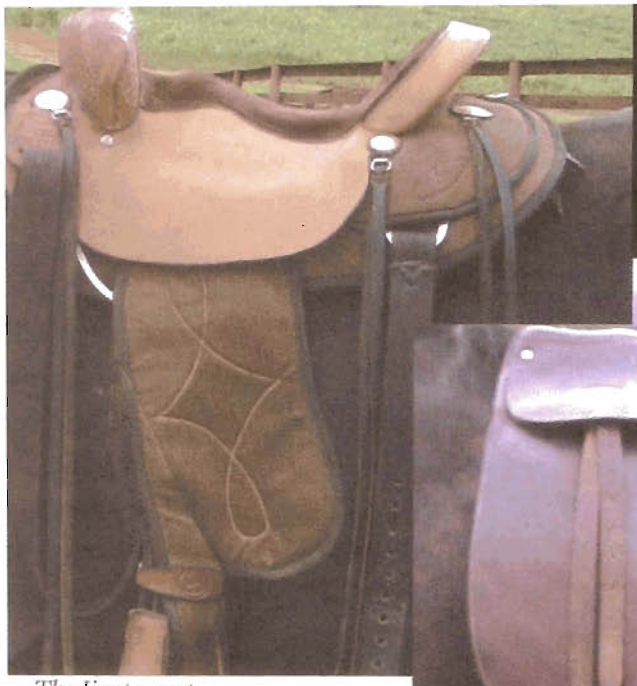
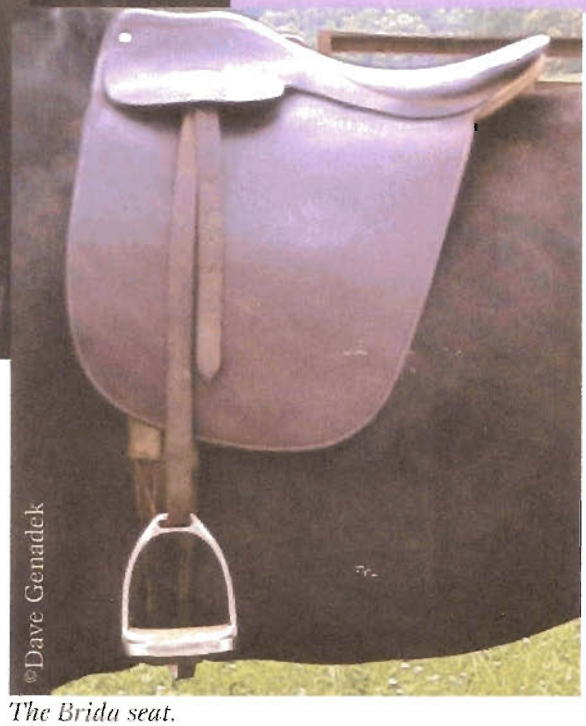
In A Fit

By Elizabeth Graves

The first in a three part series...



The Jineta seat.



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The Brida seat.

OH, WHAT A CONFUSING world it suddenly becomes when we start looking for a new saddle or realize we have problems with the one we already have. One is suddenly inundated with strange new terminology, many different philosophies on how saddles should work and the amazing things we are told the perfect saddle can get our horses to do.

We in the gaited horse world seem to be a market many manufacturers and retailers are trying to pull revenue from, and understandably so. Gaited horse popularity is growing by leaps and bounds. We need saddles that help our horses to be able to do their jobs, be comfortable, help us to do our jobs in helping the horse when needed, and find comfort in our own bodies. All this helps to make both the horse's and rider's experience a good one.

After having what seems like small mountains of saddles myself over the years, and spending a considerable amount of time working in them, rebuilding some, repairing others and actually going as far as assembling saddles trees myself, I have found comfort in understanding what used to seem a very complicated science - knowing what any saddle's true function should be. We as concerned horseman, horsewomen and consumers now need to be very educated before purchasing a saddle. But we should also be able to use a current saddle properly, to know if it fits, and to know if there are options to make an ill fitting saddle workable in our own situation.

