



TUGGERANONG ARCHERY CLUB

How to make Rag Filled Target Butts

By Gary Hobson



One of our members came back from his overseas trip which included competing in the World Field Competition claiming to have seen some of the best target butts around. We naturally had to listen to the story about how they use stocking material tightly rolled up in their butts and how well they stopped arrows

We had been considering the move to a better and more affordable shooting medium than the stramit board. We had a serious look at rag filled butts, however we were unable to obtain enough rags to fill the required amount of butts for our range, so the testing began.

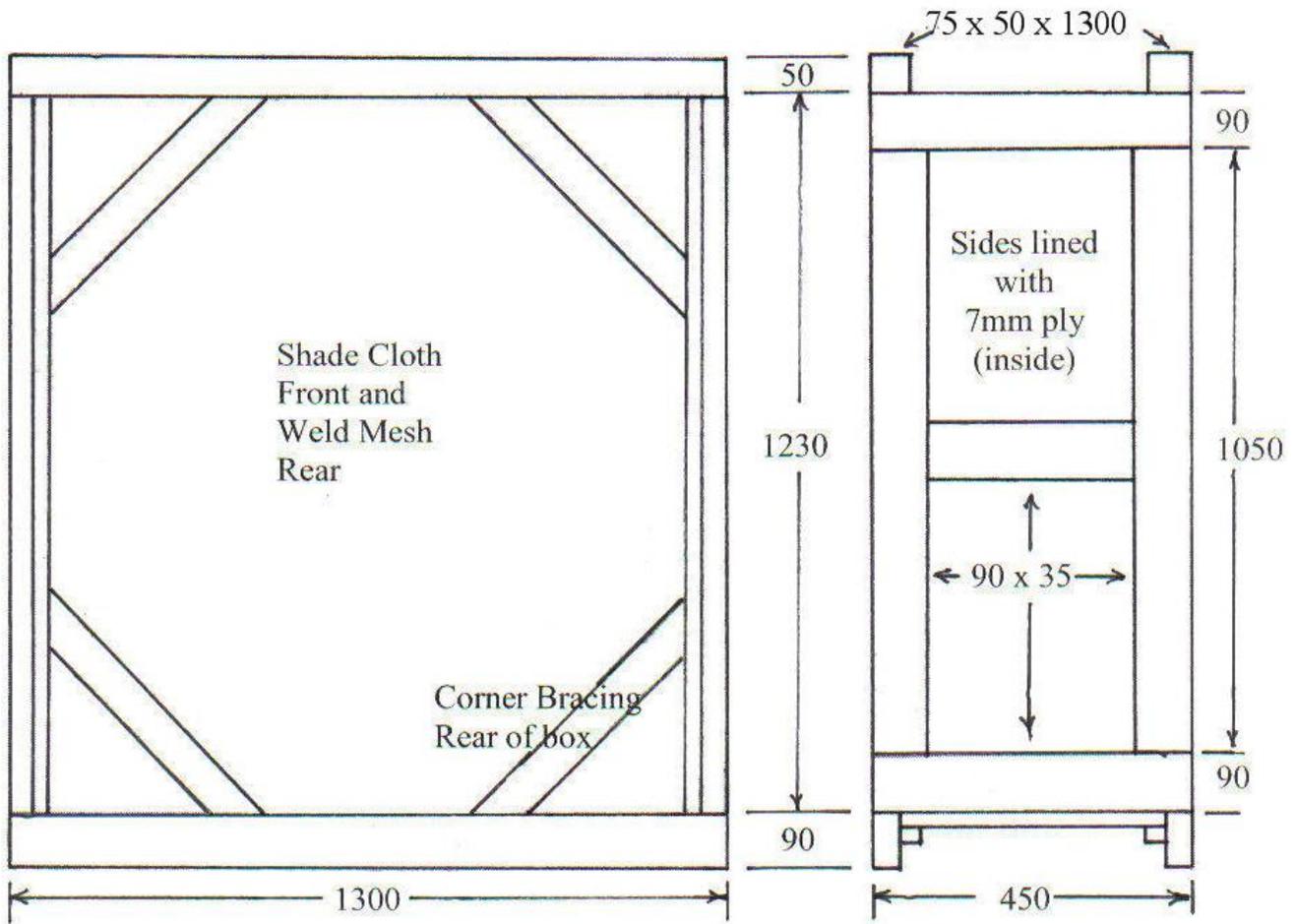
After several trials using old trailers for the bases we came up with 370mm-450mm-600mm depth in the butt on a custom made trailer. The front half of the butt is filled with plastic (shrink) wrap and rags filling the rear section. The rag is the stopping medium with the plastic wrap allowing a reasonable amount of penetration while slowing the arrow down.

