

Made In USA

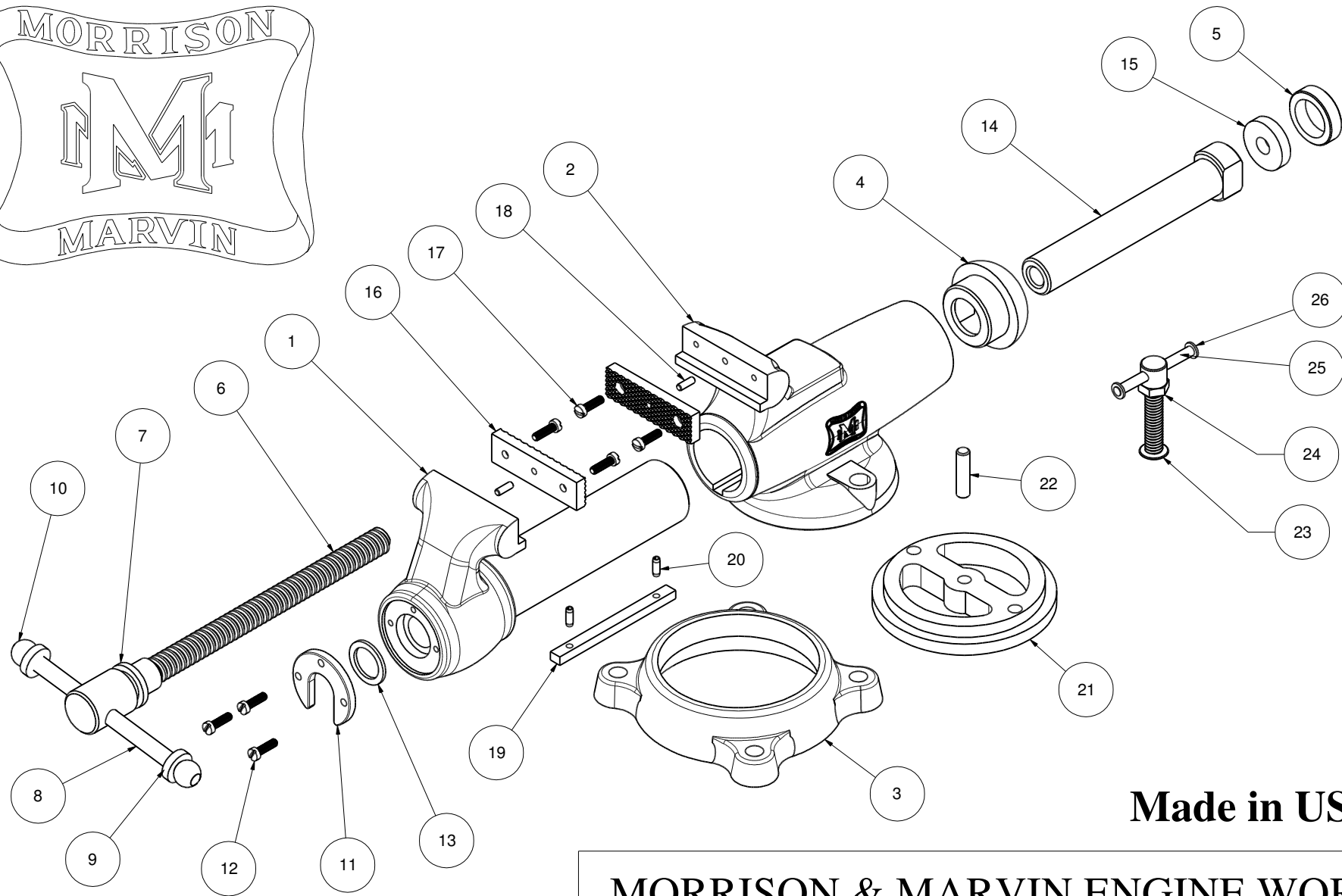
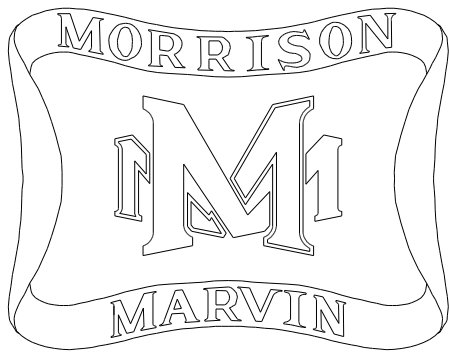
Download a full set of drawings from
MorrisonandMarvin.com

Model Builders Vice

MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION Vise Assembly		
DRAWN BY Dave Otto	DATE 2/21/2017			
MATERIAL	SIZE A	SCALE 2 : 1	SHEET 1 of 17	REV 1



Made in USA

MORRISON & MARVIN ENGINE WORKS

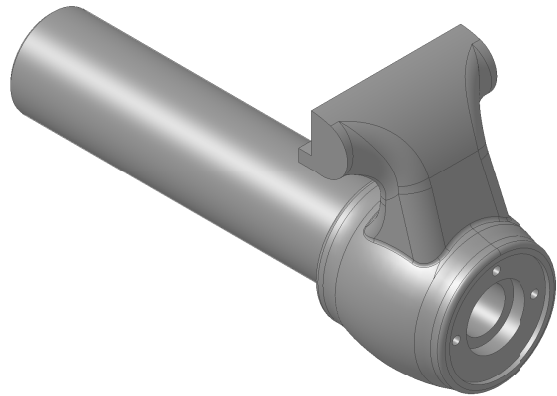
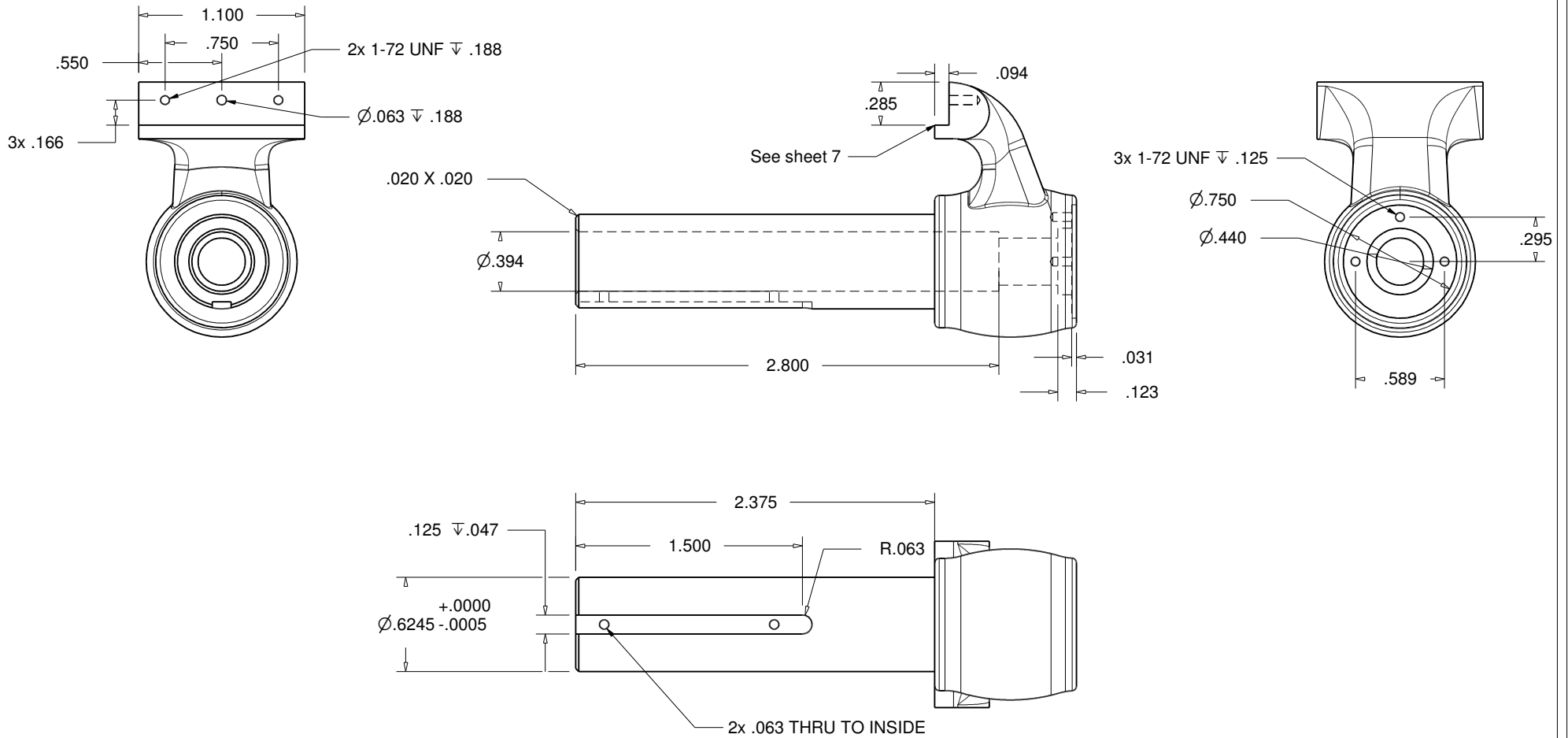
Box 555 Benton City, WA 99320 USA

