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HOW TO MAKE

ONE STROKE CHECK MAKER

TWO STROKE CHECK MAKER

RELOADING PRESS ADAPTER

INSTRUCTIONS, CHARTS, TABLES,PHOTOS

BY EDWARD SMITH

The following pages have instructions, drawings, and data for making the one stroke check maker, the two stroke check maker and the reloading press adapter for using the one stroke on a reloading press, it will work on most reloading presses. The one stroke check maker can be used with an arbor press, a drill press or a reloading press. The two stroke check maker can be used with a arbor press, a drill press or a wood, plastic, or raw hide mallet. I do not recomend using a mallet how ever, the gas checks do not form as well as with a press. your milage may vary. with the two stroke check maker. a alu. strip is placed into the slot in the main body, then the punch rod is inserted into the main body and pressed down to cut the disc, then the forming rod is inserted into the punch rod and pressed down to form the check.

With the single stroke check maker, the alu. strip is inserted into the slot in the main body and the punch rod is pressed down, the punch rod cuts the disc and forms the gas check in one operation, a few have said that they could punch out a 1000 gas checks an hour. I have reservations on that, you would have to have an arm like the hulk on steroids. I usually can get around 500 an hour, but I am over 70. when I hit my prime I should do better.

When using the check makers on a arbor press, make a plate to hold the check maker, it will make things go better, for the two stroke, use a 1/2" thick plate, drill a hole the same diameter as the main body 3/8" deep, then drill a 1/4" smaller hole all the way thru. it gives a way for the checks to drop out. on the plate I made for myself I put cleats on the bottom of it to hold it in place over one of the slots in the press plate. when you make a check it will drop thru. put a container under it to catch the checks. one of the guys made a small funnel and drilled a hole thru the top of his bench and ran a plastic tube down to a container from the funnel. good idea. for the one stroke do the same, but use it upside down for it to drop the checks out. if using the one stroke right side up, you will have to empty the punch rod every 10 or 15 checks. with my adapter the checks kick out at the bottom of the adapter, I made made a chute that fits around the bottom of the adapter to catch the checks in a cat food can. if you don't have a cat, you can always make some tuna salad.

When making a check maker,keep the tolerances as close as possible, you want the punch rod and main body to be as close as you can get them, the closer they are the better the cut of the disc. if you want to use your check maker with a drill press, make the forming rod about 1/2" longer than shown in the drawings, that way you can chuck it at the top and that will hold it in place. that is for the one stroke.

When putting the alu. strip in the slot in the main body hold it with your thumb to the back of the slot, other wise you can get a check that has a clipped side.

The spring should be as strong as you can get.compress it several times before you cut to length.

## ONE STROKE CHECK MAKER

The first thing to do, is calculate all the dimensions for the check maker. I will use my lee .357 gc boolit as an example. it varies from the tables some what. the only way you are going to get the right dimensions is to measure your boolit.

To calculate the disc diameter, take the boolit shank diameter plus the skirt height times 2.

shank diameter - .338

skirt height -  $.055 \times 2 = .11$

disc diameter -  $.338 + .11 = .448$

The skirt height is is measured from the bottom of the boolit to the bottom of the lowest band. subtract at least .005.

To calculate the check diameter, take the check material times 2 plus the shank diameter plus .002.

shank diameter - .338

check material -  $.010 \times 2 = .020$

check diameter -  $.338 + .020 = .358 + .002 = .360$  check diameter.

to calculate check material thickness, subtract boolit shank size from sized boolit size and divide by 2.

shank size - .338

sized boolit size - .358

,358 minus .338 = .020

.020 divide by 2 = .010 = check material

ALL ABOVE NUMBERS ARE FOR EXAMPLE ONLY, THE ONLY WAT TO GET THE PROPER MEASUREMENTS IS TO MEASURE YOUR BOOLIT.

MAIN BODY and PUNCH ROD- the main body is made from 3/4" round stock for .41 cal. and smaller, 7/8" for .44 cal. and up. the main body is 1 3/4" long. drill a hole thru the center of the main body the size of the disc diameter. do not cut slot yet.now make the punch rod, the OD of the punch rod is the same as the hole thru the center of the main body. polish the punch rod untill it is a slip fit with the main body. the closer the fit the better. drill out the center of the punch rod the size of the gas check, drill it all the way thru, now drill the center of the punch rod with a drill 2 sizes larger then the check size, drill to within 3/16" from the end. the drawings will make this clear. you drill 2 sizes larger so the checks have clearence to be removed easy, or with a adapter to drop out.

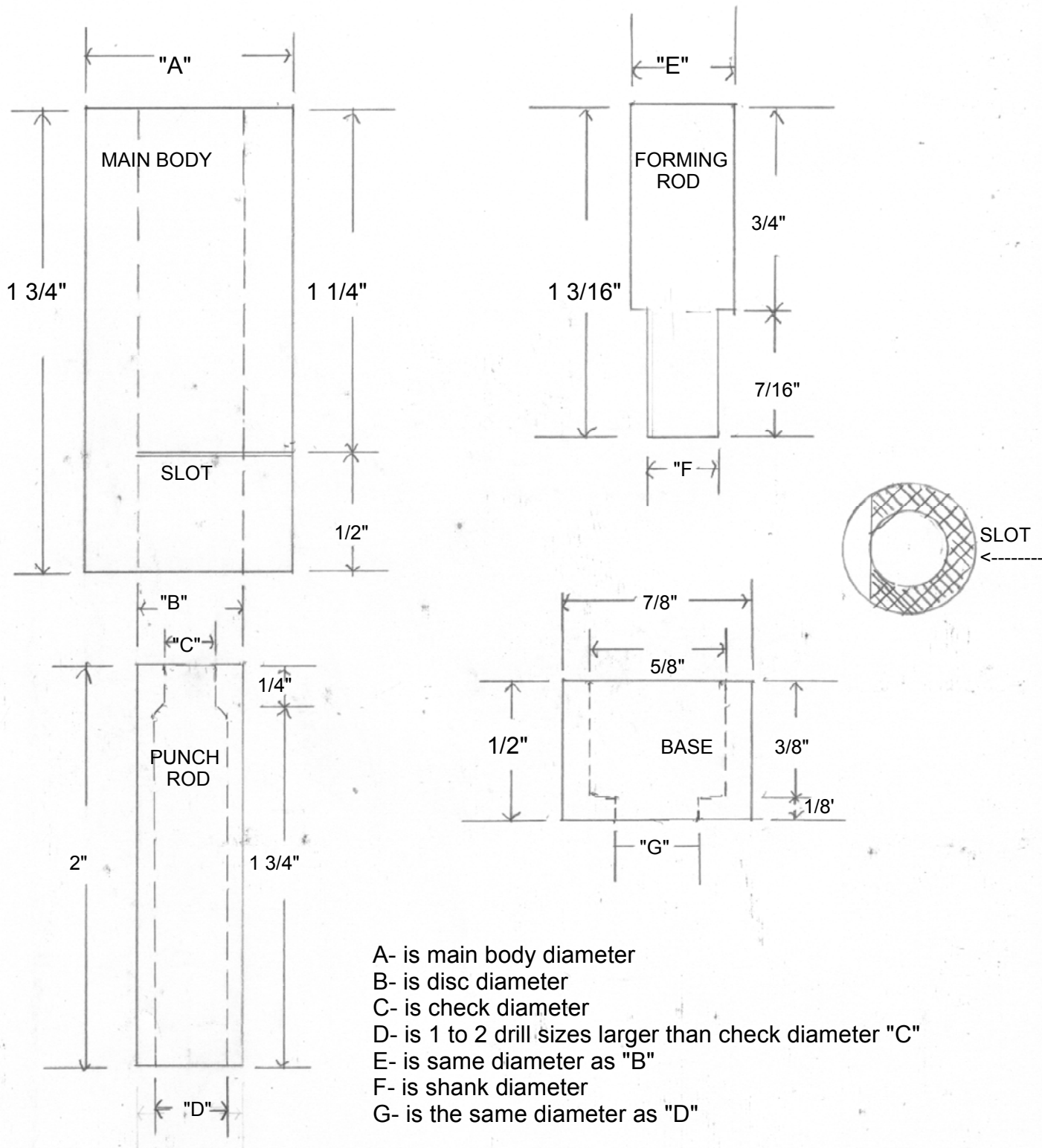
PUNCH ROD BASE, the punch rod base is made from 5/8" stock if it is going to be used with the press adapter, other wise use 3/4" stock. the base is 1/2" long. drill a hole thru the center the same size as the punch rod OD,drill it 3/8" deep, then drill out the rest of the way the same size as the large ID of the punch rod.

