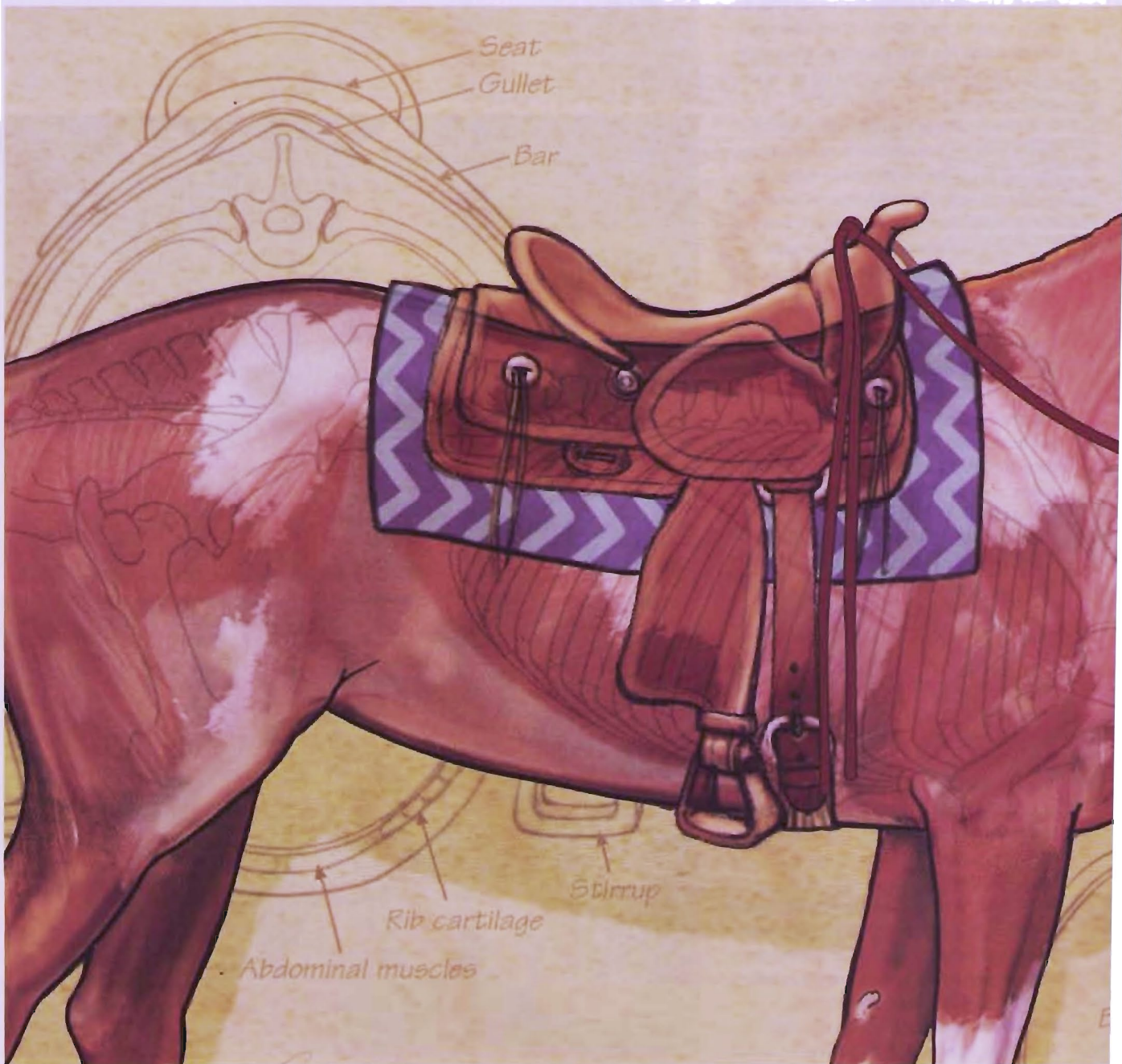