The depth of 450 is sufficient to stop all arrows, however with the constant pounding from the compound Archers a few at 600 is recommended. As they shoot out the centre just push more rag in to fill the void. I have made a few of the 370mm deep butts to the same style as the field butts to minimise the weight for the ladies and children.

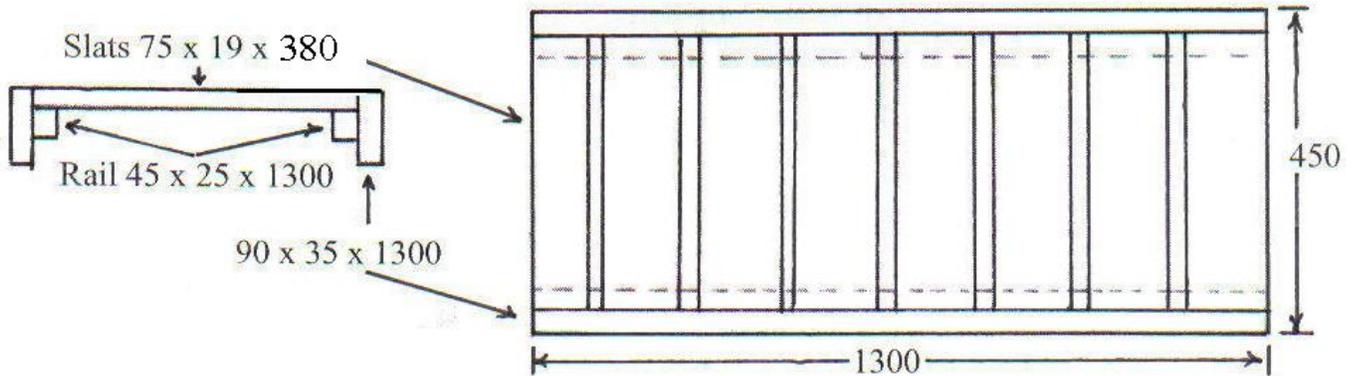
The instructions that follow show 8 target being made, this will add to the 20 currently in use. This design has been a long process of trial and error with several different designs being made, tested and altered.

Rag Target Butt

Front and Side view



Floor plan



Making the Butt

1. The Base



The rails supporting the slats are attached with TEK/Bugle screws. The slats can be of any width with the strongest being screwed to the outer side as they also are the main attachment for the sides.



2. The Sides



The sides are simply counter sunk and screwed together.

Ply is screwed to the inside. I have used 7mm 3 ply.

The timber used is construction grade pine and DD grade ply.