the punch rod is 2" long. put a dab of epoxy on the end of the punch rod with the largest ID and insert it into the base, you may have to press it in. now cut the slot into the main body, the slot is 1/2" from the bottom of the main body, cut the slot just to the back of the hole thru the main body. you want a very small gap in the hole punched in the alu. strip. that is so the punch rod can extract from the alu. strip easy. you will find a photo in the notes page. if you cut the slot too deep you can smear some epoxy in the back of the slot where it is cut too deep, after setting up, drill it out again. it works fine, I had to do it on a couple that I made. the forming rod goes into the main body. drill and tap a 8-32 hole 1/4" from the top of the main body. this is for a 8-32x1/8" set screw. this holds the forming rod in place. the forming rod is 1 3/16" long. if you are going to use it in a drill press make it 1 11/16" long. the forming rod is the same diameter as the disc diameter. you turn the forming rod to boolith shank diameter for 7/16" of the length. the shank end should have the edge smoothed out so it don't punch out the bottom of the check, also the gas check diameter end of the punch rod needs to be relieved so it will not punch out the bottom of the check.

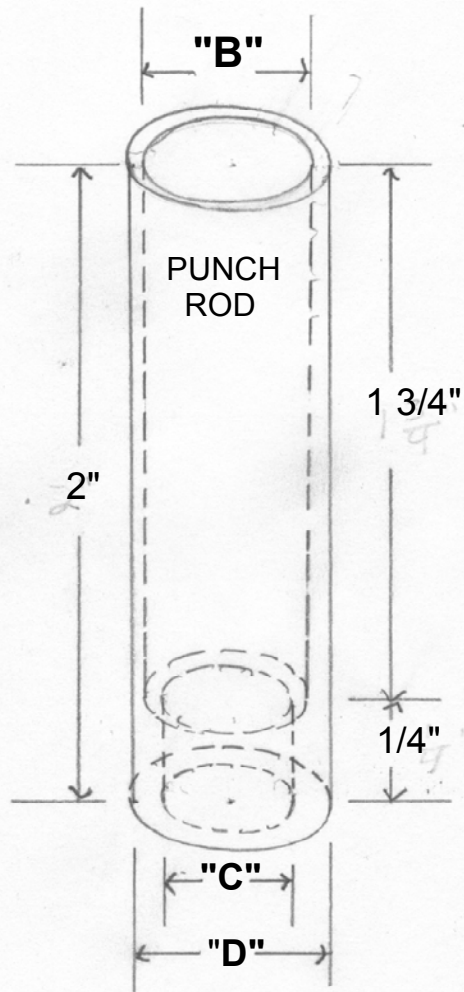
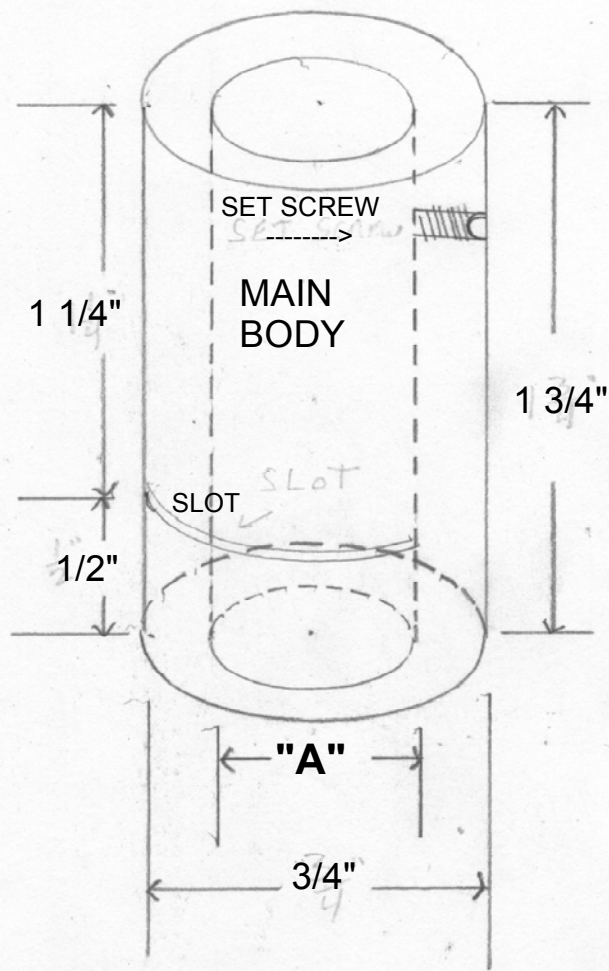
the spring should be as stiff as you can find, it should just slip over the punch rod. fully compress the spring several times before cutting it to length. cut it so it is 1/4" below the end of the punch rod after you put the base on the punch rod.

to use the check maker in a reloading press, you put the punch rod and spring into the adapter and insert it into the press ram, then drop the main body thru the top of the press, put over the punch rod. now drop a penny on top of the main body, then screw in a reloading die on top of the body and compress the spring about 1/8". insert alu. strip into the slot and pull the press handle sharply, it will take a few times to get it right, pull and you have a gas check. the check will kick out of the bottom of the adapter.

