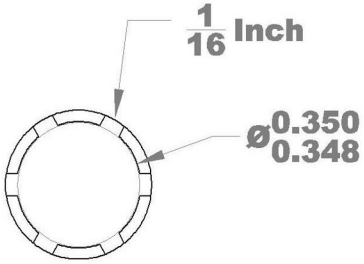
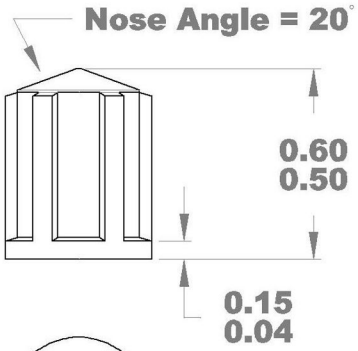
Scale: 2:1

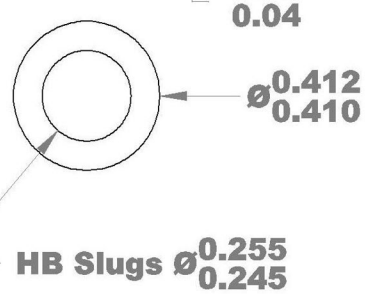
Top View:



Side View:



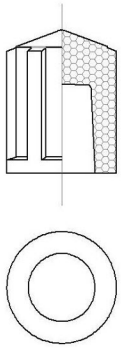
Bottom View:



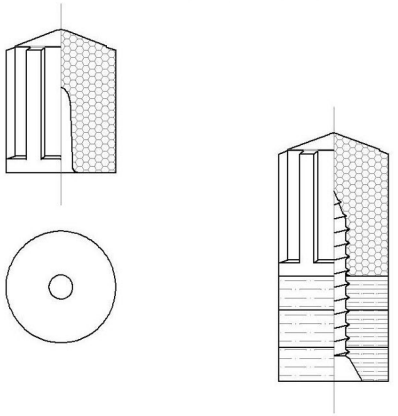
Scale: 3:2

Slug Style #2

Slug Style #1



Assembled #2



Unless otherwise specified, dimensions are in inches.

Material:

Slug Body	=	Soft, pure lead core swaged into shape with 410 Slug Swag Die.
Screw for #2	=	Standard U.S. 4x3/4 size flush head wood screw.
Tail for #2	=	Stack of three 1/8" thick 410-bore nitro cards with holes drilled/punched **DEAD CENTER.**

Tolerances = As listed Limit Style Tolerances, Except Nose Angle Which is +/- 0.5 Degrees

Notes: Slug Style #1 is a simple foster style HB (Hollow Base) slug.
As clearly shown both slugs have straight rifling formed into the main body section by the 410 Slug Swag Die, this is to allow the slug to safely squeeze down in the choke of a gun so equipped.