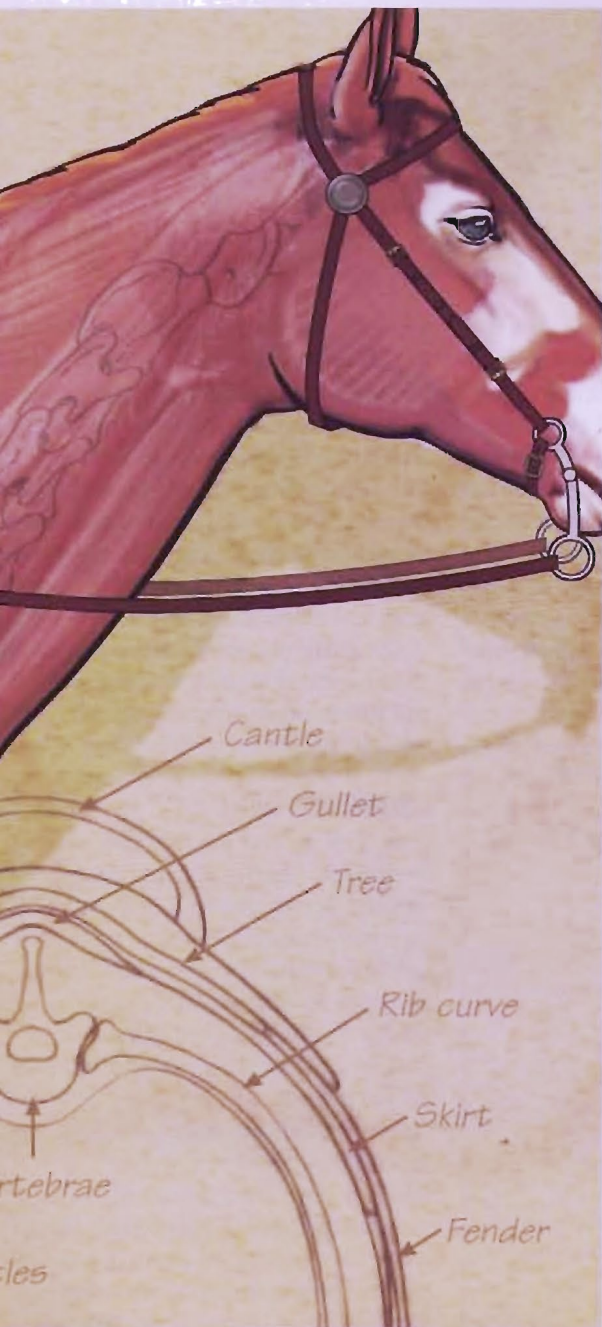