# one stroke



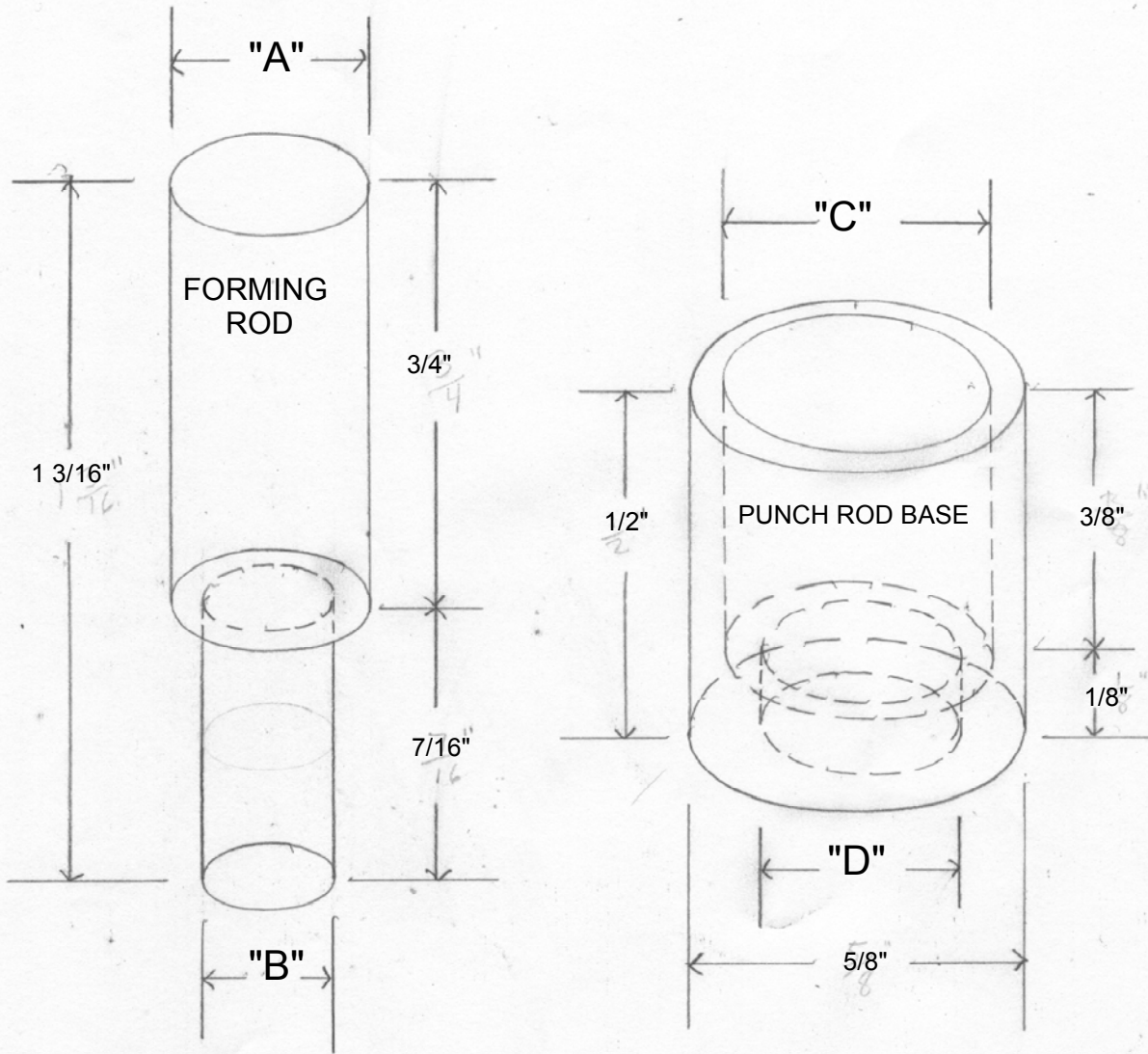
one stroke



- A- is disc diameter
- B- is 1 to 2 drill sizes larger than check diameter C
- C- is the check diameter
- D- is disc diameter A



one stroke

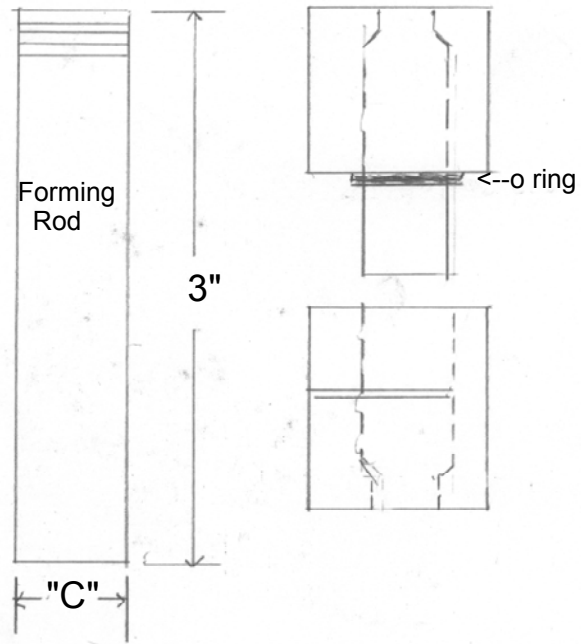
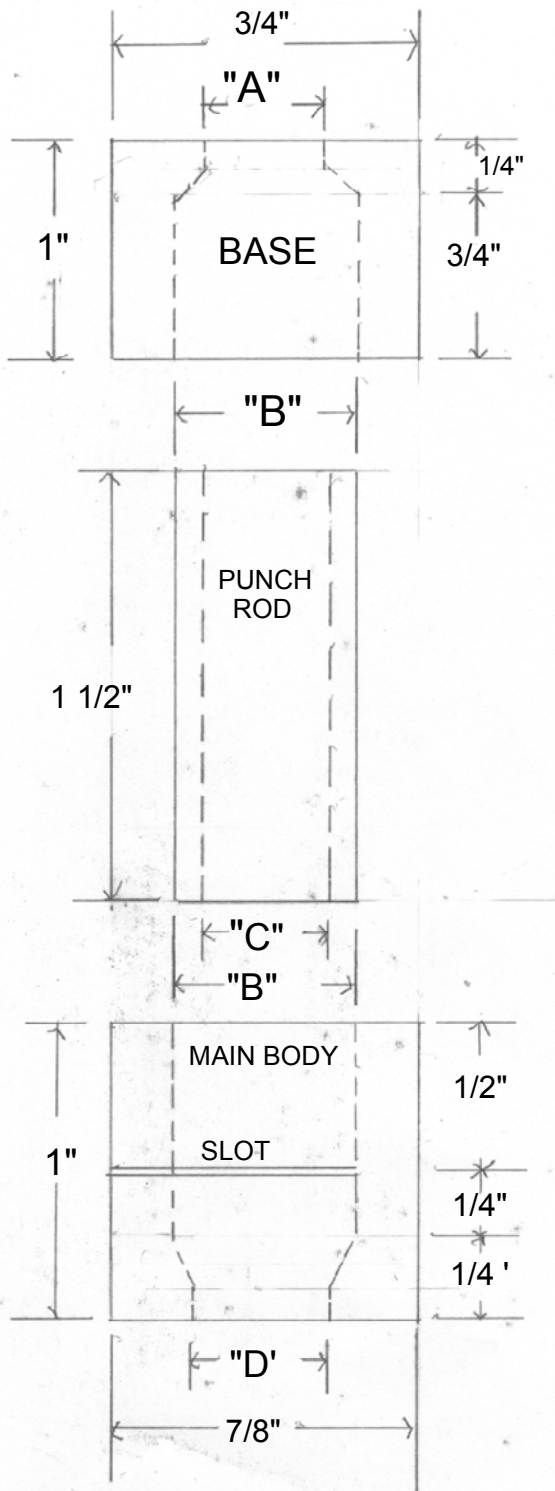


- A- is disc diameter
- B- is shank diameter
- C- is same diameter as punch rod O.D
- D- is same diameter as "D" on punch rod.

## TWO STROKE CHECK MAKER

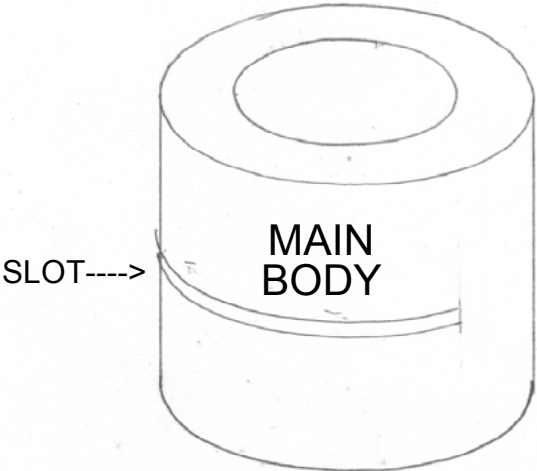
The two stroke check maker is easy to make. the main body is made from 3/4" stock for .41 cal. and smaller, 7/8" for .44 ca. and .45 cal. 1" for .50 cal. and larger. the main body is 1" long, the punch rod is 1 1/2" long. the punch rod base is 1" long. the forming rod is 3" long. I use alu. for the punch rod base, you can use steel. the slot is cut 1/2" from the top. follow the instructions for the one stroke to cut the slot. to cut the slot I used a steel pipe nipple with the threads cut off. I drilled an tapped a 10-32 hole about 1/4" from the end, the main body can be clamped in it to cut the slot easy. drill a hole thru the center of the main body, drill it the check size, then drill 3/4" deep with a drill the disc diameter. smootht the transition between the two. the punch rod is disc diameter, drill a hole thru the center of the punch rod shank diameter. the the forming rod is shank diameter. groove one end of the forming rod, thats to grip it easier, the other end has the edge smoothed so it will not punch out the bottom of the check. the base is drilled thru the center the size of the forming rod,then drill down 3/4" punch rod diameter. press the punch rod into it, if too loose, put a dib of epoxy on it. now cut the slot in the main body, some f the cads show it at an angle, it can be either, if at a slight angle it seems to cut easier. you can use the check maker with a arbor press, a drill press, or a soft mallet, the checks formed with a press seem to form nicer than with a mallet.