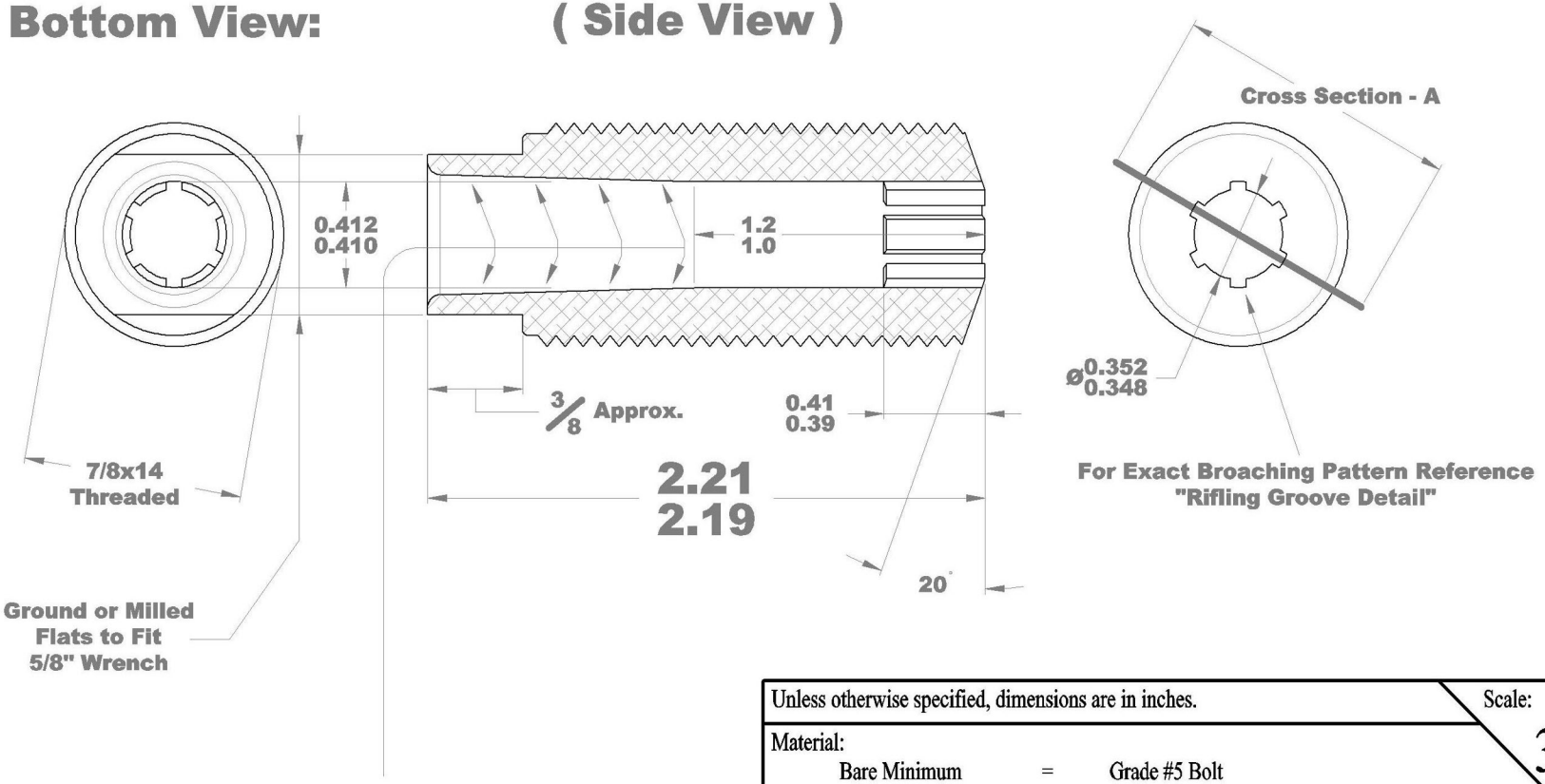
January 07, 2010	Slugs From 410 Swag Die	Stephen J. Compton

* Scale is approximated. Do not attempt to scale this drawing!

Bottom View:

Cross Section - A
(Side View)

Top View:



Taper or Bell to Larger Diameter
Below Top 1.2" to 1.0" of Inside Length
For Improved Feeding & Ejection
Exact Profile is Machinist's Discretion

Unless otherwise specified, dimensions are in inches.

Scale: 3:2

Material:

Bare Minimum	=	Grade #5 Bolt
Better	=	Grade #8 Bolt
Best	=	Machinist Discretion

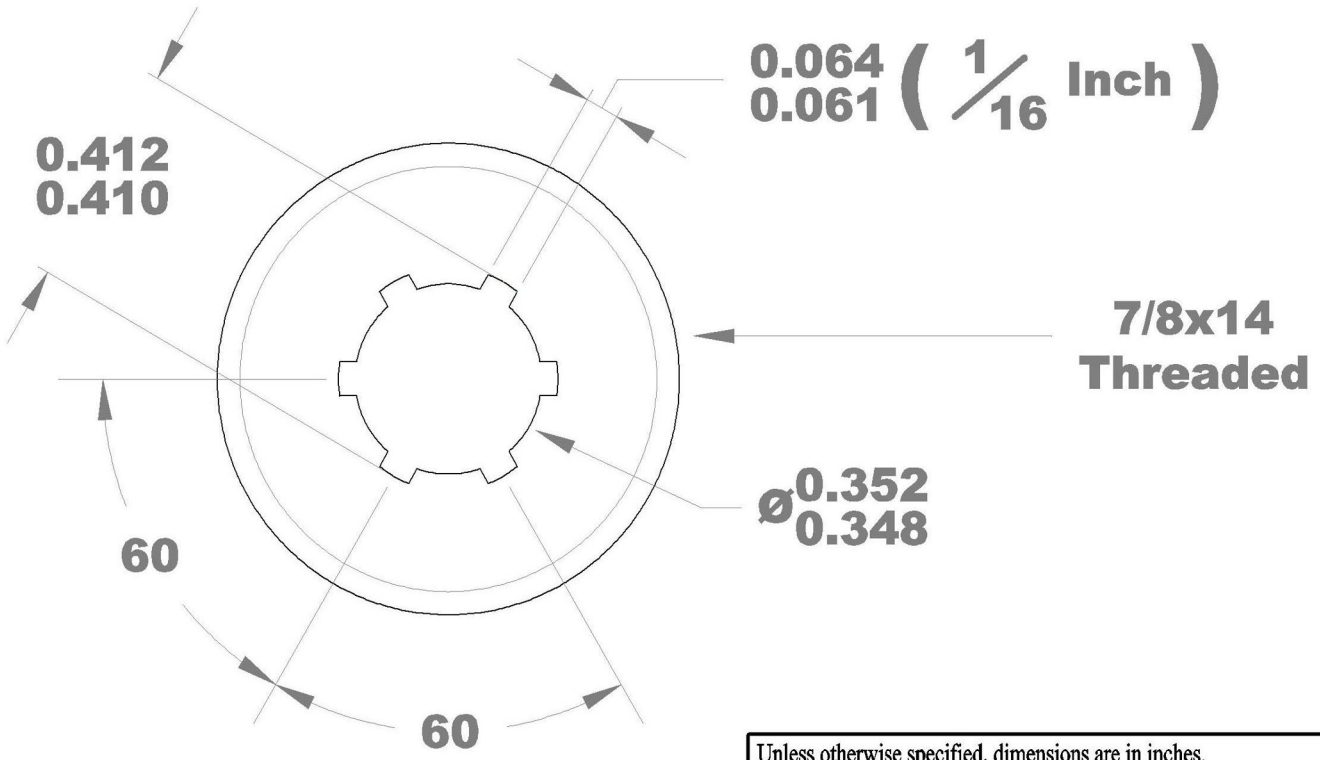
Tolerances:

Linear Dimensions and Bore Diameters	=	As listed Limit Style Tolerances
Angle Dimensions	=	+/- 0.5 degree

IMPORTANT: Inner bore finish surfaces of major and minor bores are to be cut with 0.409" and 0.348" reamers respectively to insure fine surface finish for ease of ejection.

January 07, 2010	Die Body Bottom	Stephen J. Compton

* Scale is approximated. Do not attempt to scale this drawing!



Unless otherwise specified, dimensions are in inches.