YOUR GUIDE TO SADDLE FIT



Follow along as master saddlemaker David Genadek shows you his anatomical approach to proper Western saddle fit.

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ILLUSTRATED BY KIP CARTER



YOUR HORSE SWISHES HIS TAIL AND PINS HIS EARS WHEN YOU put the saddle on his back. Then, as soon as you mount up, he sinks down and lets out a groan. *It's no wonder he doesn't want to work, you think, looking at the rub marks on his back. His saddle must be killing him. I wish I could make it fit better.*

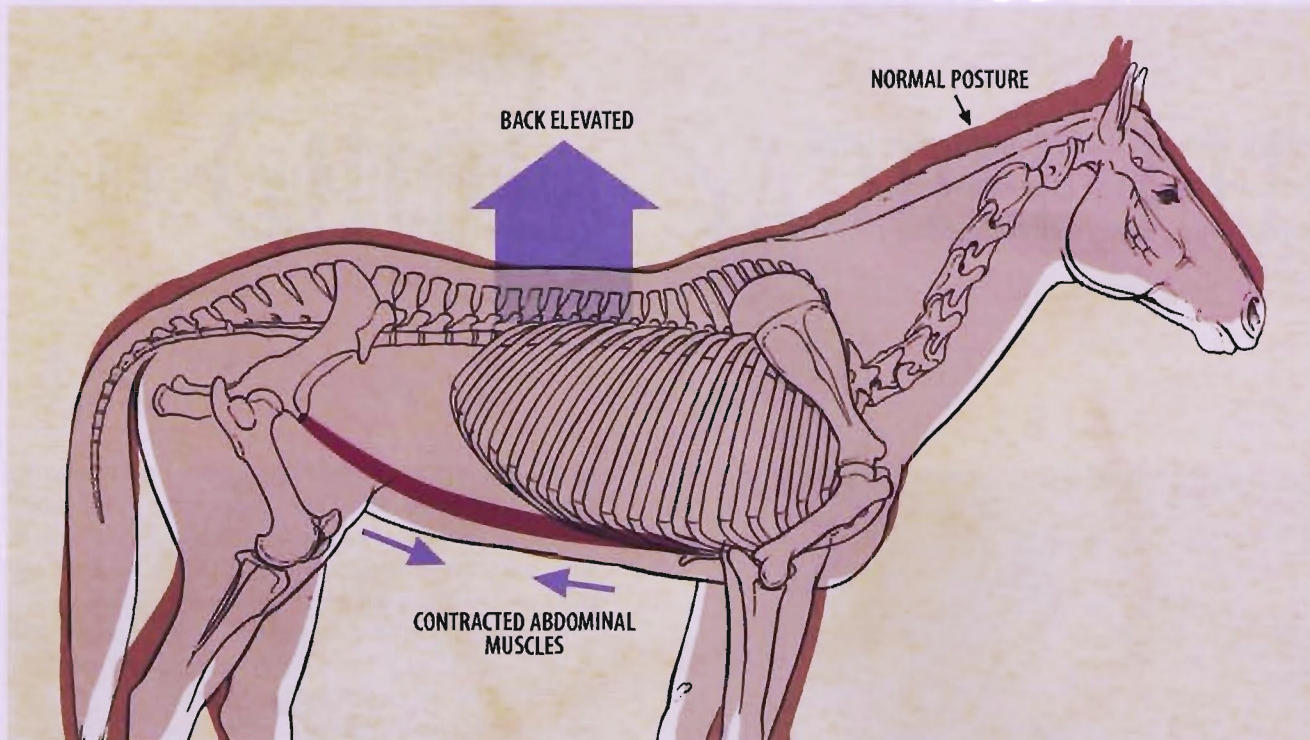
Whoa—stop right there! You can improve your horse's saddle fit. We'll show you how, with techniques from master saddlemaker David Genadek (sounds like “genetic”). We'll start by looking at your horse's skeletal structure, including his spine, ribs, and shoulders. Then, we'll explain how your horse's “ring of muscles” work to keep him moving comfortably.

Next, we'll build a saddle before your very eyes—showing you how each step is determined by your horse's structure. (For a visual guide to saddle terms, see illustration on page 62.) Along the way, you'll learn how to recognize the saddle problems you're likely to encounter, and what to look for in a perfect fit. Finally, we'll give you a saddle-fit checklist to help you create a better fit with your own saddle.

AN INSIDE LOOK

A good-fitting saddle allows you to ride your horse without interfering with his movement. To accomplish this, your saddle needs to correctly fit his spine, his rib cage, and his shoulders. Here's a brief rundown of your horse's anatomy as it relates to saddle fit; for how to apply this information, see “Saddle-Fit Checklist” on page 63.

- **Spine tunnel.** First, your saddle needs to fit over your horse's spine. His spine consists of a series of *vertebrae* (small bones) connected by small ligaments running along their tops and sides. Ligaments attach to bony spines that protrude from the top and sides of each vertebrae. (See illustration, next page.) Your saddle's *gullet* (illustrated on page 62) should have a tunnel large enough to prevent it from contacting these bony spines. Such a tunnel will allow the energy generated by your horse's muscles to move freely through his spine via a series of coordinated contractions and relaxations. If your saddle puts pressure on those muscles, they'll tighten or even *spasm* (contract without relaxing), and he'll drop his back. (See “Circle of Energy,” next page.)
- **Rib-cage curve.** Next, your saddle should contour to your horse's ribs. These long, flat bones attach to each vertebrae, then curve to form the housing for your horse's internal organs. Horses have three basic rib-cage shapes. *Shape 1:* The ribs extend



flat from the spine, with a large bow at the top (typical of Arabian horses, Morgans, and Warmbloods). *Shape 2*: The ribs extend out at a slight angle, with a moderate bow (typical of Quarter Horses and Thoroughbreds). *Shape 3*: The ribs extend down at a steep angle, with very little bow (typical of Peruvian Pasos and Tennessee Walking Horses).

- **Shoulder room.** Finally, your saddle should accommodate your horse's shoulder placement—and the way in which his shoulders move. Unlike us, he doesn't have a collarbone

connecting his shoulder blades to the rest of his skeleton. Instead, his body is suspended between his two front legs with a set of muscles, tendons, and ligaments. This configuration gives him a wide range of movement in his forelegs, which allows him to run fast and efficiently—important traits that helped his wild ancestors flee from predators. And it means your saddle needs to allow plenty of room for his shoulders to move.