# TWO STROKE

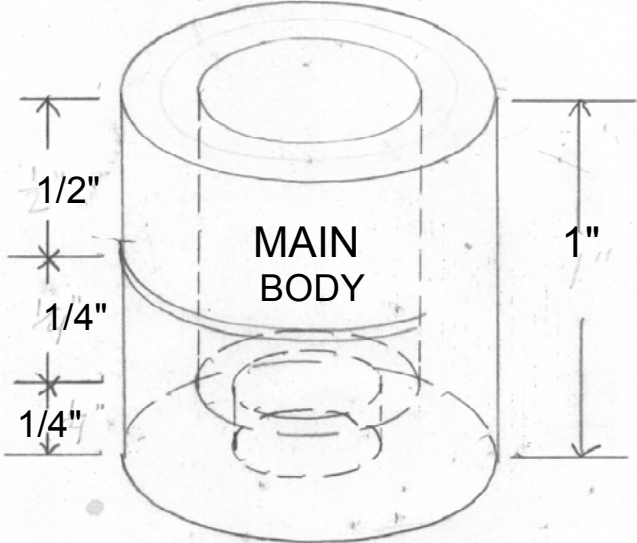


A- is shank diameter "c"  
 B- is disc diameter  
 C- is shank diameter  
 D- is check diameter

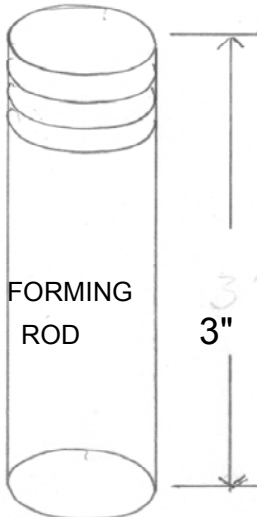
# TWO STROKE



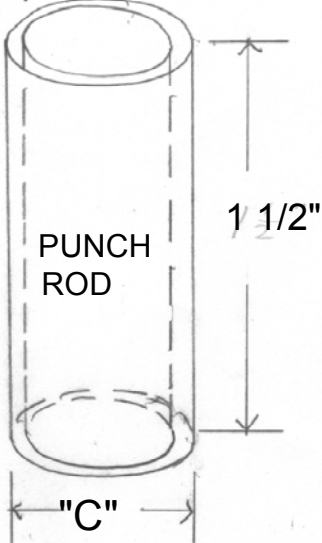
"A"



"B"



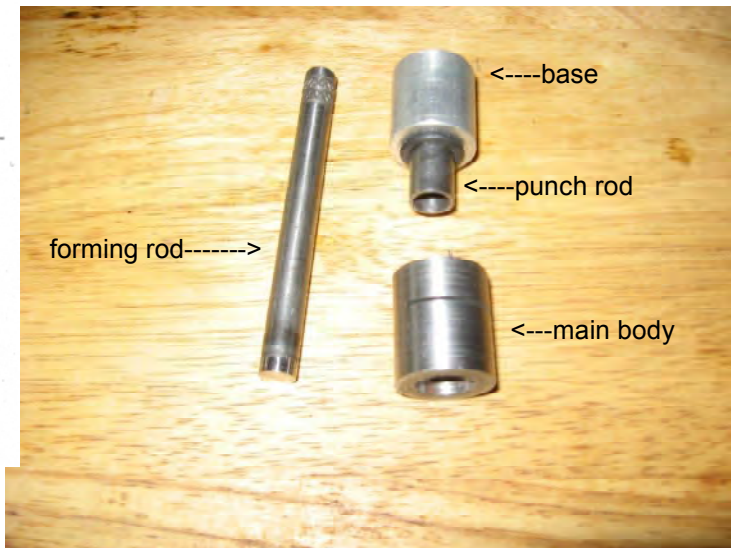
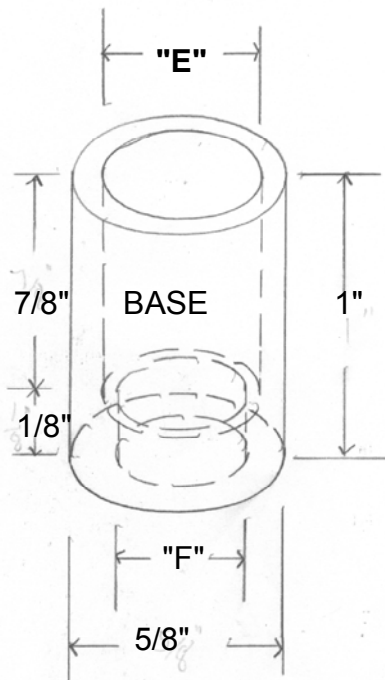
"D"

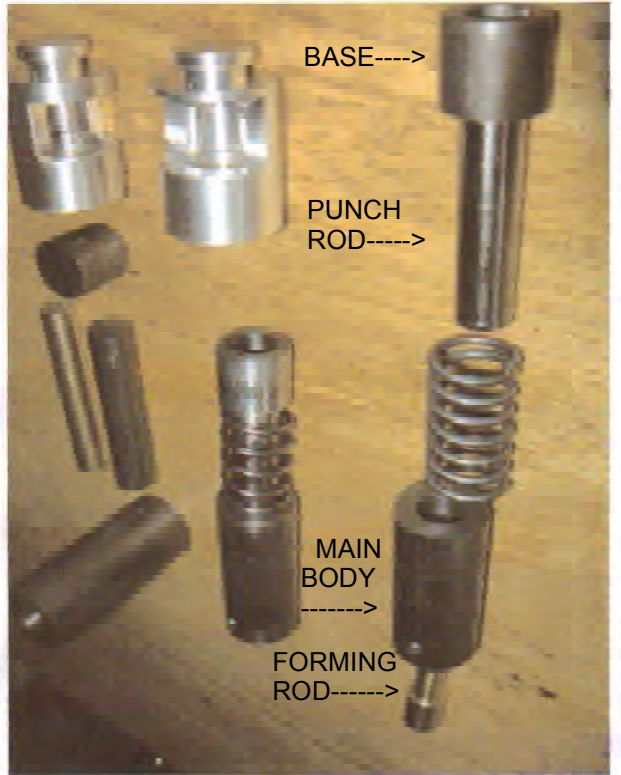


"C"

## TWO STROKE

- A- is disc diameter
- B- is check diameter
- C- is disc diameter same as "A"
- D- is shank diameter
- E- is same diameter as "C"
- F- is same diameter as "D"