First things first

BEFORE WE DISCUSS SADDLE FIT WE first need to figure out how we want to ride. There have long been two basic schools of thought in riding, Jineta, or what we would call a balanced seat today, and Brida, which came about for jousting, called "feet on the dashboard" today. Nowhere in the horse world is the classic battle between these two schools of thought raging as strongly as it is in the gaited horse world. Although there are countless variations of these two seats today a basic understanding gives us a way to begin to understand saddle design.

At the heart of the differences lies a fundamental difference in how each school believes a horse needs to move. In the Jineta world, the rear of the horse drives the horse forward through engagement of the hindquarters, which creates lightness and suspension; the base of the neck is then used as forward throttle. The equipment used in Jineta riding are communication devices. The saddles are designed to create a level platform for the rider's pelvis so the rider can be in a balanced position.

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In Brida there is no engagement of the hindquarters. The hind end just pushes the base of the neck forward creating heaviness in the front end. The equipment used is designed to force the horse into a "frame," so in the Brida world you will see all kinds of leverage devices. Brida saddles have the low point of the seat set back (towards the cantle) and the

Over Saddle Fit!

stirrups are hung forward. In the Brida world saddle fit really is not an issue, as the riding style itself negates the benefits of proper saddle fit. So for the rest of this article we will assume that you are seeking to put your horse in some form of self- carriage using a Jineta or balanced seat.

What should a saddle do?

UNDERSTANDING *WHY WE NEED saddles* is first and foremost in getting a handle on understanding when they are, or are not, functioning correctly. Knowing how a horse's body needs to function and work freely and easily - be it gaited or not - is paramount.

Our horse's spine is suspended in its body like a suspension bridge. When working correctly, the horse's underline lifts the horse's back in varying degrees, depending on the gaits desired. So the underline has to contract and the top line has to stretch. The vertebrae have a cable type system to help lift the back when the horse contracts its underline. A poor fitting saddle and/or incorrect seat position can cause the muscles along the back to fire, preventing a horse from being able to use its back as needed.

Saddle manufacturers and retailers now market many styles of saddles towards "gaited horses". We need to sit back and put a little thought into this when looking at our horses. We do see some consistencies in body types within the specific gaited breeds, but in each breed we also see many variations in back types. For instance, we are often told our horses need a saddle with more flare in the shoulders, which in fact is needed for all horses, gaited or not.

There are many back types in the gaited breeds, so a rather large variety of trees shapes and sizes are needed to find the correct fit, not just one or two. There are some horses for which there are no saddletrees being made to fit their specific back shape. In these instances a treeless saddle may be called for, but it also needs to be constructed and used correctly to function properly. The bottom line is that you do not have to look within the gaited horse saddle market to find a saddle to fit and work properly for your gaited horse.

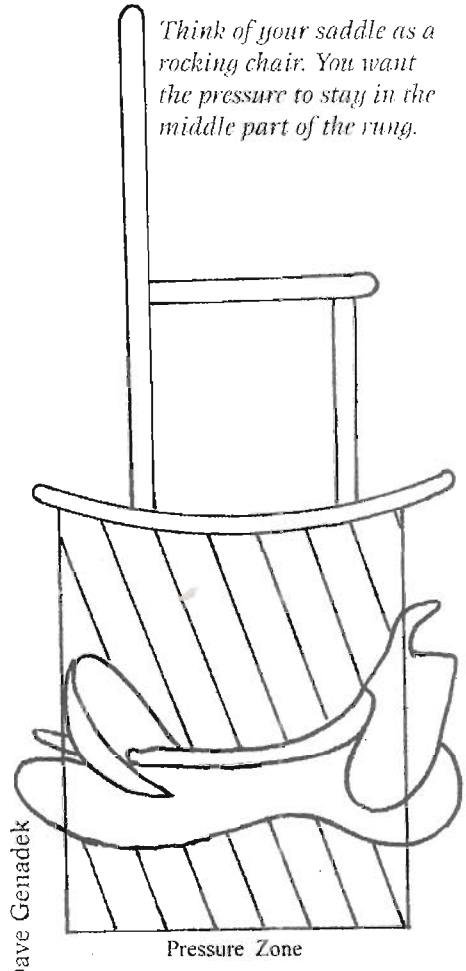
It's also important to understand that there are saddle-building philosophies in which saddles are being built to actually create discomfort on a horse to force a certain performance. There can be a price to pay physically and mentally by the horse when using these types of saddles, just as with a saddle that does not fit, or does fit, but is used incorrectly.

