.	1
20	ROTARY VALVE	DRILL ROD	1
21	S.H.C.S.	2-56 X 1/4 LG.	2
22	SET SCREW	4-40 X 1/8" LG.	2
23	SOCKET HEAD CAP SCREW	0-80 X 1/4 LG.	16
24	SOCKET HEAD CAP SCREW	1-72 X 1/4 LG.	74
25	SPRING	STK.	8
26	VALVE FLANGE	DRILL ROD	1
27	WRIST PIN	DRILL ROD	8



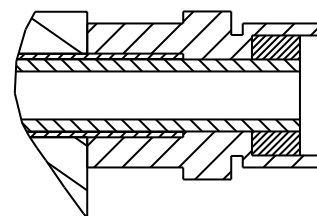
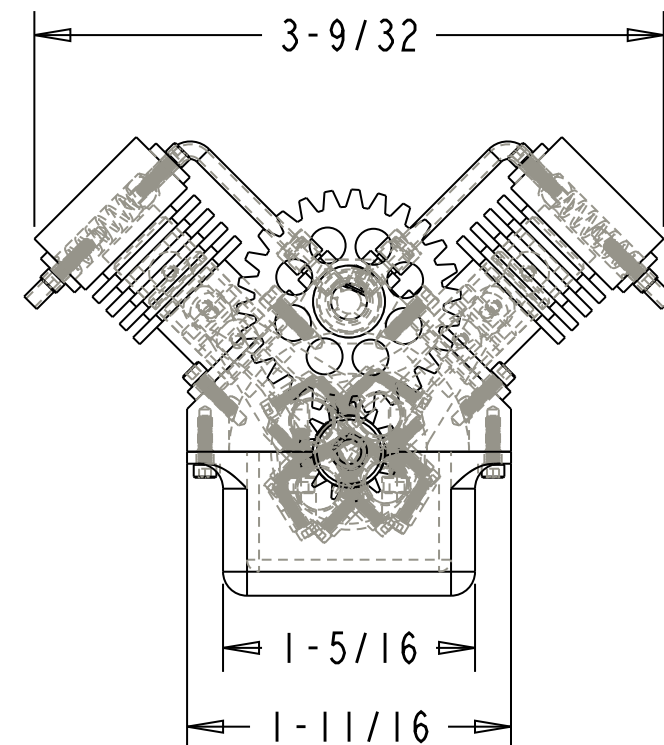
REAR VIEW OF ENGINE  
(PARTIALLY DISASSEMBLED)

# **CIRRUS V8 ROTARY VALVE ENGINE** **\*A CHUCK FELLOWS DESIGN\***

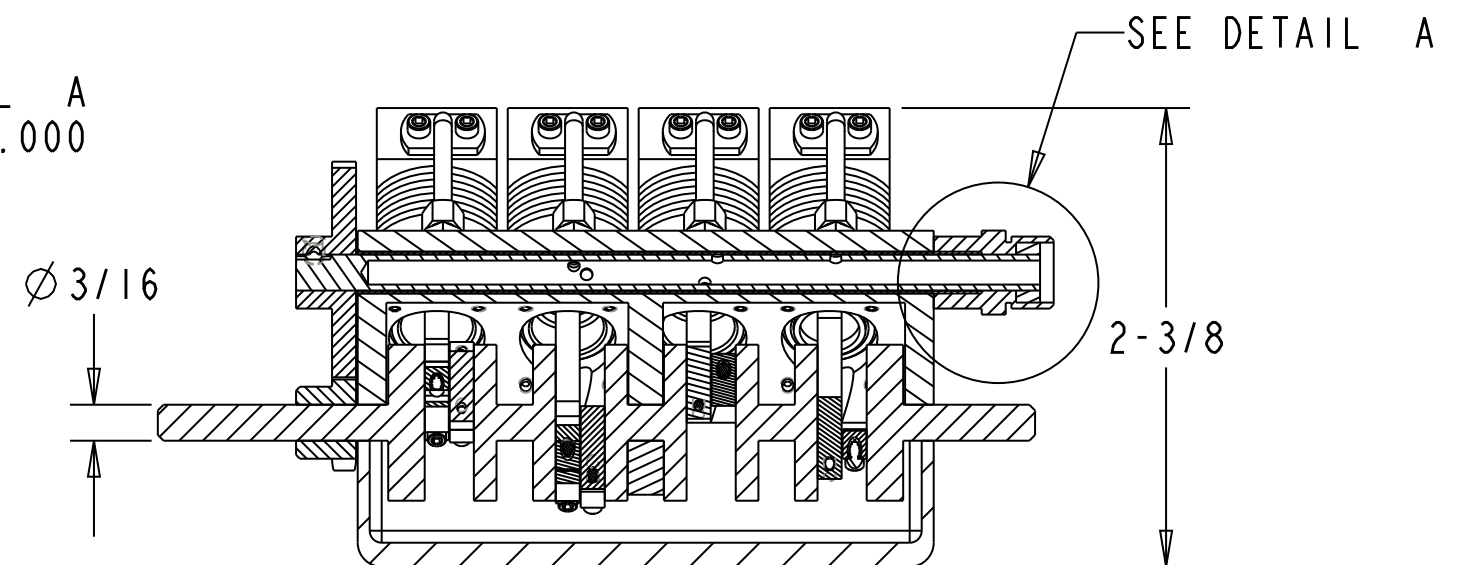
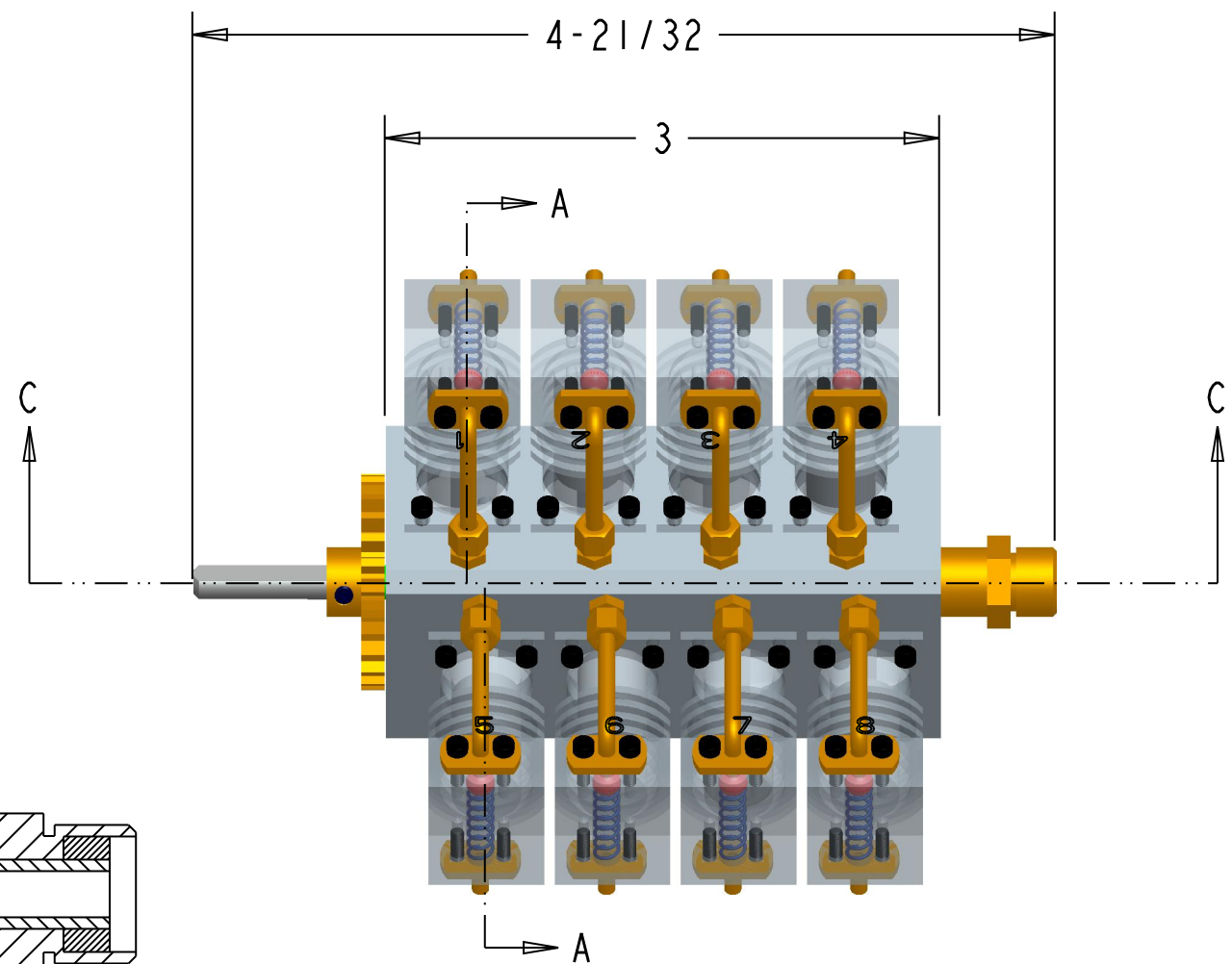
REDRAWN WITH PERMISSION FROM ENGINE DESIGNER  
 CHUCK FELLOWS BY J. McCLELLAND



PARTIAL VIEW A-A

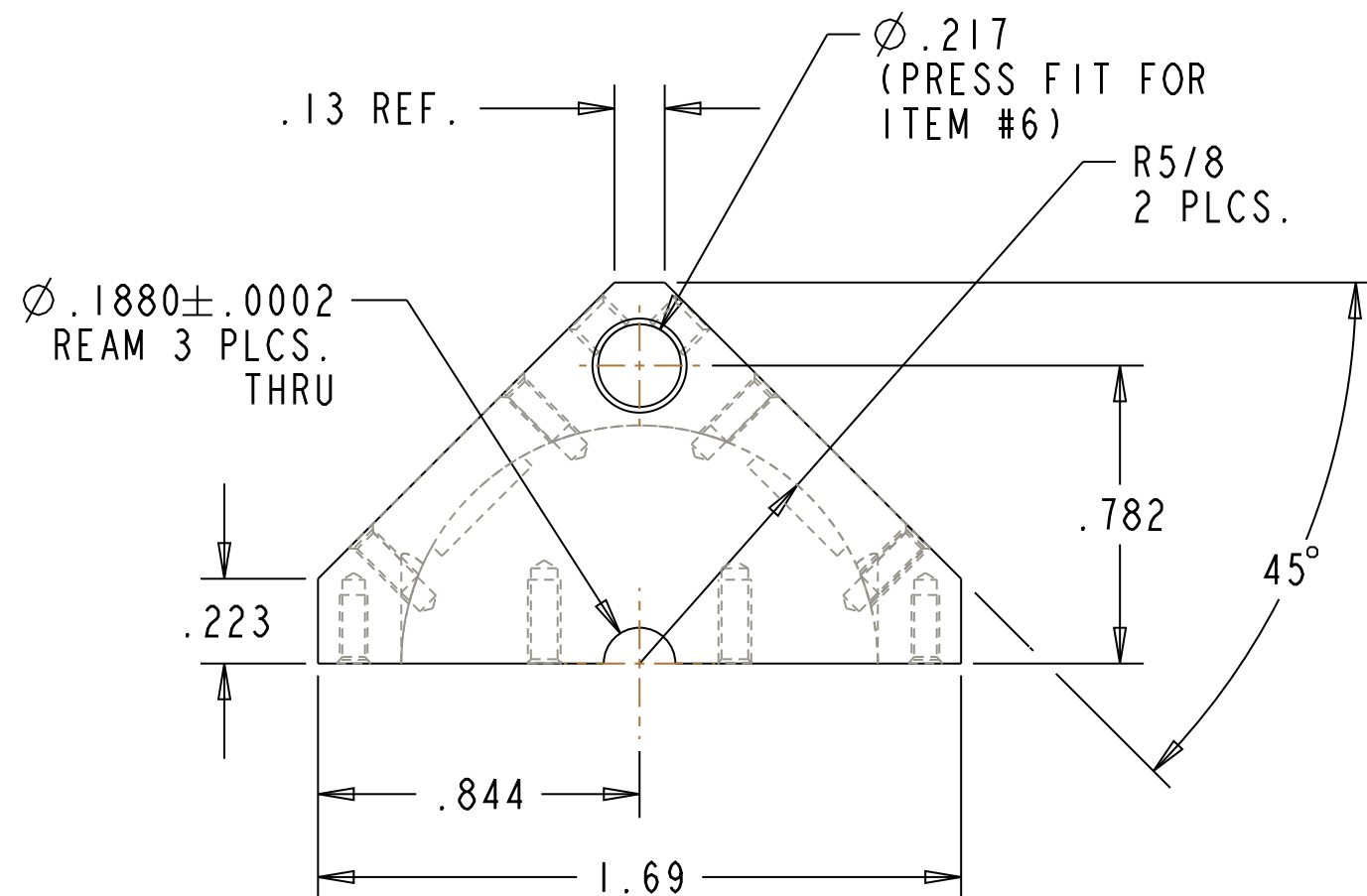
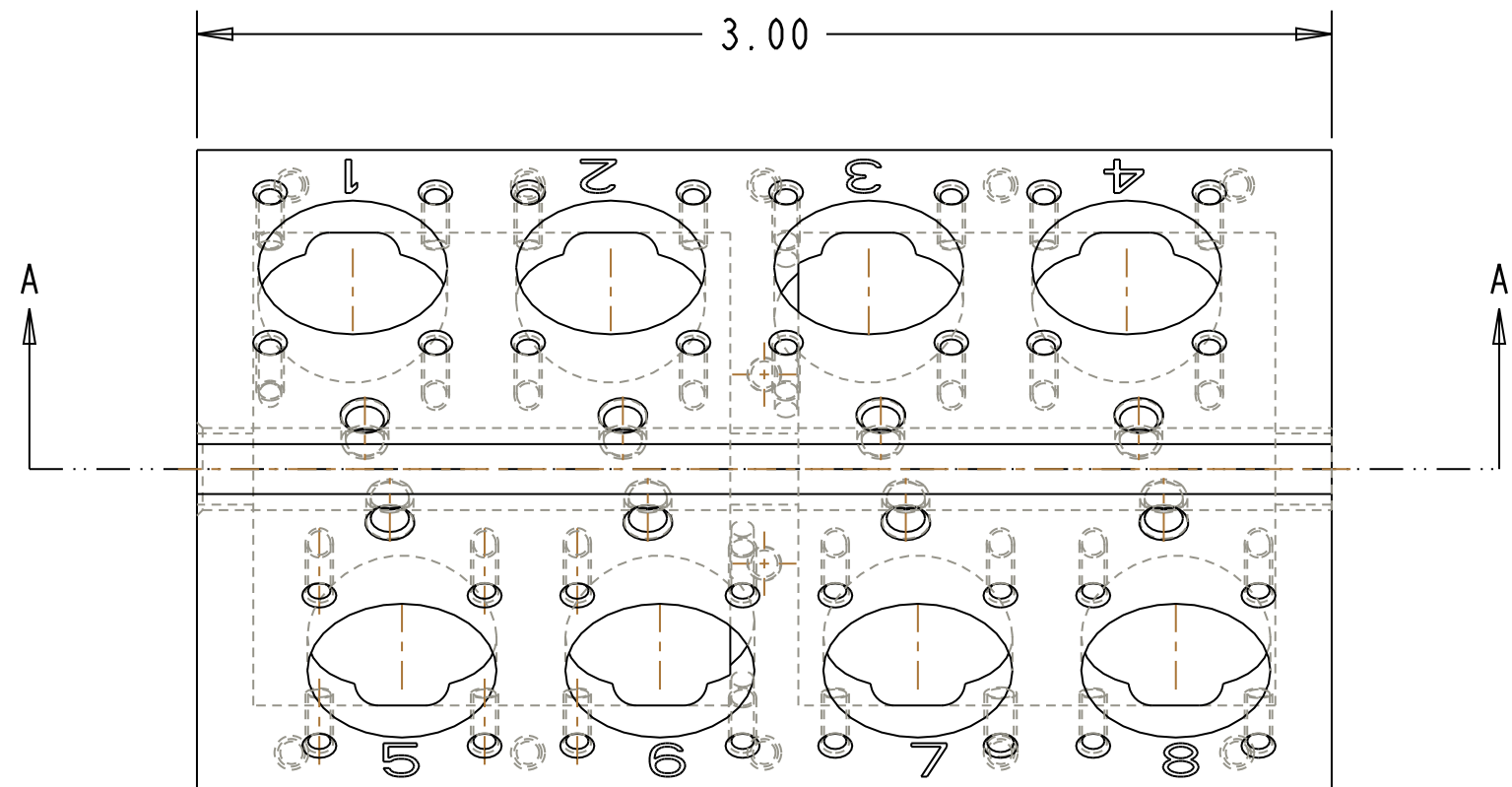
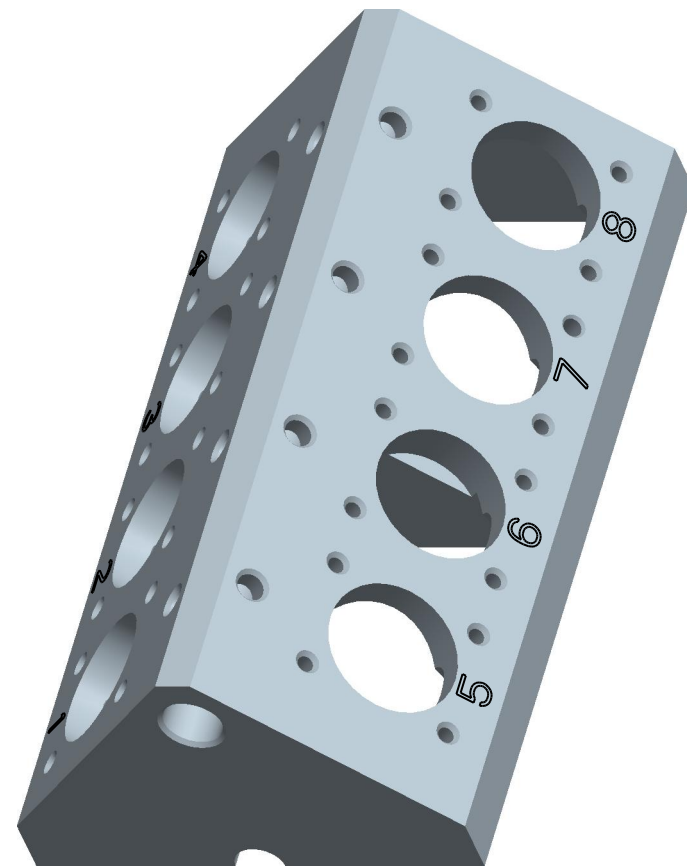