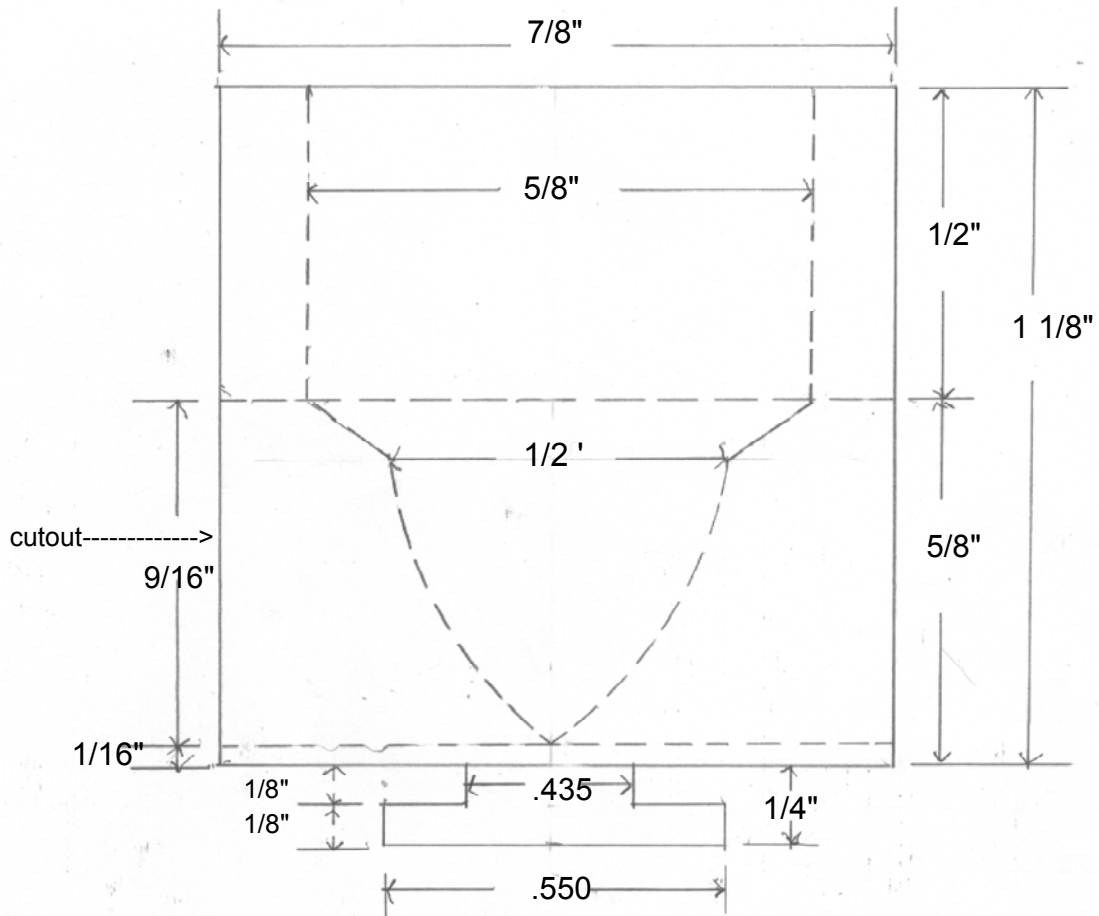


## RELOADING PRESS ADAPTER

THE RELOADING PRESS ADAPTER IS MADE FROM  $7/8$ " ALU. STOCK. IT IS  $1\ 3/8$ " LONG. TURN THE FLANGE THAT SLIPS INTO THE RAM FIRST THEN DRILL A PILOT HOLE  $1$ " DEEP, THEN DRILL A  $5/8$ " HOLE  $1/2$ " DEEP. NOW DRILL A  $1/2$ " HOLE  $1/2$ " DEEP INSIDE THE  $5/8$ " HOLE, USE A CARBIDE SPADE TYPE TILE AND GLASS BIT. IT WILL GIVE YOU A NICE RAMP FOR THE FINISHED CHECKS TO KICK OUT. NOW MILL OUT A SECTION  $9/16$ " WIDE  $1/2$ " FROM THE TOP. THE DRAWINGS WILL SHOW YOU. YOU CAN LEAVE OFF THE FLANGE TO USE IT IN A DRILL PRESS OR A ARBOR PRESS.



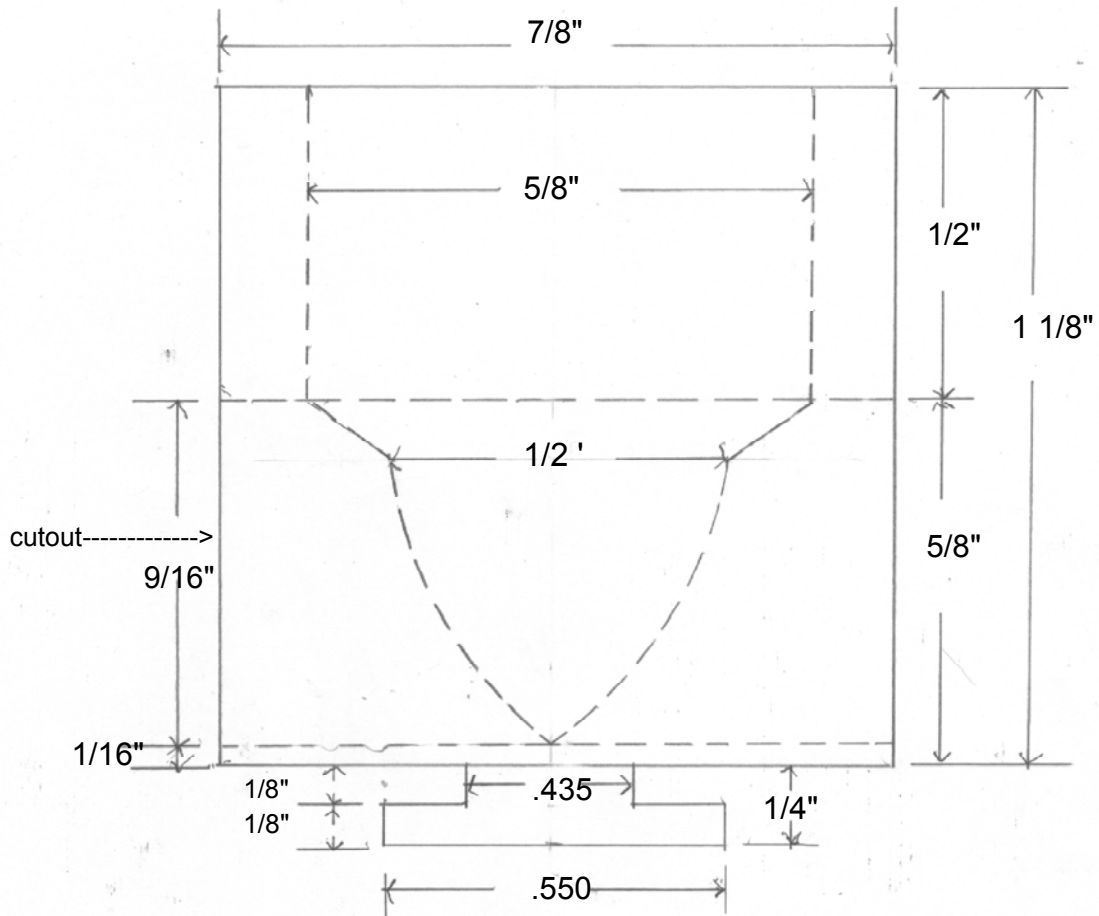
# RELOADING PRESS ADAPTER



The  $1/2"$  hole is drilled out with  $1/2"$  carbide spade tile and glass bit.  
The cutout is cut half way thru the adapter. look at photos

