

Friesian Conformation 101

THE TOP LINE

The top line is one of the most common places the eye is drawn to while evaluating the health, fitness and conformation of a horse. The top line of a horse also says a lot about his ability for self-carriage and collection. It goes without saying that a horse's top line plays a crucial part in transferring power generated by the hindquarters. The top line is made up of four key components: the withers, the back, the loins and the croup. In order to achieve ideal movement, the top line must be strong with well-developed muscles. This is what is called a "closed" top line. In this segment of Friesian Conformation 101 we will explore each of the components of the top line, how they affect each other and how they translate to movement of the horse.

Withers

KFPS Breeding Goal: The withers are high with a flowing connection to the back.

The withers are an important attachment for ligaments and muscles that extend to the head, neck, shoulder, and back vertebrae. The withers are also the insertion point for muscles that open the horse's ribs for breathing. If the horse has flat and wide withers, the horse has less range of motion when extending the head and back muscles. The horse is limited in its ability to elevate its back with its head and neck extended, which affects ability for collection.

High withers provide a lever for the muscles of the back and neck to work together efficiently. As the head and neck lower to extend, the back and loin muscles correspondingly shorten or lengthen. The backward angle of withers is usually associated with sloping shoulders, which provides good movement of the shoulder blade. This makes it easy for the horse to engage in collection, lengthen, round its back for collection or extending its shoulder for improved stride length and speed.

Back

KFPS Breeding Goal: The back is strong with good muscling. The back has a flowing connection to the withers and loins. The length of the back is in proportion to the length of the forehand and hindquarters.

In breeding the Friesian horse the rectangular model is favored because a longer-lined horse usually has more suppleness and scope of movement. For the rectangular model a ratio of 1:1:1 (equal portions) is ideal for the forehand, mid-section and hindquarters. The length of the horse is therefore not only defined by the back, but must be seen in proportion to the whole horse and all body parts. A horse with a very long back out of proportion to the rest of the body will have more body mass but slower movements. The shape of the back is also important- it should be neither too tight nor too weak. A weak back cannot

carry enough weight and a tight back will hinder suppleness in the horse's movements.

Loins

KFPS Breeding Goal: The loins are strong and wide with good muscling and a flowing connection to the croup.

The loins are very important. They are the only bone structure connecting the forehand and mid-section with the hindquarters. The loins serve as a bridge, allowing the transfer of power generated by the hindquarters to flow freely forward through the body. For the bridge to function properly the horse needs a strong build with generous muscling and a good connection between the loins and the croup. Tight loins will cause the horse to remain stiff in its back. Weak loins prevent a flowing topline. In such a case the hindquarters appear to be "stuck" to the mid-section and forehand and the movement appears to "break" in the loins. This is often called a "broken" top line.

Croup

KFPS Breeding Goal: The croup is long (anatomical length as measured from point of hip to seat bone) with a slight slope and good muscling.

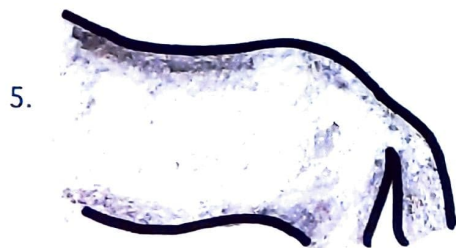
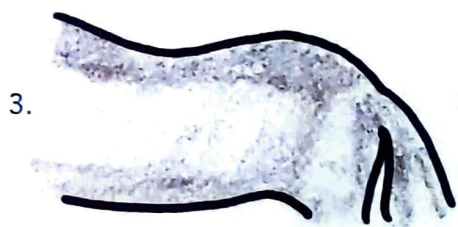
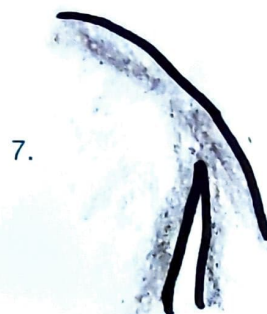
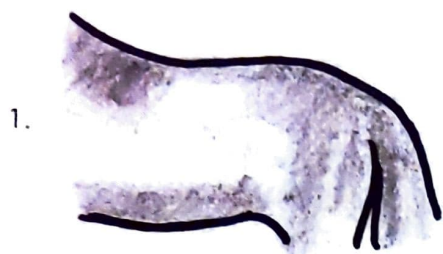
The positioning of the croup affects the horse's weight-carrying capacity. The average Friesian horse has a slightly sloping to moderately sloping croup. In order to generate more power, the horse should not have too much slope in the croup (slightly less so than the average Friesian horse). This allows for more tilting of the pelvis which enables the horse to bring his hind legs further underneath the body so the horse finds it easier to rise in the front. The horse can then "sit" in his gait at the canter.