DETAIL A  
SCALE 2.000

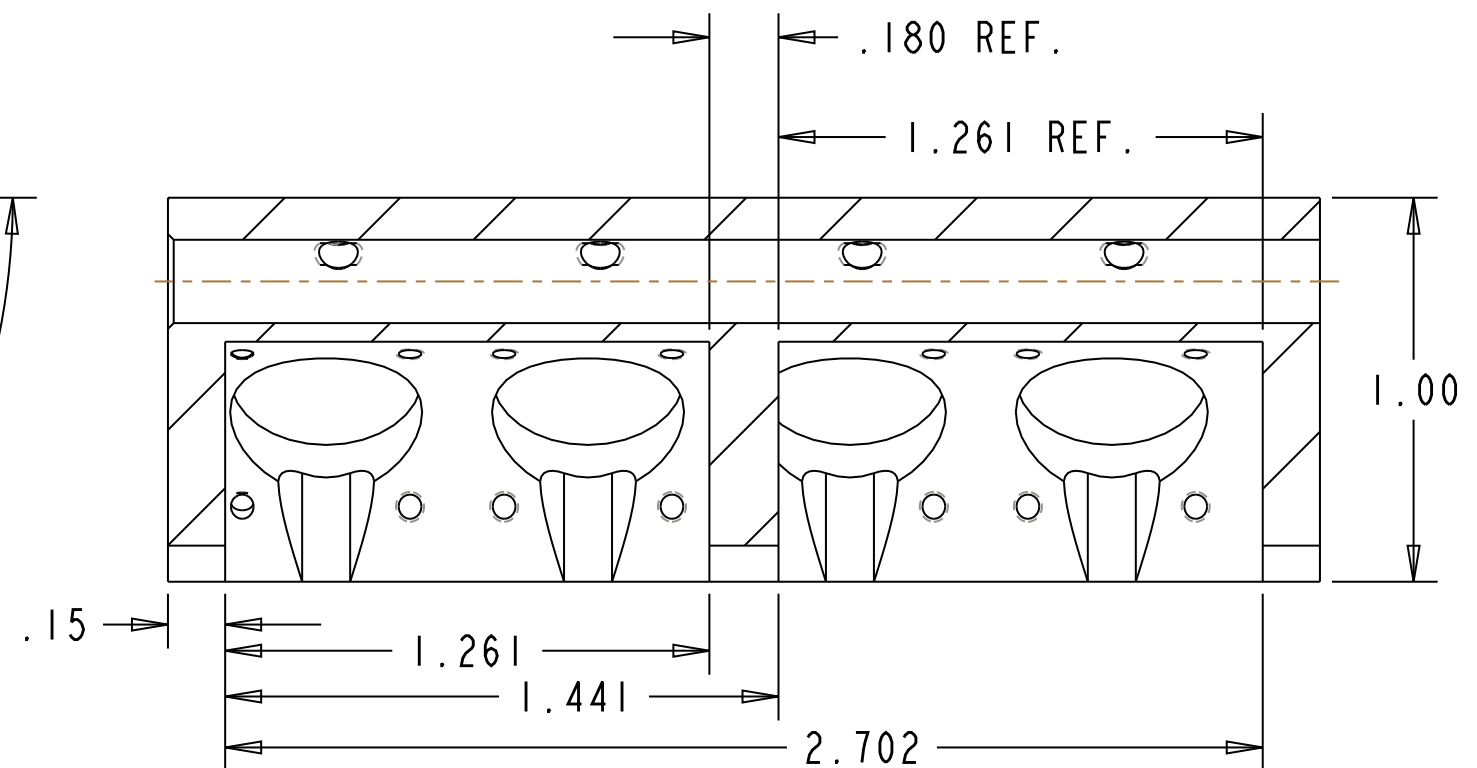


SECTION C-C

**CIRRUS V8 ROTARY VALVE ENGINE**  
**\*A CHUCK FELLOWS DESIGN\***



FRONT OF ENGINE BLOCK

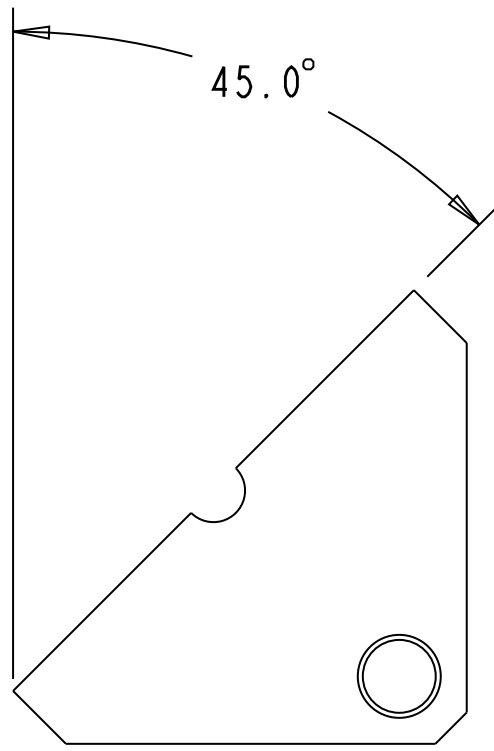


SECTION A-A

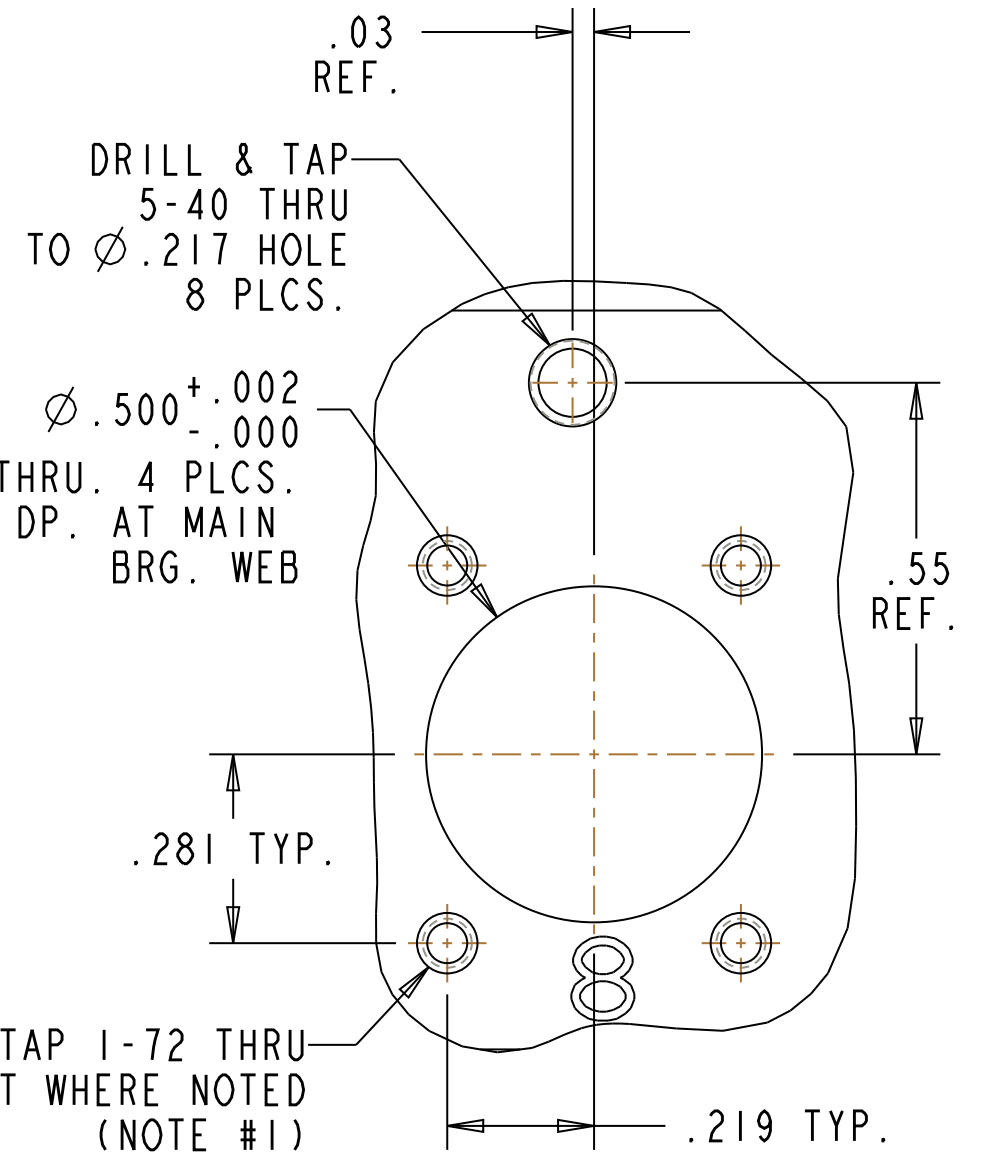
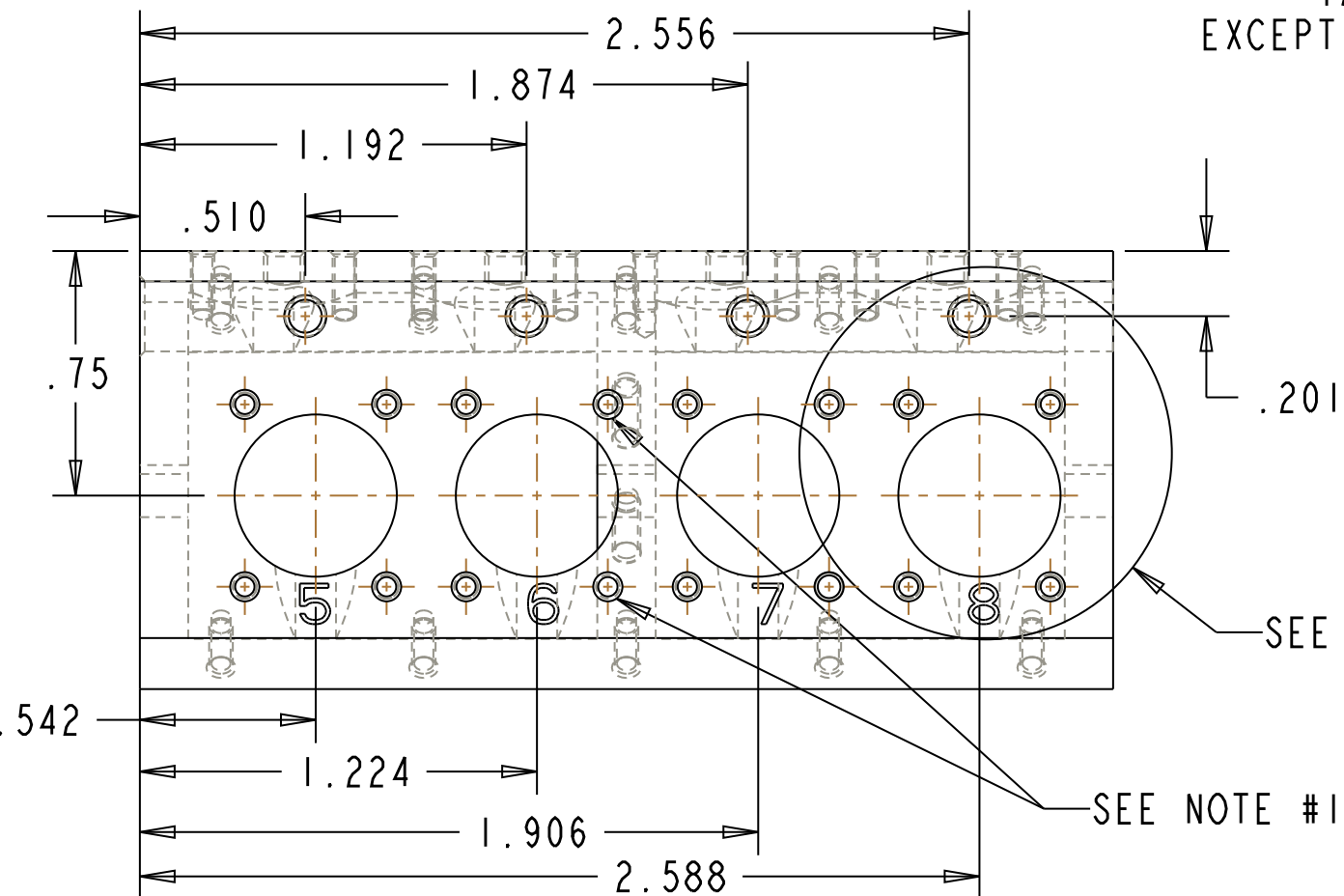
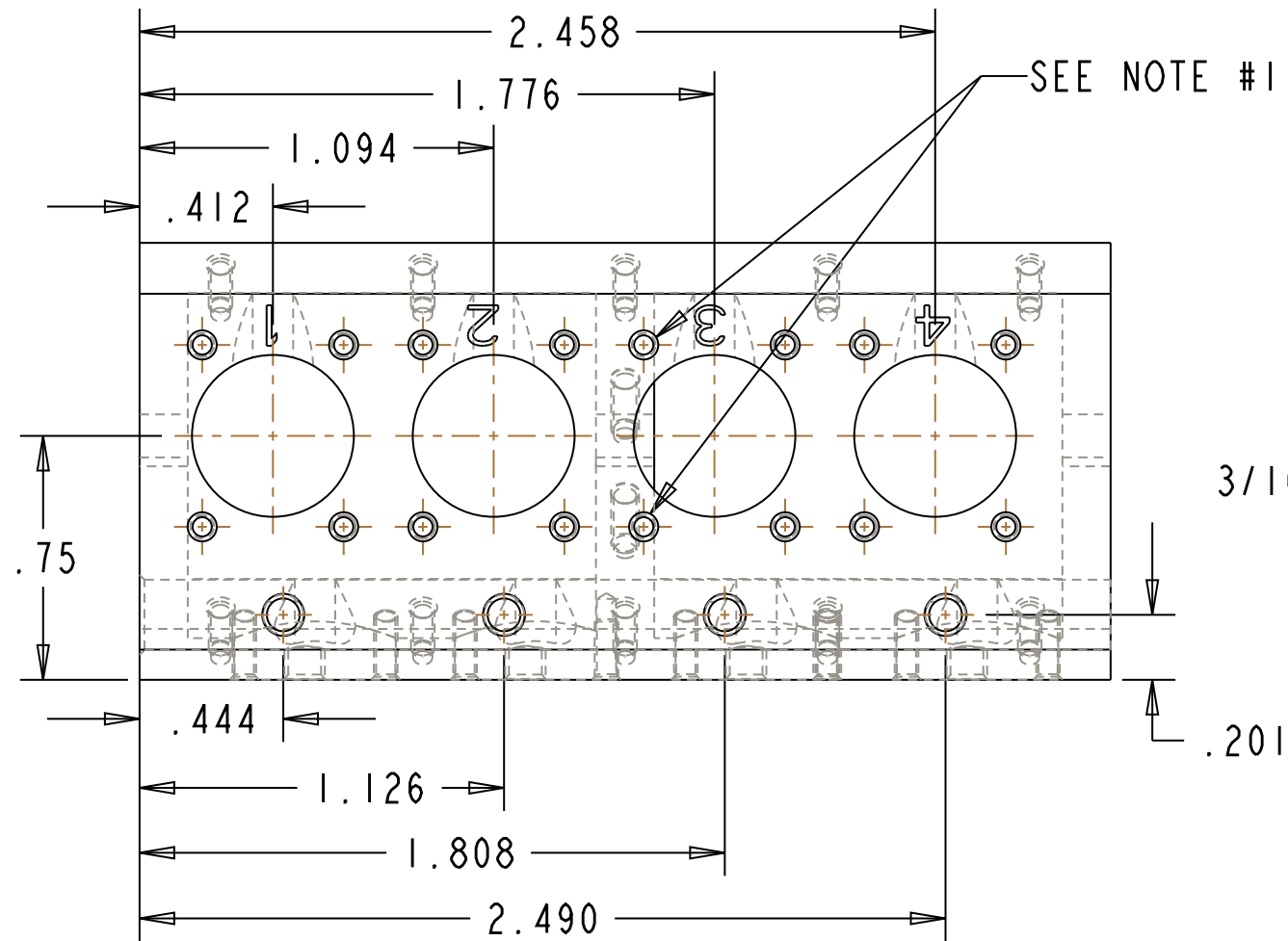
**CIRRUS V8 ROTARY VALVE ENGINE**  
**\*A CHUCK FELLOWS DESIGN\***

① ENGINE BLOCK  
 MAT'L: ALUMINUM  
 SCALE 2.000





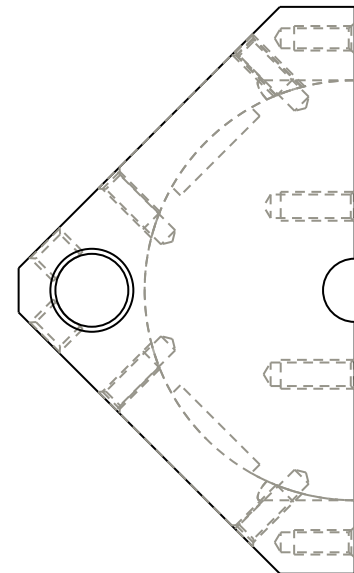
