

The Marchador Gaits

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The Mangalarga Marchador Gaits

The Mangalarga Marchador (pronounced MAHN GA LARGA MARCH A DOOR) is named for its comfortable and showy way of going, the MARCHA. There are 2 gaits that come naturally to the Marchador. They are both rhythmic lateral gaits. They are Marcha Picada (pronounced PI CA DAH, like the sauce) and Marcha Batida (pronounced BA CHEE DA).

During the Brazilian inspection at age 3, gait is one of the most important dimensions of the test. Horse will be disqualified from permanent breeding registration if they are too lateral (show a pace) or too diagonal (show a trot). Gait counts for 100 points of the 200-point test.

The footfall sequence in the 2 Marchador gaits is different and the number of strides per minute differs (see page 4). In simple terms, when the greater proportion of time spent with the diagonal legs providing support, the marcha is Batida. When the greater proportion of time spent with the lateral legs providing support, the marcha is Picada. A few animals have equivalent time spent between diagonal and lateral movements, they are considered to be in the center, sometimes called center gait.

While the footfall pattern is interesting, the reason why they are smooth is because there is NO MOMENT OF SUSPENSION. There is not as much upward lift and consequently, downward impact that is jarring to the rider. The other part of any gait is ELEVATION, how much lift the horse does in its stride. While this has not been documented in research, it appears to me that many very athletic horses have more elevation and thus, have more movement in their gait. As an example, stallions are sometimes less smooth than the mares in the breed, just because of their natural exuberance.

Marchadors also possess other superior gaits: a ground covering walk, normal trot, a wonderful canter and fast, open gallop. There is some literature that suggests that the more lateral the gait, the less likely the horse will also excel in the diagonal gaits of trot and canter, even though they may be superior while in gait.

When breeding the Mangalarga Marchador horses in Brazil, care is taken to preserve the gait in the center of the spectrum. Sometimes Picada gaited horses are bred to Batida gaited horses to prevent the offspring from becoming too lateral (toward a pace) or too diagonal (toward a trot). The Mangalarga Marchador is a versatile, working breed so balance and performance do matter!

Here at Summerwind, we are breeding to achieve the balance, center and versatility of the sport-horse that also gaits.

I have been asked to describe the gaits for people who have not ridden a Marchador. I think in hindsight, I should have been collecting comments for the

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past 6 years. My first observation is that every horse's gait is different. People sometimes look at me cross-eyed when I say that. But, think of another gait, like the trot. If you ride different horses, the trot will be different! It is determined based on the conformation, the size of the horse, the training and conditioning and I believe, the rider's natural rhythm. Some horses just feel better to you.

Here are my observations about the feeling when riding the gait.

The marcha picada is a flat gait. The rider's shoulders do not go up and down, but stay even. The hips would rock back and forth as you might do in an extended walk. It is very, very easy to sit to. The horse can accelerate to a very fast gait, but the rider doesn't get the feeling that you are really moving. It could be compared to driving a Porsche on a straight highway. My personal experience is that *most* marcha picada horses cannot match the speed of the marcha batida horses. However, in Brazil, we have seen horses that can fly in picada gait.

The marcha batida has more up and down movement than the marcha picada gait, but significantly less than a trotting gait. The rider is never lifted out of the saddle because there is almost always one foot in the ground. At a slow speed, it's like riding a great sitting trot that has a soft landing. At a faster speed, the horse moves like in a gallop -- the horse is moving so fast, there is very little movement to the rider. However, the rider needs to be able to relax at that speed to enjoy the gait. If there is tension, it will not feel smooth to the rider. We have been told in Brazil that the batida gait can be maintained for great distances without tiring the horse.

Both marcha picada and marcha batida gaits are fast gaits. Care is taken at the National Show in Brazil to show the gait at regulated speeds – both slow and fast. The gait will be faster than most trots and certainly faster than a jog. Some horses can gait as fast as other horses canter.

The gait is showy as the front legs have a natural lift, forming a C during the step. The Marchador, being naturally balanced, is very sure-footed, using all four legs for propulsion, like a 4-wheel drive vehicle.

Very often, when the horses are bred close to the center, they will have the ability to perform both gaits – marcha picada and marcha batida. The naturalness of the gait is such that newborn foals will gait rather than walk or run.

Below is the center spectrum:

| | | | | |
|----------------|---------------|--------|---------------|-----------------|
| Pace | Marcha Picada | Λ | Marcha Batida | Trot |
| (True lateral) | | CENTER | | (true diagonal) |

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Bjarke Rink, author of the Centaur Legacy, and himself a breeder of Mangalarga Marchadors, proposes that the marcha gait is a higher-level evolution than a trotting gait, not vice versa as most commonly believe. He bases his theory on several factors.

- The four beat marcha, from the viewpoint of biomechanics, is a dynamic more complex than the trot, implemented in only two beats. Darwin and other scientists state that evolution biological begins with primary forms and through mutations and natural selection, species become more complex.
- The practical outcome of the development of the marcha is that the horse will always have at least one foot in contact with the ground for firm balance and security whether the ground be slippery or steep – an advantage over a trotting animal. The marcha can reach speeds of 11-12 miles per hour without losing the security of the step.

