

## *Rad-2 Plans*

### **The Radical Radial – Take 2**

**Click on title of interest – or simply page through.**

Cylinder Block

Piston and Wrist Pin

Frame

Crank Assembly, Valve Eccentric

Piston Rod

Valve

Flywheel and Sleeve

Valve Rod

**Note:** These plans are intended to be used with the project diary at --

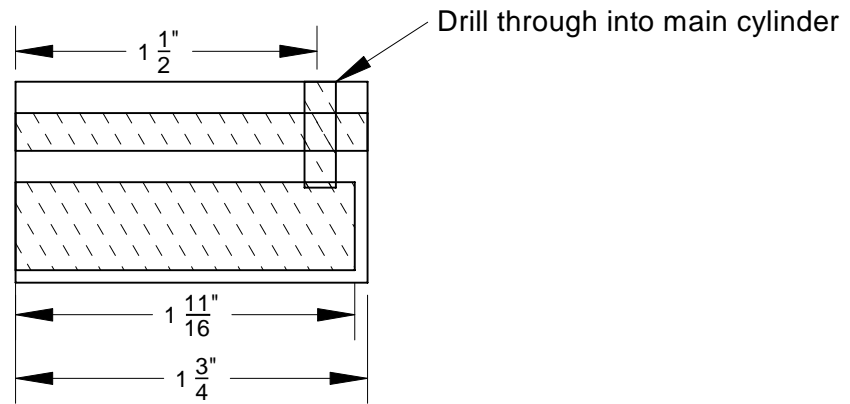
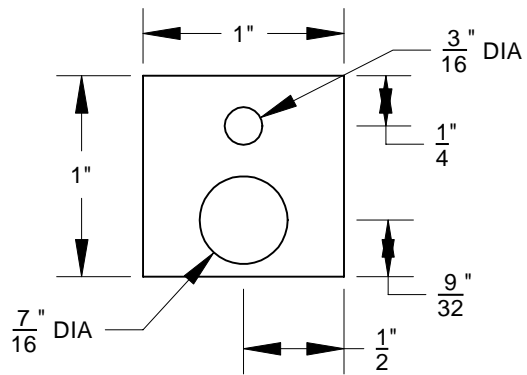
[http://www.good-fellow.net/radical\\_radial\\_take\\_two.html](http://www.good-fellow.net/radical_radial_take_two.html)

The project diary should be helpful in implementing the plans, as well as modifying them to suit your needs or the material on hand.

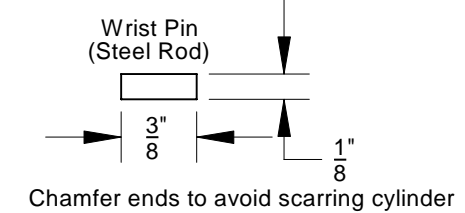
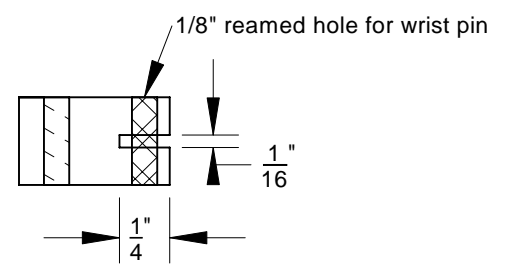
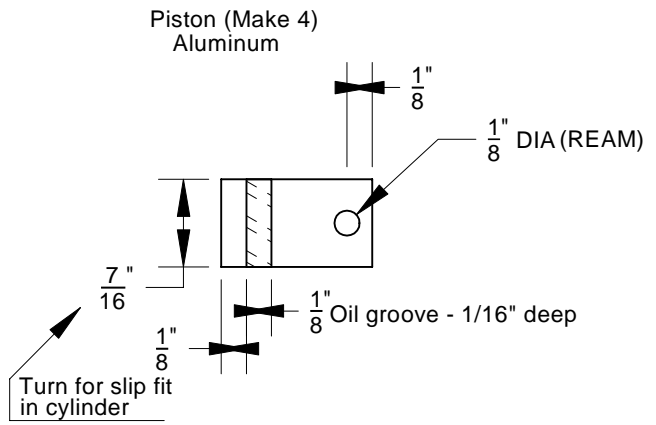
There is a red square on the lower-left corner of each drawing. Click on the square to return to this page.

