



Job Description :

email :

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Build VTOL sky tractor.

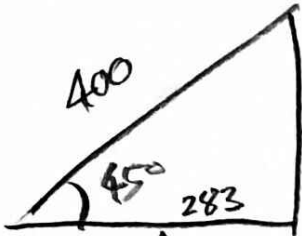
Equipment left / taken :

By signing this document I the client understand that it is my responsibility to have my own backups of all my data. 7rocks and all staff of 7rocks are not responsible for any data-loss incurred whilst handling the clients equipment.

Client Signature :

Staff Member :

Date / Who Event / Time Description

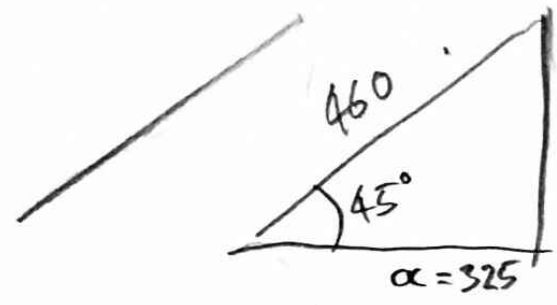
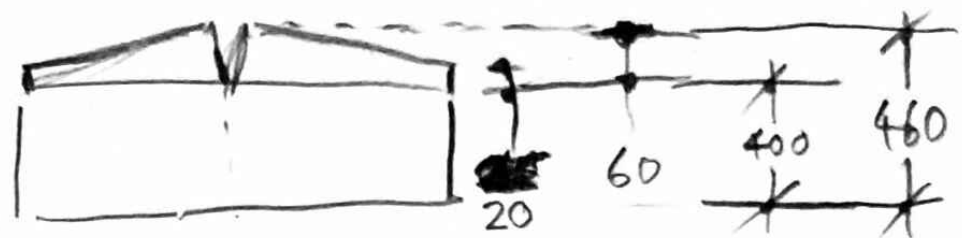
Date / Who	Event / Time	Description
6/9/2020	09:20	 $\cos 45^\circ = \frac{A}{400}$ $\cos 45 \times 400 = A$ $\therefore A = 283$ <p>Foil thickness <del>is</del> <math>T = \frac{50}{400}</math></p> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <math>\therefore T = 12.5\%</math> </div> <p>Say 6° tip twist. Keep ctrl surfaces longer in middle to keep most pressure diff. in middle.</p>



Date / Who    Event / Time    Description

6-9-20

~~VTOL~~



$$\cos 45^\circ = \frac{\alpha}{460}$$

$$\rightarrow \alpha = \cos 45^\circ \cdot 460$$

$$\therefore \alpha = 325$$

Verticals @ Chord of 460 would be

$$\frac{50}{460} = 10.7\% \text{ thick}$$

$$12.5\% \times 460 = 57.5 \text{ thick}$$

$$\text{or } 10.7\% \times 400 = 42.8 \text{ thick}$$

★ Don't worry too much for this first experiment.

keep all 50 th, & hang L.E. of horizontal blade in front of vertical, by 60mm.



Date: 6/9/20      JOB #:  
 Client: V50L-01  
 Ph:  
 Address:

/Users/dionpatelis/Documents/data/dion/business/docs/procedures/7rocks/workshop/jobNotes7rocks.xls

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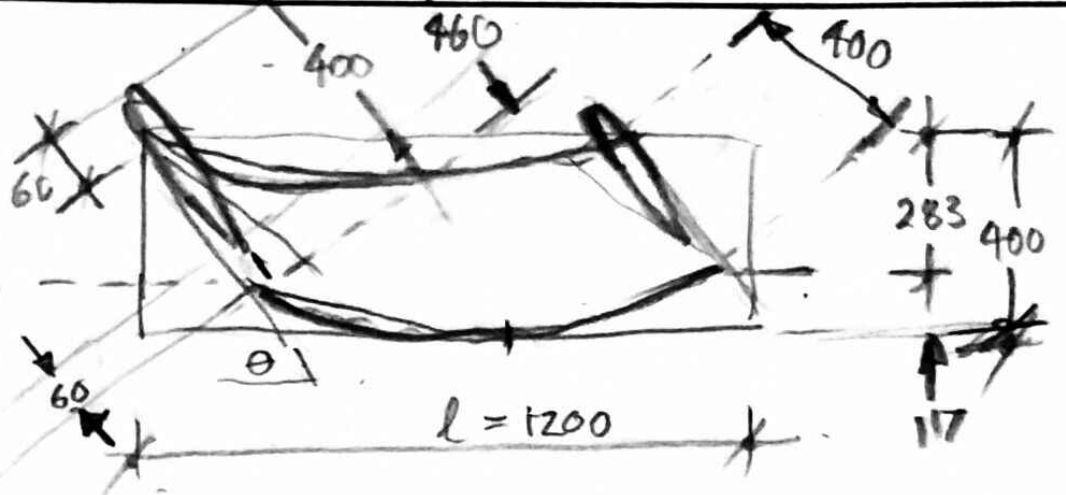
Staff Member :

Date / Who      Event / Time      Description

Date / Who	Event / Time	Description
6/9/20 <del>ST</del>		<p>Tip twist</p> <p><math>\cos 39^\circ \cdot 400 = \alpha</math></p> <p><math>\tan 6 = \frac{x}{400}</math></p> <p><math>x = 400 \tan 6</math></p> <p><math>x = 42</math></p> <p>2.5 42 35.5</p> <p><math>\theta = 6^\circ</math></p> <p><math>\alpha = 400</math></p> <p><math>x = 42</math></p>

Date / Who    Event / Time    Description

6/9/20    17:00



All foils    Camber = Some asymmetry in middle  
 Foam      Ch = 460  
              Th = 12.5% = 50  
              ThFLE = 30% = 120  
              TE = 5 for Horiz.  
                      = 7 for Vert.  
               $\theta = 45^\circ - 5^\circ (\text{twist}) = 40^\circ$   
                      but needs to be left  
                      at  $45^\circ$  so when on  
                      ground the ~~chords~~  
                      ~~the~~ mid wing does  
                      not load,  
              twist = ~~10~~  $5^\circ$   
              tips = Symmetric 12.5% Th

Cause of foam limitations  $6^\circ$  not achievable  
 $Opp \approx 35 \Rightarrow \tan \theta = \frac{35}{400}$   
 $\theta = \arctan \frac{35}{400}$   
 $\theta = 5^\circ \text{ deg}$