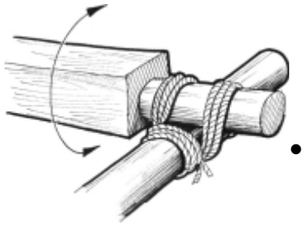
Paddle Boat

Equipment



8 x 3m (8ft) spars

16 x 2m (6ft) spars, plus 8–10 light spars

3 x 1m (3ft) spars

1 length 2” x 2” timber

4 planks of wood for paddles

1 plank for seat

1 x 0.8 (2ft) length of plastic pipe which just fits over the 2” x 2” timber

1 large tarpaulin

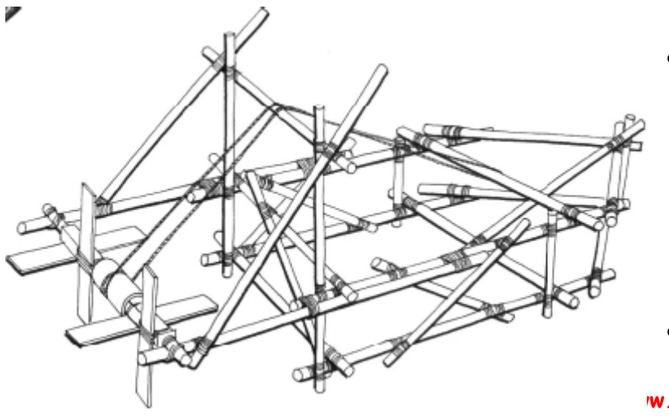
Lots of sacking

Light line

Lashing lengths

Method

- Prepare two identical rectangular frames each using 2 x 3m (8ft) spars and 2 x 2m (6ft) spars. Set the 2m spars in from the front end of the 3m spars.
- Join them together, one on top of the other using 2 x 1m (3ft) spars at the front and 2 x 3m (8ft) spars at the rear. Lash a 2m (6ft) spar between the tops of these 3m (8ft) spars.
- Use 4 x 2m (6ft) spars to cross brace the long sides.
- Use a sheer lashing to join 2 x 2m (6ft) spars. Open the sheer legs and join the ends to the front of the raft – lashing them to the bottom 3m (8ft) spars. Repeat with two more 2m (6ft) spars and lash them to the top of the raft. Join the top and bottom, next to the sheer lashings, with a 1m (3ft) spar. Strengthen this pointed front of the raft by lashing a 2m (6ft) spar from the top near the point to the bottom of the original frame.



- Lash light spars between the bottom 3m (8ft) spars on the main frame to form a floor and fix a plank between the cross bracing for a seat.
- Lash 2 x 3m (8ft) spars to the top of the frame of the raft using sheer lashings. These spars should extend 1.5m (4ft) beyond the back of the raft. Strengthen the ends by lashing 2m (6ft) spars between these spars and the top of the upright 3m (8ft) spars.
- Prepare the paddles by passing the plastic pipe over the 2 x 2 wood. This needs to fit tightly and we suggest that you use a couple of screws to keep it in place – it must not spin round on the timber. Attach the 4 lengths of wood you are using for paddles – you can try lashing them in place but if this is really successful you will probably find that you need a stronger fixing – try a few more screws. They should go at right angles to each other. You should be prepared to have to adapt the length of the paddles according to the weight of the raft and its crew. It is important that they go far enough into the water to propel you forward, but not too far.
- The 2” x 2” timber must be fixed to the spars that extend beyond the main frame of the raft. By holding it against the structure you can work out where the fixing will be and the square timber should then be rounded off to allow it to rotate (see diagram above).
- Rest the timber on the spars and lash in place. A square lashing without any frapping turns should be sufficient – ensure that it is tight enough not to slip off the end of the spar and loose enough to allow rotation.
- The paddle is driven by a loop of light line. Wrap the line 2 or 3 times round the plastic pipe. Take the ends over the top spar, then take one end over the 2m (6ft) spar which forms the front of the original rectangular frame and tie the ends of the line together securely. The line is then pulled to make the paddles rotate.