Download a full set of drawings from
MorrisonandMarvin.com

Vise Exploded

Model Builders Vise

DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION		
DRAWN BY Dave Otto	DATE 2/21/2017	Vise Exploded		
MATERIAL	SIZE A			

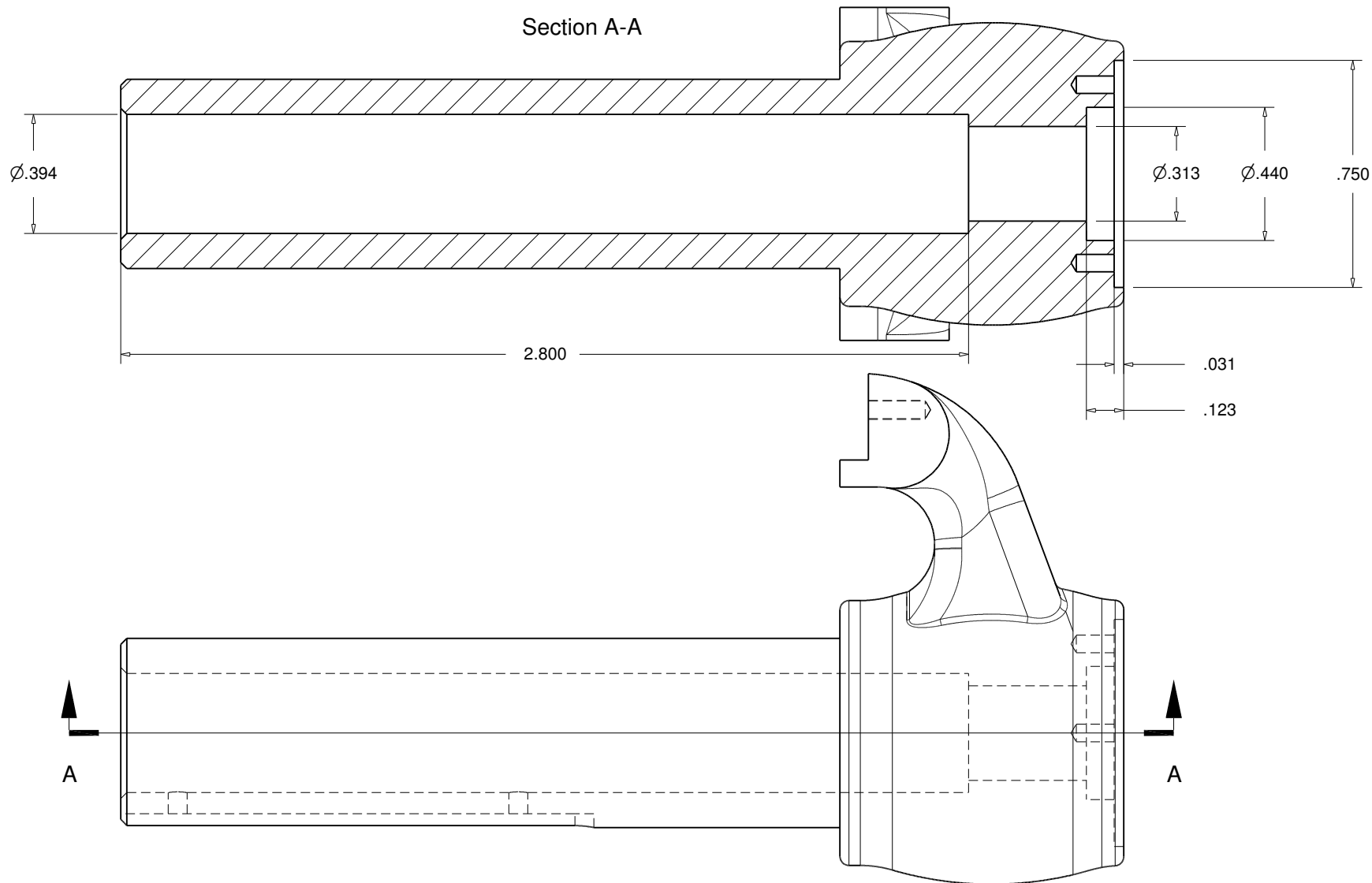


Model Builders Vice

MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION #1 Front Jaw		
DRAWN BY Dave Otto	DATE 2/21/2017			
MATERIAL 4140 Steel Casting	SIZE A	SCALE 1 : 1	SHEET 3 of 17	REV 1

