

The School Of Rack

By Elizabeth Graves, ©2007



Feeling a little bored? Nothing really that gives you that pizzazz these days? Looking for the new horsey adventure? **I may just have the answer for you!**

Yankee, a Rocky Mountain Horse, owned and ridden by John Koomar performs one of the racking gaits. Ah, but which one?

A Racking horse just may be the answer to zipping up your life. They come in every color, shape, size, can be found in a variety of breeds, and are common in the new designer horses - those crosses of two or more gaited breeds. There's something for everyone, from a slower, steady-Eddy kind of horse to one that gets up and covers lots of ground fast, for the thrill you may be needing.

There are a variety of racks which we term as being in the Racking family: the saddle rack, fox rack and rack. These are known by a variety of different names, but the characteristics are the same in each.

What They Have in Common

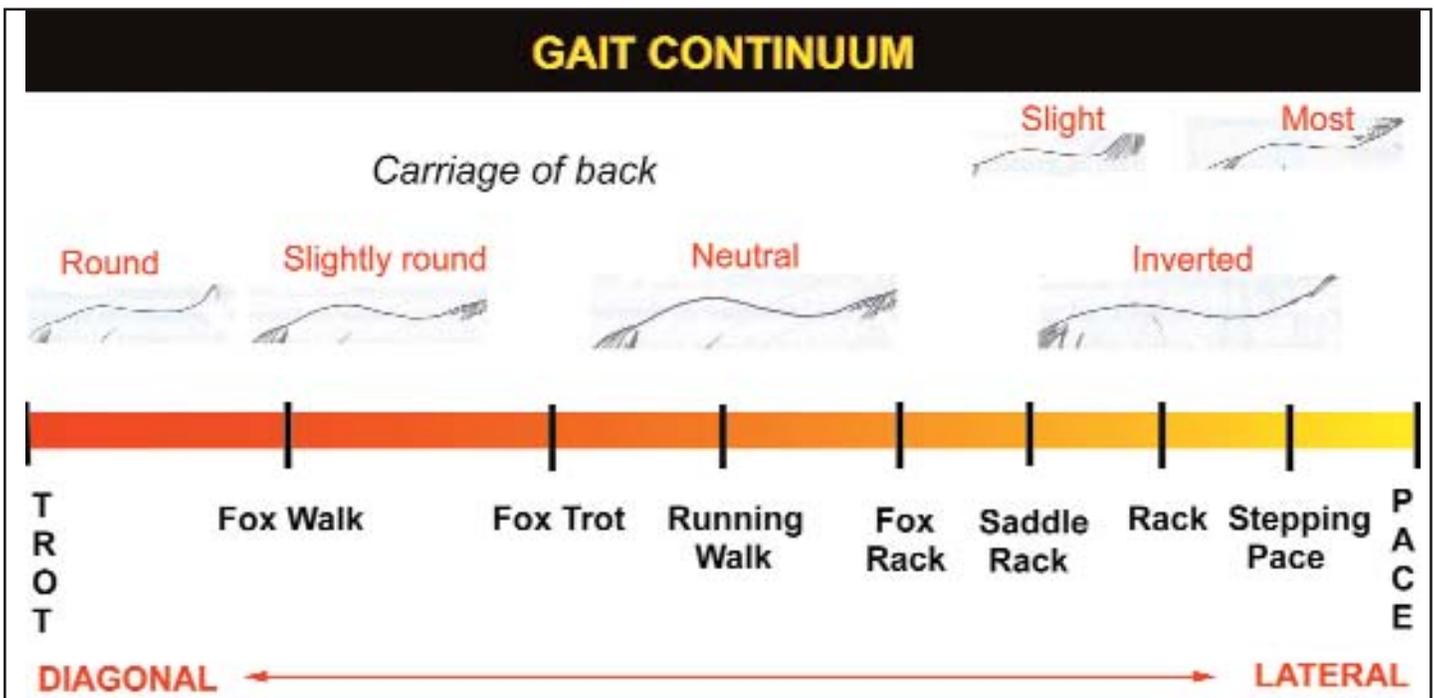
EACH VARIATION IS EVEN IN TIMING; you can hear an even 1-2-3-4, four-beat timing as each hoof hits the ground. However, even though they are even in set-down, racking gaits are often called lateral gaits because the hooves on the same side (lateral) of the horse pick up almost in unison. An exception is the fox rack, which is diagonal in pick-up and even in set-down.