FRONT OF ENGINE BLOCK



DETAIL A  
SCALE 3.500

NOTES:  
1. DRILL & TAP FOR 1-72 THD.  
1/4" DRILL DEPTH,  
3/16 MIN. THD. DEPTH.

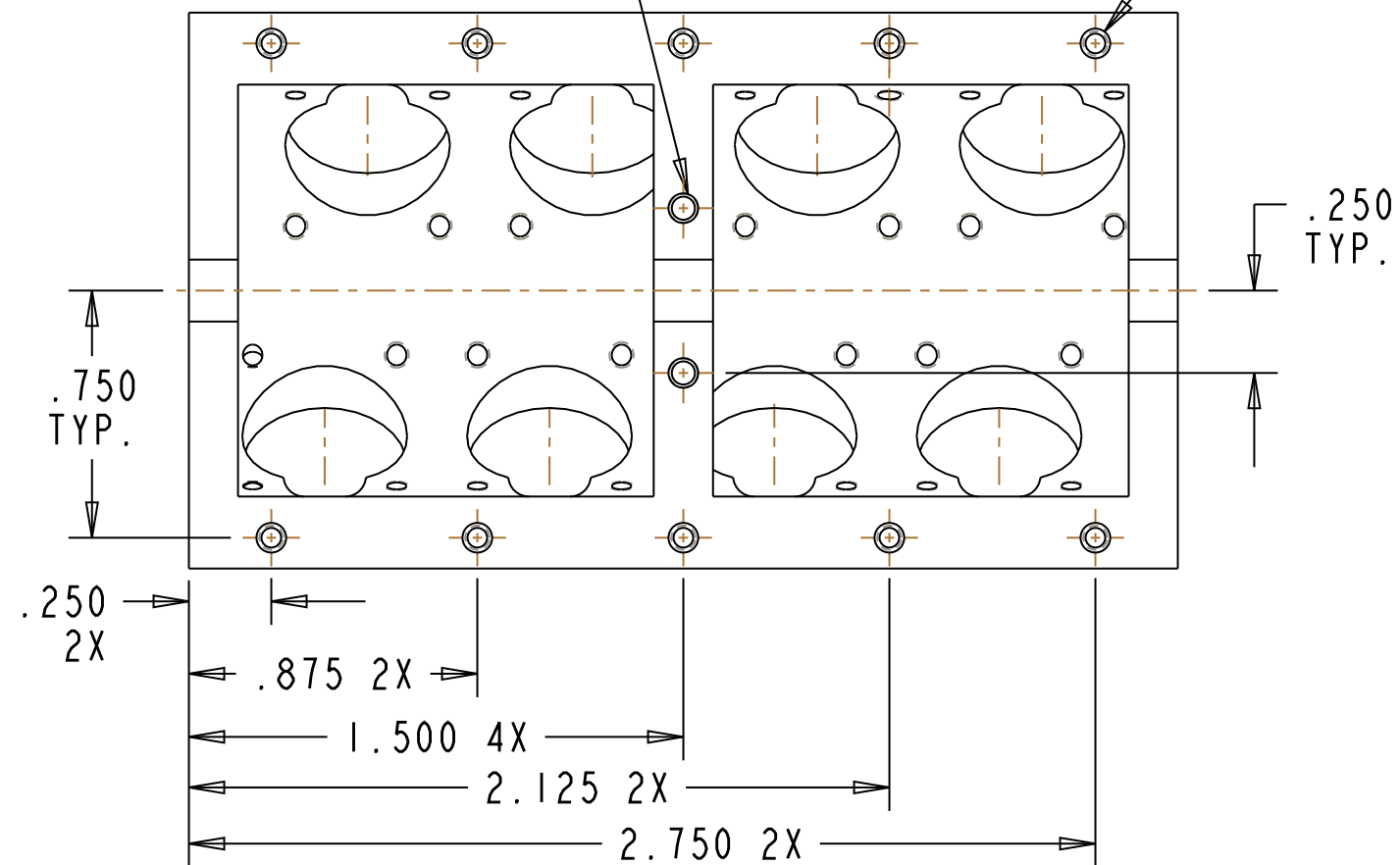
① ENGINE BLOCK  
MAT'L: ALUMINUM  
SCALE 1.750



FRONT OF ENGINE BLOCK

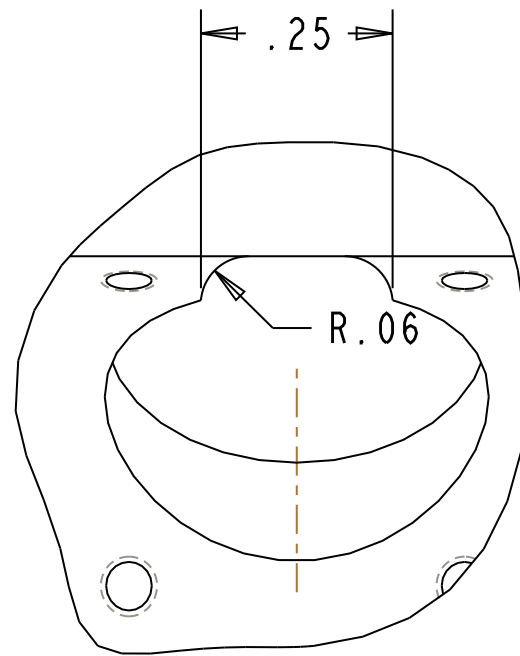
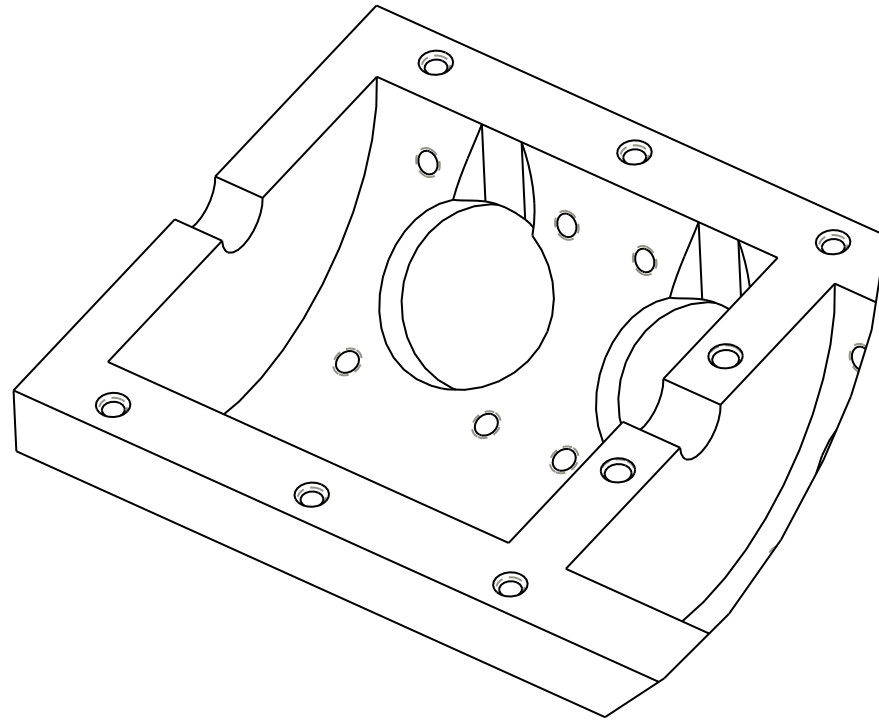
DRILL & TAP FOR 2-56 THD.  
7/32 DRILL DEPTH  
3/16 MIN. THD. DEPTH  
2 PLCS.

DRILL & TAP FOR 1-72 THD.  
7/32 DRILL DEPTH  
3/16 MIN. THD. DEPTH  
10 PLCS.