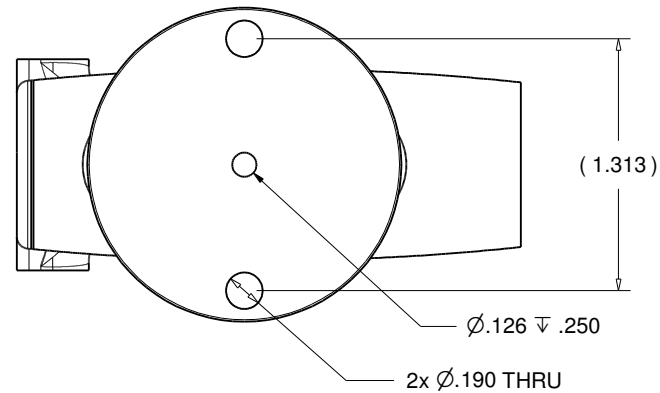
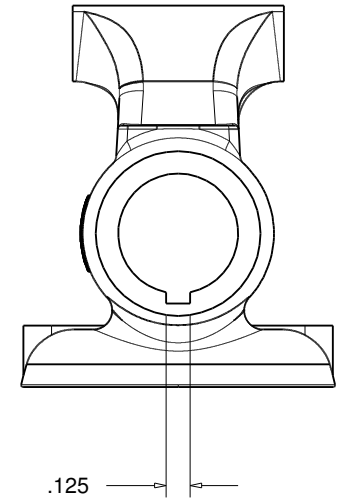
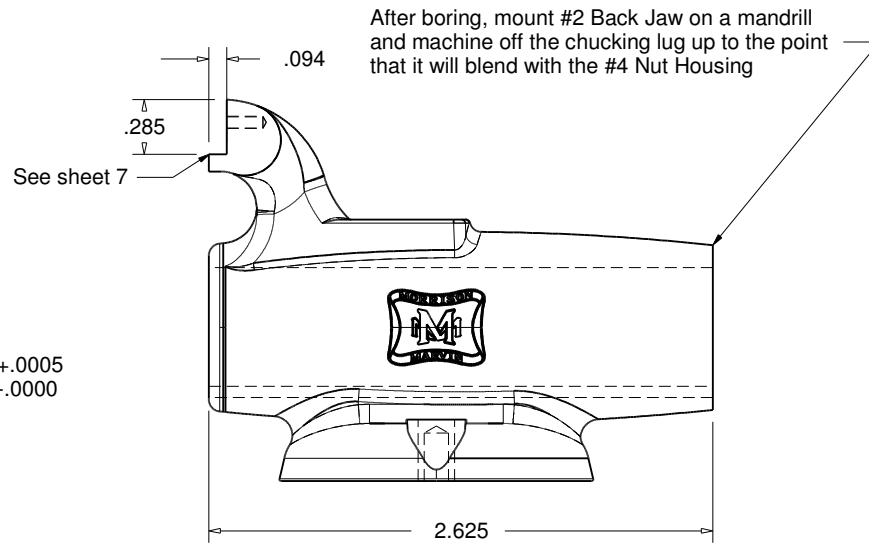
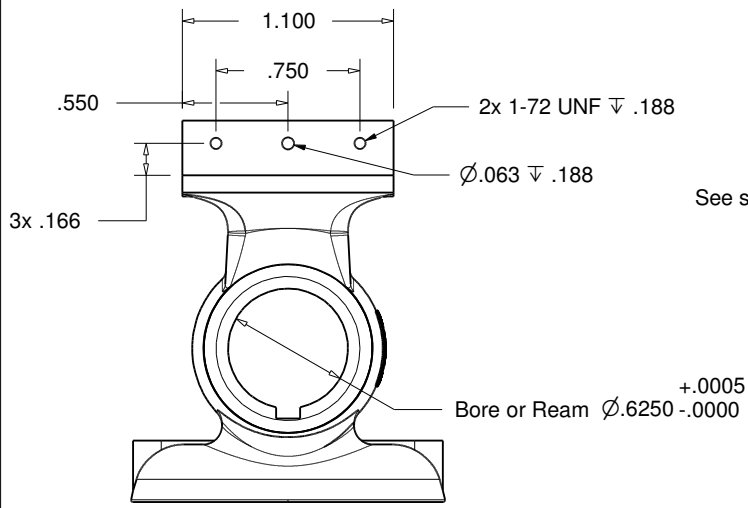


MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

DESIGNED BY Roland Morrison / Marvin Hedberg		<h2 style="margin: 0;">#1 Front Jaw</h2>		
DRAWN BY Dave Otto	DATE 2/21/2017			
MATERIAL 4140 Steel Casting	SIZE A	SCALE 2 : 1	SHEET 4 of 17	REV 1

Model Builders Vice



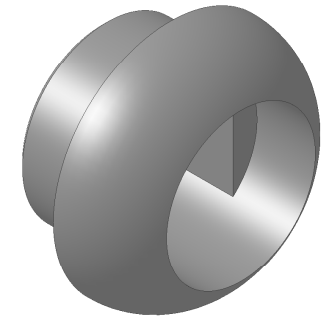
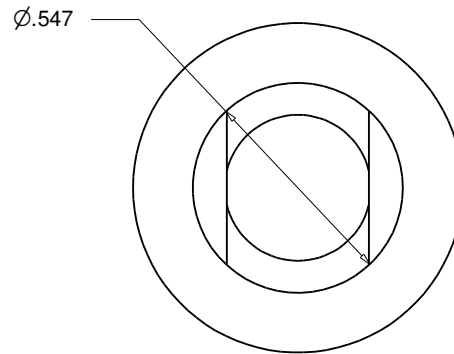
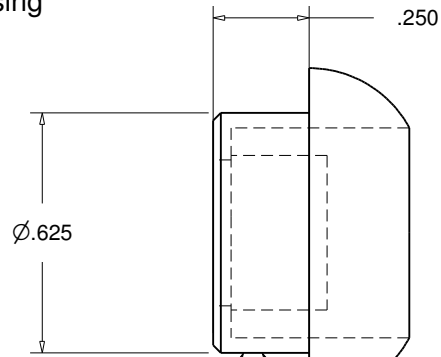
Model Builders Vice

MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION <h2>#2 Back Jaw</h2>		
DRAWN BY Dave Otto	DATE 2/21/2017			
MATERIAL 4140 Steel Casting	SIZE A	SCALE 1 : 1	SHEET 5 of 17	REV 1

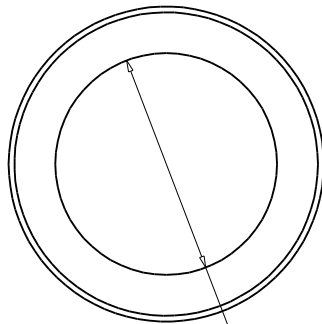
#4 Nut Housing
Scale 2X



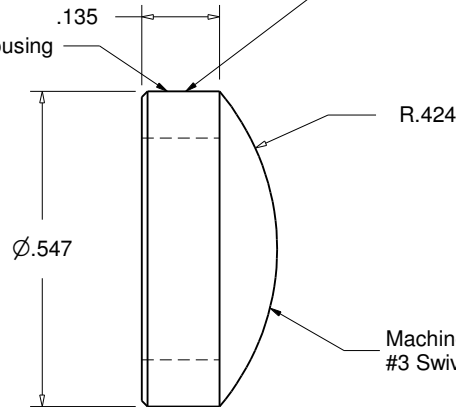
Press fit in #2 Back Jaw

#3 Swivel Base & #4 Nut Housing
are cast as one piece. Machine Nut Housing
before removing it from the Swivel Base casting

#5 End Cap
Scale 3X

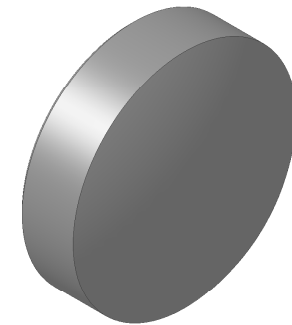


Press fit in #4 Nut Housing



Adjust length of End Cap to allow for .002" crush
on #15 Nut Cushion while blending
nicely with #4 Nut Housing

Machine #5 End Cap from chucking lug on the
#3 Swivel Base and #4 Nut Housing Castings