- **Circle of energy.** Your horse's skeletal structure doesn't operate alone. He uses a *ring of*

muscles to keep energy flowing freely through it. This ring begins with the muscles under his abdomen. When he's working at his best, he first contracts his abdominal muscles to lift his back. Then he pushes himself forward with his powerful hind-leg muscles. This creates a flow of coordinated contractions through his upper-back muscles, along his neck, through his mouth, and back around again. (See illustrations, above and opposite.) If your saddle prevents his abdominal muscles from lifting his back, his back muscles will spasm, causing him to drop his back, thus blocking the energy flow.

SHIM SYSTEM

You can correct many saddle-tree problems by using wedge-shaped shims to help redistribute pressure. Here's what you need to know.

How shims work: Your goal is to pad away from pressure. In other words, you put pressure where there isn't any, and try to relieve pressure where there's too much. For example, if your saddle has a gap under the middle of the bars, with pressure centered at your saddle's front and back, your goal is to fill in the gapping area in the middle. This not only puts pressure where you want it, it also lifts your saddle away from the area where there's too much pressure. (For a visual aid on shim use, check out Genadek's video, *About Saddle Fit*; see page 65 for contact information.)

This may seem obvious until you consider a common saddle-adjustment error—adding a thick pad where there's too much pressure. While you may feel like you're protecting your horse by doing this, you're really just adding even more pressure and making the problem even worse.

How to make a shim: Buy a piece of stiff foam from your local hardware store. Taper it front and back with a belt sander. (Or, order them from About the Horse, Inc; see page 65 for contact information.)

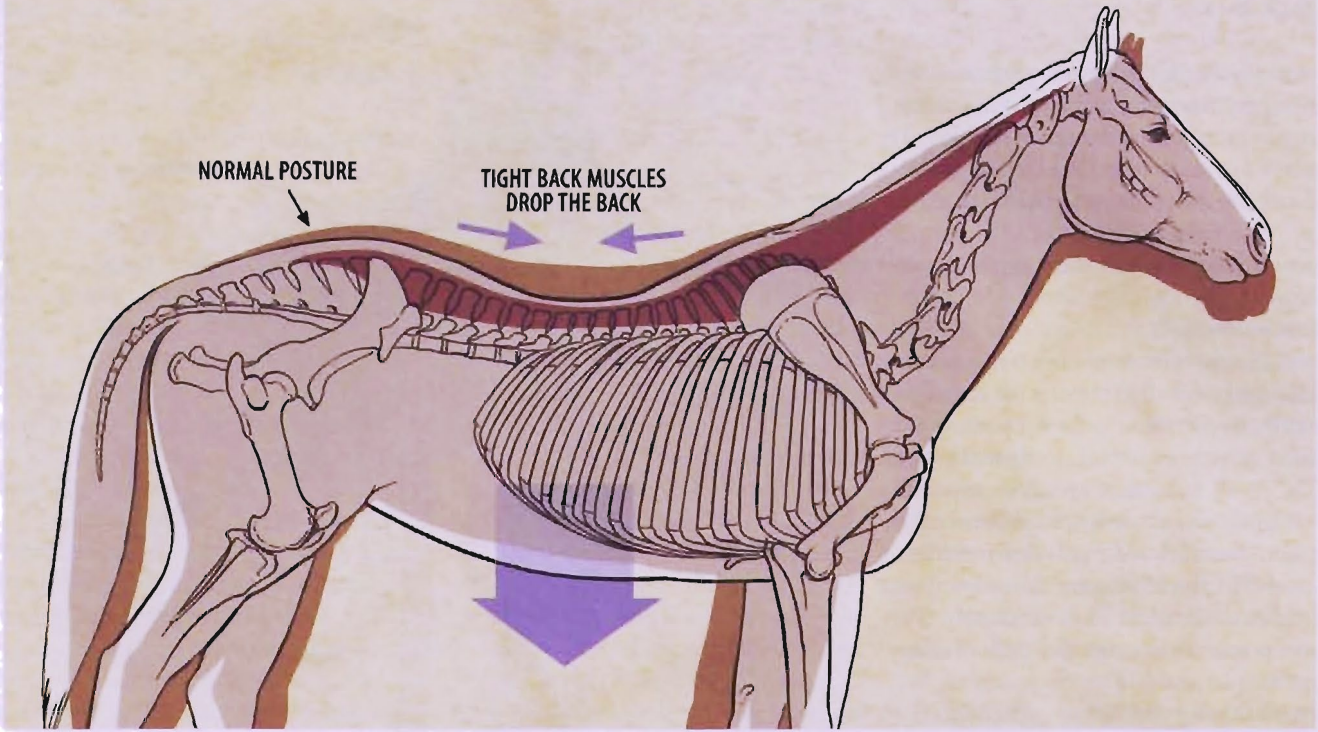
Caveat: When you use a shim to adjust tree fit, you may cause other problems, such as rigging-system instability. Be sure to check your overall saddle fit every time you add a shim, and make all the necessary adjustments.