This project was done on an Asian mini-mill and a 7x10 mini-lathe. However, it could easily be done on Sherline or Taig equipment.

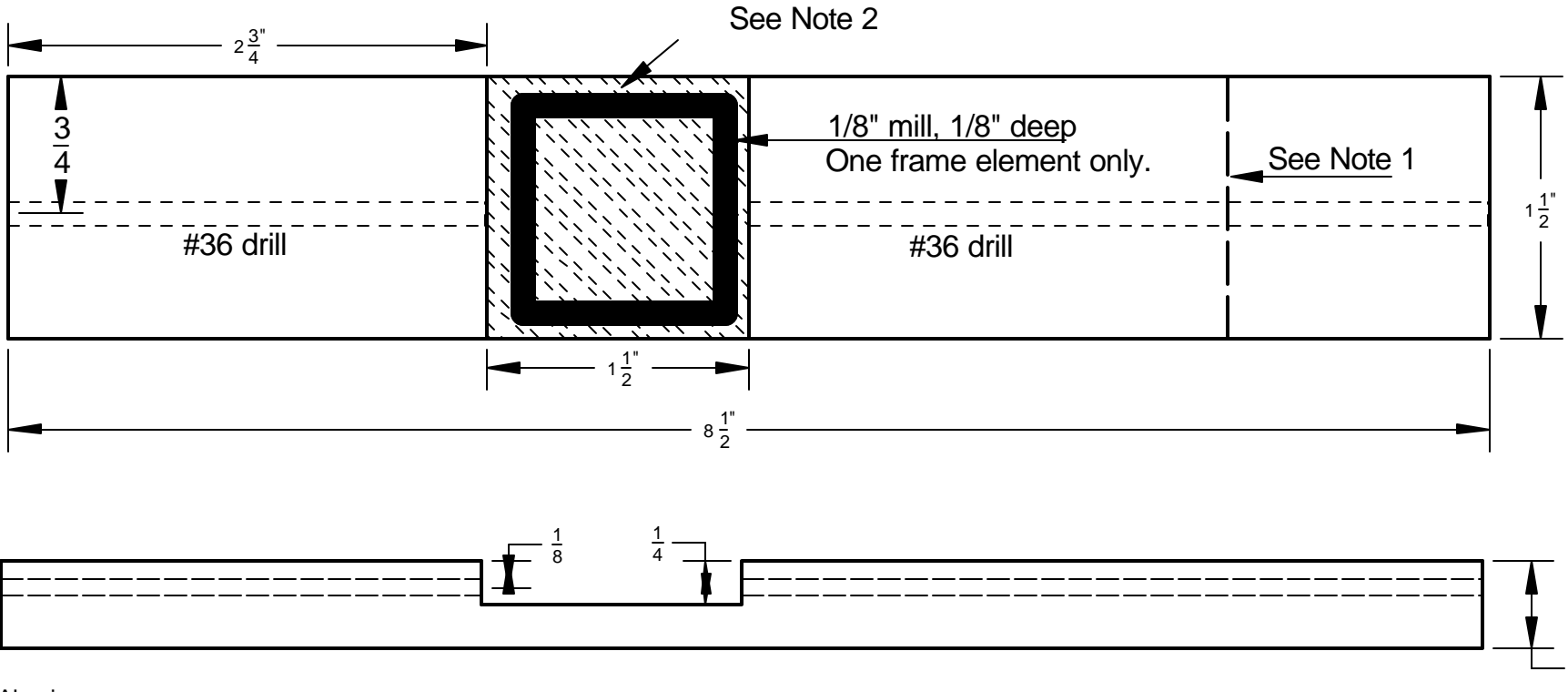
Brass - Make 4



|                      |       |                                  |  |
|----------------------|-------|----------------------------------|--|
| <h1>Tinker Time</h1> |       |                                  |  |
| Dave Goodfellow      |       | <b>Rad-II<br/>Cylinder Block</b> |  |
| 06/06/01             |       |                                  |  |
|                      | SIZE  | DWG NUMBER                       |  |
|                      | A     | 000101                           |  |
| SCALE 1 : 1          | REV - | SHEET 1 OF 1                     |  |



|                      |       |  |  |
|----------------------|-------|--|--|
| <h1>Tinker Time</h1> |       |  |  |
| Dave Goodfellow      |       | <b>Rad-II<br/>Piston &amp; Wrist Pin</b> |  |
| 06/06/01             |       |  |  |
|                      | SIZE  | DWG NUMBER                               |  |
|                      | A     | 000102                                   |  |
| SCALE 1 : 1          | REV - | SHEET 1 OF 1                             |  |