Each is of a contained frame. Because of the shape in which a horse carries itself to execute these gaits, they are *not* collected gaits as described through biomechanics and locomotion (see "Collection and the Gaited Horse," by Lee Ziegler, Winter 2002).

These gaits have a ladder-climb-

ing effect of the fore legs. The hind hooves work with more up-and-down action, creating a bobbing of the hindquarters and tail head. The head is carried still, or with just a *slight* poll-based bob, but no up-and-down headshake or side-to-side motion of the head will exist.

Each gait is smooth to ride with just a slight side-to-side vibration in the pelvis and tailbone of the rider. There is a rolling transfer of weight from one hoof to another in the slower speeds to a flying transfer in the faster speeds. The horse will have some amount of concave, hollow or inverted element to the back, created by the slacking in the back's ligaments, and at the same time a tightening effect of the muscles that run along the back while the abdominal muscle go slack or push down-



ward. The horse's head is often carried high, with a tightening through the neck and shoulder muscles.

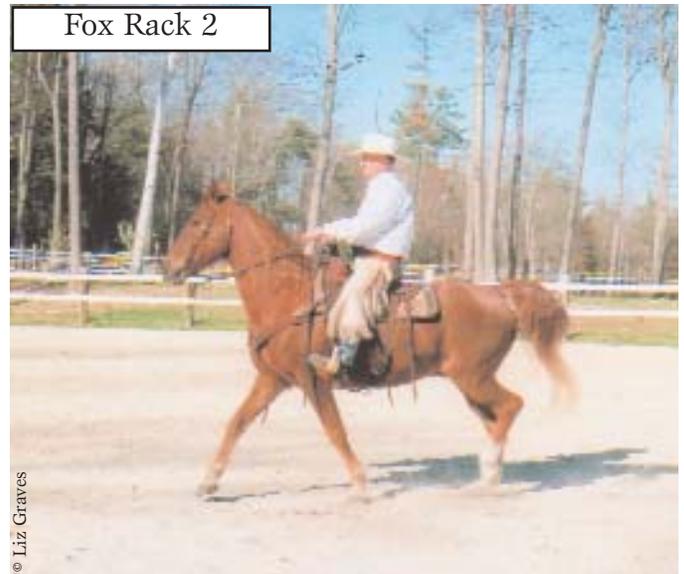
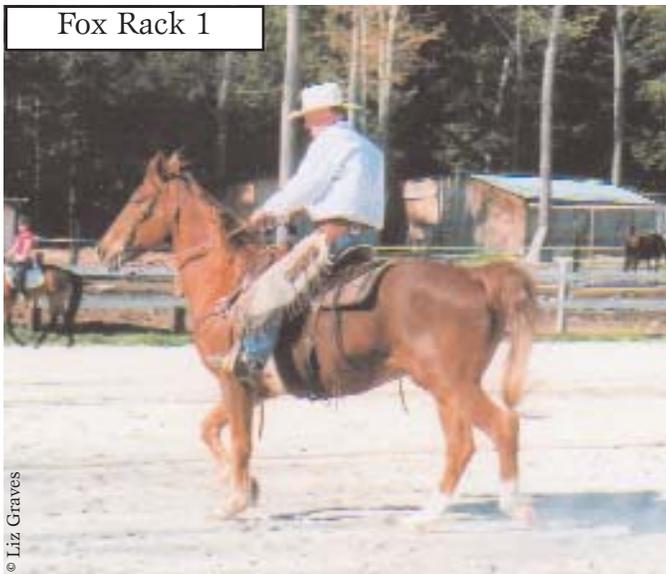
All of these gaits take more energy for the horse to achieve than the running walk and fox trot due to the animation of legs and tightening throughout the body to execute them.

The Differences in Racks

THE FOX RACK IS ONE WE DON'T SEE often, but again, shows up in every breed of gaited horse. It's only true

variance is that in the pick-up phase of hooves, it is diagonal in that opposite fore and hind pick up, working together. But just as in the other racks, the legs come down separately making that even 1-2-3-4 beat gait. Every other element is the same as the other racks. It is different from the fox *trot* in that it is lateral in footfall sequence: the hooves set down right hind, right fore, left hind, left fore. (The true fox trot is a broken four-beat gait with the opposite diagonals front and back having

the fore hoof set down prior to the opposite hind, the fox trot is of rounding to a neutral position of the back with an element of looseness, while the fox rack is of an inverted back with a contained frame and essential tightening needed in all the racking gaits.) This gait has an alternating 2-hoof, 3-hoof support phase and can range in speed from 5-14 miles per hour, depending on the individual. It is not uncommon for horses that are able to do the fox rack to also have the ability to do the lateral saddle rack, as well.