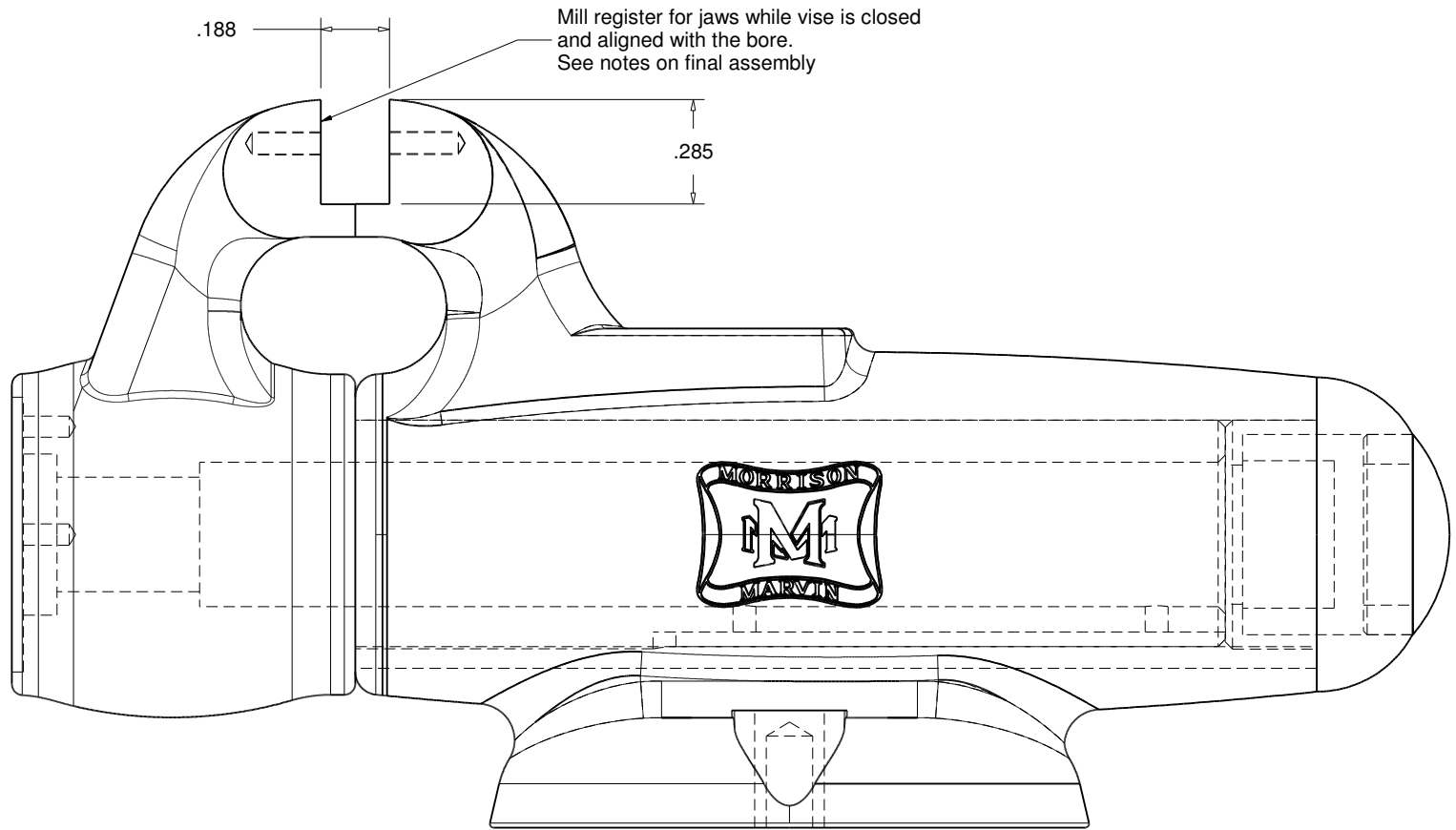


MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION <h2>Vise Parts 1</h2>		
DRAWN BY Dave Otto	DATE 2/21/2017			
MATERIAL	SIZE A	SCALE	SHEET 6 of 17	REV 1

Model Builders Vise

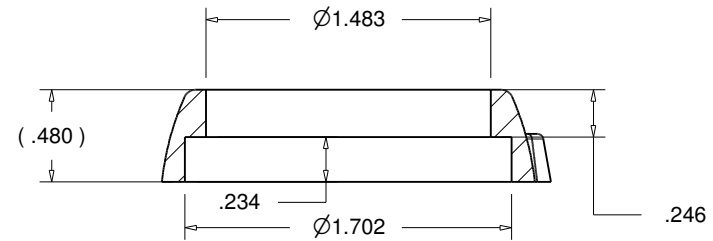
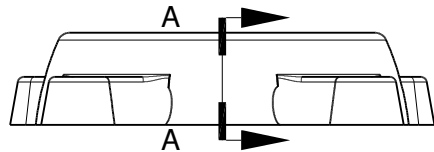
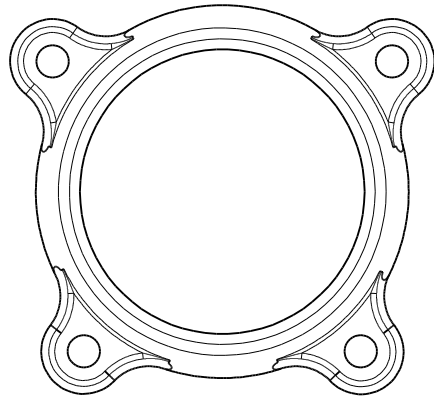


MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION Front and Back Jaws		
DRAWN BY Dave Otto	DATE 2/21/2017			
MATERIAL	SIZE A	SCALE 2 : 1	SHEET 7 of 17	REV 1

Model Builders Vice



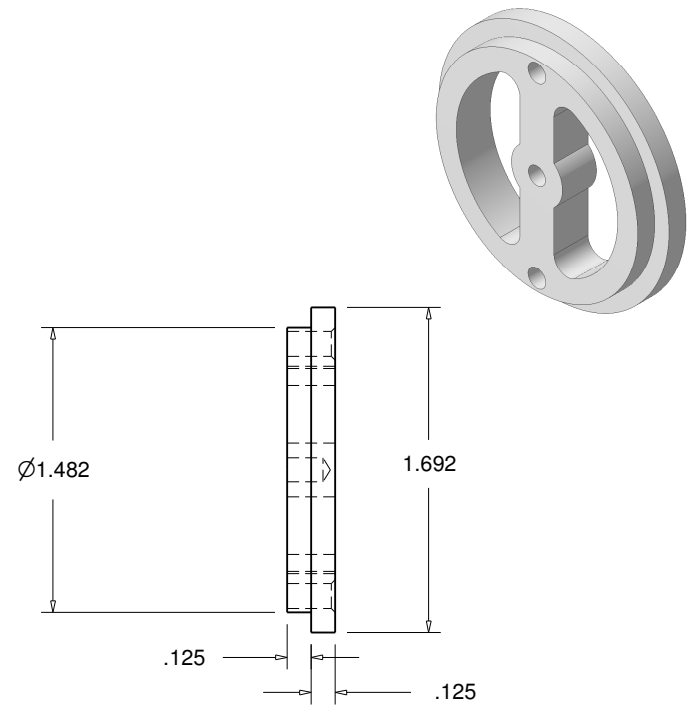
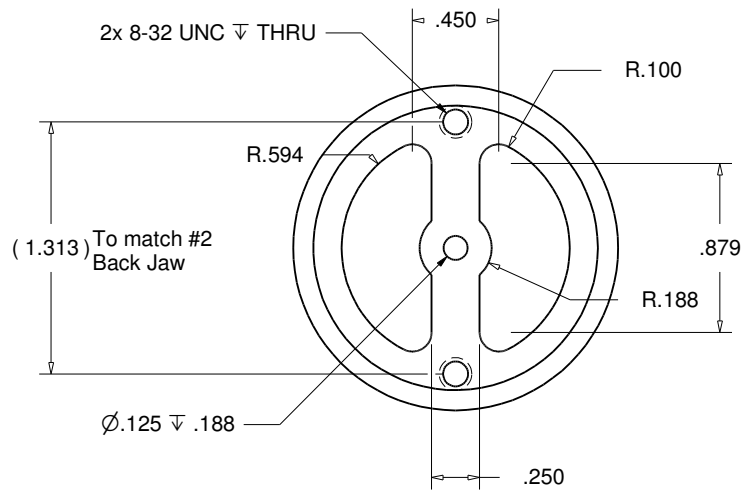
Section A-A

MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION #3 Swivel Base		
DRAWN BY Dave Otto	DATE 2/21/2017			
MATERIAL 4140 Steel Casting	SIZE A	SCALE 1 : 1	SHEET 8 of 17	REV 1

