

## Forequarters Mick Smith (Willowstaff)

Following my presentation at the seminar hosted in 2008 by the Potteries SBTC, I thought I would reiterate some of the points I put forward with regard to the forequarters of the Stafford.

The forequarters are very important to the dog as they support 60% of his weight and need to be anatomically sound to allow the dog - in particular the Stafford - to move with speed and agility and historically to sustain the rigours of battle.

Before discussing the forequarters I must briefly touch on the head of a Stafford, not particularly the shape, but the physical size. It is of paramount importance that the head of a Stafford is in balance with the body, as an overlarge head upsets the kinematic balance and has a detrimental effect on the speed and agility of a Stafford. It must be remembered that when a dog changes direction the first thing he moves is his head and the imbalance caused by an over large head is analogous to a Boxer going into the ring with a bag of sand tied around his neck

Just to remind us, the Breed Standard states with respect to the front assembly:-

**Neck:** Muscular, rather short, clean in outline, gradually widening towards shoulders

**Forequarters:** Legs straight and well boned, set rather wide apart, showing no weakness at the pasterns, from which point feet turn out a little. Shoulders well laid back with no looseness at the elbow.

### NECK

The neck with its 7 cervical vertebrae is an integral part of the forequarters as the muscles which move the front legs and scapula depend on the neck for support and anchorage. A general observation is that short faced dogs have short necks and long faced dogs have long necks.

Length of neck and forequarter conformation are inherently connected, i.e. too short a neck may indicate an upright shoulder and too long a neck often points to excess layback of shoulder.

The neck on a Stafford should be strong and muscular which often gives the illusion of being

short. However, too short a neck inhibits flexibility and manoeuvrability and would be detrimental to a fighting dog.

### FOREQUARTERS

The Scapula (shoulder blade) muscle configuration is somewhat complicated and all we have to remember is that correct angulation and layback of shoulder ensures the muscles are of the correct structure, e.g. short upper arm and upright scapula leads to bunched shoulder musculature.

The scapula is sandwiched at the top by two muscles: the trapezius and the rhomboideus, and the lower part of the blade is carried in a wide muscular band called the Serratus. These muscles are attached to the neck and rib cage, and by extending and contracting in unison they rotate the scapula in accordance with leg movement. The upper arm (humerus) is also operated by a series of muscles and ligaments and by virtue of the shoulder joint (point of shoulder knuckle joint), movement of the foreleg is transmitted to a rotation of the scapula. The foreleg is connected to the upper arm via the elbow joint and is also held together and operated by ligaments and muscle. The elbow joint leads to the radius and ulna – the two main bones of the foreleg, which allow for a certain degree of rotation.

The next joint is the wrist which is made up of two rows of bone known as carpal bones. The wrist is held together by ligaments and acts as another shock absorber.

The bones that form the pastern are called metacarpal bones and correspond with the number of toes.

Finally we come to the toes, each one comprising of 3 small bones (phalanges) – feet should be strongly knuckled and well padded.

# Overloaded shoulders interferes with ...Balance...

## OVERVIEW/CONCLUSIONS

- 1 Head must be in balance with body. Most important for balance and speed. When a dog changes direction the head moves first;
- 2 Neck must be strong, muscular, but not too short. Short neck results in less mobility, lack of flexibility and manoeuvrability. Although the Standard says 'rather short', one must remember that slender necks look long and strong necks (required by a Stafford) give the impression of being short;
- 3 Layback of scapula: very important as it needs to act as a shock absorber, i.e. too steep: reduces ability to absorb vertical forces; too laid back: increases forces at withers and point of shoulder;
- 4 Overloaded shoulders: interferes with static balance, columns of support and forward locomotion;
- 5 Short upper arms have a deleterious effect on forward movement – paddling action;
- 6 Foreleg, i.e. radius and ulna: should be well boned. However, heavy set animals do not necessarily have strong bone – it is not size of bone but density of bone that is important;
- 7 Front pasterns should be angled, i.e.  $15^{\circ}$ - $20^{\circ}$  from the vertical; this ensures that weight is concentrated on the heel rather than the toes;
- 8 A tight, well padded foot is preferable to a loose, long toed foot as this is more vulnerable to damage;
- 9 Chest should be wide but not excessively wide as to upset static balance and columns of support. Sufficient width to give adequate heart room;

- 10 Reasonable depth of brisket with good underline – not 'herring gutted'.
- 11 Good length of sternum to give sufficient room for lungs with good spring of rib (not barrelled ribbed) to cater for inhalation and exhalation.

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