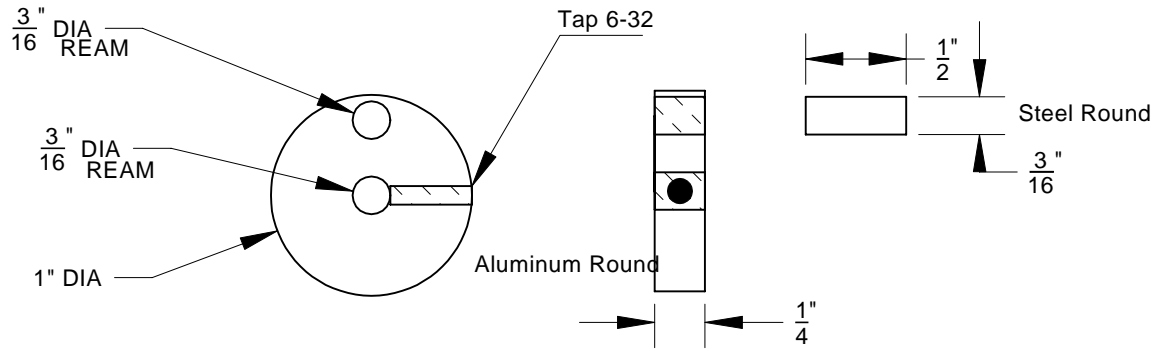
Aluminum  
 Make 2  
 Press together in form of a cross

Note 1:  
 To mount on one leg, trim one frame element as shown.  
 To mount on two legs, do not trim.

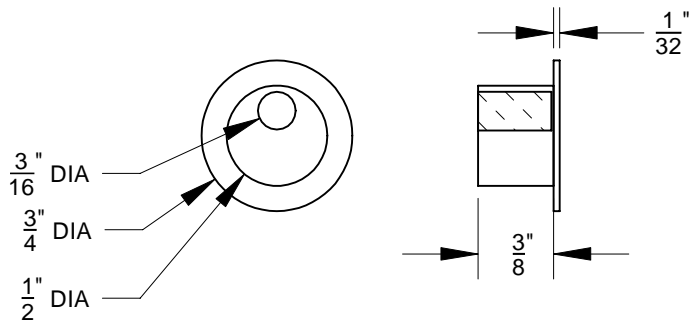
Note 2:  
 Notch both frame elements to allow air passage from #36 drilled holes to milled rectangle.

|                    |                  |                             |  |
|--------------------|------------------|-----------------------------|--|
| <b>Tinker Time</b> |                  |                             |  |
| Dave Goodfellow    |                  | <b>Rad-II<br/>Frame</b>     |  |
| 06/07/01           |                  |                             |  |
| Revised 7/26/01    |                  |                             |  |
|                    | SIZE<br><b>A</b> | DWG NUMBER<br><b>000103</b> |  |
| SCALE 1:1          | REV -            | SHEET 1 OF 1                |  |