Scale: 3:1

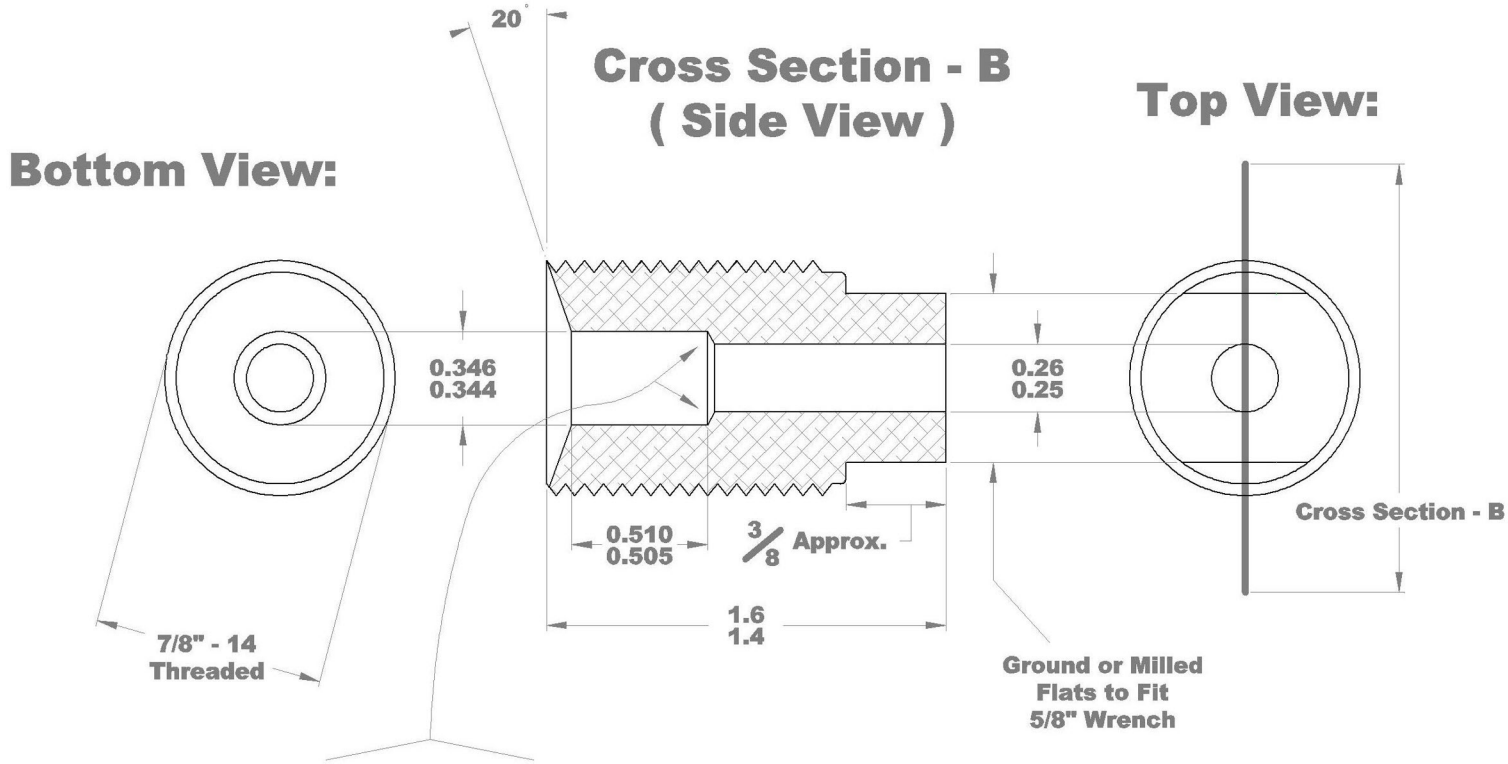
This drawing is provided to show the dimensions and fine details of the micro rifling groove pattern machined into the die lower body section with a 1/16" broach. The rifling grooves are arranged in a radial pattern of six grooves on 60 degree intervals. In principle the six rifling grooves are cut just like a 1/16" keyway on an internal bore such as found on a small pulley or gear designed to fit a small diameter keyed drive shaft only times six and with a strong emphasis on precision radial alignment and precise depth of cut.

Tolerances:

Linear Dimensions and Bore Diameters	=	As listed Limit Style Tolerances
Angle Dimensions	=	+/- 0.5 degrees

January 07, 2010	Rifling Groove Detail	Stephen J. Compton

* Scale is approximated. Do not attempt to scale this drawing!



Unless otherwise specified, dimensions are in inches.