BUILDING YOUR SADDLE

Now, we'll go over the four major saddle components (the tree, and the rigging, seating, and skirting systems), explaining how each one functions and how to get the best fit for your horse. (For help with saddle terminology, see illustration on page 62; for specific ways to check and adjust your saddle's fit, see "Saddle-Fit Checklist" on page 63. For more on adjusting your seating system for comfort, see "Trailwise" on page 38.)

THE TREE

What it is: Your saddle's internal skeleton, generally composed of either rawhide-covered wood, fiberglass-covered wood, or synthetic plastic. The tree's underside determines how your saddle rests on your horse's back, and is



the key component of saddle fit. (If the tree doesn't fit him, neither will your saddle.) Its topside determines seat structure, and is the key component of rider fit. (See "Seating System" on page 63.) Bars run on either side of your horse's spine, connected by two arches—the *swell* (front arch) and the *cantle* (back arch). **What it does:** Holds your saddle off your horse's spine, distributes pressure evenly across his large back muscles, and allows adequate space for his shoulders to move freely.

Features affecting fit:

- The *bar spread* (the distance between the two bars, determined by the width of the two arches).

- The *gullet* (the space created by the spread).
 - The contour and size of the *flare* (the opening at the front of the two bars, which creates space for your horse's withers and shoulder movement).
 - The *twist* (the change of bar angle from the withers and shoulder areas to the rib cage).
 - The *rock* (the shape and degree of curve at the bars' underside, which produces contact along your horse's upper back muscles).
- Perfect fit:** Your saddle's bar spread allows the bars to rest on either side of your horse's spine. The gullet creates a tunnel of at least 3 inches for your horse's spine to pass through. (Gullet size may vary from front to

back.) The flare allows him plenty of space at the front to move his shoulders. The twist and rock apply even pressure along the middle of the bars, distributing pressure equally along your horse's back muscles. (The bars should produce consistent pressure along a distance of about 14 inches.) Even pressure encourages his abdominal muscles to contract to lift his back, and allows energy to flow freely through his large back muscles.

RIGGING

What it is: A system of leather straps attached to a D-ring that's anchored to your saddle's tree or skirt and to which the cinch is attached. The three common rigging configura-