There are saddle-building philosophies in which saddles are being built to actually create discomfort on a horse to force a certain performance.

Listed below are the basics of what any saddle should and should not do on any horse.

Should:

- Create a tunnel over the spine of 2.5 inches (at the minimum) in width
- Distribute our weight evenly over muscles along each side of the spine
- Create a level platform for our pelvis
- Do nothing. A saddle fits when it does nothing



Think of your saddle as a rocking chair. You want the pressure to stay in the middle part of the rung.

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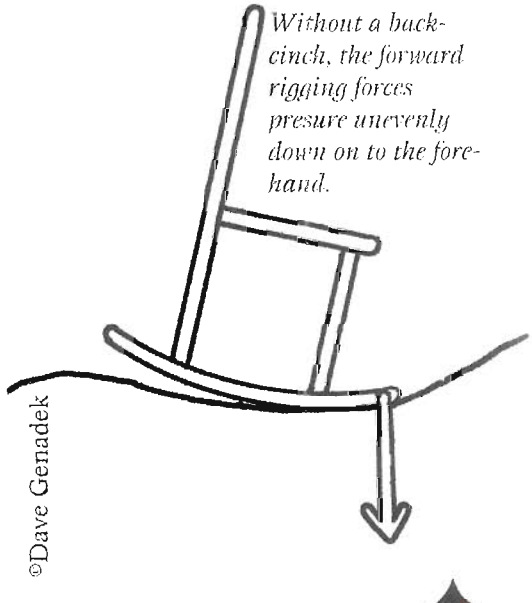
Pressure Zone



Without a back-cinch, the forward rigging forces presure unevenly down on to the forehand.

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Should not:

- Interfere with a horse's movement
- Create areas of discomfort or pain through unwanted pressure
- Make contact on the spine
- Do anything. If a saddle is doing anything other than sitting quietly on the horse's back it does not fit.

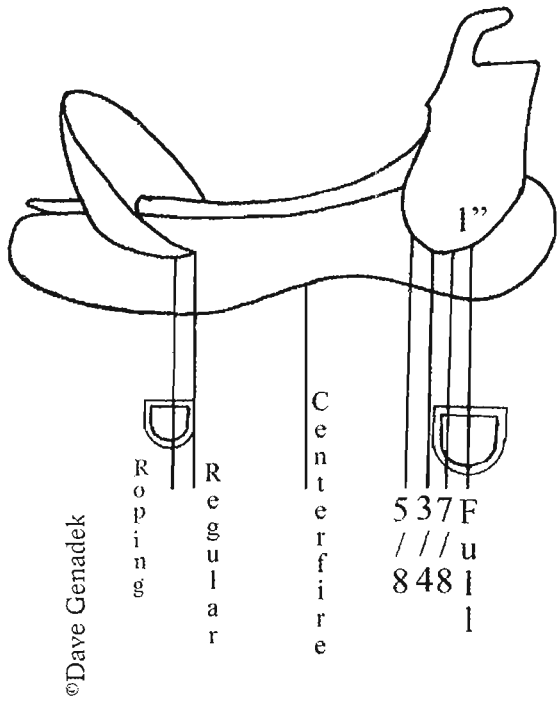
The Saddle Definitions and Systems

MASTER SADDLE MAKER AND SADDLE-tree designer, David Genedak, has probably broken the components of a saddle down into the easiest method to understand. His concepts help us to get a good grasp of what to look for in saddle construction and performance.

The Tree:

The tree forms the skeleton of the saddle. There are two categories of trees used in saddles - rigid and flexible. In the US we are most familiar with rigid trees. The best example of a flexible tree would be the gaucho saddle of South America. It is made from two tubes of leather that are connected by some leather straps.