Scale: 3:2

Material:

Bare Minimum	=	Grade #8 Bolt
Better	=	Machinist Discretion

Tolerances:

Linear Dimensions and Bore Diameters	=	As listed Limit Style Tolerances
Angle Dimensions	=	+/- 0.5 degree

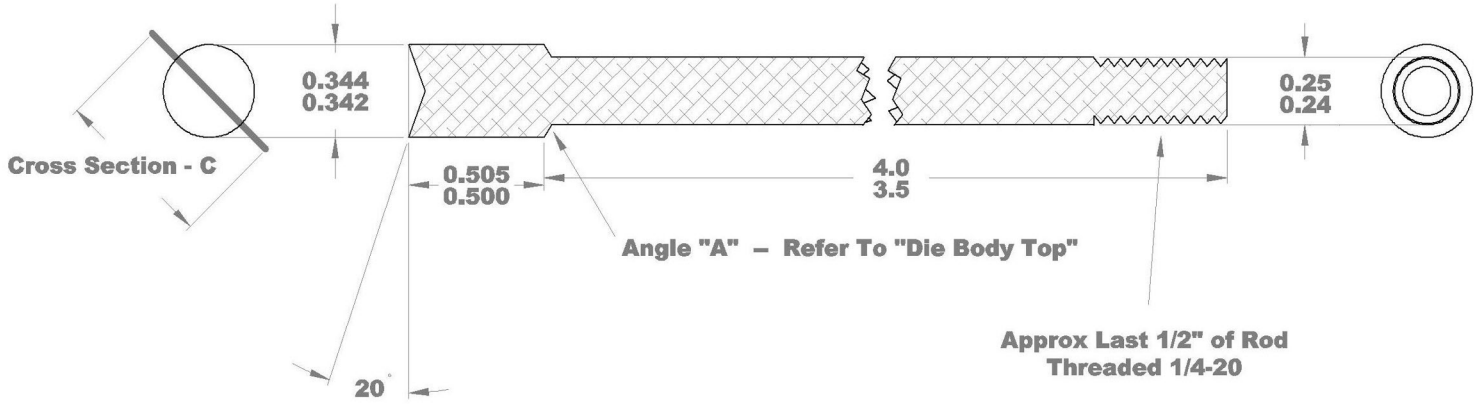
January 07, 2010	Die Body Top	Stephen J. Compton

* Scale is approximated. Do not attempt to scale this drawing!

Bottom View:

Cross Section - C
(Side View)

Top View:



Unless otherwise specified, dimensions are in inches.

Scale: 3:2

Material:

Bare Minimum	=	Grade #8 Bolt
Better	=	Drill Rod Stock
Best	=	Machinist Discretion

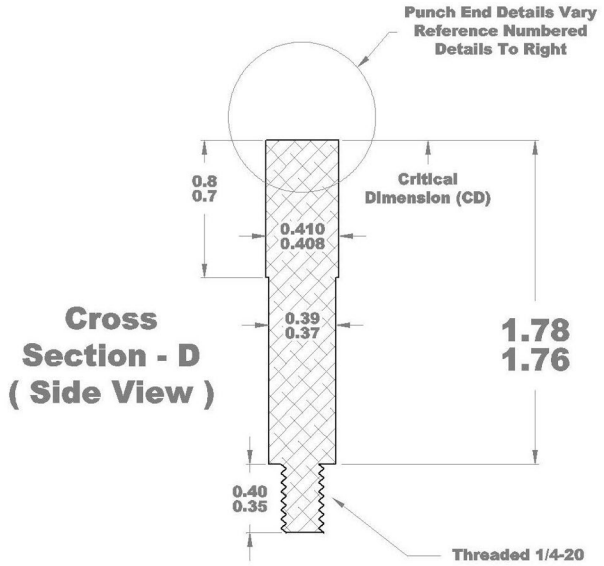
Tolerances:

Linear Dimensions and Bore Diameters	=	As listed Limit Style Tolerances
Angle Dimensions	=	+/- 0.5 degree

January 07, 2010	Extractor Punch	Stephen J. Compton

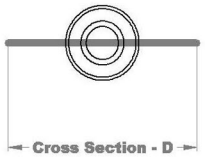
* Scale is approximated. Do not attempt to scale this drawing!

