



Assessing Horse Conformation

for a Trouble Free Saddle Fit

Introduction

Have we lost the art of assessing whether a horse is suitable as a riding horse?

A hundred years ago, when the army were buying large numbers of horses, they required a conformation that would take a saddle with as little fitting trouble as possible. This forced breeders, who wanted to sell to the army, to breed for the army conformation requirements, and this benefited the general riding public as well.



Army horse 1927 from Horses and Saddlery Major

Nowadays there is no single source of financial pressure reinforcing the conformational requirements for a good saddle horse. These often seem to get overlooked both in pre-purchase vet examinations and when selecting breeding pairs. It seems a growing proportion of horses present their riders with endless saddle fitting problems, with the associated behavioural and movement issues.

And yet it is not terribly hard to assess whether a particular horse is going to be easy or difficult to fit with a saddle. In fact, all you need is to take a close - and informed - look at the horse from two specific views, full frontal and side-ways on. Taking photos, like those in this article, is really handy as different horses can be easily compared and discussed with friends and advisers.

Learning how to make this assessment will pay dividends, whether in buying a horse or in diagnosing and dealing with movement, performance and behavioural problems arising from saddle fit.

The three following panels can be used to 'get your eye in' and recognize good and not so good saddle fit conformations, and help you make better choices now and in the future.

A Good Conformation for Saddle Fit

The most important aspect of a good saddle fit conformation is that the rib cage circumference should increase from the middle of the rib cage towards and into the shoulders. The croup should be lower than the wither, with the back being slightly dipped or flat. The 'girth groove', the region where the ribs attach to the sternum, should fall on a vertical line about 3" back from the back of the scapula. The best wither angle would be 90° +/- 3° - not flat or very narrow.

Good basic saddle conformation

Rib cage widens slightly from shoulders towards the quarters.

Rib cage is wide between the shoulders as indicated by the width between the front legs.

So, looking from the front of the horse we can see that the girth circumference is not narrowing into the shoulders and withers.

Tip: when taking this photo its best to have the front and hind legs in line as well as looking straight at the camera like this horse.



Looking at the side view this horse has a mild 'greyhound look' with the rib cage deepening into the front legs and shoulders. The wither is higher than the croup with the back in between being slightly curved and lower than the croup and wither. The scapula is well laid back but the horse's body is long enough so that the girth groove is behind the shoulder blade by about 3". Therefore the girth and girth billets will lie naturally into the girth groove rather than slope forwards from the saddle to girth groove.

Saddle fitting analysis

This horse is a Quarter Horse x Paint and while we might like to criticise some aspects of its conformation it looks good for fitting a saddle. The 'front on' picture could be better but it's clear that the middle part of the rib cage (thoracic ribs 9 to 13) is not much wider than the combined width of the shoulder blades plus the front of the rib cage plus the associated muscles (thoracic ribs 1 to 8) where the front legs are attached to the rib cage. In both horizontal width and vertical depth the horse's conformation widens to the front. This characteristic combined with the slight rib cage widening behind the girth groove means saddles will stay in place on this horse. A breast plate or breast girth for steep up hills or jumping may be necessary.

Fair conformation and will improve

Rib cage not widening from shoulders towards the quarters.

Rib cage is wide between the shoulders as indicated by the width between the front legs.

As with the first horse the rib cage circumference does not narrow into the shoulders and withers.



Tip: with the horse looking to the left the rib cage will bend with the neck showing on the horse's right. It is possible to be misled in this stance if the horse is laterally asymmetrical (more on this in another article).



Again this horse has the 'greyhound look' and the rib cage deepening towards the front, but the wither is lower than croup. The back, unlike the first horse, slopes downwards from the croup to the base of the wither with no slight dip or flat region. The shoulder blade is more upright so the girth groove is about right relative to back of shoulder blade. The back is quite short.

Saddle fitting analysis

This horse is a 14.2 Arab, 6 years old and bought for endurance riding. Impression pad tests have shown that the current saddle is pressing into the withers and causing discomfort. The horse may drop the rib cage down between the shoulder blades to lessen discomfort so causing the slope from croup to wither base. As the saddle slides down this slope the rider is using a crupper. Once the discomfort is removed by spreading the wither pressure over a greater area on the wither the horse is likely to lift the rib cage and wither so flattening the back between wither and croup. This will improve the longitudinal and transverse stability of the saddle. Also the girth groove may become more defined with increased fitness and a crupper may no longer be necessary.

For more information on saddle fitting [click here](#)

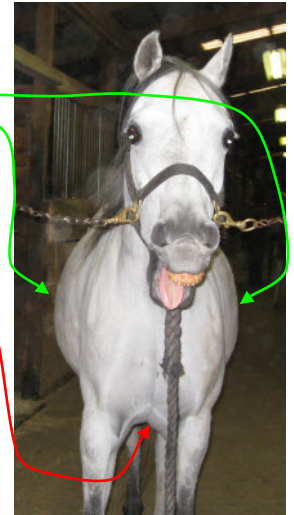


Poor conformation - help needed

Rib cage widens markedly from shoulders towards the quarters on both sides.

Rib cage is narrow between the shoulders as indicated by the width between the front legs (compare with the previous horses).

The girth circumference clearly reduces into the shoulders and withers.



This is a good photo and clearly cross tying is very helpful. The person taking the photo is in almost exactly the right position. The only negative is that the left hind is forward of the right hind.



In the side view this horse's rib cage is 'banana' shaped, perhaps going even narrower towards the front. The girth groove lies forward relative to back of shoulder blade. The croup is higher than the wither and the back slopes down towards the base of the wither with a small flat section just before the wither. Compared to horse two this horse has an even shorter back.

Saddle fitting analysis

From both front and side views it can be seen that this horse's rib cage narrows markedly into the shoulders and front legs. This narrowing, combined with the slope from croup to wither, the banana shape and forward girth groove, means that fitting a saddle is not easy compared with the other two horses. All the forces of movement cause a saddle to slip forward into the back of the scapula. Tightening the girth will make the problem worse, as the saddle is jammed tightly into the wither and scapula. Movement will be restricted and discomfort will cause behavioural problems. A crupper or breeching to hold the saddle off the shoulder is essential for the horse's comfort and to ensure a secure position for the rider. When using a crupper or breeching it is essential to ride with a 'non-tight girth' as this prevents the forward pull forces of movement, saddle and girth competing with the backward pull forces of the crupper/breeching.