If you can imagine the croup functioning as a lever in the horse's body, the length of the croup determines the amount of energy that can be generated. This concept is referred to in physical science as "the law of the lever". In the horse's case, the length of the croup is the "lever" which positively influences to what extent the horse can carry himself. A long croup with a slight slope will provide the best opportunity for effective self-carriage.

Gluteal Muscles

KFPS Breeding Goal: The gluteal muscles are long and well-developed.

The gluteal muscles are not part of the horse's top line. However, because the gluteals extend into the gaskin they are significant for the development of power in the hindquarters. Short, poorly developed or tight gluteals are not desired. Short, thick gluteals, such as those found in draft horses, can produce explosive power but a horse intended for endurance purposes will benefit from long, deep, well-developed gluteal muscles.



- 1. Preferred back
- 2. Sunken back and loins
- 3. Raised loins
- 4. Tight back and straight croup
- 5. Sloping croup
- 6. High tail-set
- 7. Low tail-set

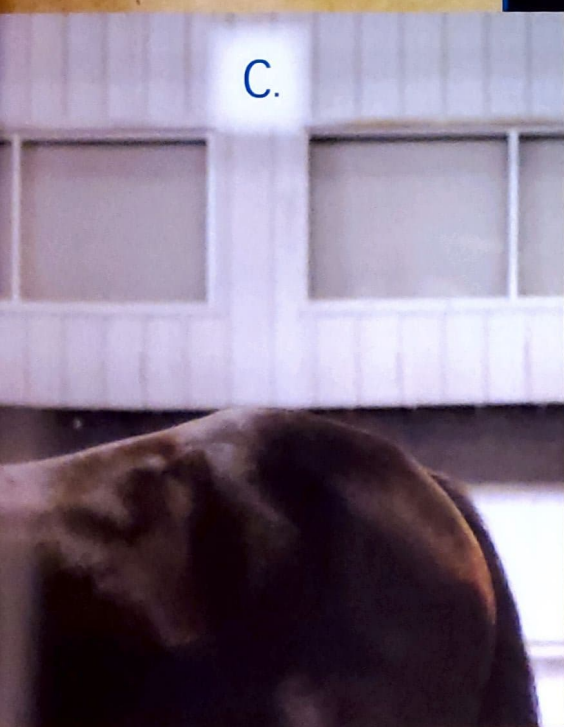
SHAPE OF BACK AND CROUP & TAIL CARRIAGE



A. This horse has an adequate top line. The withers have a flowing connection with the back. The back shows sufficient muscling with a flowing transition to the loins, although the loins are slightly too tight. The croup is sufficiently long and well muscled. With this top line the horse will be able to fully transfer the power generated in the hindquarters to the forehand.

B. This horse shows short steep withers. The back is slightly sunken with poor muscling. The tail-set is high. The loins are narrow and a bit tight. The croup is high, rounded and short. It is fair to assume this top line will be insufficiently capable to act as a "bridge" between the forehand and hindquarters.

TOP LINE



C. This horse shows no flowing transition from the withers into the back. The back and loins are poorly muscled with a far from flowing transition. The croup is short with a steep slope and little muscling. This gives the impression of a weak top line and it is certain this horse will be restricted in its potential due to its conformation.