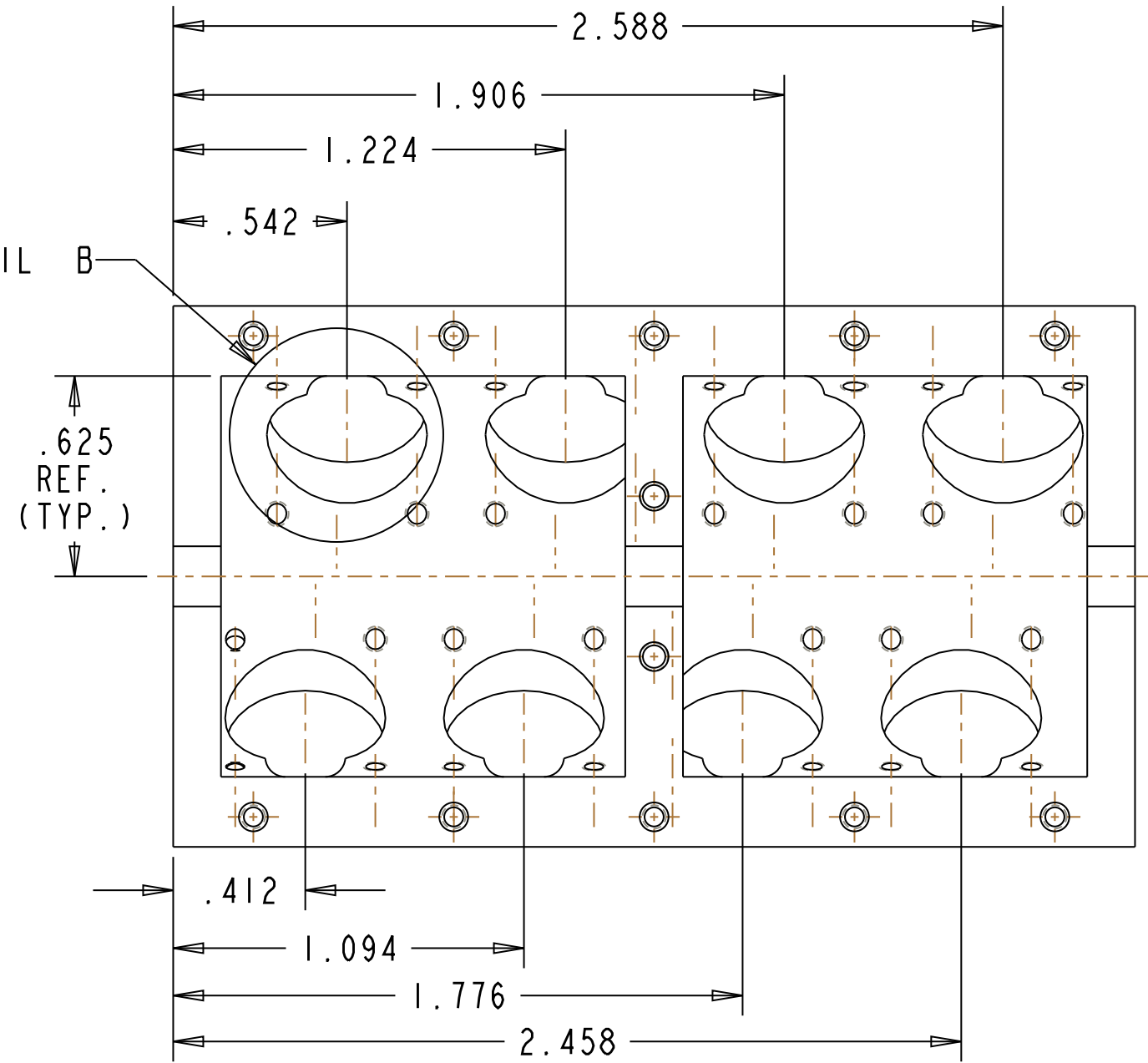
BOTTOM VIEW OF ENGINE BLOCK  
(OIL PAN & MAIN BEARING MOUNTING HOLES)

① ENGINE BLOCK  
MAT'L: ALUMINUM  
SCALE 1.750



DETAIL B

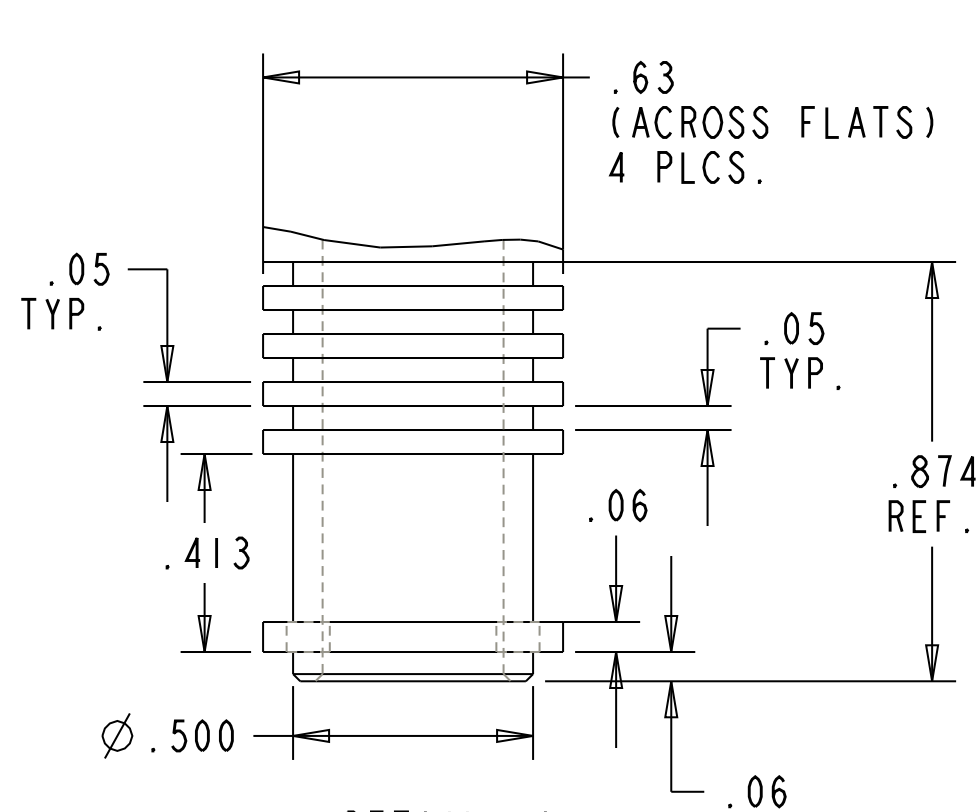
SEE DETAIL B



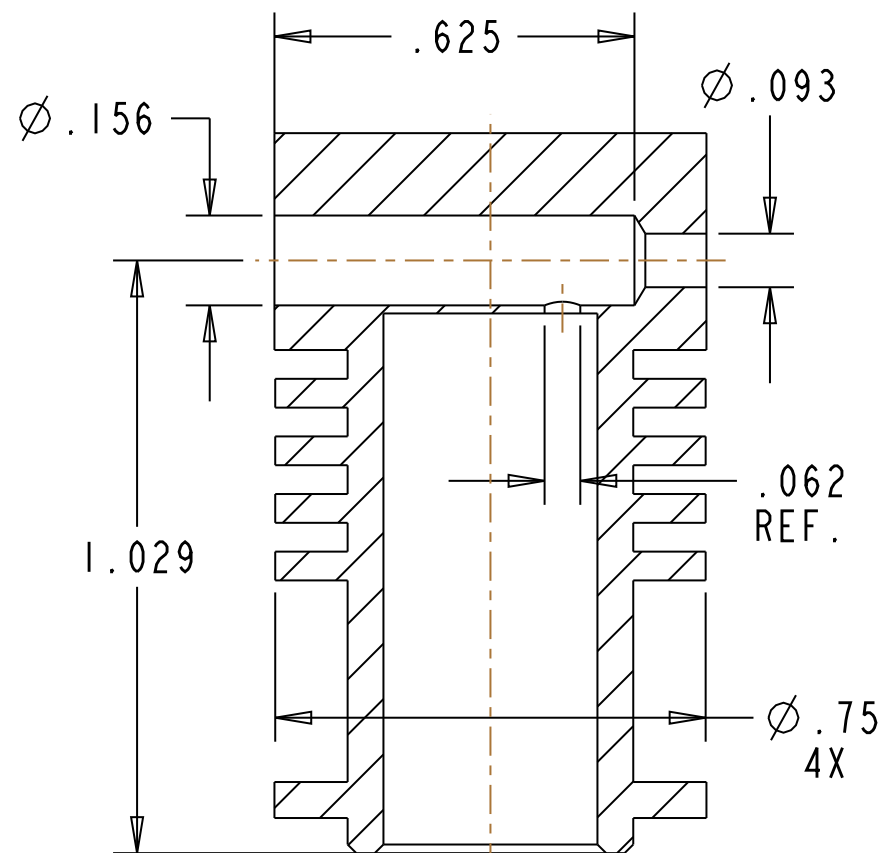
(BOTTOM VIEW OF BLOCK)

CONNECTING ROD RELIEF CUTS

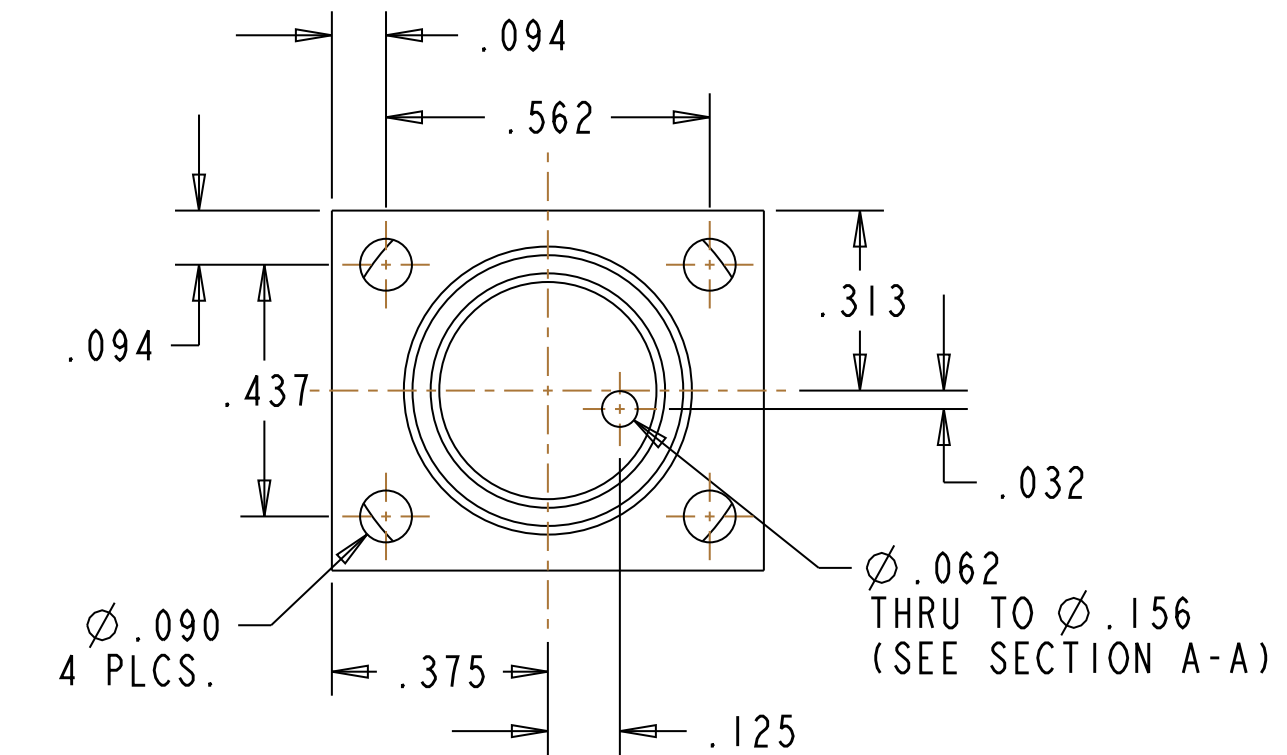
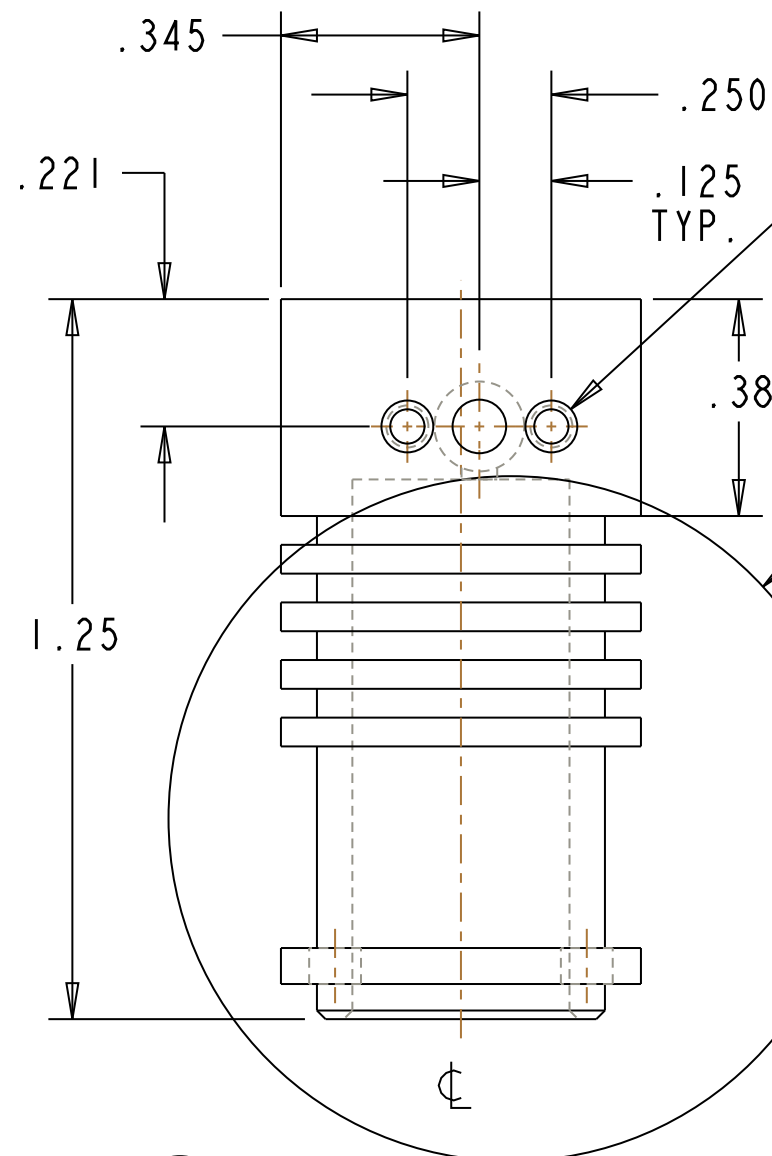
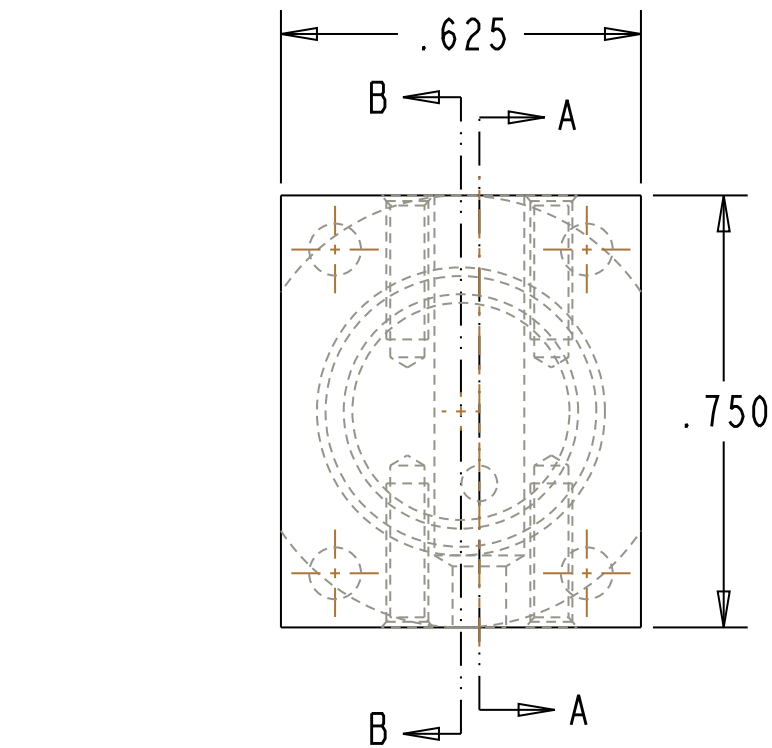
① ENGINE BLOCK  
MAT'L: ALUMINUM  
SCALE 2.000



