

Saddle-fitter

An important profession in the circle of influence to horse and rider.

Horses with back problems are very common, but it is still a not well understood clinical problem. Daily many horses are taken out of the sport because they show that they have back pain. Still not much is understood by riders, trainers and veterinarians. What they do know is that the saddle plays a very important part. Therefore the Veterinarian University of Utrecht (Netherlands) started doing research on how the fit of a saddle affects the movement of a horse. They asked master saddle-fitter Danny Kroetch from Canada to help them because he developed a very comprehensive way of measuring a horse's back and fitting a saddle to it. But also because he has an extensive knowledge of the movement and anatomy of a horse. In this article more about the method of working and opinion of this Canadian expert, with tips of how to check for yourself whether your saddle fits your horse.

As expected, the study of veterinary student Patricia de Cock showed that the saddle for sure has a great influence on the movements and usability of the horse. A saddle that fits badly causes back-pain or worsens an already existing back problem. "With our study we showed clearly that a saddle carrying a rider has a significant effect on the horse's back. It causes the horse to make its back hollow but in riding we like the horse to make its back round. We also noticed that the movements of a horse get better when the saddle fits better." Concludes Dr. Wim Back of the Horse health division of the Veterinary University of Utrecht, The Netherlands. "Because we are not as well-grounded as Danny Kroetch is with saddle fitting, we asked him to assist us. We recognize his skills to make a horse move better by changing the fit of the saddle and are very much impressed by what he has to say about this subject." Dr. Back continues. With the help of computers they tried to make an objective judgment. They showed on paper where the pressure underneath the saddle was highest plus how the changes Mr. Kroetch made, showed on paper and effected the horse's movement. "Now we have finished the study we have got some answers but also more questions have risen. We do not know what exactly would be the best but we are sure that there are many horses suffering from badly fit saddles." Says Dr. Back. Danny Kroetch lives in Alberta, Canada with his wife Crystal who is a Grand Prix dressage trainer. He travels all over the world fitting saddles. For over ten years he has concentrated on how to make a saddle fit better on a horse's back. He is very for air-filled panels and adjustable trees. These two things make it possible to adjust a saddle without much trouble to a horse's back every time.

Saddle-fitter Danny Kroetch: "Saddle fitting is making sure that the complex interaction of the anatomy and movement of horse and rider is merging together without impeding any of them. The tree is the anchor of a saddle. I look at the correct angle of the tree-end so it doesn't block the shoulder. I also have to make the saddle fit the a-symmetry of a horse." This must be a very tough job since no horse is the same and no rider is the same. It makes it even more complex knowing that every body has a certain a-symmetry, also horses. Danny Kroetch has developed a device with which he can exactly measure this a-symmetry but also standing on a stool behind the horse will give you a lot of information. Once you know how the horse's back is shaped, you can make a saddle that exactly fits his back. "For me it is unthinkable to just go to a rack of saddles, look only at the size and put it on a horse's back claiming it will fit. That's impossible!" Danny Kroetch says determined. Also important is that the horse must be able to move correctly and use the muscles he needs for doing so freely and without pain. A lot of time a saddle limits the horse's shoulder to move freely and causes the gaits to be more level. It is also very common for a horse to have a hollow and a round side, this causes the saddle to be twisted or to one side. It will be impossible for a rider to sit straight on a saddle that's not. When you correct this crookedness by adjusting the saddle, the horse's movements will get better and after a while the muscle-structure may also correct itself. A good saddle fitter should therefore check the horse and adjust the saddle to changes in his muscle-structure. Danny Kroetch: "I have customers from all over the world and I make sure that every two or three months I visit them to check the horse and saddle. I'm also training other people to fit saddles like I do so

they can also give my customers the same service. I prefer to work with saddles that have synthetic trees with a piece of metal for adjustability and that are filled with air, rather than wool or rubber. That enables me to adjust the saddle on the spot.” In his lectures he talks about the so called ‘Flair system’ where the panels are filled with air. “Think about a balloon that is filled with air. When you press it at a certain point, the air will just move out of the way and you will not build up much more pressure. Whereas if you press a wool or rubber filled panel the pressure will build up at that point and you will have to press very hard. That is also what happens on a horse’s back and may cause a saddle-sore. The air filled panels also function as a shock-absorber, both horse and rider profit from this.