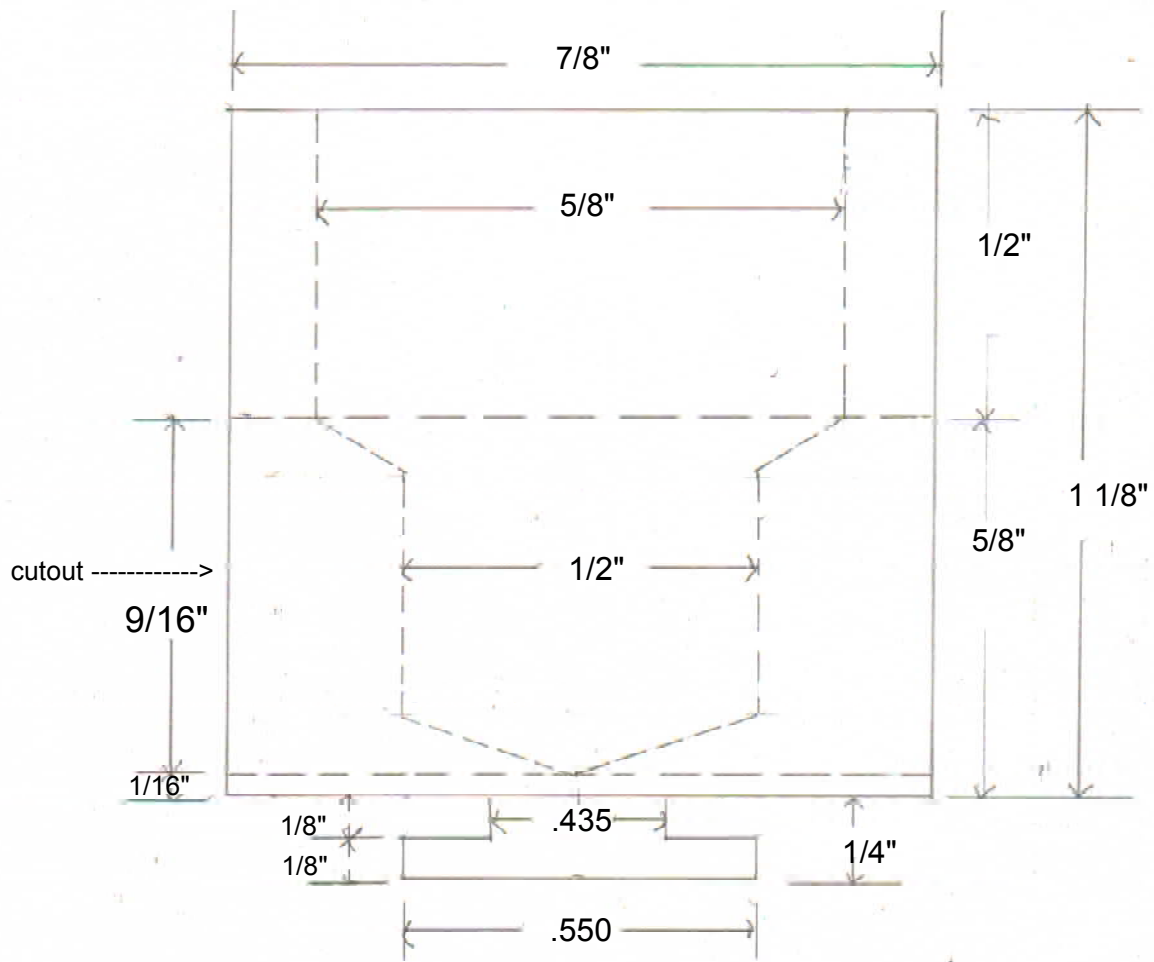


# RELOADING PRESS ADAPTER



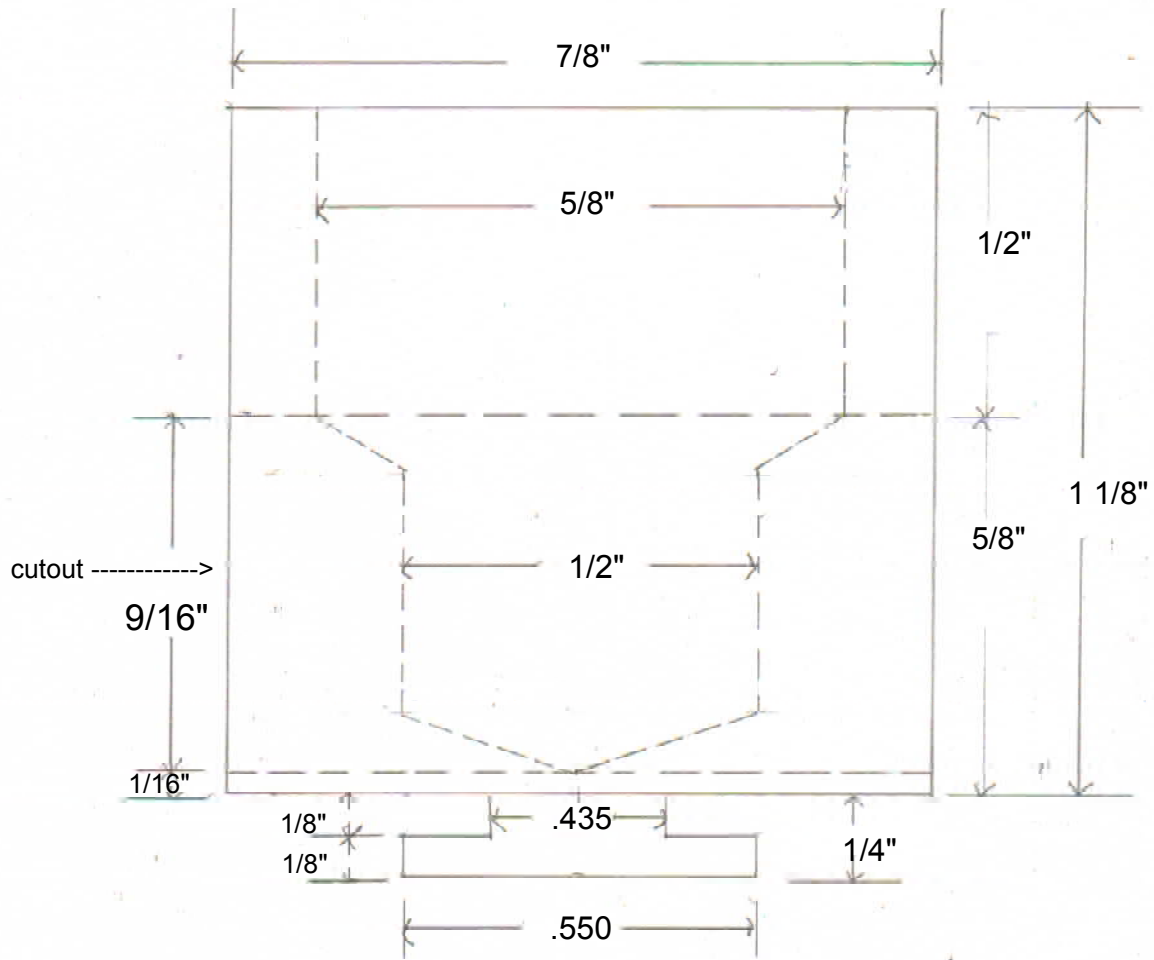
The 1/2" hole is drilled out with 1/2" carbide spade tile and glass bit.  
The cutout is cut half way thru the adapter. look at photos

## RELOADING PRESS ADAPTER 2



The  $1/2"$  hole is drilled with a standard twist drill bit  
The cutout is cut half way thru the adapter, look at photos

## RELOADING PRESS ADAPTER 2



The  $1/2"$  hole is drilled with a standard twist drill bit  
The cutout is cut half way thru the adapter, look at photos

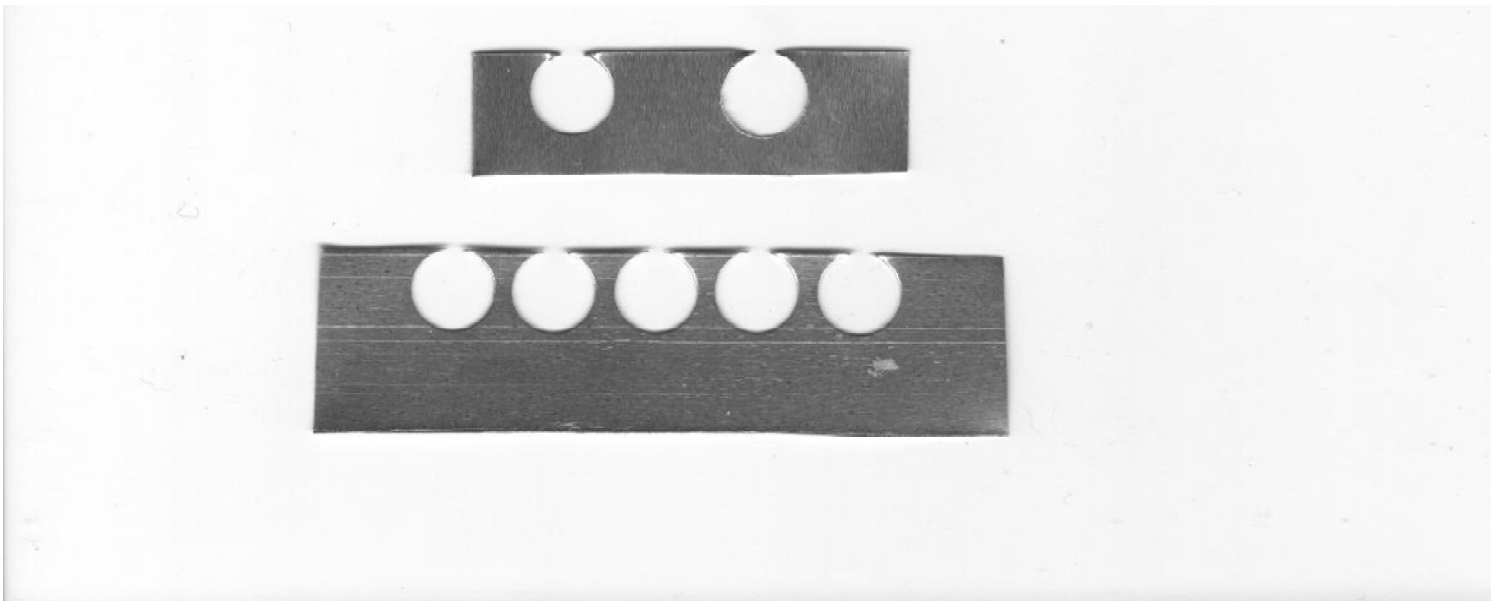
----- NOTES -----

When making a check maker for the larger cals, using 7/8" stock for the main body, you will have to turn the top down to 3/4" to use it in a reloading press. you turn the top 1" of the main body down to 3/4".