DETAIL A  
SCALE 2.500



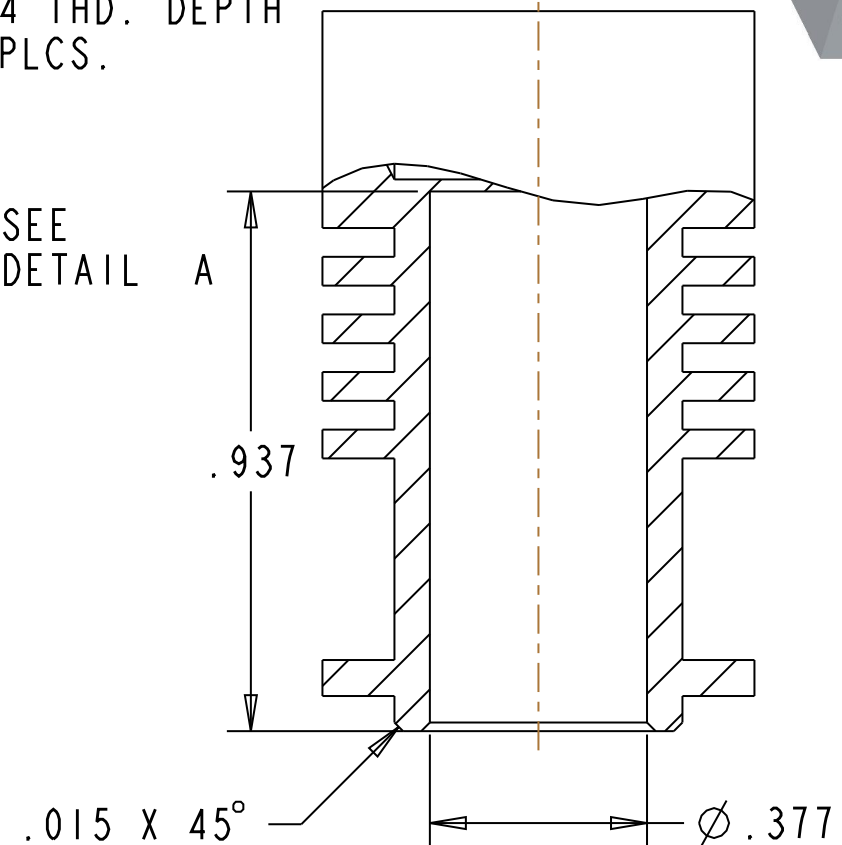
SECTION A-A



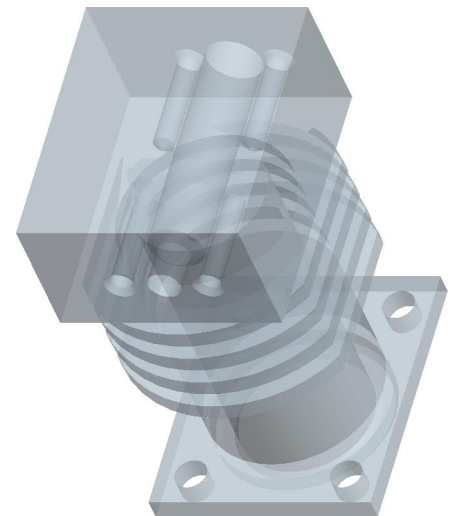
BOTTOM VIEW

DRILL & TAP FOR 1-72 THD.  
9/32 DRILL DEPTH  
1/4 THD. DEPTH  
4 PLCS.

SEE  
DETAIL

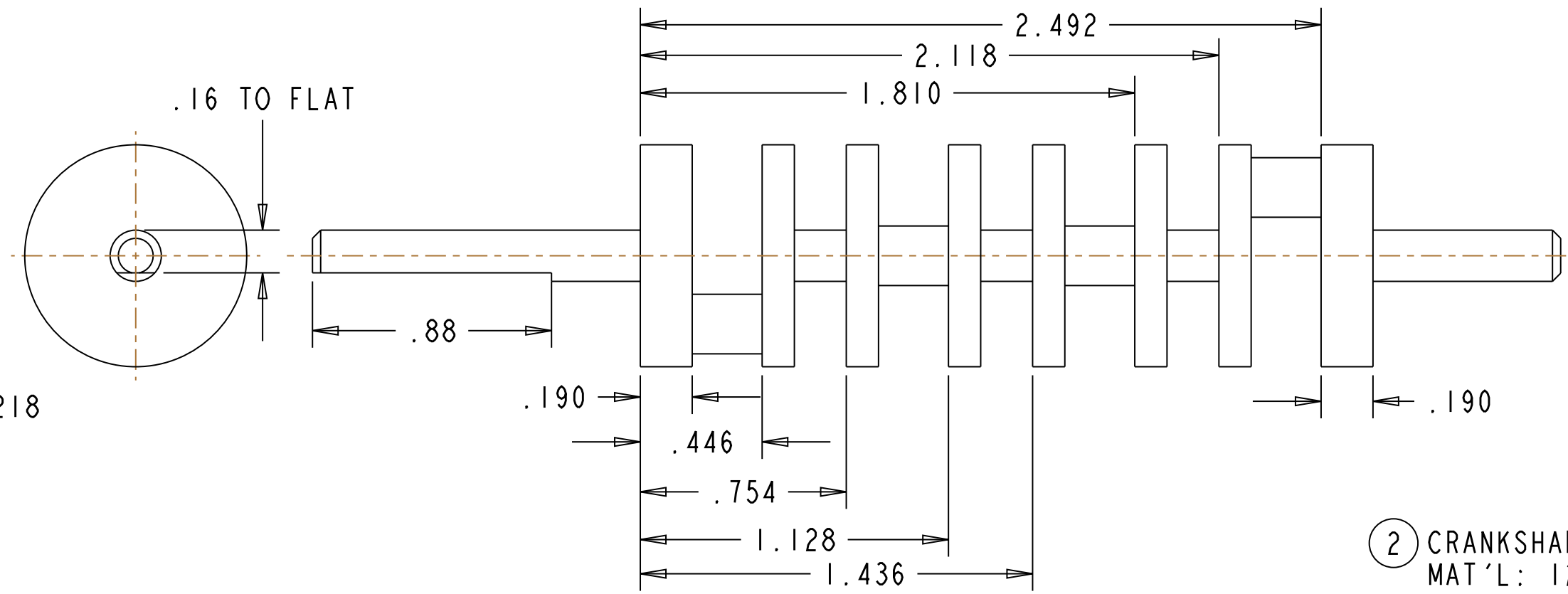
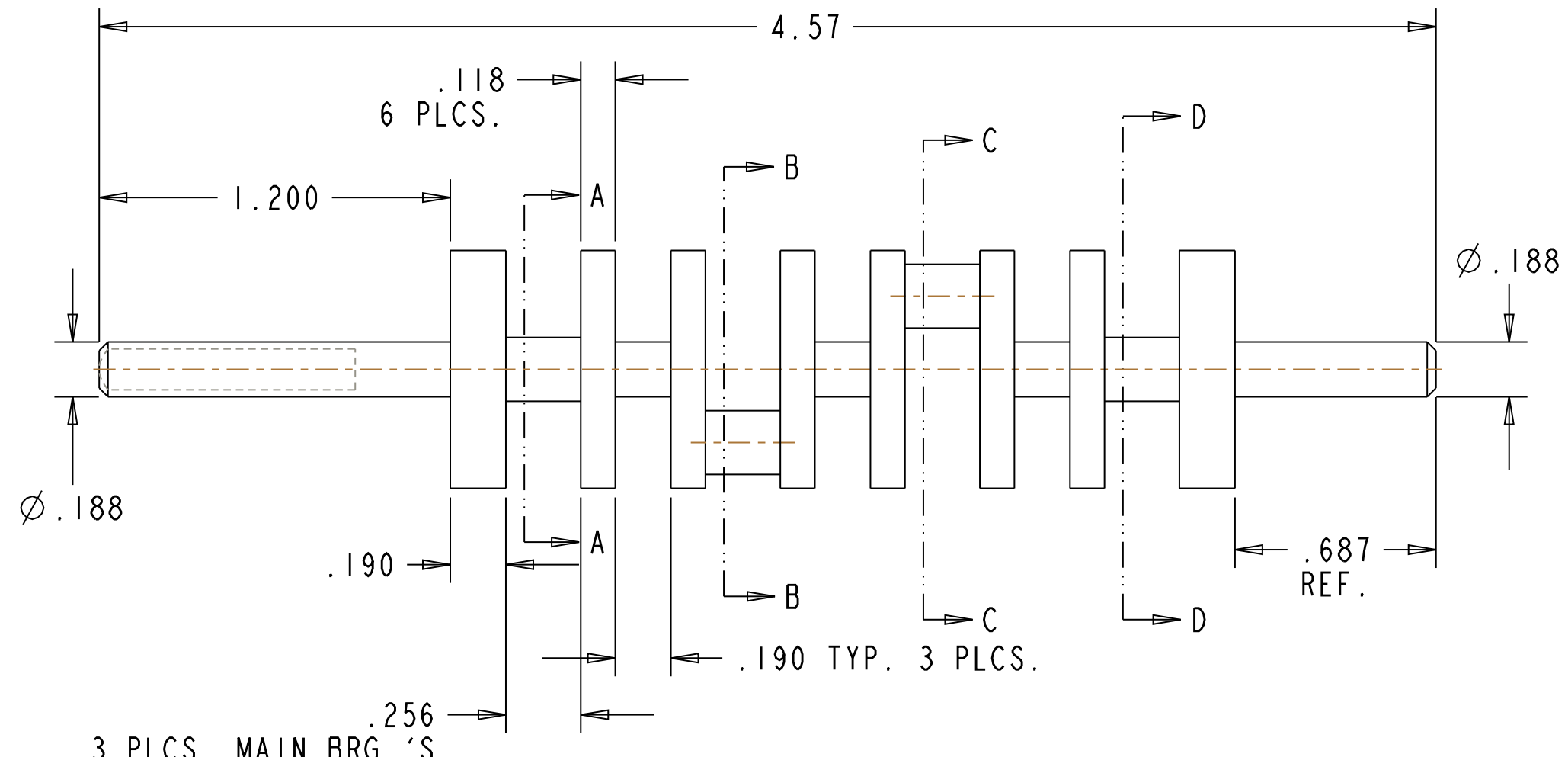
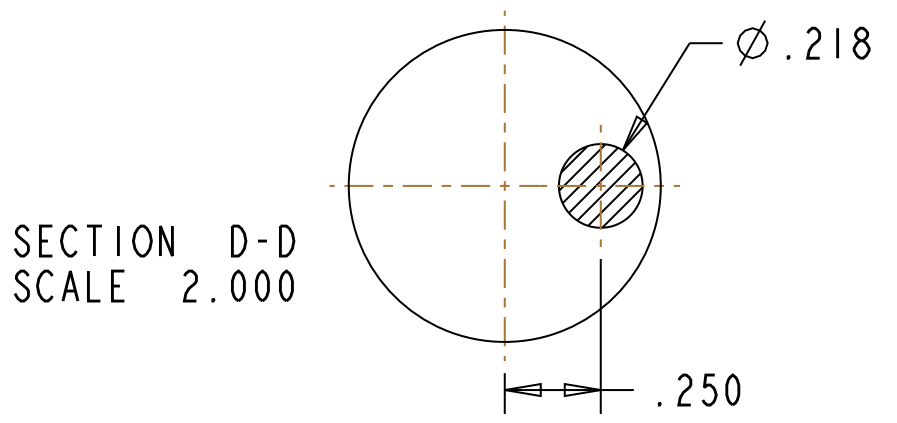
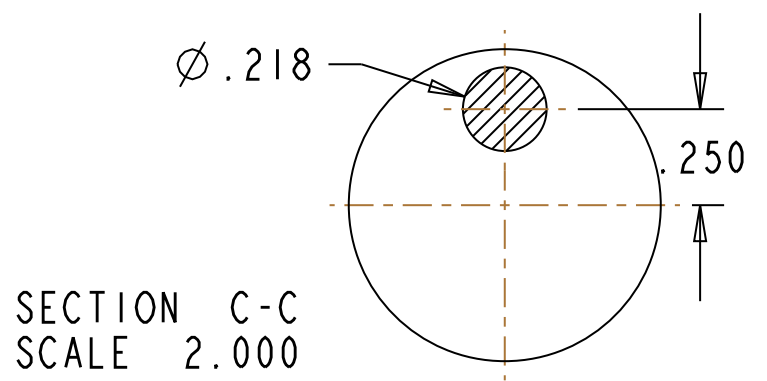
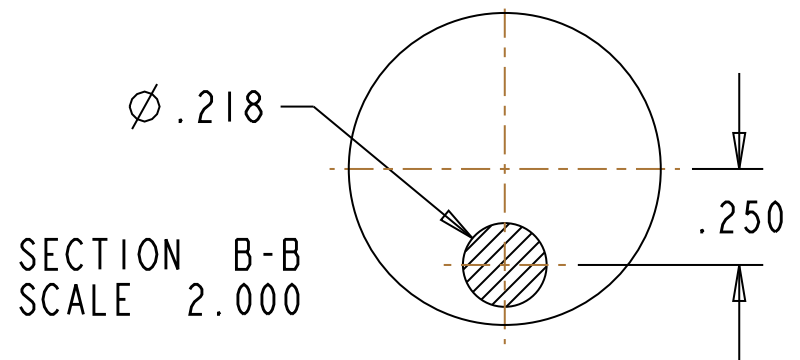
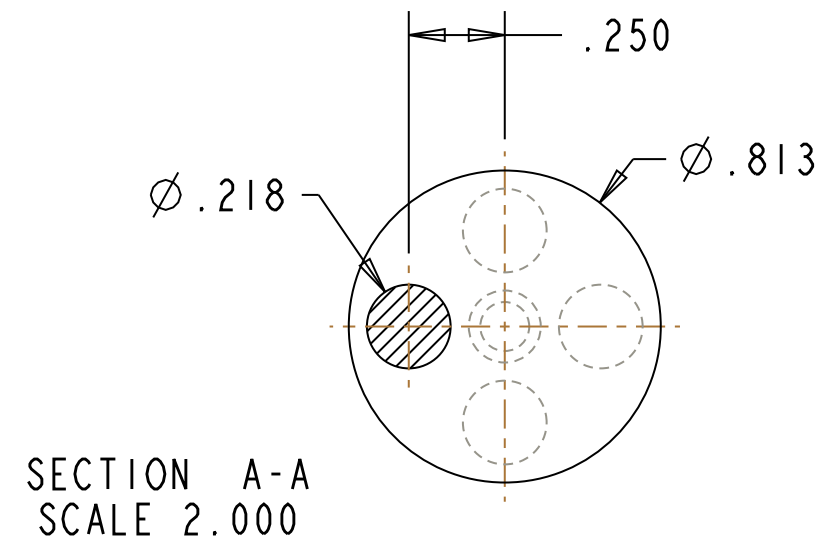