Scale: 1:1

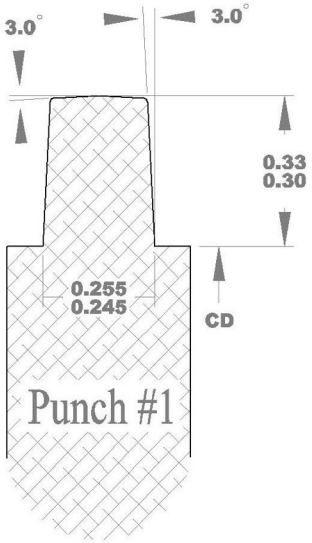


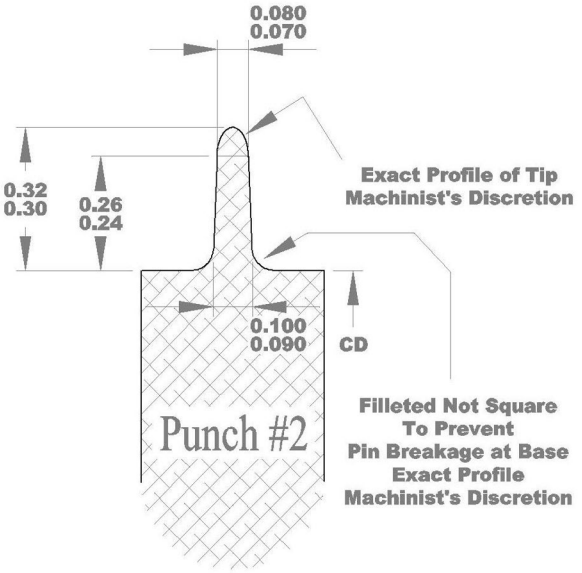
Cross Section - D (Side View)

Bottom View:



Scale: 5:2





Unless otherwise specified, dimensions are in inches.

Material:

Bare Minimum	=	Grade #8 Bolt
Better	=	Drill Rod Stock
Best	=	Machinist Discretion

Tolerances:

Linear Dimensions and Bore Diameters	=	As listed Limit Style Tolerances
Angle Dimensions	=	+/- 0.5 degree

Note: Other punch tip shapes are possible and are left to the user/machinist if additional hollow base shapes are desired.

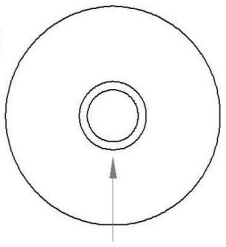
January 07, 2010	Swag Punches	Stephen J. Compton

* Scale is approximated. Do not attempt to scale this drawing!

Punch Base:

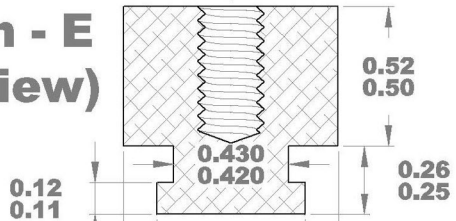
Scale: 3:2

Top View:

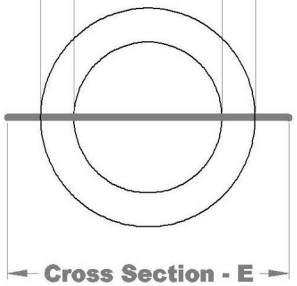


Center Drilled And Tapped 1/4-20

Cross Section - E (Side View)



Bottom View:

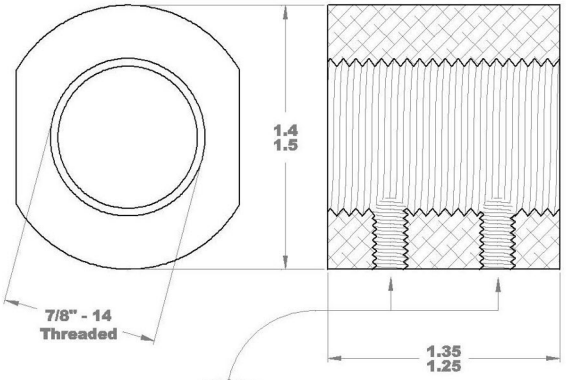


Coupler:

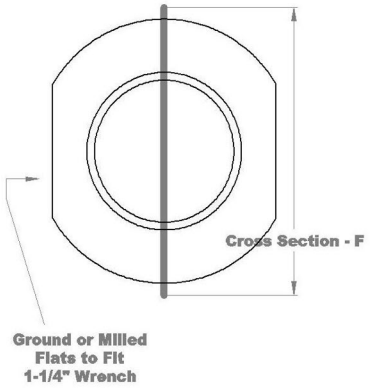
Scale: 1:1

Bottom View:

Cross Section - F (Side View)



Top View:



Unless otherwise specified, dimensions are in inches.