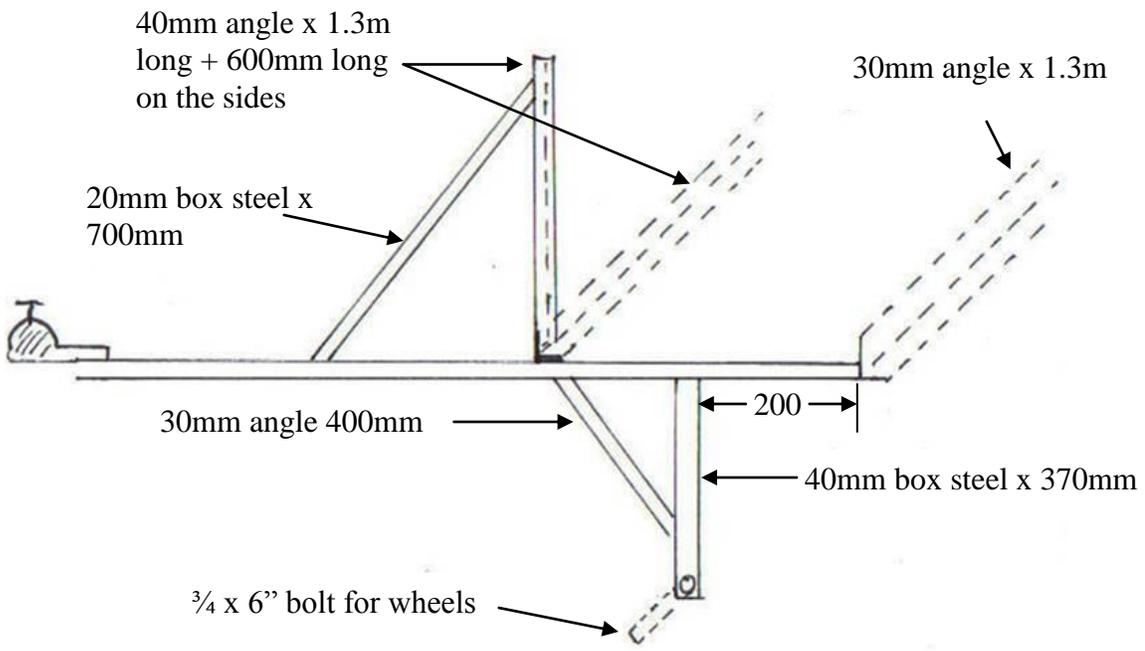
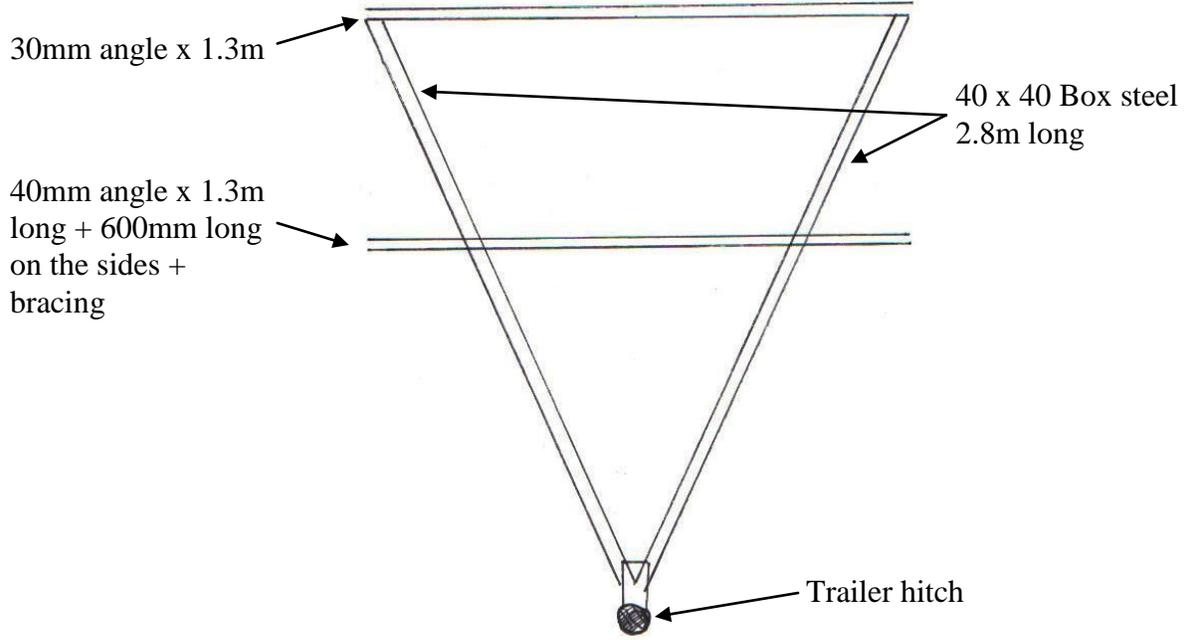
3. Assembly



The Base is simply TEK/Bugle screwed to the sides as shown in the photo above. Note also in the picture you can see the diagonal bracing at the rear which is also TEK/Bugle screwed.

The top rails are attached with large counter sunk (heavy gauge) screws or if you can Bugle screws. If using screws they have to be countersunk to allow for the batons which attach the shade cloth to the front of the butt, if using Bugle screws these will tighten flush with the timber.