SECTION B-B  
(CYL. CENTERLINE)



**CIRRUS V8 ROTARY VALVE ENGINE**  
**\*A CHUCK FELLOWS DESIGN\***

10 CYLINDER HEAD, MAT'L: AL  
SCALE 3.000

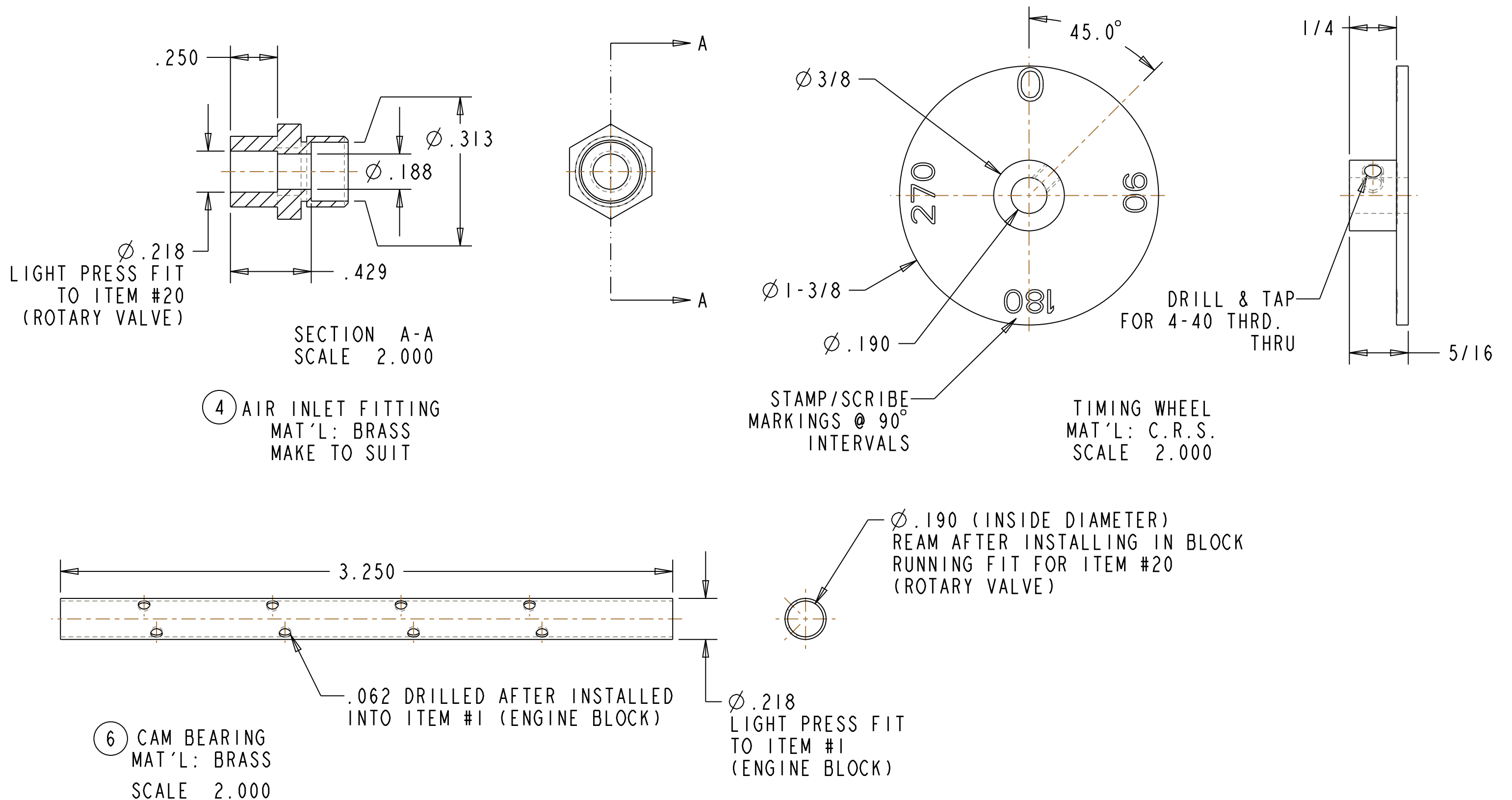


2 CRANKSHAFT  
MAT'L: 12L14  
SCALE: 2.000

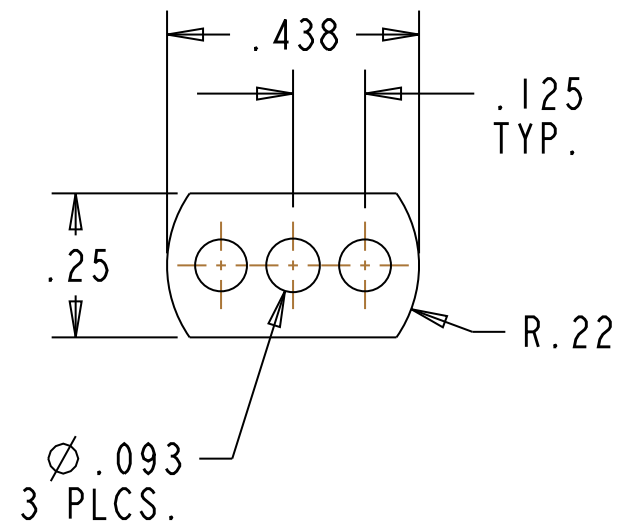
**CIRRUS V8 ROTARY VALVE ENGINE**  
**\*A CHUCK FELLOWS DESIGN\***







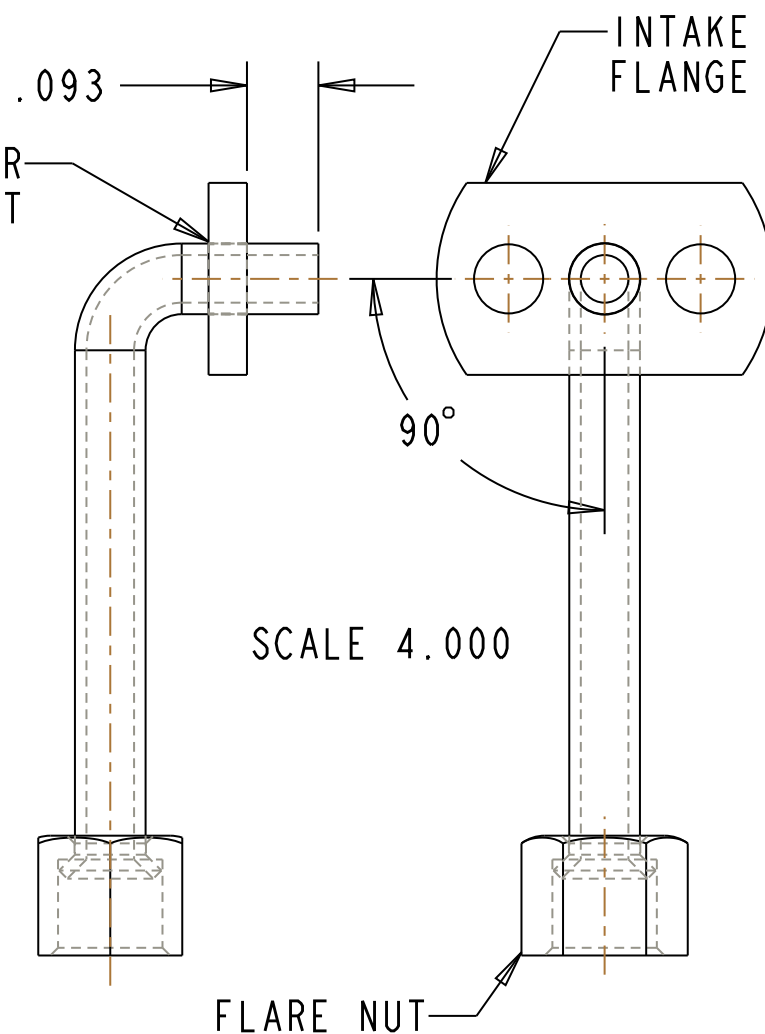
# **CIRRUS V8 ROTARY VALVE ENGINE** **\*A CHUCK FELLOWS DESIGN\***



(15) INTAKE FLANGE  
MAT'L: BRASS  
NOTE: SAME AS EXHAUST FLANGE  
SCALE: 3.000

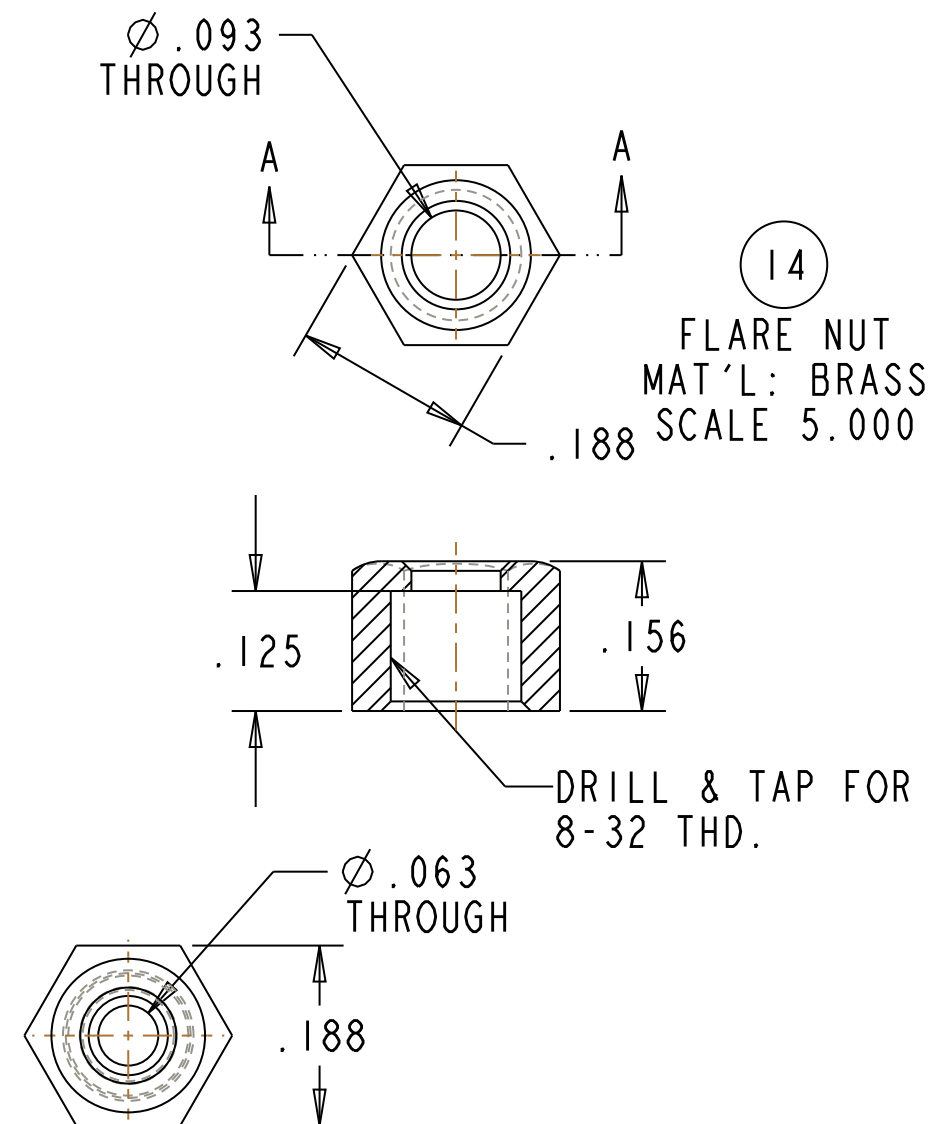


SILVER SOLDER JOINT