If you are going to use the check maker with an arbor press, I have found it is best to make the base 7/8" for all cals. the slots in the round press plate are 3/4" on my 1 ton press. I made a plate that has cleats on the bottom to fit into the slots, then I drilled a 1" hole in it so the hole is over the front slot, then I cut a 1" copper pipe coupling 3/8" long and epoxyied it into the hole, that way the check maker is held in place over the front slot. I made a container out of alu. flashing to fit under it to catch the checks. one of the guys said he drilled a hole thru his bench under the slot and put a funnel with a plastic tube thru it, and hung a can under the tube to catch the checks.

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This is the way the punched strips should look. by leaving a very small gap on the edge, the punch rod will extract a lot easier from the punched strip.



<u>CAL.</u>	<u>SHANK</u>	<u>CHECK DIA.</u>	<u>DISC DIA.</u>	<u>SKIRT HT.</u>	<u>THICKNESS</u>
<u>.22/.224</u>	<u>.216</u>	<u>.232</u>	<u>.306</u>	<u>.045</u>	<u>.010</u>
<u>.243/.6MM</u>	<u>.234</u>	<u>.252</u>	<u>.344</u>	<u>.055</u>	<u>.010</u>
<u>.25/.257</u>	<u>.244</u>	<u>.264</u>	<u>.344</u>	<u>.045</u>	<u>.010</u>
<u>.264/6.5 MM</u>	<u>.254</u>	<u>.271</u>	<u>.364</u>	<u>.055</u>	<u>.010</u>
<u>.270/.277</u>	<u>.255</u>	<u>.268</u>	<u>.385</u>	<u>.065</u>	<u>.016</u>
<u>.284/7MM</u>	<u>.250</u>	<u>.290</u>	<u>.370</u>	<u>.060</u>	<u>.016</u>
<u>.30/.308</u>	<u>.283</u>	<u>.320</u>	<u>.404</u>	<u>.060</u>	<u>.014</u>
<u>.32/8MM</u>	<u>.304</u>	<u>.334</u>	<u>.404</u>	<u>.050</u>	<u>.014</u>
<u>.338</u>	<u>.330</u>	<u>.346</u>	<u>.450</u>	<u>.060</u>	<u>.010</u>
<u>.348</u>	<u>.321</u>	<u>.352</u>	<u>.431</u>	<u>.055</u>	<u>.014</u>
<u>.35/.357/.358</u>	<u>.341</u>	<u>.360</u>	<u>.451</u>	<u>.055</u>	<u>.010</u>
<u>.375</u>	<u>.356</u>	<u>.367</u>	<u>.456</u>	<u>.050</u>	<u>.014</u>
<u>.41</u>	<u>.395</u>	<u>.417</u>	<u>.525</u>	<u>.065</u>	<u>.010</u>
<u>.44</u>	<u>.404</u>	<u>.436</u>	<u>.508</u>	<u>.052</u>	<u>.016</u>
<u>.45</u>	<u>.428</u>	<u>.460</u>	<u>.632</u>	<u>.052</u>	<u>.016</u>
<u>.50 P</u>	<u>.458</u>	<u>.512</u>	<u>.578</u>	<u>.060</u>	<u>.020</u>

This table is for example only ; it is compiled form various tables and charts, there are a lot of conflicting data. the only way to get the proper sizes is to MEASURE YOUR BULLET.

## Gascheck Shank Sizes and Diameters

Bullet Diameter	Hornady Shank Size	Gatorcheck Shank Size	Description
.224	.216	.214	.22/.224
.243	.234	.233	.243/6mm
.257	.244	.243	.25/.257
.264	.254	.252	.264/6.5mm
.277	.255	.253	.270/.277
.284	.253	.250	.284/7mm
.308	.283	.284	.30/.308
.323	.304	.301	.323/8mm
.338	.330	.327	.338
.348	.321	.320	.348
.358	.344	.341	.35/.357/.358/.360
.375	.356	.354	.375
.410 (.410P1)		.397	.41 Lyman (very thin)
.410 (.410P2)		.378	.41 BSS,NEI,MM (very thick)
.416		.393	.416 rifle
.430	.404	.402	.44/.430
.452	.428	.426	.45P/.452 pistol (thin)
.458	.428	.426	.45R/.458 rifle (thick)
.475P		.445	.475 Pistol (thin)
.475R		.445	.475 rifle (thick)
.500		.458	.50P/.500 S&W Pistol
.512RL		.466	.50R/.512 rifle (long)
.512RS		.466	.50R/.512 rifle (short)

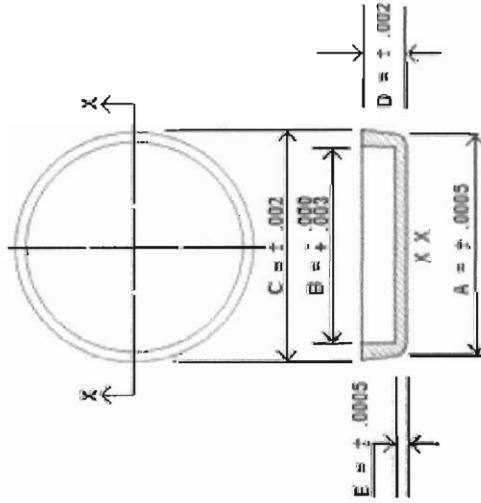
As you can see, check sizes vary, so does the shank on a boolit  
**ALLWAYS MEASURE YOUR BOOLIT, THAT IS THE  
 ONLY WAY YOU WILL GET THE PROPER  
 MEASUREMENTS.**

Ideally, 0.001 under D dimension generally produces the desired snap fit but, in my opinion, it is too easy to go too far and have an oversize shank. Better to be slightly undersize and have the ability to lightly lap the mold shank to fit than to have to expand each check to fit the shank before sizing.

Gas Check Dimensions

Press the "F2" or "Enter" Key to Edit the Gas Check Database

Gas Check Dimensions



First Prior Next Last New Cancel Post Delete

Manufacturer	Dimension A	Stock Number	Caliber	Dimension B	Dimension C	Dimension D	Dimension E	Weight Grains
Gator	0.512		50 cal.	0.468	0.512	0.150	0.020	15.50
Gator	1.257		25 cal.	0.243	0.264	0.055	0.010	1.80
Hornady	0.224	7010	22 cal.	0.216	0.232	0.054	0.010	1.31
Hornady	0.243	7020	6mm	0.234	0.252	0.062	0.010	1.65
Hornady	0.257	7030	25 cal.	0.244	0.264	0.055	0.010	1.81
Hornady	0.263	7040	6.5mm	0.254	0.271	0.065	0.010	1.89
Hornady	0.277	7050	270 cal.	0.255	0.266	0.081	0.017	3.93
Hornady	0.284	7060	7mm	0.253	0.290	0.076	0.017	4.34
Hornady	0.308	7070	30 cal.	0.283	0.320	0.080	0.017	4.44
Hornady	0.323	7080	32 cal.	0.304	0.334	0.077	0.017	4.80
Hornady	0.330	7090	338 cal.	0.330	0.346	0.073	0.010	2.93
Hornady	0.348	7100	348 cal.	0.321	0.352	0.072	0.017	5.55
Hornady	0.357	720	35 cal.	0.344	0.360	0.068	0.010	3.31
Hornady	0.375	7120	375 cal.	0.356	0.367	0.064	0.017	6.35
Hornady	0.430	7130	44 cal.	0.404	0.436	0.069	0.017	7.92
Hornady	0.458	7140	45 cal.	0.428	0.460	0.070	0.017	8.60
Lyman	0.410	287310	41 cal	0.395	0.417	0.077	0.010	4.40