Fox Rack 1 - 5: Commander, a Tennessee Walking Horse/Saddlebred cross, owned and ridden by Dennis Pelletier, moves out in a fox rack.

The Saddle Rack is lateral in its pick-up phase, while the hooves on the same side of the horse and the legs come down separately, creating that even 1-2-3-4- beat gait. In the saddle rack, the lateral pick-up of the hooves is not as high (lift) as the true rack.

The support phase sequence of the hooves is an alternating 2-hoof, 3-hoof. The footfall sequence is right hind, right fore, left hind, left fore. The saddle rack does not utilize as much energy as the rack. The saddle rack range of speed can be from 5-14 miles per hour depending again on an individual.

Other Names for Saddle Rack

- ◆ Stepped Rack
- ◆ Half Rack
- ◆ Slow tolt
- ◆ Corto
- ◆ Largo
- ◆ Fino

The Rack is lateral in pick-up, and the hooves tend to pick up very high (the lifting phase) and then come down separately, creating the even 1-2-3-4 four-beat timing. This gait is different in that it has alternating 2-hoof, 1-hoof support phase sequences, and at greater speed can have an instant in which no hoof is on the ground for just a brief moment in time. It has a flying transfer of hooves, rather than rolling. This gait takes much more energy for a horse to achieve and is good for covering a distance in a short amount of time. Its speeds can range from 12-27 miles per hour, with very few individuals exceeding those speeds.

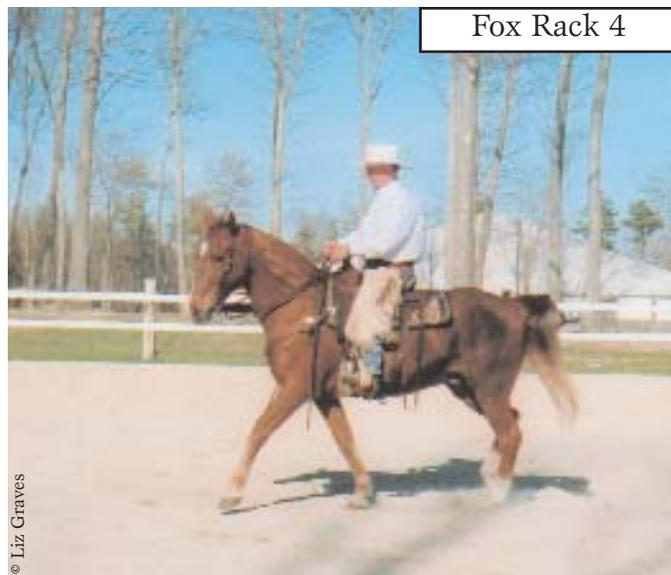
Other Names

- ◆ Single foot
- ◆ Fast Largo
- ◆ Tolt

Conditioning and Maintenance

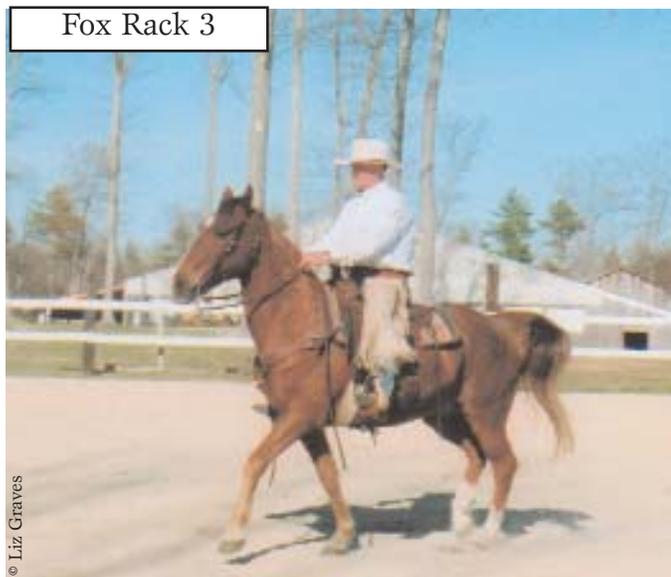
AS WITH ANY HORSE BEING USED FOR RIDING OR OTHER working purposes conditioning is a very important factor in the ability of the horse to work at these gaits comfortably and maintain soundness for many years of use. Our gaited horses are well known for their willingness to work for us, even to their own detriment. One of the big myths many have heard is one can ride these gaits all day; this is just not factual, even though the horse may do so for us.