Model Builders Vice



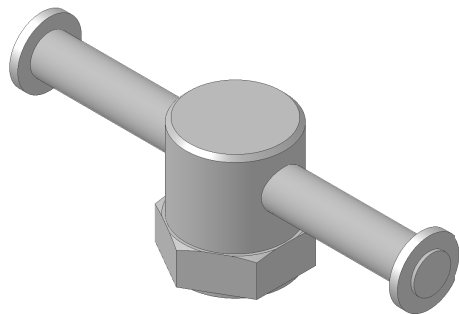
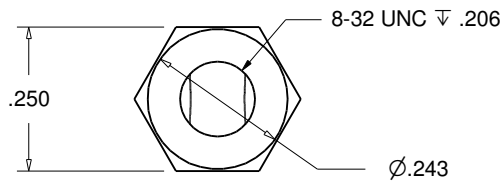
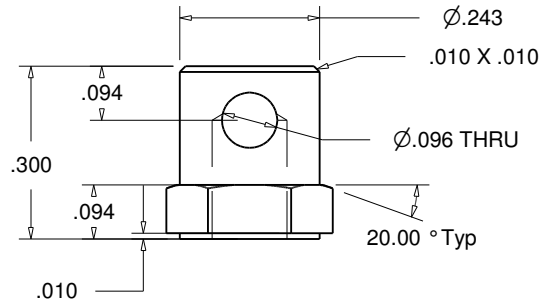
Model Builders Vice

MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

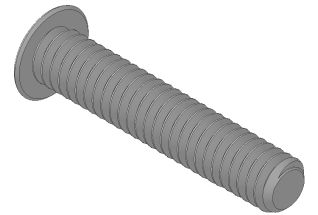
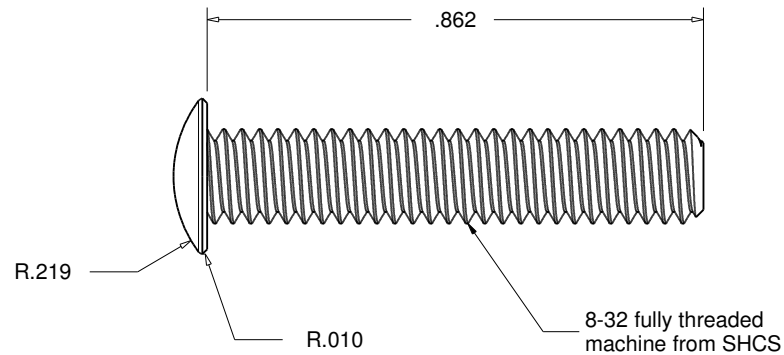
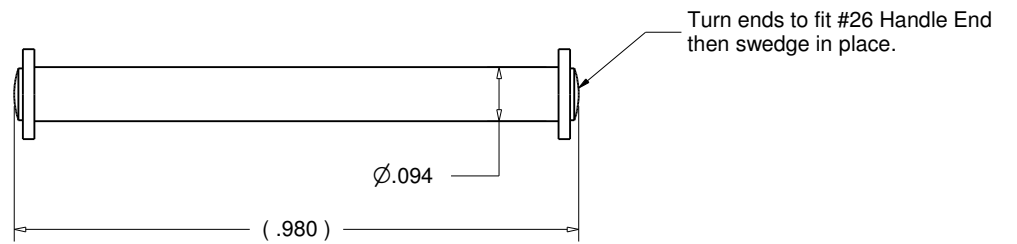
DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION #21 Lock Plate		
DRAWN BY Dave Otto	DATE 2/21/2017			
MATERIAL 12L14 Leaded Steel	SIZE A	SCALE 1 : 1	SHEET 9 of 17	REV 1

#24 Lock Clamp
Scale 3X



Model Builders Vice

#25 Lock Handle
Scale 3X

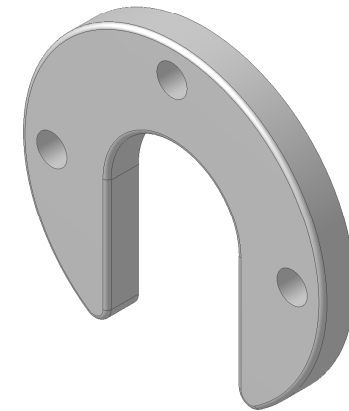
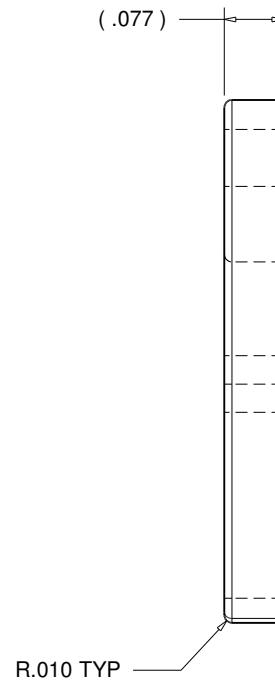
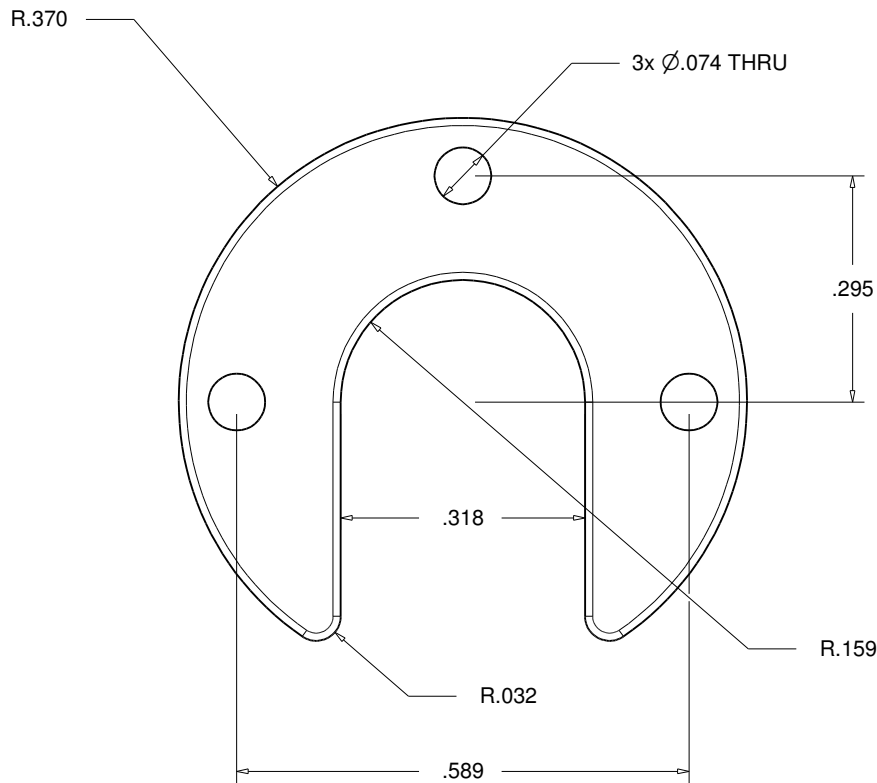


#23 Lock Bolt
Scale 3X

MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION Lock Handle Assembly			
DRAWN BY Dave Otto	DATE 2/21/2017				
MATERIAL Steel	SIZE A	SCALE	SHEET 10 of 17	REV 1	