RIGGING TYPES



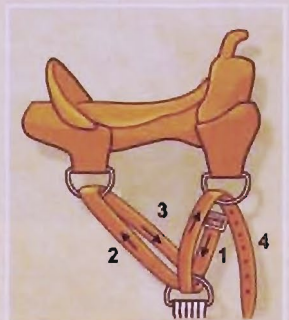
SINGLE RIGGING



DOUBLE RIGGING



V-SHAPED RIGGING



MODIFIED DOUBLE RIGGING

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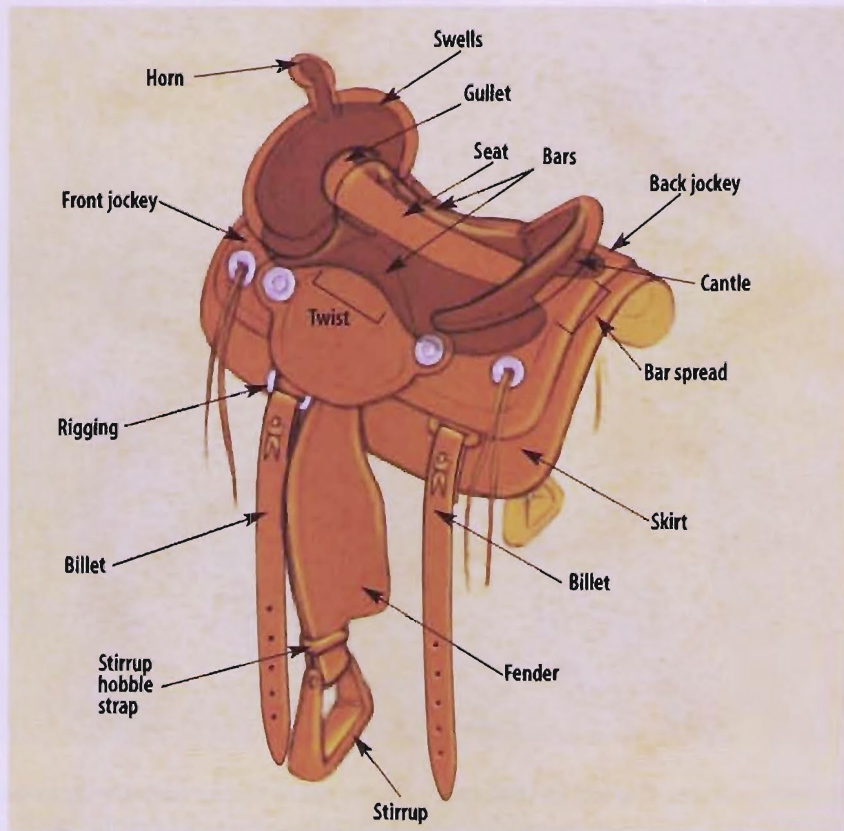
rations are *single rigging* (one cinch only), *double rigging* (front and back cinch) and *V-shaped rigging* (front and back straps come together to attach to a single ring). You can also modify a double-rigged saddle to create V-shaped rigging. (See illustration, page 61.)

What it does: Attaches your saddle to your horse's back.

Features affecting fit:

- Placement of the front-cinch D-ring in a double-rigged saddle. If it's placed at the front of your saddle, it's referred to as the *full* position. With every inch it's moved back, it's referred to as the *7/8*, *5/8*, *3/4*, and *centerfire* positions, respectively.
- Rigging-system configuration. Any configuration can work well, provided it results in evenly distributed pressure more toward your saddle's center, where it's most desirable. (Pressure points can interrupt the "circle of energy" outlined on page 60.)

Perfect fit: Your saddle sits perfectly level on your horse's back, and doesn't bounce when he's moving. Pressure is centered at the saddle's middle.



SEATING SYSTEM

What it is: The place where you sit in your saddle, plus stirrups, stirrup leathers, and fenders.

What it does: Provides a level platform for your pelvis and creates proper leg position.

Features affecting rider fit:

- Arch placement determines seat size, best measured as the distance between the point of the cantle (on the cantle's front, at the junction between it and the seat) and the back of the swell. This measurement most accurately defines your saddle's functional size. Note that it differs from the typical "seat measurement," measured from the cantle's back to the swell's top.
- Balance of the seat—level, tipped forward, or tipped back.
- Location of the seat's deepest portion.

Perfect fit: Appears level when viewed from the side. Stirrups naturally hang so that your body is in a shoulder-hip-heel alignment. An ideal seating system is gender-specific. If you're male, your pelvic bones are more parallel, so your legs hang down straight from the middle of your pelvis. That means your stirrups should hang down straight underneath you to keep your legs balanced. If you're female, your

pelvis is wider at the back, and your legs hang down from a point farther back in your pelvis. That means your stirrups should hang in a position that allows more bend in your knees to keep your legs balanced.

SKIRTING SYSTEM

What it is: The leather portion of your saddle that hangs down around the tree's perimeter.

What it does: Protects your horse from stirrup movement, and provides a platform for attachment of padding (typically sheepskin or synthetic fleece that acts like thousands of cushioning springs) to your saddle's underside.

Features affecting fit:

- Attachment. The skirt should be molded around the bars, so the bars bear your weight, rather than the skirt. That way, your weight won't cause the skirt to contact your horse's back. Also, the skirt's rear will be on a different plane than the tree, so it'll help to lift the bars off your horse's back, for a better balanced saddle.
- Skirt material. If the skirt is constructed of flexible leather, it'll move with your horse, and will be less likely to chafe his back. Such chafing causes discomfort and can distract him from the job at hand.

Perfect fit: There's plenty of room between the skirt's edge and your horse's skin around your saddle's perimeter. There are no areas where it rubs his hair, or digs into his back.