Fox Rack 4



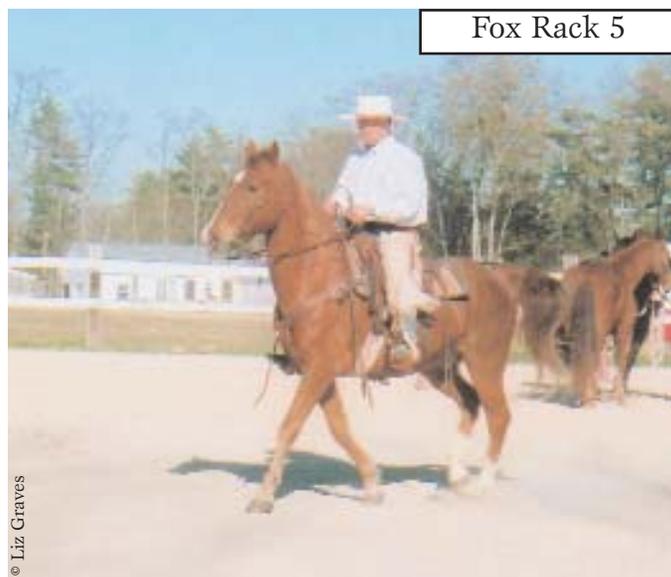
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Fox Rack 3



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Fox Rack 5



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Saddle Rack 1



Saddle Rack 2

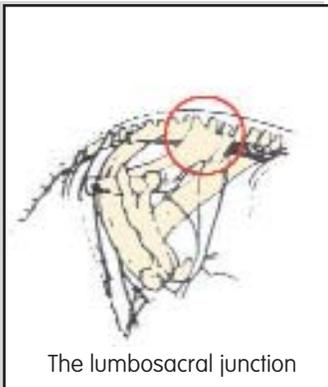


The Racker's Bump

This is also known as the hunter's bump or pacer bump and is commonly seen in racking horses that have been working in these gaits without proper conditioning. This also can happen from working for too long, and from being forced into shape creating an over containment, in which the horse never learns to self-carry in gait. Poor equitation and improper saddle placement and/or fit can add to the development of a racker's bump when working the gait.

The racker's bump can be seen as a rise, and felt as a hardening, along the croup over the lumbosacral junction area. This is due to excessive up-and-down flexion in the lumbosacral junction in the horse from going in a hollow, concave inversion of the gait. This over-flexion creates tearing and scarring, and in worse cases, ossification of the muscle and ligaments in this area. In time arthritis can occur in this area. Dislocation of the sacroiliac is common with misuse of the horse in these gaits.

Over time, without addressing over-flexion of the lumbar sacral area, it is common to see other parts of the horse's body take on added stress, such as in the hips, stifle and hock areas. Due to discomfort in these areas, lameness, tripping, and a buckling effect of the hindquarters can occur.



Due to the muscle tightening required to maintain the frame of these gaits and the energy a horse needs to execute them, a good conditioning program is needed. A young horse - under the age of five - especially needs to be ridden with great care in these gaits and for very limited increments of time, while still in their developmental years. Older horses also need good conditioning programs to remain sound, and to avoid future physical issues that can arise with misuse of these gaits.

In preparing the horse to do these gaits, many weeks of building strength through different speeds of walks (dog walk, regular walk, flat walk) and with working hills and grades will help. When starting to gait, one will need to ask only for a minute or two at a time, building up duration progressively over a matter of weeks. Once a horse is in good condition, he should be able to hold a saddle rack or fox rack for between five to ten minutes without fatigue - depending on an individual's structure - with walking between gaiting times. For the rack, five to seven minutes (again depending on an individual horse's structure) should be possible without fatigue for a well-conditioned horse.

Working with a horse until its *tired* is fine, but fatigue is our enemy. When fatigued, a horse starts to cre-



Left: Racker's or Hunter's bump. Right: A normal croup.



Saddle Rack 3



Saddle rack 1 - 5: Buck, a Missouri Fox Trotter, owned and ridden by Bill Strand, executes a saddle rack.

Saddle Rack 4



Saddle Rack 5



ate undue stress and strain on hard and soft structure elements of its body, and this is when breakdown and injuries can occur over time.

Teaching a truly collected walk in the early stages of training will be a great tool in keeping the horse's body healthy. If a horse also trots and can be trained to execute a collected trot, this is also a great avenue to keep the horse's body in good shape for the racking gaits, as is a collected canter.