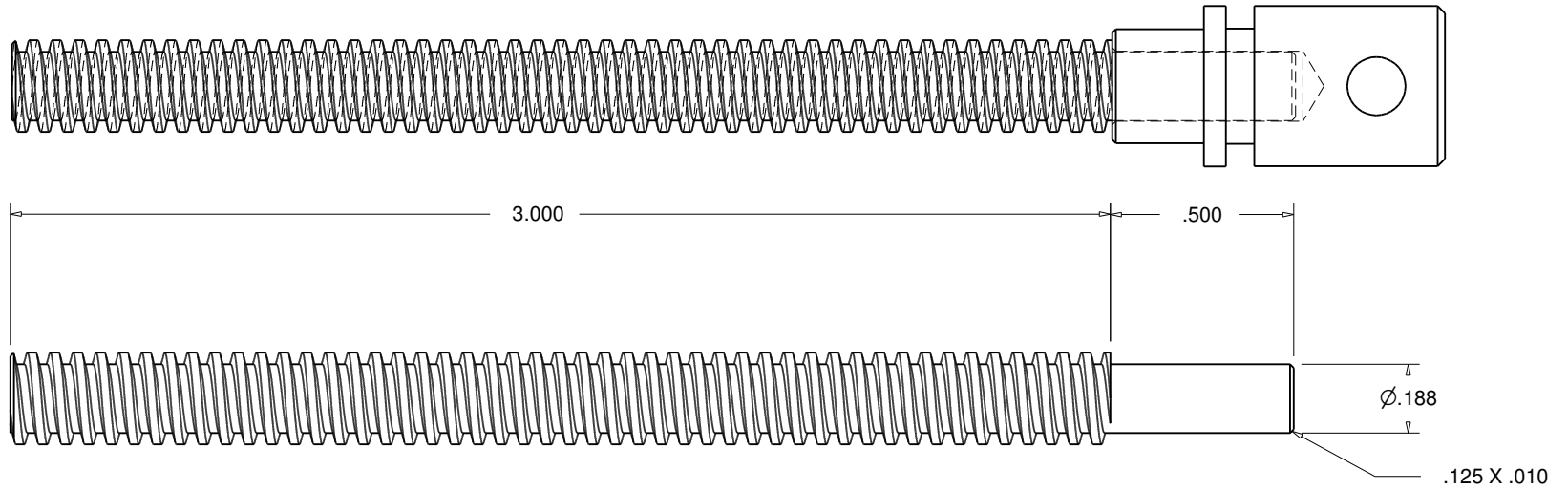
MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION #11 Screw Retainer		
DRAWN BY Dave Otto	DATE 2/21/2017			
MATERIAL Steel	SIZE A	SCALE 4 : 1	SHEET 11 of 17	REV 1

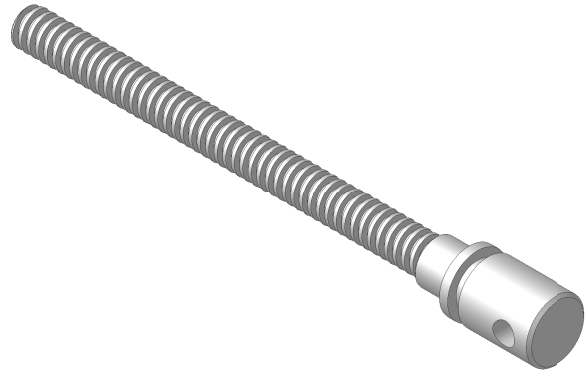
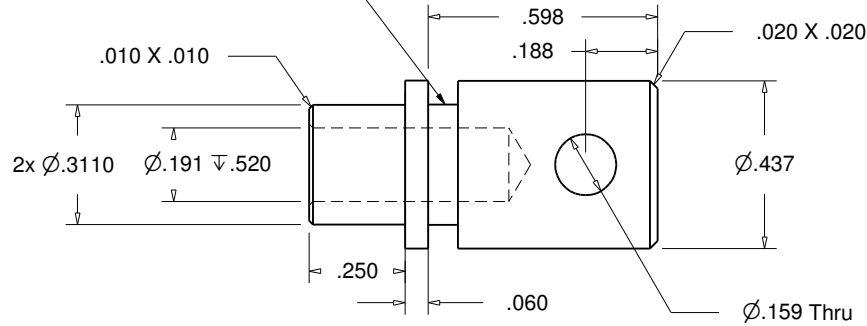
Model Builders Vice

#6 Vise Scw
Scale 2X



#7 Screw End
Scale 2X

Machine width of slot .002" wider than #11 Screw Retainer



Silver solder oversized stock on acme rod first, then machine details on screw end.

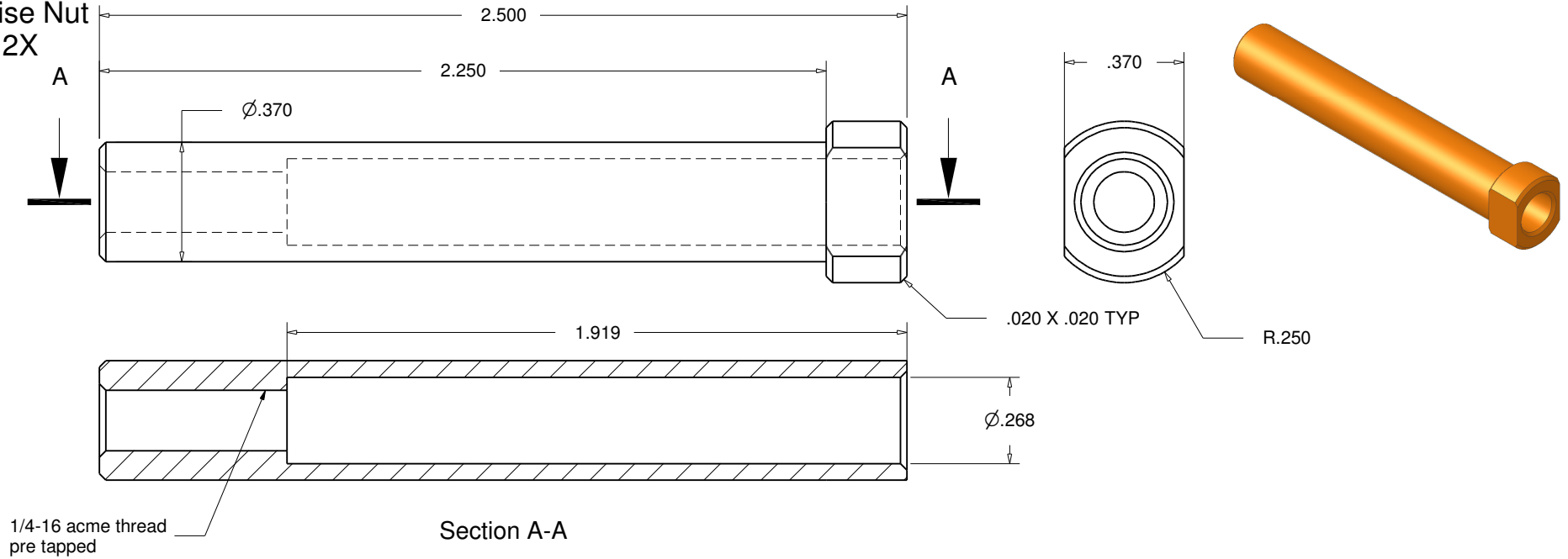
MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

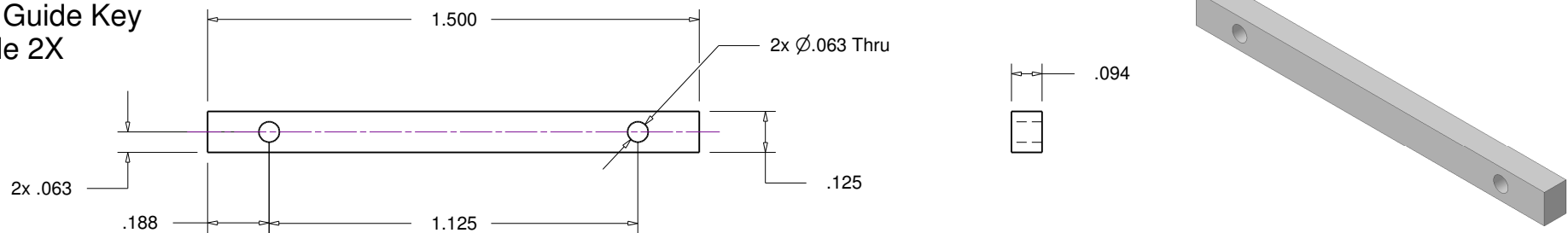
DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION Screw Assembly		
DRAWN BY Dave Otto	DATE 2/21/2017			
MATERIAL 1/4-16 Acme Stock	SIZE A	SCALE 2 : 1	SHEET 12 of 17	REV 1