The Trailer



Making Trailer



The picture left shows the basic trailer frame.

NOTE: the angle welded to the front is set low to counter act the wheel angle and the trailer hitch on the far end.

The trailer has been turned up side down to weld the leg struts to the frame also shown are the $\frac{3}{4}$ " bolt for the axle and the cross bracing.



The rear mount for the box has now been welded to the frame and TEK screwed to the box.

The cross bracing has also been added and also the wheels (16" x 4").

The mounting of the box shown from the side with the front 30mm angle welded to the front of the box steel

NOTE: the front rail for the slats has been trimmed to fit inside the box steel frame.



Shade cloth has been stretched over the front of the target frame and fixed using staples.

Batons have then been fixed around the outer edge to hold the shade cloth on permanently.

The targets have been upgraded (since some of the earlier photos) with solid wheels. These new wheels are the same size however they are far more durable.



4mm Galvanised mesh has been attached to the back of the butt with 3 hinges at the top and 2 batons (1 in the middle and 1 on the bottom).



The picture on the left shows how the mesh has been tapered towards the bottom to allow it to open past the cross bracing

The picture on the right shows the filled targets with the mesh fixed in place with the cross batons. Mesh has been used to enable easier packing of the butt by opening up the mesh by the butt lying face down by removing the 2 batons.



Eight completed butts are stacked behind some that are partially finished showing how they stack together for easy storage. The 16" wheels make them easy to move around the field.

NOTE: we have colour coded the butts Yellow – light weight for low poundage and long bows, Blue/Grey medium poundage and recurves and finally Red/Brown high poundage and compounds.

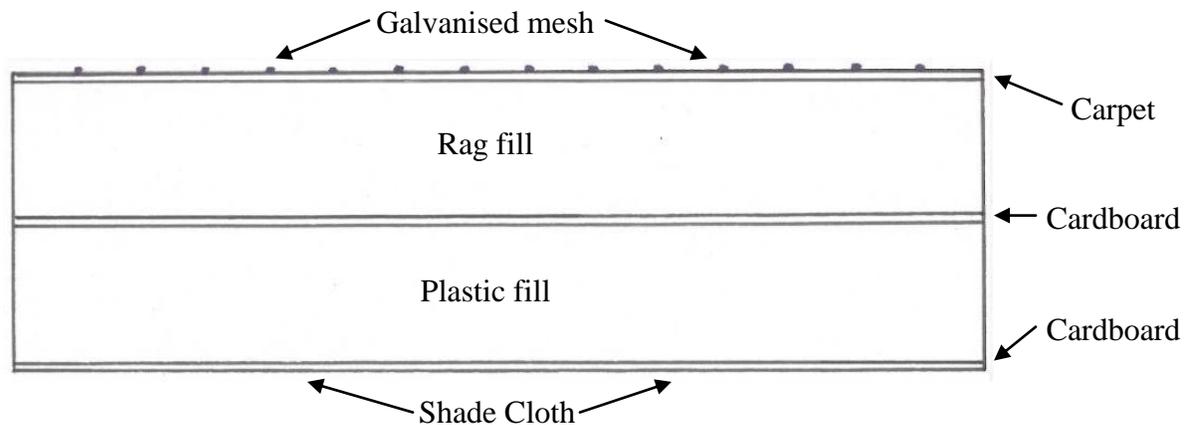
Filling the butts



Pictured above you can see the filling of the Target Butts (note: the Field Butts are filled to the same specifications), we have layed 3 butts onto their faced and opened the backs. The filling consists of a sheet of thick cardboard 1200mm square to form the face then a thick layer of plastic wrap, we used the shrink wrap from pallets. There must be enough plastic than when squeeased down it makes atleast half of the depth of the box.

Another layer of cardboard (divider) then the rest of the box is filled with rags, this is then squeeased down, a piece of carpet 1200mm square covers the rags, the back is then closed and screwed down with the battons.

In the diagram below you can see the different layers. The cardboard on the front adds a little stiffness so the arrow stands horizontal, the plastic wrap is for ease of penetration while slowing the arrow down, the cardboard in the centre is only a divider, the rag in the rear of the box stops the arrow and the carpet backing holds all the fill in and allows ventilation.



On the line