In the US we have two basic styles of rigid trees. Stock seat saddle trees, or what we now call Western, and hunt seat saddles, that we call English. Western saddles have evolved from the Jineta tradition so the tree is designed for the horse. English trees have evolved from the Brida tradition so the tree is designed to fit the rider. The only part of an English tree that was designed to interface with the horse is the front arch. Originally there was a large arch in the front and one in the back. Their purpose was to dig into the horse to stabilize the saddle. Today we have lost the rear arch, but the front arch remains and continues to be the number one issue in getting an English saddle to fit properly. Regardless of what type of tree a saddle has, it must have two bars to lift the rider off the spine and some sort of connecting arch system that holds the bars a given distance apart giving the saddle its orientation.



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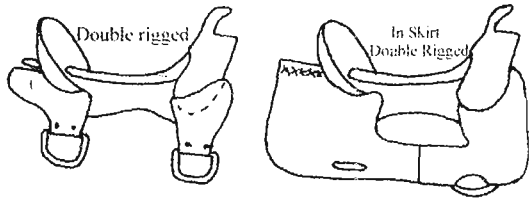
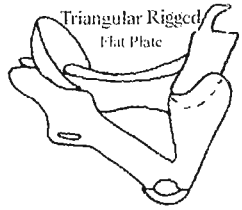
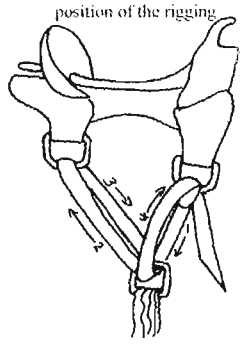
To understand saddle fit we have to understand how a bar fits a horse's back, but before we can understand that we need to understand the back and how it functions with the other systems in the horse's body. One system in the horse's body is the ring of muscles that supports and connects the horse's back and abdomen. When we get our horse's tummy muscles to contract, they pull on the pelvis, which in turns pulls on the dorsal ligament, which attaches to the tops of the spinal processes (the bones that stick up from the vertebrae. The withers are long spinal processes.) This means that when we get the hindquarters to engage, the back rounds and lifts the front end of the horse. Now the front end is pretty neat because the two front legs are like two giant pillars with a sling of muscles running between them. The rib

To turn a double rigged saddle into a triangle rigged saddle





On both sides take a long latigo and form a Triangle. This method can also be used to change the position of the rigging



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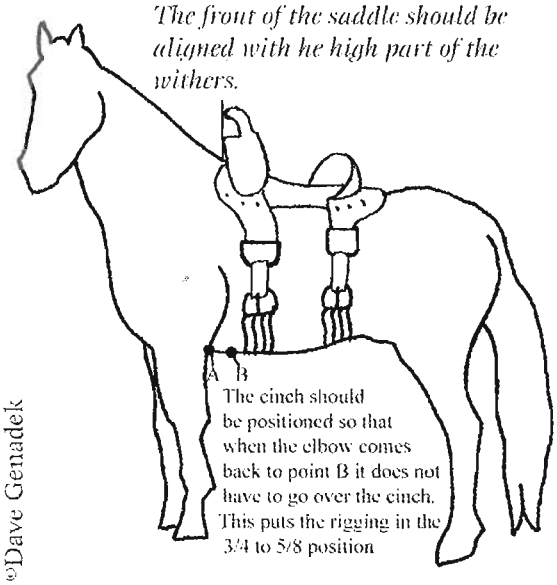
The front of the saddle should be aligned with he high part of the withers.



The cinch should be positioned so that when the elbow comes back to point B it does not have to go over the cinch. This puts the rigging in the 3/4 to 5/8 position