Punch Base Material:

Bare Minimum	=	Grade #8 Bolt
Better	=	Drill Rod Stock
Best	=	Machinist Discretion

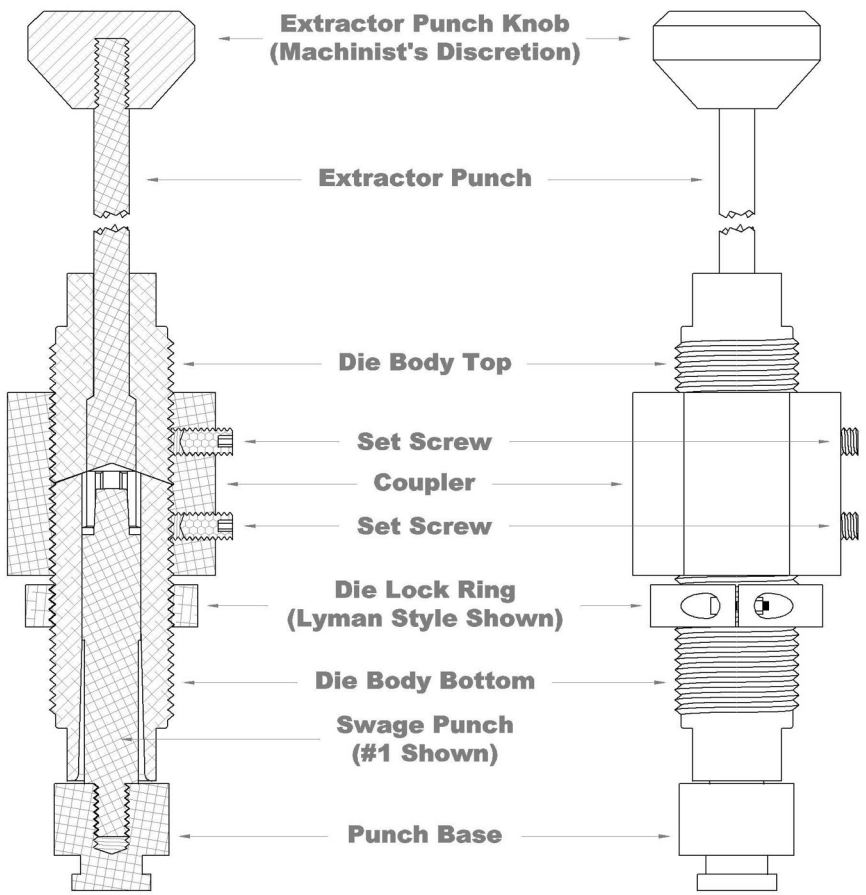
Coupler Material = Soft, Mild Steel

Tolerances:

Linear Dimensions and Bore Diameters	=	As listed Limit Style Tolerances
Angle Dimensions	=	+/- 0.5 degree

January 07, 2010	Punch Base & Coupler	Stephen J. Compton

* Scale is approximated. Do not attempt to scale this drawing!



January 07, 2010	Unless otherwise specified, dimensions are in inches.	Scale: 1:1
Assembled Die	The complete assembly is shown both in cut away and external views.	
Stephen J. Compton	The **Extractor Knob** is completely at the machinist's discretion and can be as simple or complicated as desired. All it really needs to do is transfer the force of a rubber mallet strike to the extractor punch to eject the swaged slugs from the die. The **Set Screws** are commercially obtained and brass or polymer tipped ones are recommended to avoid thread damage on the top and bottom sections of the die body. The **Die Lock Ring** is also commercially obtained and are sold by many of the reloading die manufactures such as Lyman, RCBS, Lee, Hornady, etc.	
Version 3.1		

* Scale is approximated. Do not attempt to scale this drawing!