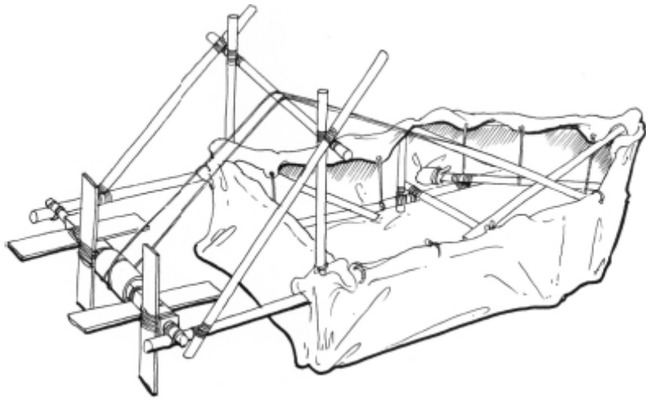
Experiment at this stage – will the paddles rotate? Is there sufficient friction on the pipe to make it rotate? Is the line tight enough? Don’t move on to the next stage until you are happy that

the paddles will work properly.

- Tie lots of sacking over the ends of all the spars that form part of the main raft to prevent them wearing holes in the tarpaulin.
- Lift the raft onto the tarpaulin and bring the tarpaulin up over the sides of the frame. Tie it securely in place. This raft has certain limitations – you can only go in a straight line! However, you could experiment with a rudder for steerage. Don’t try to go backwards or you will fill the raft up with water.

The operation of this paddle boat must take the following factors into account:

- The paddle boat may only be used on Class C waters



- Buoyancy aids must be provided for those involved in the activity
- A preliminary risk assessment is needed
- The activity should be conducted in accordance with POR rule 9.42.

Bucking Bronco

Equipment

4 x old car tyres

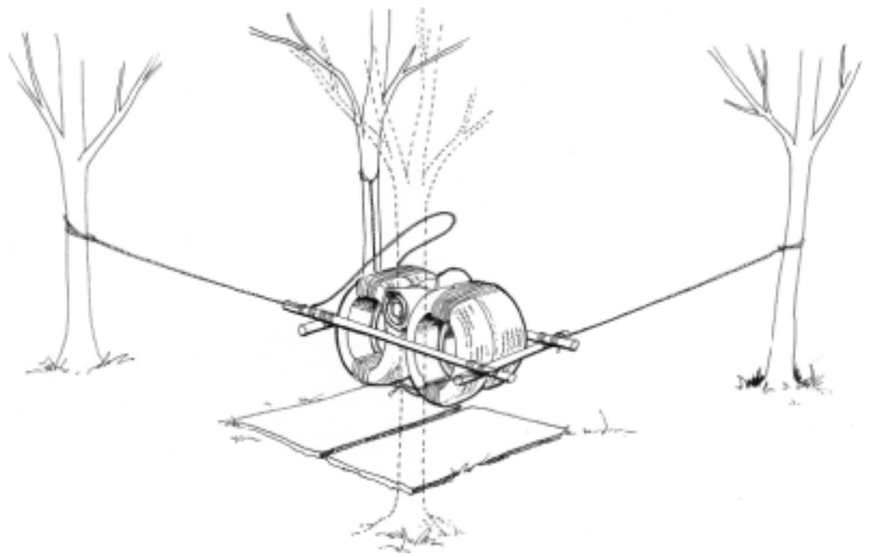
2 spars a little longer than twice the diameter of a tyre.

2 x 1m (3ft) spars

Sacking

4 x long ropes

Lashing lengths to tie tyres together



Method

Place 2 tyres on the ground to make a figure 8 and tie them together where they touch.

- Repeat with the other 2 tyres.
- Place one pair on top of the other and tie them together.
- Use the 4 spars to make a closely fitting frame around the tyres – see diagram.
- Tie a length of rope to the front of the frame to form ‘reins’.
- Tie the ropes to the four corners of the frame.
- Pad the ‘saddle’ between the tyres with sacking and tie it on.
- Tie off the ropes to four convenient trees at such a height that they will keep the bronco off the ground when a Scout sits on it.
- Place some crash mats underneath.
- While one Scout rides the bronco, another can pull gently on the ropes to make the ride more interesting.

NB: Requires adult supervision and preliminary risk assessment.