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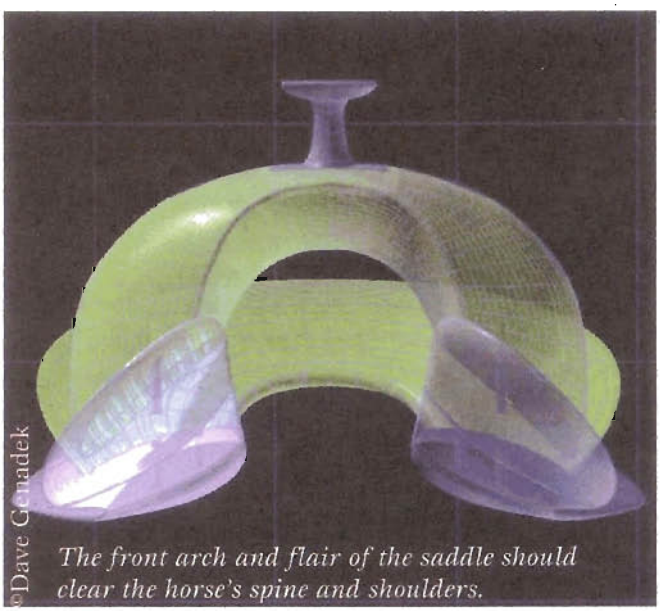


The front arch and flair of the saddle should clear the horse's spine and shoulders.

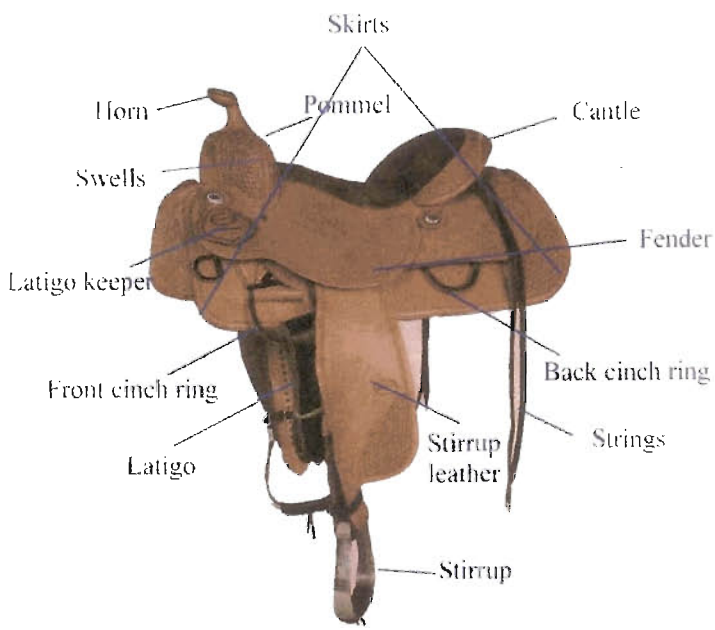
cage rests in this sling of muscles. When that ring of muscles is activated in the correct way, the front end becomes light.

Another important thing to realize about front legs is that they are not attached to the rest of the of the body with any bony connection. Unlike us horses don't have collarbones to keep their front legs equal distance from their sternum. Their shoulder blades are free to float all over the place constrained only by the muscles and ligaments connecting them to the rest of the body. Because the of this, the front end of the horse is always changing shape. Since it is kind of hard to fit a moving object we look toward the rib cage and see that its shape doesn't change nearly as much as the shoulder area. So, if you stare at it awhile, it soon makes sense that what you really want to fit is the rib cage.

The bar allows the saddle to fit the ribcage and keeps it off the shoulder area. To do this the bar is comprised of three elements; the ***twist, rock*** and ***flair***. The twist is the element that gets the bottom of the bar parallel to the top of the horse. The amount of twist needed is determined by the spring of the ribs. There are four basic rib cage shapes in horses, be they gaited or not: lens-shaped, heart-shaped, one kind of in between those two, and onion shaped. Ooops, we should probably add another one for the Icelandics: big, honking tube-shaped. The wider the rib cage gets the more twist the bar needs, except for the Icelandic shape. They have a similar twist to the Lens-shaped rib cage, but at a much different angle. The twist is the element to the bar that most folks are most familiar with. If twist was the only element to watch for, all you would look for would be even pressure along the entire length of the saddle. This would be fine if horses didn't move, but they do, so we need to allow for movement. We have two types of movement to allow for: the up and down undulation of he spine and the movement of the shoulders. The element of the bar that allows for the up and down motion of the spine is called the rock. There needs to be enough rock in the bar so that when the horses spine is in its most downward position there is still contact from the bar over the rib cage not just on the front and back of the saddle (a saddle fit problem called bridging). Lastly we have to allow for all that motion in the shoulder blades, which is why the bars must flair in the front. There should be enough flair in the front of the saddle so that you can easily slide your hand underneath the front when the saddle is on the horse. The front of the saddle should not make contact with the shoulder until you bring the horse's head all away around to the side.