## Crank Assembly - Steel Make 1



## Valve Eccentric (Steel Round) Make 1



## Tinker Time

Dave Goodfellow

06/06/01

**Rad-II  
Crank Assembly  
Valve Eccentric**

SIZE

A

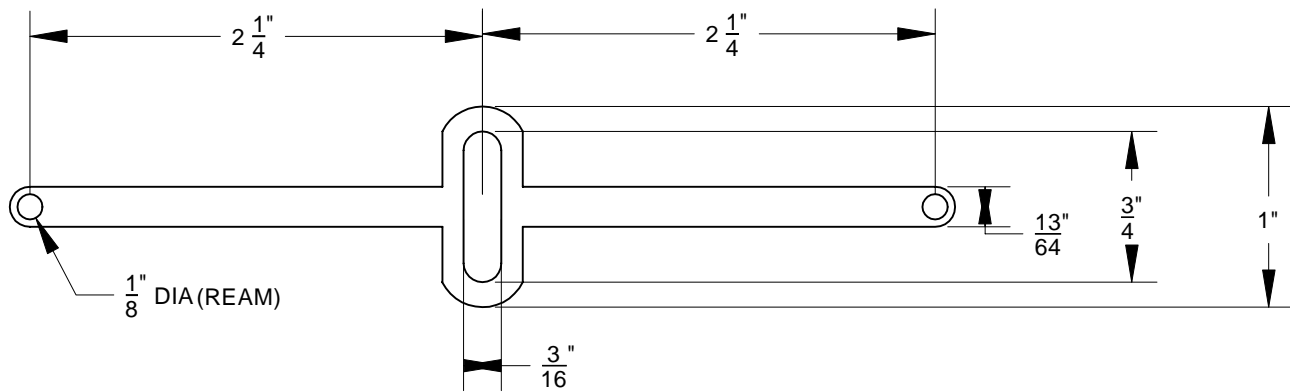
DWG NUMBER

000104

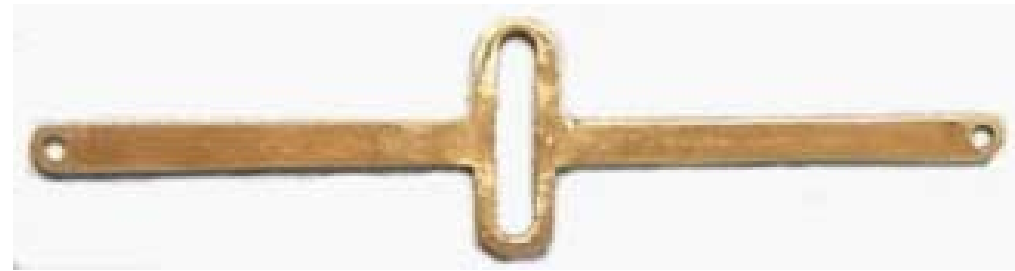
SCALE 1 : 1

REV -

SHEET 1 OF 1

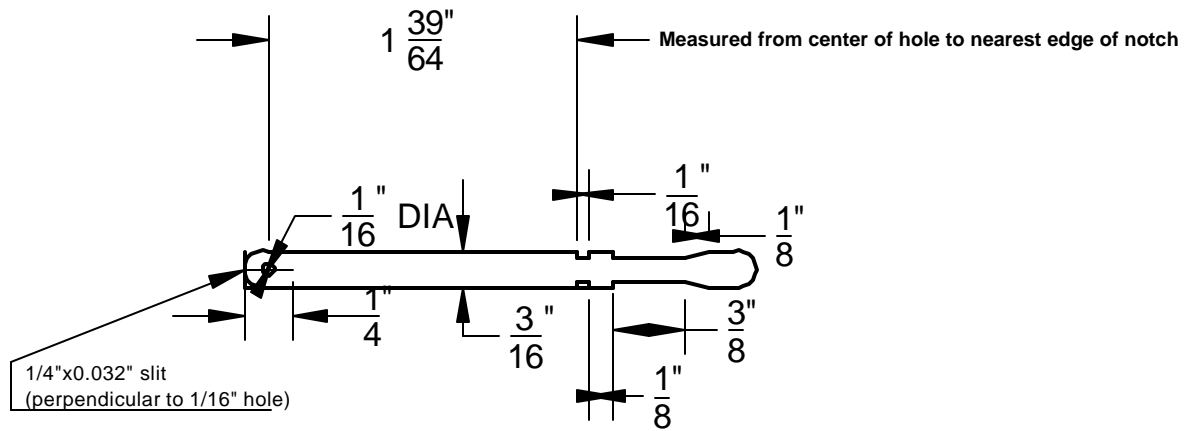


Make 2  
 Approximate 1/16" Brass Flat  
 Contour as desired



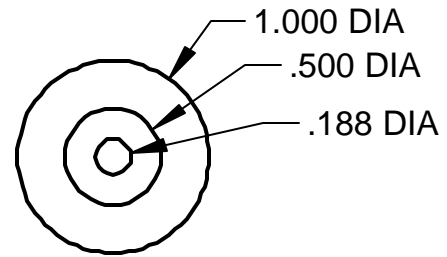
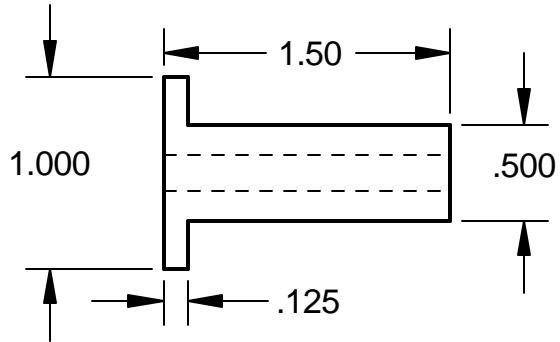
|                      |          |                              |  |
|----------------------|----------|------------------------------|--|
| <h1>Tinker Time</h1> |          |                              |  |
| Dave Goodfellow      |          | <b>Rad-II<br/>Piston Rod</b> |  |
| 06/06/01             |          |                              |  |
|                      | SIZE     | DWG NUMBER                   |  |
|                      | <b>A</b> | <b>000105</b>                |  |
| SCALE 1 : 1          | REV -    | SHEET 1 OF 1                 |  |

# Valve - Brass (Make 4)



|                    |                  |                         |
|--------------------|------------------|-------------------------|
| <b>Tinker Time</b> |                  |                         |
| Dave Goodfellow    |                  | <b>Rad-II<br/>Valve</b> |