SADDLE-FIT CHECKLIST

Are you ready to run out to the barn and evaluate your saddle fit? Take along the following six-step saddle-fit checklist for help. Armed with this knowledge, you'll be able to shop for a well-fitting saddle, or make your own saddle fit better with a few simple adjustments. (*Notes:* For how to use the shims mentioned, see "Shim System" on page 60; if the suggested fixes don't help, invest in a better-fitting saddle.)

Before you begin: Outfit your horse in a halter and lead rope, remove him from his stall, and tie him, or ask a helper to hold him. (Also have a longe line handy.) Place your saddle on your horse's back without a saddle pad, so you can see exactly how it fits him.

Caveat: Each time you make an adjustment, you may throw something else out of whack. When you've finished with your saddle-check and have made all the necessary adjust-

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and have made all the necessary adjustments—go back and check fit one more time.

1. Flare check: Run your flat hand under the front of the tree, just behind your horse's withers. Can you easily slide your hand under your saddle and just begin to feel pressure when you turn your horse's head toward you?

Yes: Your saddle has adequate flare and will allow your horse plenty of shoulder freedom.

No: Your saddle has too little flare and is likely to interfere with your horse's shoulder movement.

Adjustment tip: Place a shim under the mid-portion of the bars—one that tapers under the tree's front to free your horse's shoulders.

2. Rock check: Run your hand under the middle of your saddle on either side. Do you feel pressure at the center of your horse's back, under each bar?

Yes: The bars of your saddle's tree have the correct degree of "rock," or curvature, to fit your horse's back.

No: Your saddle's tree doesn't fit your horse.

Adjustment tip: Place a shim (described above) under the bars on either side. This will help evenly distribute pressure under the center of the bars where it's desired.

3. Skirt check: Run your flat hand under the back of the skirt, at the rear of your saddle. Does your hand move easily under the skirt, as it rises off your horse's back?

Yes: Your skirt is probably constructed properly.

No: Your skirt may not be constructed properly. It should be applied to your saddle's underside on a slightly different plane than the bars'. This will raise the skirt off your horse's back for comfort.

Adjustment tips:

- Place a shim under the mid-portion of the bars to raise your entire saddle off your horse's back.

- Cut the lacing between the skirt's two sides to give it additional flexibility.

- Beat the leather with a hammer or mallet to soften it.

4. Rigging-location check: Tighten the cinch, untie the lead rope, and walk your horse forward. Does the cinch allow his elbow to move freely back and forth?

Yes: Your front rigging is set in a good location. That is, far enough back to allow

No: Your front rigging is set too far forward. *Adjustment tip:* None. Invest in a new saddle.

5. Rigging-balance check: Remove the lead rope and snap on a longe line. Ask your horse to trot on a circle. Does your saddle sit flat on his back, without bouncing up and down or moving side to side behind?

Yes: Your saddle is balanced.

No: Your saddle's balance is located too far forward.

Adjustment tips:

- Make sure your tree fits properly. (See flare check and rock check.)

- Add a rear cinch snug enough to shift saddle balance rearward.

- If you're not comfortable adding a rear cinch, you can create V-shaped rigging by adding a latigo on the back cinch D-ring that attaches to your cinch along with the front latigo. Have your saddlemaker assist you. (*Note:* Rigging adjustments can affect tree fit. So be sure to recheck the tree, and make any necessary readjustments.)

6. Seat-system check: Evaluate your saddle's seat surface from the side, both when your horse is moving and when he's standing still. Is it level, with the deepest point located at the center of the seat, and the stirrups hanging down in a position that will naturally put you in correct shoulder-hip-heel alignment when you ride?

Yes: Your saddle is properly balanced, and allows you to sit in a balanced seat.

No: Your saddle is off balance, and may make it difficult for you to sit in a balanced seat.

Adjustment tips: None. Invest in a better-fitting saddle. ♦

ABOUT THE EXPERT

Master saddlemaker David Genadek has spent years studying equine anatomy in his quest to achieve perfect saddle fit. He's president of About the Horse, Inc. (800/449-7409 or 507/498-3668; www.aboutthehorse.com), a saddlemaking and design company, and travels around the country giving saddle-fit clinics.

ABOUT THE AUTHOR

Equine practitioner Barb Crabbe, based in Portland, Oregon, wrote H&R's recent anatomy series, This is Your Horse.



For FAQs on saddle fit with David Genadek, log onto equisearch.com.