Close

# DRILL SIZE DECIMAL EQUIVALENT & TAP DRILL CHART

## DECIMAL EQUIVALENT CHART

DRILL SIZE	MM	DECIMAL EQUIVALENT	DRILL SIZE	MM	DECIMAL EQUIVALENT	DRILL SIZE	MM	DECIMAL EQUIVALENT	DRILL SIZE	MM	DECIMAL EQUIVALENT	DRILL SIZE	MM	DECIMAL EQUIVALENT
-	0.10	.0039	53	1.51	.0595	-	4.00	.1575	J	7.04	.2770	-	14.00	.5512
-	0.20	.0079	1/16	1.59	.0625	21	4.04	.1590	K	7.14	.2810	9/16	14.29	.5625
-	0.25	.0098	52	1.61	.0635	20	4.09	.1610	9/32	7.14	.2812	37/64	14.68	.5781
-	0.30	.0118	51	1.70	.0670	19	4.22	.1660	L	7.37	.2900	-	15.00	.5906
80	0.34	.0135	50	1.78	.0700	18	4.31	.1695	M	7.49	.2950	19/32	15.08	.5938
79	0.37	.0145	49	1.85	.0730	11/64	4.37	.1719	19/64	7.54	.2969	39/64	15.48	.6094
1/64	0.40	.0156	48	1.93	.0760	17	4.39	.1730	N	7.67	.3020	5/8	15.88	.6250
78	0.41	.0160	5/64	1.98	.0781	16	4.50	.1770	5/16	7.94	.3125	-	16.00	.6299
77	0.46	.0180	47	1.99	.0785	15	4.57	.1800	-	8.00	.3150	41/64	16.27	.6406
-	0.50	.0197	-	2.00	.0787	14	4.62	.1820	O	8.03	.3160	21/32	16.67	.6562
76	0.51	.0200	46	2.06	.0810	13	4.70	.1850	P	8.20	.3230	-	17.00	.6693
75	0.53	.0210	45	2.08	.0820	3/16	4.76	.1875	21/64	8.33	.3281	43/64	17.07	.6719
74	0.57	.0225	44	2.18	.0860	12	4.80	.1890	Q	8.43	.3320	11/16	17.46	.6875
-	0.60	.0236	43	2.26	.0890	11	4.85	.1910	R	8.61	.3390	45/64	17.86	.7031
73	0.61	.0240	42	2.37	.0935	10	4.91	.1935	11/32	8.73	.3438	-	18.00	.7087
72	0.64	.0250	3/32	2.38	.0938	9	4.98	.1960	S	8.84	.3480	23/32	18.26	.7188
71	0.66	.0260	41	2.44	.0960	-	5.00	.1968	-	9.00	.3543	47/64	18.65	.7344
-	0.70	.0276	40	2.50	.0980	8	5.05	.1990	T	9.09	.3580	-	19.00	.7480
70	0.71	.0280	39	2.53	.0995	7	5.11	.2010	23/64	9.13	.3594	3/4	19.05	.7500
69	0.74	.0292	38	2.58	.1015	13/64	5.16	.2031	U	9.35	.3680	49/64	19.45	.7656
-	0.75	.0295	37	2.64	.1040	6	5.18	.2040	3/8	9.53	.3750	25/32	19.84	.7812
68	0.79	.0310	36	2.71	.1065	5	5.22	.2055	V	9.56	.3770	-	20.00	.7874
1/32	0.79	.0313	7/64	2.78	.1094	4	5.31	.2090	W	9.80	.3860	51/64	20.24	.7969
-	0.80	.0315	35	2.79	.1100	3	5.41	.2130	25/64	9.92	.3906	13/16	20.64	.8125
67	0.81	.0320	34	2.82	.1110	7/32	5.56	.2188	-	10.00	.3937	-	21.00	.8268
66	0.84	.0330	33	2.87	.1130	2	5.61	.2210	X	10.08	.3970	53/64	21.03	.8281
65	0.89	.0350	32	2.95	.1160	1	5.79	.2280	Y	10.26	.4040	27/32	21.43	.8438
-	0.90	.0354	-	3.00	.1181	A	5.94	.2340	13/32	10.32	.4062	55/64	21.84	.8594
64	0.91	.0360	31	3.05	.1200	15/64	5.95	.2344	Z	10.49	.4130	-	22.00	.8661
63	0.94	.0370	1/8	3.18	.1250	-	6.00	.2362	27/64	10.72	.4219	7/8	22.23	.8750
62	0.97	.0380	30	3.26	.1285	B	6.05	.2380	-	11.00	.4331	57/64	22.62	.8906
61	0.99	.0390	29	3.45	.1360	C	6.15	.2420	7/16	11.11	.4375	-	23.00	.9055
-	1.00	.0394	28	3.57	.1405	D	6.25	.2460	29/64	11.51	.4531	29/32	23.02	.9062
60	1.02	.0400	9/64	3.57	.1406	1/4	6.35	.2500	15/32	11.91	.4688	59/64	23.42	.9219
59	1.04	.0410	27	3.66	.1440	E	6.35	.2500	-	12.00	.4724	15/16	23.81	.9375
58	1.07	.0420	26	3.73	.1470	F	6.53	.2570	31/64	12.30	.4844	-	24.00	.9449
57	1.09	.0430	25	3.80	.1495	G	6.63	.2610	1/2	12.70	.5000	61/64	24.21	.9531
56	1.18	.0465	24	3.86	.1520	17/64	6.75	.2656	-	13.00	.5118	31/32	24.61	.9688
3/64	1.19	.0469	23	3.91	.1540	H	6.76	.2660	33/64	13.10	.5156	-	25.00	.9842
55	1.32	.0520	5/32	3.97	.1562	I	6.91	.2720	17/32	13.49	.5312	63/64	25.00	.9844
54	1.40	.0550	22	3.99	.1570	-	7.00	.2756	35/64	13.89	.5469	1"	25.40	1.0000

## TAP DRILL CHART

TAP SIZE	DRILL SIZE	PROBABLE % THREAD	TAP SIZE	DRILL SIZE	PROBABLE % THREAD	TAP SIZE	DRILL SIZE	PROBABLE % THREAD
0 - 80	3/64	71 - 81	10 - 32	21	68 - 76	5/8 - 18	37/64	58 - 65
M1.6 x .35	1.25 mm	67 - 77	M5 x .8	4.2 mm	69 - 77	M16 x 2	35/64	76 - 81
1 - 64	53	59 - 67	12 - 24	17	66 - 72	3/4 - 10	21/32	68 - 72
M2 x .4	1/16	72 - 79	12 - 28	15	70 - 78	3/4 - 16	11/16	71 - 77
1 - 72	53	67 - 75	M6 x 1	10	76 - 84	M20 x 2.5	11/16	74 - 78
2 - 56	51	62 - 69	1/4 - 20	7	70 - 75	7/8 - 9	49/64	72 - 76
2 - 64	50	70 - 79	1/4 - 28	3	72 - 80	7/8 - 14	13/16	62 - 67
M2.5 x .45	2.05 mm	69 - 77	5/16 - 18	F	72 - 77	M24 x 3	53/64	72 - 76
3 - 48	5/64	70 - 77	5/16 - 24	I	67 - 75	1 - 8	7/8	73 - 77
3 - 56	46	69 - 79	M8 x 1.25	6.7 mm	74 - 80	1 - 12	59/64	67 - 72
4 - 40	44	65 - 71	3/8 - 16	5/16	72 - 77	1 - 14	15/16	61 - 67
4 - 48	42	61 - 68	3/8 - 24	Q	71 - 79	1-1/8 - 7	63/64	72 - 76
M3 x .5	40	70 - 79	M10 x 1.5	8.4 mm	76 - 82	1/18 - 12	1-3/64	66 - 72
5 - 40	39	65 - 72	7/16 - 14	U	70 - 75	M30 x 3.5	1-3/64	75
5 - 44	38	63 - 71	7/16 - 20	25/64	65 - 72	1-1/4 - 7	1-7/64	76
M3.5 x .6	33	72 - 81	M12 x 1.75	13/32	69 - 74	1-1/4 - 12	1-11/64	72
6 - 32	36	71 - 78	1/2 - 13	27/64	73 - 79	1-3/8 - 6	1-7/32	72
6 - 40	33	69 - 77	1/2 - 20	29/64	65 - 72	1-3/8 - 12	1-19/64	72
M4 x .7	3.25 mm	74 - 82	M14 x 2	15/32	76 - 81	M36 x 4	1-1/4	82
8 - 32	29	62 - 69	9/16 - 12	31/64	68 - 72	1-1/2 - 6	1-11/32	72
8 - 36	29	70 - 78	9/16 - 18	33/64	58 - 65	1-1/2 - 12	1-27/64	72
10 - 24	25	69 - 75	5/8 - 11	17/32	75 - 79			

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