| 06/15/01           |                  |                         |
|                    | SIZE<br><b>A</b> | DWG NUMBER<br>000106    |
| SCALE 1:1          | REV -            | SHEET 1 OF 1            |

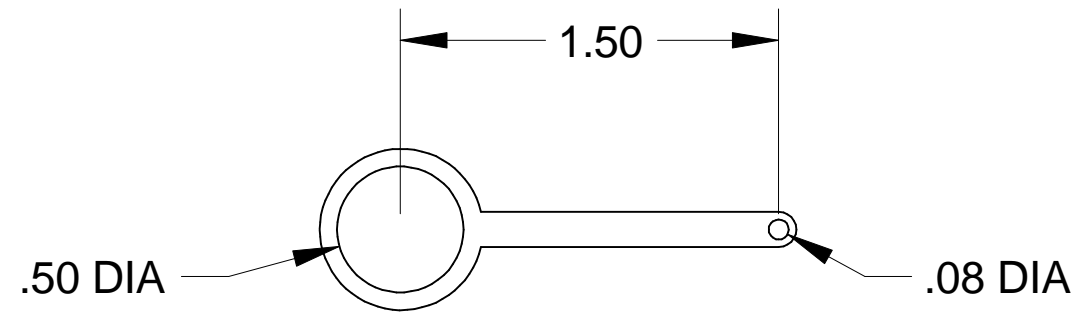
Sleeve made from 1" dia. x 1.5" brass round.



7" pulley purchased from hardware store has 1/2" bore.

|                    |                  |   |
|--------------------|------------------|---|
| <b>Tinker Time</b> |                  |   |
| Dave Goodfellow    |                  | <b>Rad-II<br/>Flywheel &amp; Sleeve</b> |
| 07/08/01           |                  |   |
|                    | SIZE<br><b>A</b> | DWG NUMBER<br><b>000107</b>             |
| SCALE 1:1          | REV -            | SHEET 1 OF 1                            |

**Valve Rod - .025 Brass  
(Make 4)**



|                    |                  |                             |
|--------------------|------------------|-----------------------------|
| <b>Tinker Time</b> |                  |                             |
| Dave Goodfellow    |                  | <b>Rad-II<br/>Valve Rod</b> |
| 07/24/01           |                  |                             |
|                    | SIZE<br><b>A</b> | DWG NUMBER<br>000108        |
| SCALE 1 : 1        | REV -            | SHEET 1 OF 1                |