Doing belly lifts (pressing your fingers into the horse's belly until he visibly lifts his abdomen, and raises his top-line) a minimum of 10 times a day is also a good exercise for strengthening and maintaining the top line of the horse. Also lateral and vertical flexion (leading the head and neck side-to-side and up-and-down) from the ground and while astride have great benefits in keeping the body toned and supple.

Developing the Gait

ALTHOUGH THE RACKING GAITS ARE AMONG THE EASIER gaits for our gaited horses to achieve, we may have to help the horse to find them when carrying the weight of a rider. As with any horse, having the right fitting equipment and using it properly, should be first and foremost. Horses work well bitted and in bitless headgear alike for these gaits and one will need to learn what the horse is most comfortable in.

Hooves should be properly trimmed and balanced; any gimmick-type work to affect or create the gait can have future short or long-term effects to the horse's soundness and well being. A well balanced hoof, trimmed anatomically correctly to the horse's individual structure and maintained, is all that is

needed. Trim the hoof to the horse, not as a breed or what may be the 'in thing' in the philosophies of mechanically manifested gait development.

Some horses are structured, wired, and have the right emotional make-up for the energy use needed to bring this gait up easily, while others may need a bit more help. It is also not uncommon for a horse needing to be more physically mature, over the age of five, to do these gaits easily.

Due to so many structural variations in individual horses we may have to support each very differently in the teaching phases. The rider will find a slight holding or soft tightening of his or her back - without bracing of the lower back where the base of the spine and pelvis attach - with a quiet, balanced seat, will help the horse to lift the rider for carriage, while presenting the right forward energy from the rider to move the horse into gait. Avoid bracing in the stirrups as that applies downward pressure to the horse's spine, making it stiffer and

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too inverted (lending more to the stepping pace or pace). Remember to breathe deeply and exhale deeply to keep the horse relaxed and not get overly stiff or excited beyond what you can work with to perform the gait.

While it is common for people to work horses on hard-packed roads or pavement in these gaits, it should be avoided as the concussion to the hooves and legs can create lots of stress and in worse case situations unsoundness /and or road founder.

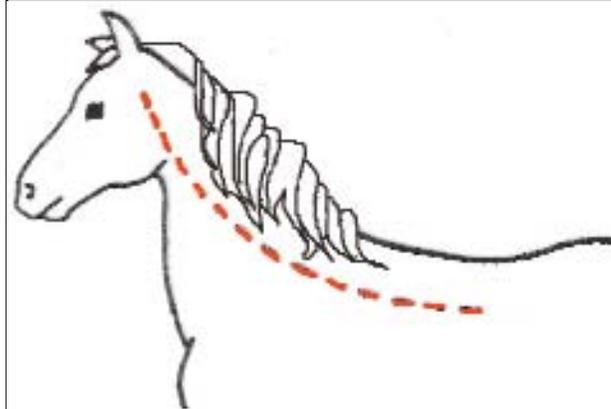
Work the walks first. Good walks developed on the horse at varying speeds, help one later work different speeds in gait, as well. Teaching the horse a good solid “whoa,” and how to rate back with half halts are great tools in communication and maintaining control in case the energy of the horse gets too high in these gaits. Total training in the early stages in teaching a horse to respond to seat and leg use is very important in communicating upward and downward transitions, straightness and steering. This makes the use of head gear more for support and setting the shape of the horse’s front half of the body to carry gait, than for “control”.

The Overly Diagonal Horse

THE HORSE THAT TENDS TO BE STRONG IN DIAGONAL MOVEMENTS MAY NEED TO be lifted up, not pulled back, to contain the frame for gait, working to invert the back more and shorten the body from back to front. It may also be helpful to sit more “to one’s pockets” (rolling the pelvis back slightly) and in stronger cases, a bit chair-seated (weight back, legs positioned forward, as if sitting in a chair) to help the horse’s back invert some. Each horse is different in how much one needs to lift upward with the reins, so it will have to be worked with in small increments. As the horse strengthens and learns to

The Upside Down Neck

In horses that do the racking gaits it is not uncommon to see what looks like a ewe-neck. We do have those gaited individuals that do have a true ewe neck due to their conformation (the neck vertebrae forming an S-shape with a deep upper curve and a long lower curve). More often, we see horses with good neck conformation and a normal S-shape to the neck vertebrae that have been over-contained in gait, creating an over-flexion and build-up of the muscles on the underside of the neck and a dip in front of the withers. Being held in this position also contributes to an overly uncomfortable stiffening of the neck, back and hindquarters, often creating soreness and/or pain. It is common for these horses’ shoulders



and front quarters to become very sore in time. This condition can be avoided with proper conditioning and supporting for gait - without forcing, cramming and jamming the horse’s body - and OVER TIME teaching the horse to self-carry in gait, with light support, when needed.

