

# The Simple Facts Of Saddle Fit

By Matt Miller



## **THE SIMPLE FACTS OF SADDLE FIT**

**The foundation for a saddle is the saddletree. It is impossible to build a great saddle on a poor fitting tree. When it comes to fitting horses correctly, the subject of saddletrees and their fit has often been turned into a sales ploy. What I mean by that is instead of fitting each and every horse, the properly designed tree is made to fit a body type. Custom trees fitted to a specific horse can be made but aren't practical unless your horse is making you a lot of money.**

**If I correctly build a tree to a body type, you can ride many horses that fall within that type and not hurt one horse. I say this based on experience. In**



**twenty years, I have not had one tree or saddle come back for hurting a horse or rider.**

**When a tree and finished saddle is right, you would be very surprised how many different horses you can ride hard and not hurt a single one.**



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### **PARTS OF THE SADDLETREE**

#### **BARS:**

The basic purpose of the tree is to distribute the rider's weight over the largest area possible. This allows the least pounds per square inch of pressure with the bar pads in contact with the horses back and also allowing the rider to achieve the proper balance for the benefit of both rider and horse. Both of these tasks are performed by the tree bars. The bars not only have the contours on the bottom to fit the horse but also the notches on top to receive the fork and the cantle even if the seat length is correct for the rider, that doesn't mean that the rider will be balanced. The balance is achieved through the relationship between the stirrup leather notches and the cantle board.





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### **FORK:**

The primary purpose of the fork is to determine how far apart the bars are and at what angle they are set. To gain an accurate measure of this distance, you need to measure the gullet in the back of the fork, not the front. The front measure can change considerably with different patterns and stock thickness. The height of the gullet in the back is as important, if not more important, than the front measure.

### **CANTLE:**

The cantle's main purpose is to hold the distance and angle of the bars at the rear of the tree. It is also very important for the seat length and proper surface bearing as determined by the conformation of the rider.





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### **BAR ANGLE AND GULLET WIDTH:**

The cuts at the bottom of the fork and the cantle determine the bar angle and the gullet width. The angle is laid out on the back of the fork as such: Let's say that you are trying to achieve a 90 degree bar angle, one side is laid out at 45 degrees and the other side is the same. This gives you a total of 90 degrees or semi-quarter horse. If you want to build it to have a 93 degree angle or a full-quarter you add 1 ½ degrees to both sides, 46.5 degrees. The cantle must follow suit and match the fork.

What determines the bar angle is the skeleton of the horse. Almost all mistakes made in this determination are made from looking at the wrong part of the horse's back. To clarify, almost everyone looks at the withers to try and determine bar angle and it doesn't work. The lower lumbar of the horses back will easily tell you bar angle but the withers will determine gullet width. If your bar angle is off it will almost always cause more problems for the horse in the lower back as compared to the withers and the shoulders.



The bottoms of the bars have key elements that need to be addressed for a proper fit. These include: the contours of the front and back bar pads, the stirrup leather notch's shape and location, the position and amount of the rocker and the flare and twist of the bar itself. All of these have to be factored in when designing the proper bar.



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### **BAR ANGLE AND GULLET WIDTH:**

For a tree to even be worth building on it must pass several simple tests. First, the tree must be square. When I say square, I mean that the fork and cantle must be exactly parallel. Also the bars must be parallel to each other. I have seen trees that will set flat on a stone but they will be completely out of square. Second, when turned over on its' top, the "horse side" of the bars must be exactly the same but a mirror image of one another. The last thing that should be checked is the arch of the bar. Place the tree on its top and tilt it so that you can see the bottom spine or the edge of the tree bar from side to side. In your mind, follow the arch from the front to the back of the bar noticing if any part of the bar goes to the horse's side or the rider's side. If anything visibly breaks the arch, it is far enough out that you should not build on this tree. This is only the beginning of what you should know but it is a very important start. In my saddle fitting clinics, I have found that when pointed out in person even the novice horseman can easily see and understand these mechanical principles. The common practice of putting a bare tree on your horses back can be very misleading because if it fits at this stage it will not fit when completed. Just the thickness of the skirts and shearling will subtract about  $\frac{3}{4}$ " from the gullet width, not counting the pads that can easily subtract another  $1\frac{1}{2}$ " to 2" more.