Western saddles are built from the back up, so the elements of the bar are built into the wooden bar of the tree. English trees are built from the person's behind down, so the tree forms the seat and the leather stuffed panels underneath create the elements of the bar. This type of construction makes it easier to change the twist, rock and flair of the saddle by re-stuffing the saddle. On Western saddles you have to use an external pad to make the same kind of changes.

Once we have the bars figured out we need to stick them together. We do this with two arches. On Western saddles we call them the front (or pommel) and the cantle. On English we call them the front arch and the cantle. Regardless of what they are called, together they give the saddle its orientation. Orientation is what gives the saddle its tendency to move or stay put. This is by far the most misunderstood element of saddle fit.



THE 3 SYSTEMS:

Rigging
Purpose - To hold the saddle quietly on the horse's back over the rib cage.
Three options

1. Directly in the middle
2. Triangle
3. Double

Seat
Purpose- To create a level platform for the rider's pelvis.
1. Low point of the seat in the middle.
2. Stirrup hangs the distance between the person's heel and ball of foot in front of the low point of the seat.

Skirt
Purpose - To protect the horse from the motion of the stirrup leather.

Although everyone seems to be familiar with gullet width, few have any concept as to its true place in the saddle fit equation. A saddle with a wide front gullet and a narrow rear gullet (the width underneath the cantle) will tend to dive into the horse's shoulder no matter what you do. **Most commercial saddles today have a downward orientation. Either a level or upward orientation is desirable.** A saddle will have a level orientation if the saddle is the same width under the cantle as in the gullet and an upward orientation if he rear gullet is wider than the front gullet.

Today the industry has a fixation on gullet width, which in all reality tells us next to nothing without also knowing what the twist, rock and flair, and the overall orientation of the saddle is. A saddle that has an upward orientation and a lot of flair can have a very narrow gullet and fit better than a saddle with a down ward orientation and a wide gullet with little flair.

When we get the twist, rock, flair and orientation correct what we end up with is a tree that is open in the front, makes contact along the middle of the saddle where you sit, and then comes off the back in the rear of the saddle. Good Saddle fit happens in the middle over the rib cage. Bad saddle fit generally appears in the withers and shoulder areas. When you get pressure over the middle of the saddle, the shoulder and wither will take care of themselves.

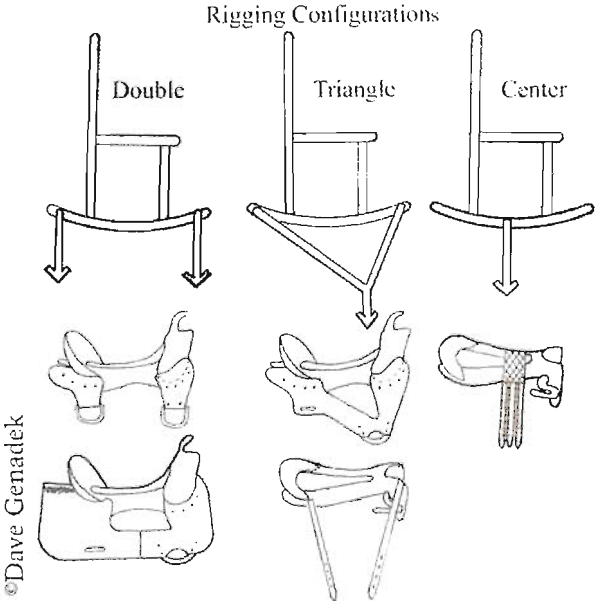
The Rigging:
Now that we have a tree that fits, we have to tie it on to the horse. We do that with the rigging. The rigging is as important as the tree itself to fit. A tree can be a perfect fit, but if the rigging has been put on wrong, or is not being properly used, it can negate the fit of the tree. The goal of the rigging system is to hold the saddle quietly in place. The place we want it to hold down is the middle of the saddle. The best way to think of your saddle on your horse is to think of it as a rocking chair where the chair doesn't rock, but the floor does.