Rack 1



Rack 1 - 5: Charlie, a Tennessee Walking Horse/Standardbred cross, owned and ridden by Joan Bartz, tears up the track in a true rack, or singlefoot.

carry itself in gait this lifting support will no longer be needed. Working in firmer footing will also help prevent the horse going to trot.

The Overly Lateral Horse

THE HORSE THAT TENDS TO BE WORKING more towards the pacing gaits needs to be supported differently. A rider positioning themselves more up onto their seat bones will help open up the horse’s back, relieving the tendency to over-hollow or tighten in the spine, which creates too lateral of movement. Lowering the hands, rather than lifting, with a soft contact will help raise the root of the horse’s neck some. The idea is to lift the horse’s back slightly, without getting too level and not allowing the horse to get too strung out, as he still needs a contained frame for gait.

Other tips

WHEN RIDING ANY HORSE, KEEP YOUR spine in line with the horse’s spine. When using leg and rein aids for turning, turn at the waist without leaning, dropping a shoulder or hip. This helps the horse maintain balance and straightness, making it much easier to carry the rider.

For the horse that loses or breaks gait in corners or curves, close your knee by bringing it closer to the horse’s body, or even as much as moving the legs forward

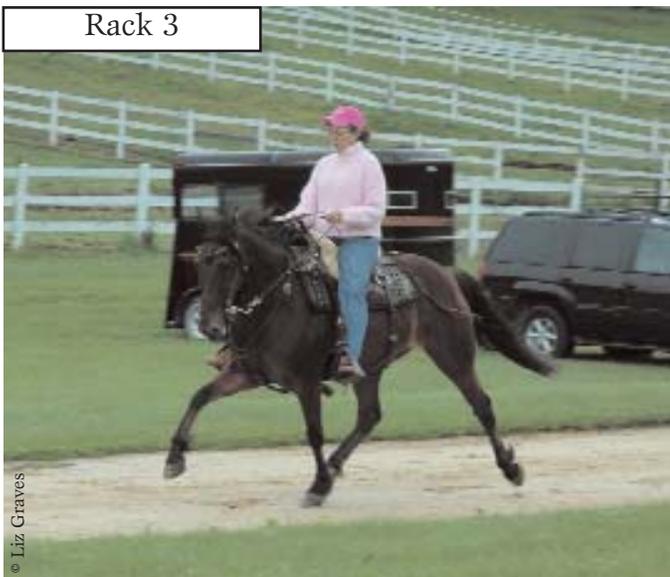
Rack 2



Rack 4



Rack 3



Rack 5



an inch, keeping your inside shoulder and hip from dropping. At the same time, lift the inside rein up one inch, keeping the horse's head perpendicular to the ground, not tilting to the outside of the curve.

Another important factor to these gaits is the amount of energy the horse needs to bring up and hold the shape and to push from the hinds for forward advancement of the gait. This needs to be done through the rider's confidence in asking for it, and the horse's responding to seat and legs aids. **Just supporting and teaching a horse to hold the correct frame will not bring up the gaits without bringing forth the right amount of energy from the horse.** It is common for a horse to have the right energy when following other horses or when some outside stimulation has occurred, giving that brief spontaneous moment of gait, but the horse also needs to learn when to bring it up when the rider asks for it. This can only be taught without fear as the horse learns confidence, and to bring the energy from the hinds with aids, pushing its the body forward. Some young horses can take time to find the emotional maturity to bring up this energy easily. Others are so sensitive that one needs to be softer in how energy is requested. Look to what each horse needs at the time.

The Rewards

WHETHER YOU FIND A HORSE THAT JUST HAS ONE OR MORE OF THE GAITS IN THE RACKING FAMILY, OR THE HORSE THAT DOES OTHER GAITS as well, it is one well worth the time and effort to discover and enjoy what he has to offer. With any horse comes responsibility for a good experience, for the rider, as well as the horse, for many years of longevity in performance.

Also with the gaited horse comes a tight-knit community of folks that have found the respect and admiration of these amazing, talented horses that brings us so much pleasure. So rack on and enjoy the ride.