If you require a lot from your saddle, as I do, then the very subtle differences in your saddle become crucial: the shape of your horn, the height of the cantle, the rigging position, or how much freedom of movement in your stirrup leathers and fenders. It all starts in the tree.



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### **SADDLE:**

**When we speak of the finished saddle, we must be aware of the many changes in shape and size that the tree will be subject to while being built. A good example of this is the length of the seat. You will always lose at least  $\frac{1}{2}$ " of the seat length to the leather and you may lose more depending on the saddle maker.**

**The overall shape and size of the horn will be very different from start to finish. Even the fit to your horse can be hindered by improperly blocking the skirts.**

**The ability to achieve a low center of gravity, a deep seat, and the most amount of comfort is through a combination of bar design and cantle shape. For**



**example, if the top of the bars are built in the same way you want the ground seat made, the less leather is needed to make the finished seat.**

**If you put one finger under the ground seat of your finished saddle, where the skirts open up, and place a finger from your other hand in the middle of the "sweet spot", you can accurately judge the distance. If it exceeds about  $\frac{1}{2}$ ", it is too much. I have seen many with a distance of 1 to  $1\frac{1}{2}$ ".**



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### **SADDLE:**

**The most misunderstood principle of saddle functions is rigging placement. The saddletree itself dictates where the rigging should be placed on the finished saddle. If it does not correctly align with the rocker and stirrup leather notch, the saddle will not function nearly as well to achieve proper weight placement of the rider and to keep your saddle in place on the horse's back. These things all factor into keeping the horse from being sores.**



**Another area where many people get confused is when it comes to saddle pads or blankets. I like to tell folks to use the least amount of pads needed to properly fit your horse with that saddle. The material the pad or blanket is made from is very important as well. Do plenty of homework on the different kinds of pads and their benefits. As far as thickness goes, think of them as a gasket. If you need to widen your gullet, use less padding. If you need to narrow the gullet, use more padding. DO NOT try to change the shape of the tree bars with a pad. It does not work.**



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### **SADDLE:**

**Some very well-meaning horse owners believe that the best thing for a horse is a treeless saddle. It is supposed to be comparable to riding bareback but it is not. You do not have a tree to distribute weight and the saddle does not allow you to position yourself as if you were riding bareback, which is next to the shoulder. Instead, you are placed in the middle of the horse's back without the benefit of the bars to spread out your body weight. If you want to emulate riding bareback then, ride bareback.**

**This subject of tree construction and saddle fit can seem overwhelming at first but with the proper training anyone can understand these basic principles. In allowing them to make informed decisions about ordering a new saddle or purchasing a used one.**





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### **BIO:**

**Matt was born in Battle Mountain, Nevada in 1958. He was raised in Nevada and Oregon on family ranches. He started working big outfits when cowboys still rode for a living and lived on the wagon, not wore out horse trailers. It was a perfect opportunity for someone with the passion to understand how the saddle, horse and the rider could go together to create the ultimate experience in horsemanship.**

**Matt came from a family of saddle makers, so the desire to learn more was there from a very**

**young age. With the time in the saddle afforded to him by his occupation and some hard work, the knowledge and understanding necessary to define the mechanics of saddles and trees was obtained and put to use.**

**He started building custom saddles in the early 1980's and began his saddletree business in 1994 in the Sheridan, Wyoming area. He has managed to both continue ranching and to build a very unique product consisting of top quality trees and saddles.**





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### **SADDLE FITTING CLINICS:**

**Because of the overwhelming amount of interest in proper saddle fit, I have decided to schedule a limited number of saddle fitting clinics for 2014. If you have an interest in the basic principles of saddle fit and feel this would benefit you and your horse, contact Matt Miller for more information or to be a clinic sponsor. You can also find Matt on Facebook.**



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