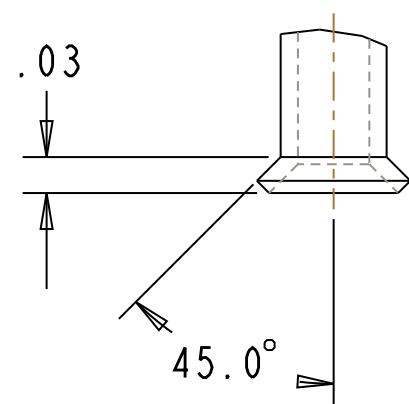


FLARE NUT

SCALE 4.000

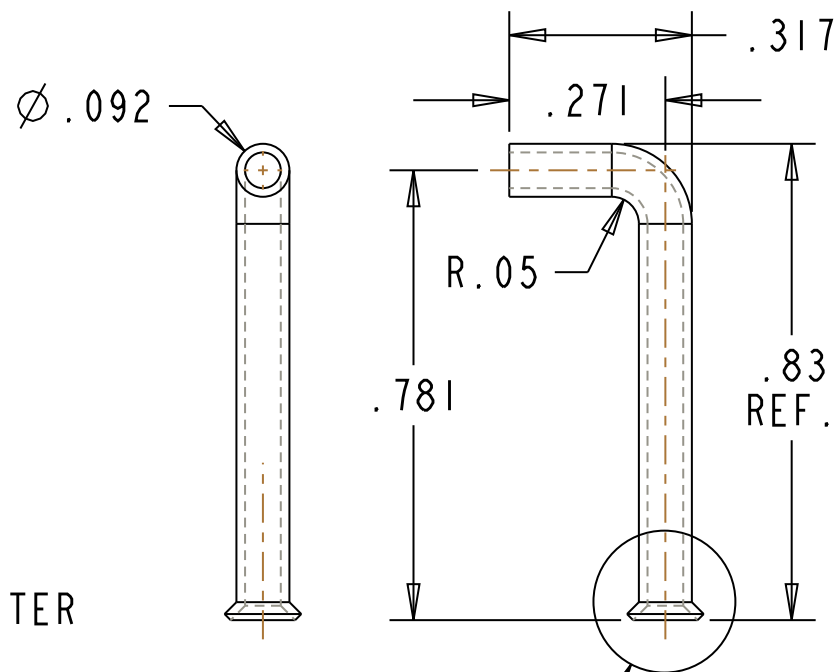


(14) FLARE NUT  
MAT'L: BRASS  
SCALE 5.000



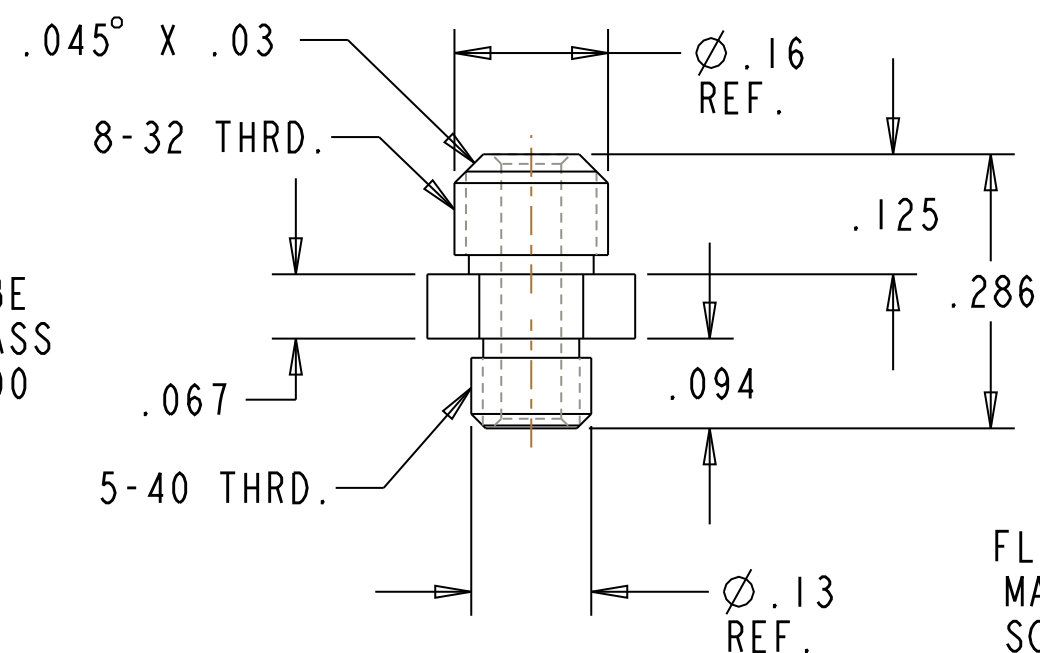
DETAIL A  
SCALE 6.000

NOTE: FLARE IS CREATED AFTER  
FLARE NUT IS INSTALLED



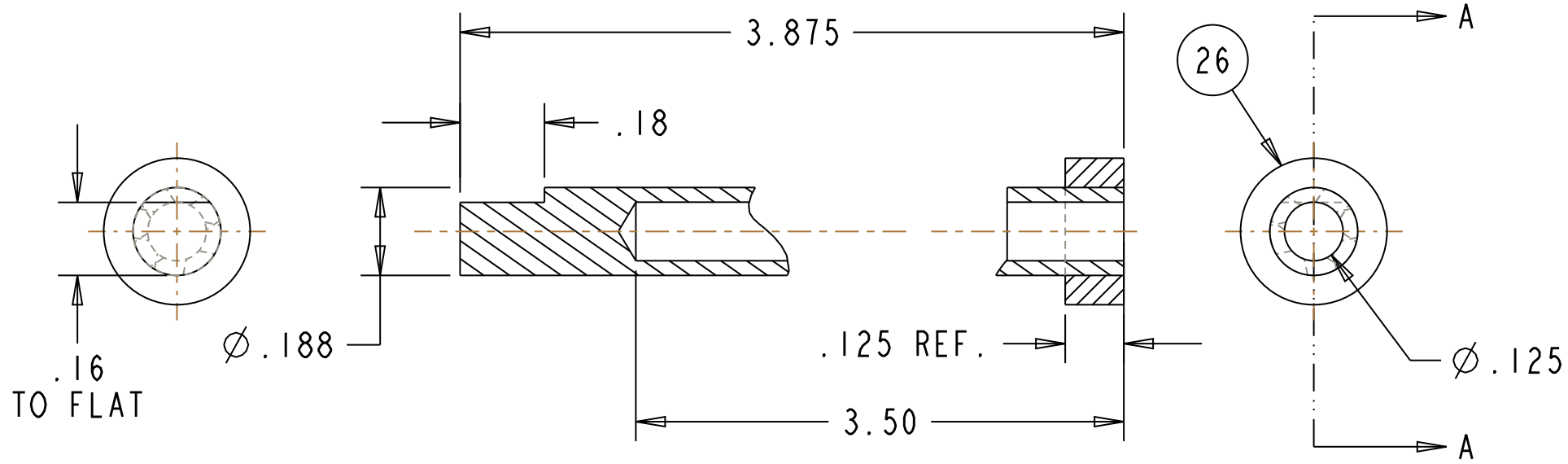
SEE DETAIL A

(16) INTAKE TUBE  
MAT'L: BRASS  
SCALE 3.000



(13) FLARE FITTING  
MAT'L: BRASS  
SCALE: 5.000

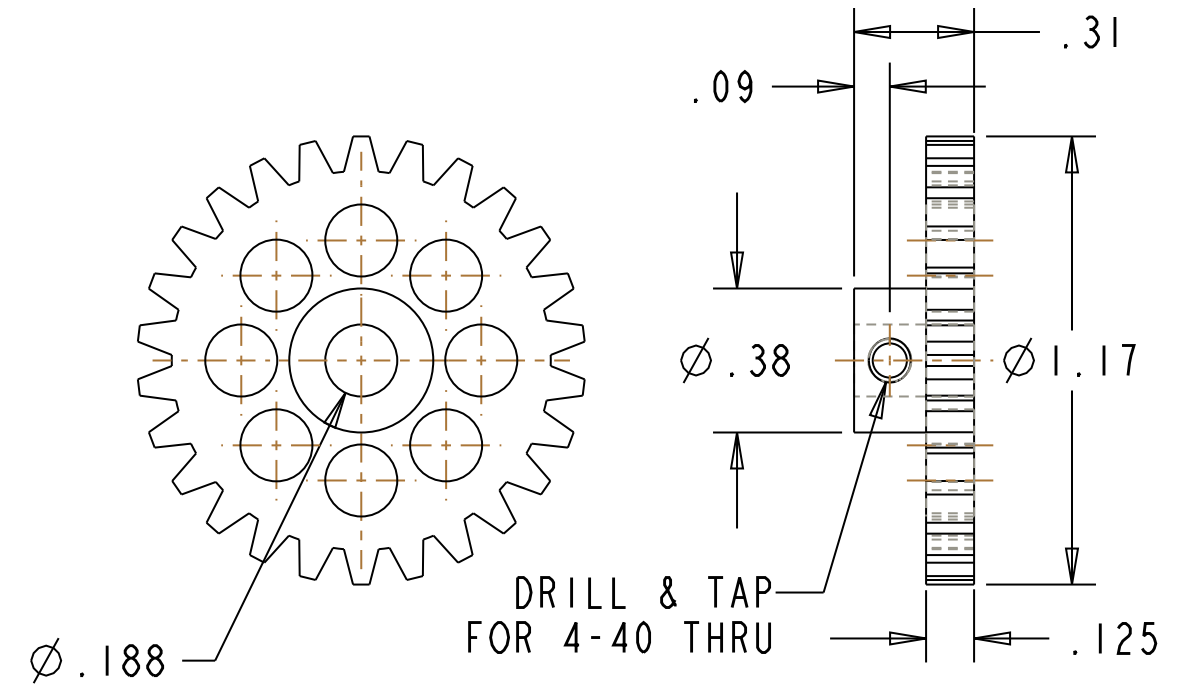
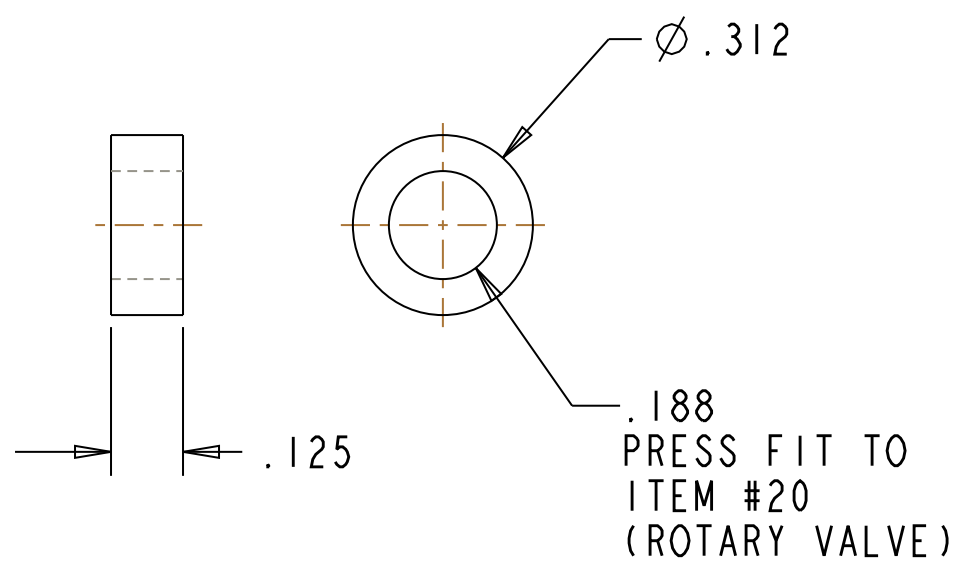
**CIRRUS V8 ROTARY VALVE ENGINE**  
**\*A CHUCK FELLOWS DESIGN\***