He goes on to say that the Marcha Batida gait provides the next level of sport horse to the world. With its greater stability with the contact with the ground, but also with diagonal couplets that allow coordinated, complex movements and transitions with power and harmony between the horse and rider. Bjarke is dedicated to producing Mangalarga Marchador in Brazil that are world-class sport horses.

A jumping Marchador at Desempenho Riding School in Brazil, Bjarke Rink's facility in Rio de Janeiro.



About the Marchador Breed:

Passionate Brazilian breeders have bred the Mangalarga Marchador for over 200 years. It is a superior saddle horse, used in Brazil historically for ranch work, long rides and deer hunting. It is a rustic breed, with good body, bone and feet. Because it is a working breed, it has a people-loving and willing temperament making it easy to train and steady. The breed averages about 15 hands and comes in many colors.

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Here are the technical descriptions of the Marchador gaits from The *Dynamic Horse: A Biomechanical Guide to Equine Movement and Performance* by Hilary Clayton.

Marcha Batida

A gait of the Mangalarga Marchador horse with a lateral sequence of limb placements. It is a symmetrical four beat stepping gait performed with a regular rhythm. Although the rhythm is usually described as a broken trot, a study (Nicodermus and Clayton, 2003) revealed distinct diagonal couplets. The marcha batida gait is unusual in that it shows periods of quadripedal support (not found in any other breed).

The tempo is 99 strides per minute.

The footfall sequence is

| | | | | | | | |
|----------|-------|----------|-------|----------|----------|----------|-------|
| 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 |
| RH RF LH | RF LH | RF LH LF | LH LF | LH LF RH | LF RH | LF RH RF | RH RF |

Marcha Picada

A gait of the Mangalarga Marchador breed. The marcha picada is a symmetrical four beat stepping gait with a lateral sequence of limb placements performed with a regular rhythm. The footfall sequence is shared with other Paso breeds.

The tempo is 65 strides per minute.

The footfall sequence is

| | | | | | | | |
|----------------|-------------|-------|-------------|----------------|-------------|-------|-------------|
| 4 | 3 | 2 | 3 | 4 | 3 | 2 | 3 |
| LF RH RF LH | RH RF LH | RF LH | RF LH LF | RF LH LF RH | LH LF RH | LF RH | LF RH RF |

Which is better?

There is no right answer to this question, but we often get asked the question. The rider and the discipline may indicate what kind of horse you may prefer.

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Comparison to Other Gaited Breeds

Running Walk

The running walk is performed at speeds of 15-30 kilometers per hour with a pronounced head nod and a large amount of over-tracking. The limb support sequence includes periods of unipedal support by a hind limb.

The tempo is 88 strides per minute.

The footfall sequence is:

| | | | | | | | |
|----------|-------|----|-------|----------|----------|----|-------|
| 3 | 2 | 1 | 2 | 3 | 2 | 1 | 2 |
| RH RF LH | RF LH | LH | LH LF | LH LF RH | LF RH | RH | RH RF |

Paso Llano

Paso llano is the slower gait of the Peruvian Paso horse. It is a symmetrical 4 beat stepping gait with a lateral sequence of limb placements performed with a regular rhythm.

The tempo is 95 strides per minute.

The footfall sequence is

| | | | | | | | |
|----------|-------|----------|-------|----------|----------|----------|-------|
| 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 |
| RH RF LH | RF LH | RF LH LF | LH LF | LH LF RH | LF RH | LF RH RF | RH RF |

Fox Trot

The rhythm is irregular with the footfalls occurring in diagonal couplets. The periods of diagonal support are longer than those of lateral support. There is a pronounced head nod.

The tempo is 95 strides per minute.

The footfall sequence is:

| | | | | | | | |
|----------|-------|----------|-------|----------|----------|----------|-------|
| 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 |
| RH RF LH | RF LH | RF LH LF | LH LF | LH LF RH | LF RH | LF RH RF | RH RF |

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Paso Largo

This gait can be performed at speeds of 30 kilometers per hour. It is the fastest gait of the Paso Fino. Most horses perform the Paso Longo with diagonal couplets.'

The tempo is 130 strides per minute.

The footfall sequence is:

| | | | | | | | |
|----------|-------|----|-------|----------|----------|----|-------|
| 3 | 2 | 1 | 2 | 3 | 2 | 1 | 2 |
| RH RF LH | RF LH | LH | LH LF | LH LF RH | LF RH | RH | RH RF |

| Gait | Stride Duration in seconds | Strides per Minute |
|----------------|---------------------------------------|---------------------------|
| Passage | 1.09 | 55 |
| Marcha Picada | .93 | 65 |
| Trot | .76 | 79 |
| Lope | .72 | 83 |
| Running Walk | .68 | 88 |
| Fox Trot | .63 | 95 |
| Paso Llano | .63 | 95 |
| Marcha Batida | .61 | 99 |
| Working Canter | .61 | 99 |
| Tolt | .57 | 105 |
| Paso Largo | .46 | 130 |