Model Builders Vise

#14 Vise Nut
Scale 2X



#19 Guide Key
Scale 2X



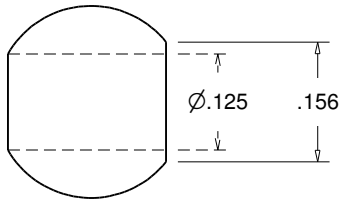
MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

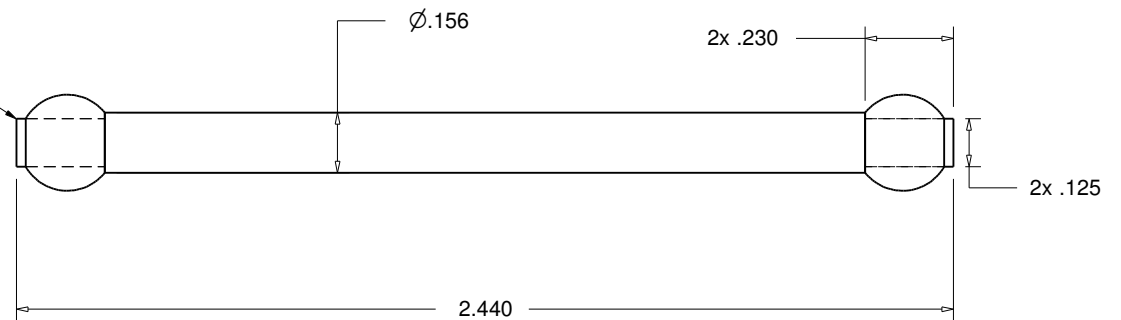
DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION <h2>Vise Parts 2</h2>		
DRAWN BY Dave Otto	DATE 2/21/2017	SIZE A		SCALE
MATERIAL		SHEET	13 of 17	REV 1

Model Builders Vise

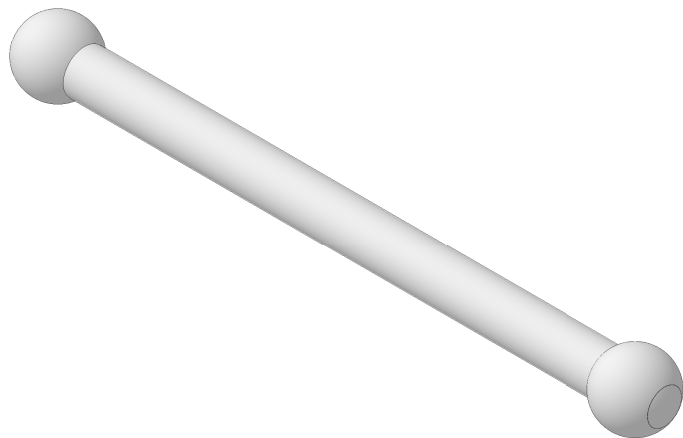
#10 Handle Ball
Scale 4X



Swedge shaft tight to ball then
file and sand to shape



#8 Handle
Scale 2X

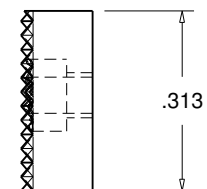
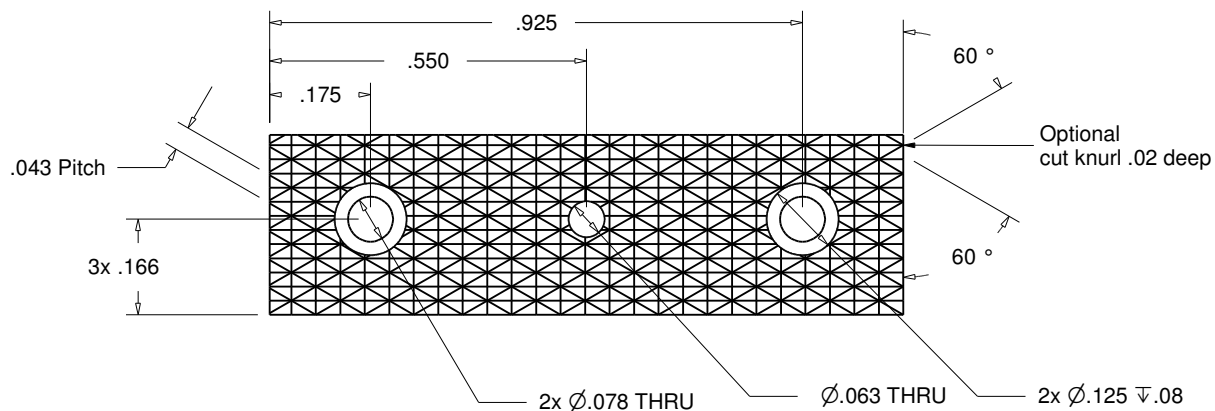
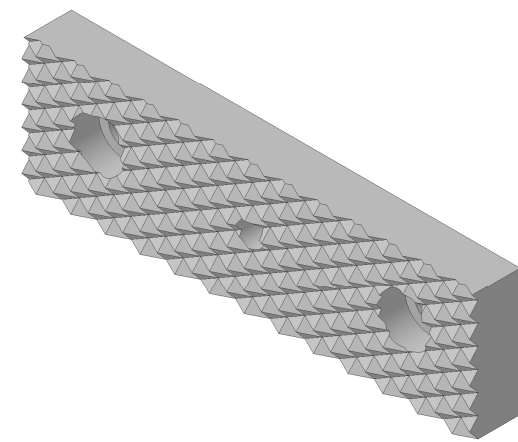
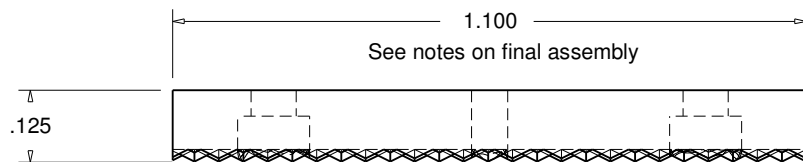


Model Builders Vice

MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION Handle Assembly		
DRAWN BY Dave Otto	DATE 2/21/2017			
MATERIAL Steel	SIZE A	SCALE 2 : 1	SHEET 14 of 17	REV 1



W1 Hardening:

Heat thoroughly at 1425° to 1500° F. Quench in water (brine).