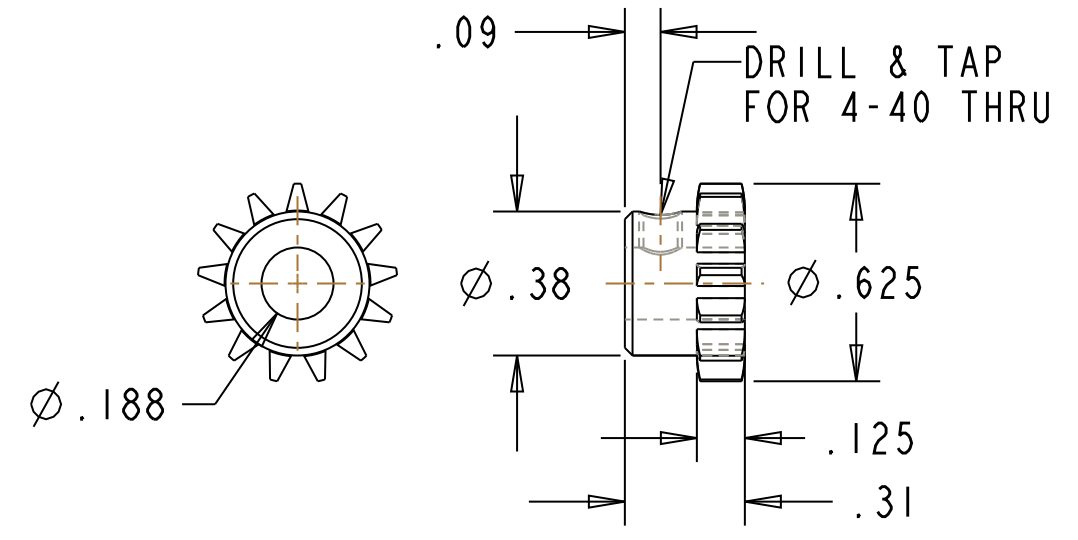
SECTION A-A

(20) ROTARY VALVE  
MAT'L: DRILL ROD  
SCALE 3.000

(26) VALVE FLANGE  
MAT'L: DRILL ROD  
SCALE 3.000

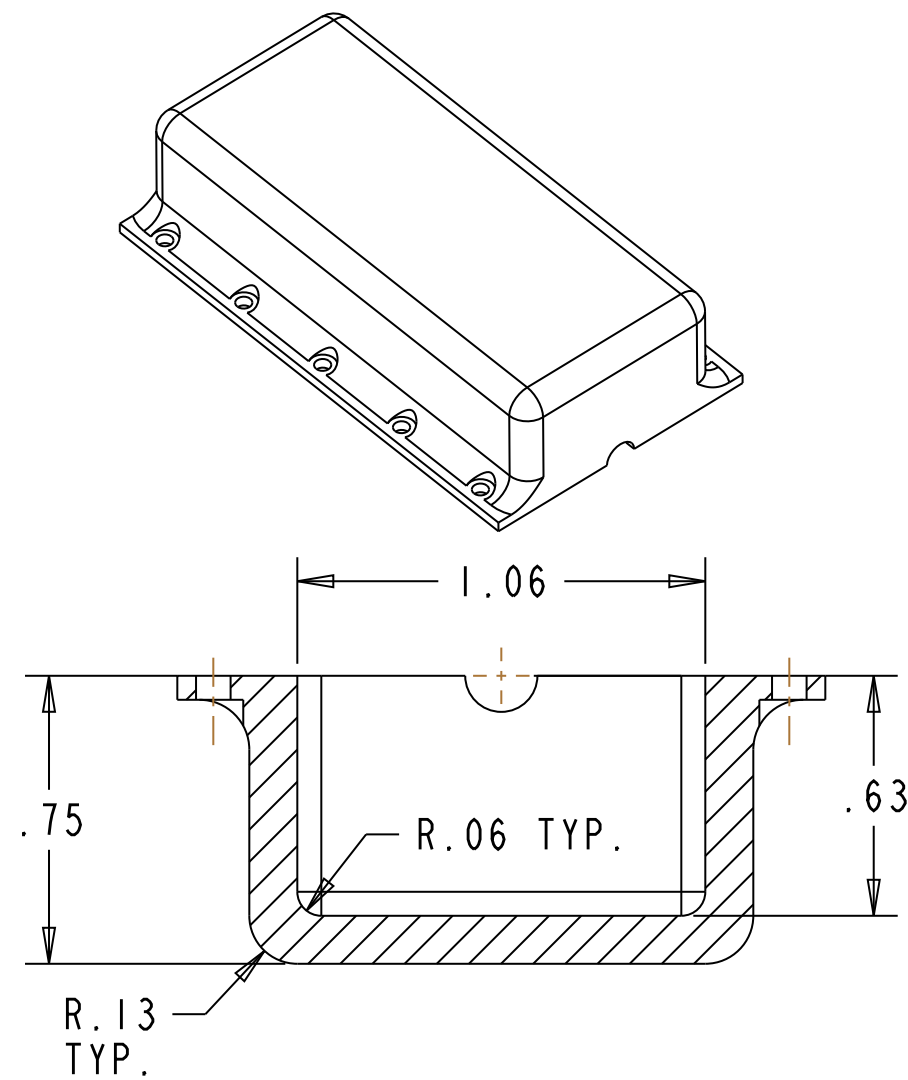


(7) CAM GEAR  
MAT'L: BRASS  
1.084 PCD  
26 TEETH 14 1/2° PRESSURE ANGLE  
SCALE 2.000

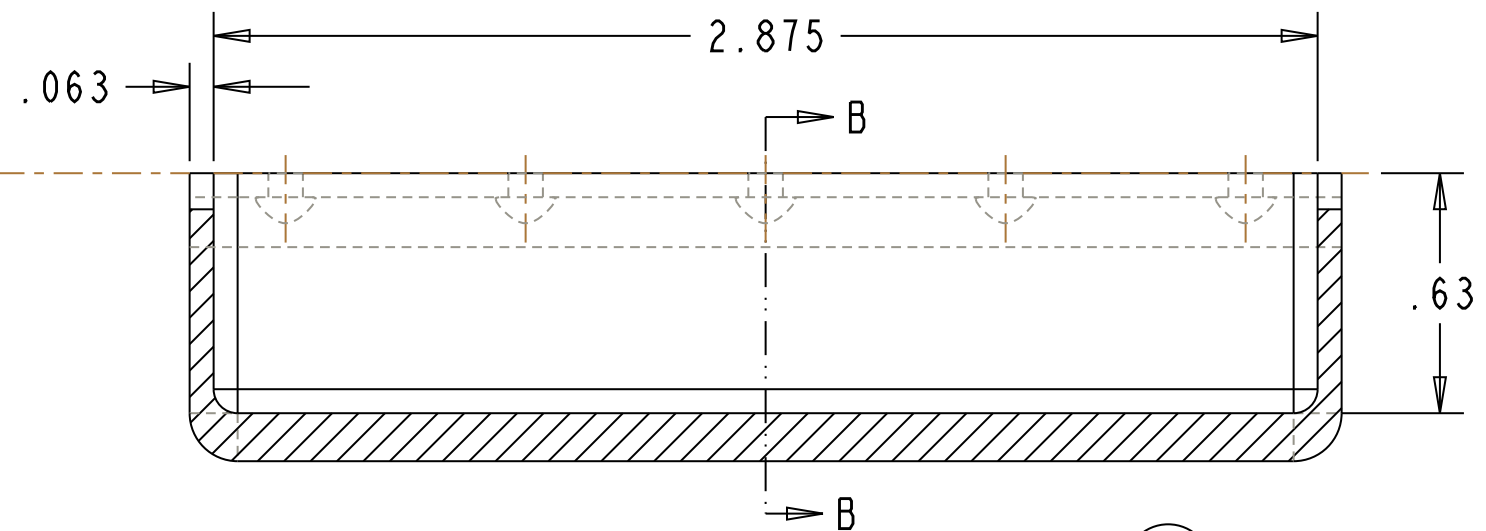
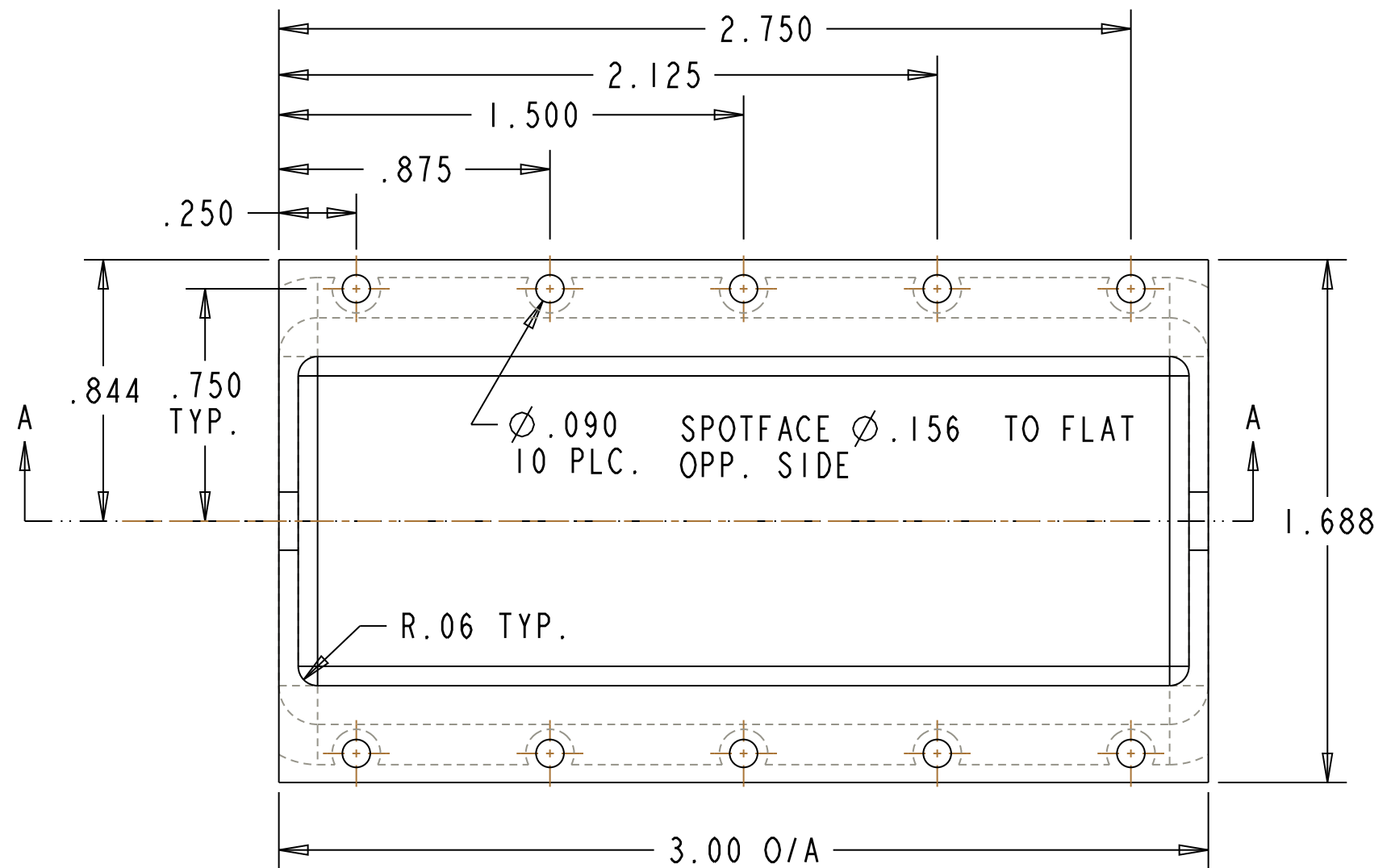
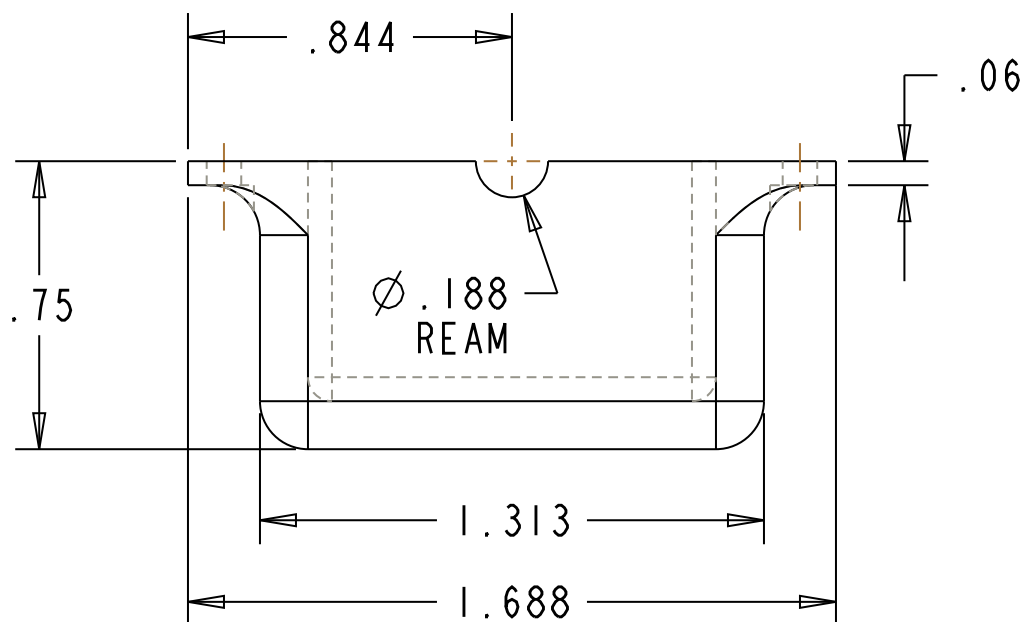


(19) PRIMARY GEAR  
.542 PCD  
MAT'L: 12L14 C.R.S.  
13 TEETH 14 1/2° PRESSURE ANGLE  
SCALE 2.000

**CIRRUS V8 ROTARY VALVE ENGINE**  
**\*A CHUCK FELLOWS DESIGN\***



SECTION B-B  
SCALE 2.000

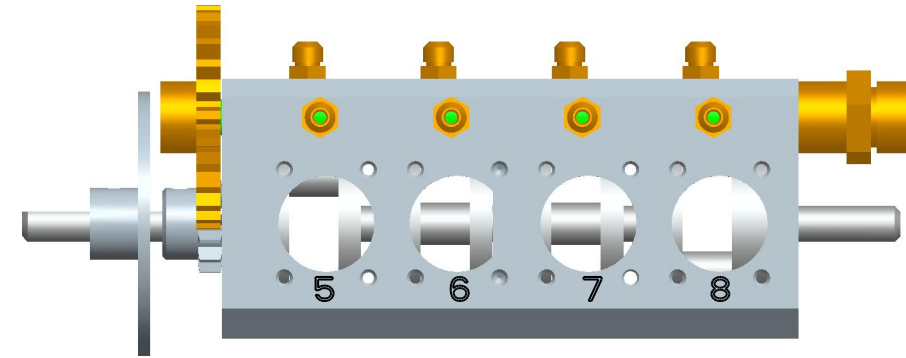
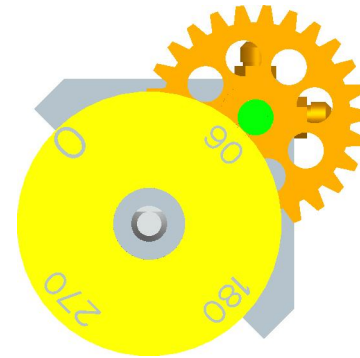
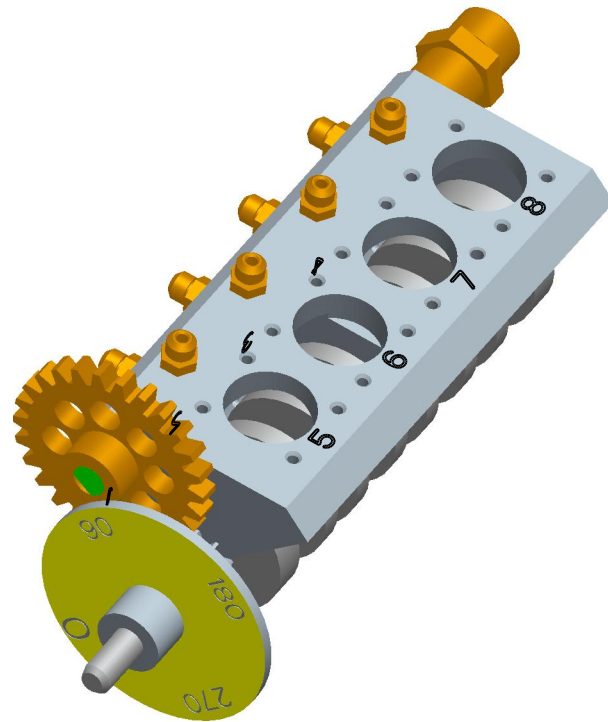


SECTION A-A

17 OIL PAN  
MAT'L: AL.  
SCALE 2.000

**CIRRUS V8 ROTARY VALVE ENGINE**  
**\*A CHUCK FELLOWS DESIGN\***





# INSTRUCTIONS FOR DRILLING ROTARY VALVE HOLES

TIMING CHART	
CYL. NO.	POSITION
5	0°
1	90°
8	180°
4	270°
2	0°
7	90°
3	180°
6	270°

1. INSTALL TIMING WHEEL TO CRANKSHAFT AS SHOWN.  
(SET SCREW ON FLAT.)
2. ROTATE TIMING WHEEL TO 0° POSITION (OR SCRIBED LINE)  
USING THE INSTALLED AIR INLET FITTING (ITEM #4)  
AS A GUIDE, DRILL A 1/16" DIA. HOLE THROUGH NEAR SIDE  
OF CAM BEARING & ROTARY VALVE. (CYL. NO. 5)
3. ROTATE TIMING WHEEL TO 90° POSITION (OR SCRIBED LINE)  
& ROTATE ENGINE ON MACHINE TABLE TO OPPOSITE SIDE OF BLOCK  
& DRILL 1/16" DIA. HOLE THROUGH NEAR SIDE OF CAM BEARING  
& ROTARY VALVE. (CYL. NO. 1)
4. ROTATE TIMING WHEEL TO 180° POSITION (OR SCRIBED LINE)  
& ROTATE ENGINE ON MACHINE TABLE TO OPPOSITE SIDE OF BLOCK  
& DRILL 1/16" DIA. HOLE THROUGH NEAR SIDE OF CAMBEARING  
& ROTARY VALVE. (CYL. NO. 8)
5. CONTINUE DRILLING REMAINING HOLES PER TIMING CHART SHOWN.

## CIRRUS V8 ROTARY VALVE ENGINE \*A CHUCK FELLOWS DESIGN\*