We need a system for determining the shape of the horse’s back in the area the saddle will sit in order to even come close to finding a saddle that will fit. All too often, all that is asked by the saddle maker or the retailer is that you provide them with a tracing of the horse’s withers. Sometimes they do not specify exactly where to take the “wither” tracing or provide you with adequate information on how to make an accurate tracing. Assuming that you did get that part right – whoa - but what about the rest of the horse’s back? Does it matter if the saddle only fits at the withers? You bet it does, so lets do it right!

There are a lot of systems to “measure backs” such as gauges, moldable plastics, medical plaster casting tape that all have merit. I wish to share with you a very inexpensive system that, in my hands has worked well. It can also work well for you. Requiring only a minimum of materials, it can be done with a few inexpensive tools that you likely already possess.

Examples of back gauges
You will need only a flexible artists ruler (or you can substitute a 20 inch piece of 14 gauge electrical wire with ground wire), 4 to 6 pieces of cardboard, a sharp knife (an inexpensive box cutter works well, or heavy scissors can be used.) Use a “Sharpie” type of permanent marker to mark your locations on the horse where you will want templates.
Locate a *firm and flat surface* where the horse can stand while being measured. You will need to stand on a mounting block when “molding” the ruler to the horse’s back, so it is very helpful to have an assistant to hold the horse and to watch that the horse is “standing square” while you make the measurements.

**Materials Recap:**

1. Five or pieces of cardboard: 10” x 16” (It is good to have extra pieces in case you “goof-up”)
2. Flexible artists ruler – or a 20 inch piece of 14 Gauge electrical wire with ground wire. Place a mark at the center (10 inches) with a marking pen.
3. A “permanent” marking pen such as a “Sharpie” marker. (*Permanent is not permanent on horses*)
4. Heavy scissors – or a box cutter – or a sharp knife
5. Mounting Block (or other sturdy box or step stool)
6. Digital Camera (optional)
7. Fly Spray if flies are present

**Where to Measure:**
Step 1. *With the horse standing squarely*, use the marking pen to draw a vertical line 1.5 to 2 inches behind the rear edge of the shoulder blade on the left side of the horse. (This will represent where the points of an English saddle will be or where the fork of a Western saddle will be.)

Step 2. Draw a vertical line with the marking pen at the base of the withers. (This will be the location of your next template.) *Check to be sure that your horse is still standing squarely.*

Step 3. Draw a vertical line at the mid point of the back for the next template.

Step 4. Draw a vertical line at the last rib. (The saddle should not be weight bearing beyond this point.)

Step 5. Measure and record the distance of each template from the first one (the one behind the shoulder blade.)

If you have a digital camera it is an excellent time to take a side-view picture to send to the saddle maker or provider. (tack shop, etc)

**Using the Flexible Ruler:** (*Be sure the horse is standing squarely*)

While standing on the mounting block or other sturdy object, mold the flexible ruler over the withers at the first line that you have drawn on the horses back. (Make sure the center mark of the ruler is on the center of the spine). The ruler must lay on the back perpendicular to the ground surface and is not tilted forward or rearward or twisted. By virtue of being on the mounting block you can see both sides of the horse so you can be sure that the “ruler” is straight up and down on both sides. (Perpendicular to the floor/ground)
You will be measuring the horse in a static/resting position, but when the horse gathers itself to move, the back elevates slightly and may also widen slightly at this point and at the base of the withers. Therefore, it is very helpful if you can have an assistant perform a *slight* back lift by pressing on the sternum at the girth area – it may require a bit of stimulus with the finger nails. *Caution!!* Be sure the horse allows you to touch or put pressure in this area!

Having molded the ruler while the back was relaxed, it should require only slight adjustment to the changes occurring when the back is elevated. Utilize the slight back lifted position for the template behind the shoulder blades and for the template at the base of the withers.

Now, carefully remove the flexible ruler and place it on the cardboard. Be sure you have noted which is the left side and which the right side of the ruler. With the pen, trace along the *inside* edge of the ruler. Mark the cardboard template with left and right and the number of the template.

Next complete the cardboard tracings for the template at the base of the withers, the one at the mid-back and the one at the last rib.

**Cutting out the templates:**

Before starting to cut, be sure the templates are marked with the number, the date, left and right markers and the name of the horse and the owner. Use the knife or scissors to cut the templates. The part that
gives you the shape of the back can then be sent to the saddle-maker or taken to the tack shop. They must know the location of the first template as that will be the location of the points (English) or where the fork of the saddle (Western) makes contact with the withers.

**Very Important:** Be sure to save and use the portion left over to check your accuracy by placing each “left-over” portion onto the appropriate location to confirm the fit. (Number each cut out and mark the left side and the right side.)

If you or other persons are going to use the templates to check an existing saddle - or are going to check out saddles at a tack shop, you/they should take along a ruler in order to measure the distance that each subsequent template lies behind the one at the shoulder. This is required so you can be sure that each template can be accurately placed onto the panels or sheepskin covering.

**Conclusions and additional tips:**

The set of templates that you have created can be very helpful in selecting a saddle that fits the horse. They can prevent many trips to the tack shop.

Because they do not provide definition of the arc of the back or location of the center of balance, the templates do not guarantee a proper fitting saddle for the rider. It behooves the rider to have a professional evaluate the final fit for both horse and rider.

If you have a horse with very uneven wither symmetry, it is helpful to create another template two inches in front of the one behind the shoulder blades. When the withers are asymmetrical there can be problems with enough side to side clearance at the “head” of the saddle. This template can allow you to check for side to side clearance as well as clearance between the top of the spinous processes and the pommel of the saddle.

The templates can be made even more valuable by the additional use of a stiff piece of material that is placed and molded to the back where the center of the panels will rest on the horse. The artist’s flexible ruler is usually too flexible and will not hold its shape during trans-
port. The best material to use is the 14 gauge electrical wire with ground. It needs to be 24 to 26 inches long and marked at the line made for the first template (approximately 2 inches behind the withers) and at the end of the last rib. If it is not feasible to take or ship the wire, the curve of the wire can be traced on a piece of cardboard and the curve duplicated back to wire at the saddle-makers or tack shop.

If you are dealing with a horse that has very set-out shoulders that create hollows behind the shoulder, a wire/ruler long enough to include the posterior part of the shoulder is helpful in selecting a saddle or design that does not cause the panels/bars to interfere with shoulder movement.
A whole set of templates from the withers (bottom one) to the flatter part of the back (upper one). Note the variation in curves and also the asymmetry, being more pronounced at the withers, due to the unevenness of the feet.