You want to tie the rocking chair on so the middle part of the rung maintains constant contact with the "floor". There are three ways you can configure the rigging so this happens: The first method is to attach the rigging directly to the center of the saddle. This is the method most English saddles use, however, the English saddle manufacturers are still following the traditions set in the days of jousting, so unfortunately the billets are usually set too far forward, causing the saddle to rock forward and dig the front arch into the horse. Lollipop pads are a result of this design flaw.

A second method is to put the rigging on so it forms a triangle from front to back. On Western saddles this is called a flat plate rigging. It is also becoming more common for English saddles to have a billet coming from the front and the back of the saddle. If you dig out an old Sears catalog you'll see saddles with this configuration called single-rigged saddles, and most often the rigging would be in the center fire position.

The third rigging configuration is the classic Jineta style rigging, or the double rigged saddle. This rigging configuration is designed to be used with two cinches of equal tightness, one attached to the front of the saddle and one attached to the rear of the saddle, with a connecter strap attaching them together. Most Western saddles are produced with double rigging. This configuration

Rigging Configurations



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is designed to be used with the rear cinch as tight as the front cinch. If the saddle has double rigging and you do not have the rear cinch tight it will negate the fit of the tree 100%. Pull out that old Sears catalog again and you will see all the double-rigged saddles came with two mohair cinches and the rear cinch was cinched up with a latigoe just like the front. This is the number one saddle fit issue amongst Western riders.

Next time you are on a trail ride notice how many saddles are bouncing up and down in the rear.

Because people don't use the rear cinch they over tighten the front cinch. When using a rear cinch you are holding with two spots so neither cinch needs to cut he horse in half.

If you have a double rigged saddle and just can't get used to the idea of using a rear cinch, you have a few options. The first option is to turn your double rigged saddle into a triangular rigged saddle. By placing a long latigoe on both sides and using it to create a triangle from the front to back. When using this option you may find that you get a better result if you attach the latigo x to the rear d and work it from back to front. Another option is to use a packer's cinch that forms an x from the front rigging to the back rigging. This set up works especially well on horses that have round bellies that narrow up toward the front. You know, the ones that just can't keep a cinch in place.

The Seat:

Because we have two basic riding philosophies we have two distinct shapes of seats. The Jineta seat that has a level area in the center of the seat that creates a level platform for the pelvis. When the pelvis is level it opens all the joints of the body allowing the rider to move with the horse. In a Jineta seat, the stirrups hang between the rider's heel and the ball of their foot in front of the lowest point of the seat, which is in the center of the seat. In Western saddles this used to be called a stock seat. Brida seats have the low point of the seat back by the cantle and there is no level spot on the seat. The stirrups are hung far forward of the low point of the seat. In Western saddlery these seats used to be called a parade seat, as Brida has always been the seat of the aristocracy.

The Skirting:

In most cases saddles have a piece of leather, called the skirt, that helps protect the horse from the motion of the stirrup leathers. On Western saddles, skirts have traditionally been laced in place so they remain flexible. In recent years, this practice gave way to more rigid forms of construction that has lead the industry down a path of what are now called flexible panel systems. In addition, another recent innovation (also brought on by folks not using their rear cinches and the use of the Brida seat) is in-skirt riggings. In-skirt rigging combines both the rigging and skirting systems into one, which prevents either from properly doing its job.

Keep these basics in mind until next time when we present ways to help you find a saddle to fit your horse, or ways to make any saddle fit better. And remember, even a properly fitting saddle can be misused to the point where it causes the same sorts of problems that poor fit does. Rider seat and balance is key to your horse's performance, balance, comfort and even attitude.

Definitions:

Rock: The curve of the bar that matches the curve of the horse's top line.
Twist: The change of the angle of the bar from the shoulder to the rib cage.
Flare: The opening of the front of the saddle that allows for the changing of the withers and shoulder profile.
Spread:
- Front Gullet - The distance the bars are apart in the front of the saddle.
- Rear Gullet - The distance the bars are apart in the rear of the saddle.