W1 Tempering:

Tempering Temperature Typical Rockwell C Hardness

As Hardened 66-68

400° F 62-64

600° F 54-56

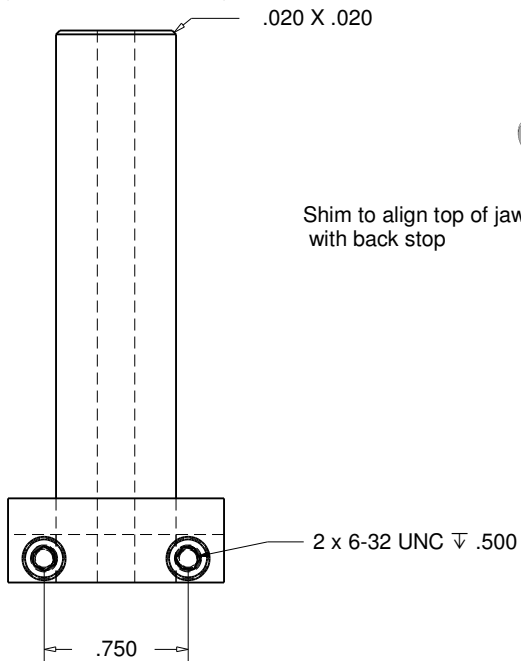
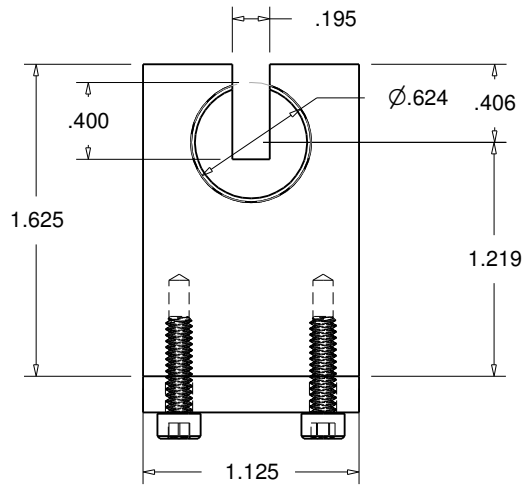
800° F 46-47

MORRISON & MARVIN ENGINE WORKS

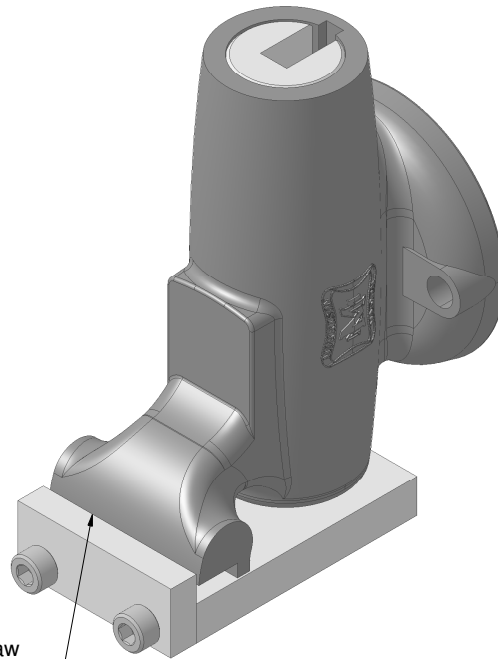
Box 555 Benton City, WA 99320 USA

DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION #16 Replaceable Jaw		
DRAWN BY Dave Otto	DATE 2/21/2017	SCALE 3 : 1		REV 1
MATERIAL W1 Tool Steel	SIZE A	SHEET 15 of 17		

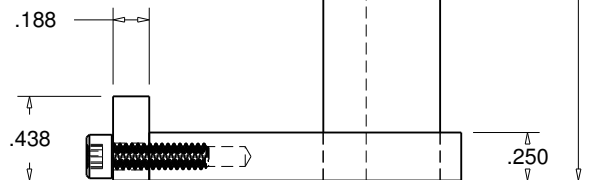
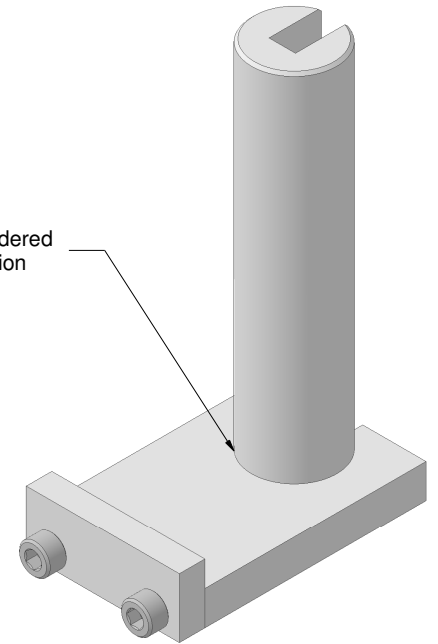
Model Builders Vise



Shim to align top of jaw with back stop



Silver soldered construction



Note:
Broach Guide bushing is designed to be used with;
Dumont 1/8-B sized broach PN 22205.
Custom thickness shims may need to be made
to create the proper keyway depth.

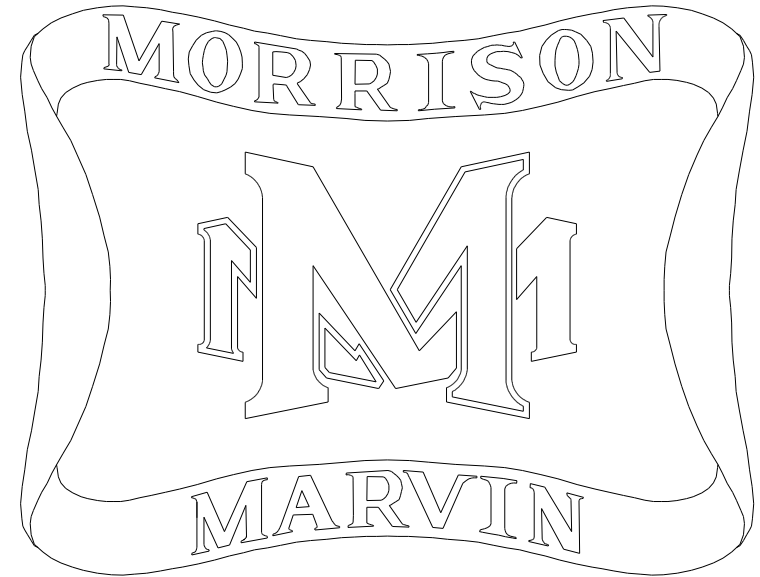
MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION Broach Guide Bushing		
DRAWN BY Dave Otto	DATE 2/21/2017			
MATERIAL Steel	SIZE A	SCALE 1 : 1	SHEET 16 of 17	REV 1

Model Builders Vice

Item	Quantity	Part Number	Part Name	Material	Sheet Number
1	1	#1	Front Jaw	4140	3
2	1	#2	Back Jaw	4140	5
3	1	#3	Swivel Base	4140	8
4	1	#4	Nut Housing	4140	6
5	1	#5	End Cap	4140	6
6	1	#6	Vise Screw	C1215	12
7	1	#7	Screw End	12L14	12
8	1	#8	Handle	W1 Tool Steel	14
9	2	#9	Handle Cushion	EPDM	2
10	2	#10	Handle Ball	Steel	14
11	1	#11	Screw Retainer	Steel	11
12	3	#12	Retainer Screw	18-8 SS	2
13	1	#13	Thrust Washer	Hard Steel	2
14	1	#14	Vise Nut	360 Brass	13
15	1	#15	Nut Cushion	EPDM	2
16	2	#16	Replaceable Jaw	W1 Tool Steel	15
17	4	#17	Jaw Screw	18-8 SS	2
18	2	#18	Jaw Alignment Pin	18-8 SS	2
19	1	#19	Guide Key	W1 Tool Steel	13
20	2	#20	Key Pin	Steel	2
21	1	#21	Lock Plate	12L14	9
22	1	#22	Lock Plate Pin	Alloy Steel	2
23	2	#23	Lock Bolt	Alloy Steel	10
24	2	#24	Lock Clamp	12L14	10
25	2	#25	Lock Handle	18-8 SS	10
26	4	#26	Lock Handle End	18-8 SS	10



Download a full set of drawings from
MorrisonandMarvin.com

Model Builders Vise

MORRISON & MARVIN ENGINE WORKS

Box 555 Benton City, WA 99320 USA

DESIGNED BY Roland Morrison / Marvin Hedberg		DESCRIPTION Vise BOM		
DRAWN BY Dave Otto	DATE 2/21/2017			
MATERIAL	SIZE A	SCALE	SHEET 17 of 17	REV 1