Built To Do The Job

DRESSAGE

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Photo: JW Equine

Quantum Tyme

Rather than talk about such things as straight legs and sufficient bone, this article will be aimed at describing the functional conformation of a successful dressage horse from a skeletal perspective.

We all know that there is no perfect horse, which is why there are never any absolutes when it comes to describing functional conformation. A centimeter difference in the length of a bone or a couple of degrees difference in an angle can evoke dramatic changes in ability. Imagine how much heavier on the forehand a horse can become if nothing else changes except that the point of shoulder is a mere centimeter lower. A horse that is lighter on the forehand can be far less prone to soundness problems of the front legs — even with some degree of deviation — than a horse that is heavier on the forehand and straight legged.

In many cases although a horse may exhibit less than perfect conformation to some observers, if he is built to compensate well, performance may not be affected. Conversely, a horse with the wrong structure for a job may improve slightly with muscling, but he will never reach the top of that sport, while horses with the right structure can do that job fairly well even with considerably less training.

Starting from Behind

Most people tend to start assessing conformation from the front of the horse, yet listen to any instructor giving lessons, listen to a top rider giving a clinic, read training books or articles and you will hear numerous references to engaging or coming from behind. But because the main requirement for a dressage horse is the ability to support a higher percentage body weight on the hindquarters, that seems the best place to start assessing conformation.

All of the top dressage horses have a lumbosacral joint (LS) above the point of hip (in line between the two points of hip), which equals good coupling. Without strong coupling, the upper-level movements will either cause injury or arguments.

How important is LS placement? Dr.

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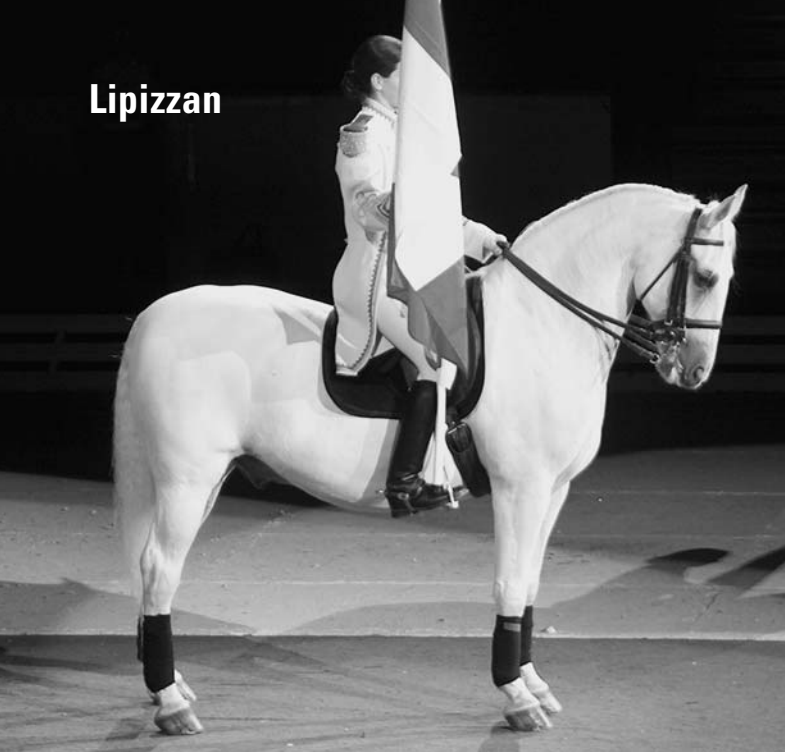

Photo: JW Equine

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Hilary M. Clayton, BVMS, PhD, MRCVS, Professor of Large Animal Clinical Sciences at Michigan State University, says, "The hind limb rotates around the hip joint in the walk and trot and around the lumbosacral joint (just in front of the croup) in the canter and gallop. The lumbosacral joint is the only part of the vertebral column between the base of the neck and the tail that allows a significant amount of flexion (rounding) and extension (hollowing) of the back. At all the other vertebral joints the amount of motion is much smaller."

Dressage horses are often straighter in the hind leg than the show jumpers. All have stifles away from their bodies, but not quite as far away as the jumpers. When a jumper compresses his back legs before taking off over a jump, he is compressing a spring, which is why he has more angles behind. With the straighter hind leg, the dressage horse only has to close the angles a little bit in order to be under himself. The geldings in the photos display stifles at or just below the bottom of the sheath.

Dressage horses tend to have a more level ilium (point of hip to point of buttocks), and a longer femur (point of buttock to stifle) plus a more open angle from ilium to femur. Certain types of dressage horses actually appear to have a "7" from point of hip to point of buttock to stifle when viewed on the near side. These are the horses that excel in the three Ps — piaffe, passage and pirouette — but that same construction causes them to have more trouble with the extended gaits. The white horse in the photo demonstrates this construction, which is somewhat characteristic of Lipizzan, Lusitano and/or Andalusian horses.

At the other end of the spectrum, Donnerhall, who competed to the top level in dressage on the international stage, did not have a problem with extensions, yet he struggled with canter pirouettes.

Photo: JW Equine

Up Front

The top dressage horses all have a high point of shoulder for lightness of the forehand. All have necks set well above the point of shoulder — more lightness of the forehand. The length and angle of the humerus makes a big difference in how the front end moves. A steeper angle means a higher point of shoulder, and a longer humerus means a longer stride.

They can have shorter necks, because the dressage horse does not need the length of neck a jumper does. Angelo xx was a strong influence in dressage breeding, and he had a short neck. Conrad Schumacher says, "The neck is the key to all movements in the dressage horse." As you can see in the photos, Quantum Type has a much shorter neck than Salinero. Which one do you think requires a more precise ride? Salinero, of course.

The freedom of movement at the elbow that is also very important to the dressage horse. An elbow that is set so close to the body that it strikes the horse's rib cage will cause the horse to shorten the stance phase on the contact side and, as a result, shorten the swing phase on the opposite side. In extreme cases, these horses will be choppy in their gaits even if they are built to have long, fluid movement.

The Horses in the Photos

The white Lipizzan is used in exhibition to demonstrate high school movements, including airs above the ground. His LS is in the right place, his ilium is shorter than his femur, his stifle is below the level of his sheath, his point of shoulder is high, his humerus of good length and his neck set high. He is the straightest of the three in the hock and lacks the extension of the other two.

Evi Strasser, who represented Canada at the World Cup and is pictured with Quantum Tyme, reports that several international coaches, trainers and judges have commented that he is a very good "dressage type," including Conrad Schumaker and Mariette Withages. Strasser also jokes that he is ready to go barrel racing, but that is based on his short stature and his muscling, not on his skeletal features. His LS is in the right place, his ilium is shorter than his femur, his stifle is below the level of his sheath, his point of shoulder is high, his humerus of good length and his neck set high. Like the white horse, his neck is short.

Anky van Grunsven of the Netherlands, who won both the Olympics and the World Cup with Salinero, says, "Salinero was in my barn for a year before I sat on him; I thought he was too big for me. It is important that you think of what really suits you as a rider, not what your eye likes." His LS is in the right place, his ilium is shorter than his femur, his stifle is below the level of his sheath, his point of shoulder is high, his humerus of good length and his neck set high. ●