Not only horses suffer from saddle-pain. There’s a huge taboo about the fact that many women don’t feel comfortable in the saddle and even hurt themselves until they bleed. When, after having tried many saddles, this problem still hasn’t been solved, they sometimes even stop riding. International Grand Prix dressage rider and trainer Tineke Bartels from The Netherlands admits that it is not a subject women like to talk about: “Danny has explained the ‘female problem’ to me very clearly and it sounds so logical. The pelvis of a male and female are very different so it is no surprise that women have problems riding on a conventional saddle that has been designed for the male body. I myself never had that problem but it is true that only since I ride on a saddle that was fit by Danny, I have the feeling that this is much more comfortable.” In his clinics, Danny also always explains the difference between a male and female body and how he adjusts a saddle to that. It has to do with the distance between the seat bones (ischium) and the shape of the pelvis. Especially women who have given birth have wider pelvises and it is possible that the problem will occur or worsen after that. By making the bearing surface of the seat wider, this problem is immediately solved. Danny Kroetch also looks at the posture and length of the rider. Tineke Bartels: “I have a totally different build than another rider so it makes sense that I prefer another type of saddle.”

After being a saddle fitter for over ten years now in Northern America and the last few years also in Europe and Asia, Kroetch noticed that more people recognize that they will achieve quick results when they have their saddle made fit. A lot of times people say their horse is troublesome to ride and annoying them, sometimes even dangerous. Danny Kroetch has proven at many places that, when the usual saddle is changed to one that he made fit, the problems will be less within five minutes. At many stables, Kroetch was able to convince people with his explanations and the direct results the horses showed in their behavior and movement. Kroetch: “I get as much enjoyment out of fitting a saddle to an Olympic horse as to a horse at the pony club. If the horse is in pain I want to fix him, that’s what counts.” Renowned vets and physiotherapists concluded that the muscle structure of horses they were treating for back-problems, impressively improved within months after the saddle had been properly fit. They emphasize again what damage a saddle can do to a horse’s back when it is not properly fit. But the most astonished are the staff of the University of Utrecht about the fact that people consider Europe as the ‘cradle’ of modern horsemanship but still have to learn about saddle fitting from ‘a Canadian Cowboy’.

Often you will notice by the behavior of your horse if your saddle fits well or not. Saddle-sores and spots of white hair are a clear sign of a saddle that fits badly. Not standing still and even trying to bite or kick when approaching the horse with your saddle, pulling the girth and/or mounting him are also signs that your saddle is hurting the horse. Also stiffening his back, leveling off his movement and even irregular gaits are indications of ill-fitted saddles. Using the following eight checkpoints that saddle fitter Danny Kroetch formulated, you will be able to judge whether your saddle fits well or not. To do this saddle-check you should not use a saddle-pad and the saddle should not be girthed. The horse should stand square on an even surface.

- 1** The center of the saddle seat (Sweet spot) should lie parallel to the ground. The balance is the most important factor determining the position of the rider
- 2** The saddle should not twist or fall to one side when viewed from the back
- 3** Dependent upon the anatomy of the horse (mutton or high withered) 1- 3 fingers clearance above the wither and 1 to 2 fingers on either side
- 4** Wide enough that the panel does NOT interfere with spinal processes or dorsal ligament system (6-7 fingers at front tapering to 4-6 fingers minimum at the back). Daylight clearance should be visible above the spine.
- 5** While running the hand along the horse under the panel and applying pressure to the seat there should be even pressure from front to back. There should be no “bridging” or rocking.
- 6** Billets should hang perpendicular to the ground and place the girth in the correct position (one hand-width behind the elbow)
- 7** While applying pressure to the pommel, run the hand from the top of the withers to the bottom under the tree points of the saddle. There should be less pressure at the top and it should become tighter towards the bottom. This ensures that the muscle and scapula have the freedom to move underneath the tree points
- 8** The saddle must not exert any pressure behind the last rib on the horse’s back. To locate the last rib, look at the hair on the flank. You will notice that hair comes from two directions and forms a line down the flank. Straight up from this line in the hair is the last rib. The saddle panels should not extend beyond this line.

When one or more of the above points are not in order, you can conclude that the saddle does not fit properly. Let an experienced and approved saddle-fitter look at your saddle and if possible adjust it. This is for the benefit of your horse’s well-being and his performance!

Natasha Bruinsma