The FRONT END

By Lisa Dubé Forman

I regularly receive, as do other AKC Judges and fanciers, a number of canine magazines well-stocked with color dog advertisements. There are countless numbers of slick ads with creative zeal that appeal to the many ardent fanciers perusing the pages. I genuinely read the magazines for the articles, albeit a stock phrase, as there are a number of first-rate compositions and editorials covering a myriad of topics on our sport and breeds which I enjoy.

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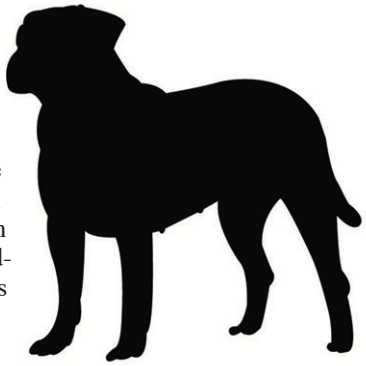
Having said this, I have to ask what many people were thinking when they chose their photographs for these ads. Many times I am confounded as some of the photographs highlight and accentuate a spectrum of visible faults on the dogs. These include, but are not limited to, obvious imbalance between the thoracic and pelvic limbs angulation, incorrect length of torsos, neck and limbs directly affecting the center of gravity, footfall interference during gait, flawed toplines and croups, and faulty silhouettes. One of these glaring imperfections standing out like a sore thumb is steep front ends. Not that the pelvic hindquarters are not as important or interrelated, however I want to focus on this specific assembly because numerous breeds have serious deficiencies in this area.

There are two schools of thought regarding why there are a number of magazine promotions calling attention to otherwise poor or conspicuously faulty representations of the breeds. The first is that many dog fanciers simply do not know any better. Sadly, this will always be a determinant no matter the other explanations set forth. Simply put, these days many fanciers are not learned in canine anatomy yet they possess a tremendous zeal to promote their dogs. Blissfully so, all the while unaware of their dogs' architectural shortcomings, which certainly is unfortunate. We already see this frequently in the show ring as evidenced by the quality of entries shown and during discussions with exhibitors and breeders outside the ring. Nonetheless, a paradigm of the even greater need for mandatory AKC Judges critiques and grading at AKC Conformation shows. However, I digress.

Another alternative and perhaps cynical explanation is that these superficially impressive promotional pieces purposefully advertise the incontrovertibly faulty construction and repeatedly do so to desensitize the target audience, mainly Judges, to the evident fault. For that reason, they are advocating a prominent fault(s) frequently seen in the show ring in the hopes they may be forgiven. In other words, if you advertise it enough, most people will begin to believe it is acceptable or even correct for the breed. A propaganda technique, if you will. In the spirit of goodwill, I would like to believe that the reasons for these ads are 50/50 or greater in favor of the former explanation. Assuming I am correct, educational constructs are very necessary for enlightening today's fanciers.

As I converged on above, many of the photographs used in the aforesaid ads illustrate incorrect front ends, mostly steep in shoulders. That is to say they have upright set, insufficiently acute angles of the scapula blades and we also see 'stuck-on' fronts. The latter is best described as when viewed from the side, the dog lacks shoulder angulation and/or is straight in shoulders and his legs are not set well underneath the body. Instead, the legs are forwardly placed on the skeleton accompanied by a flat, or shallow prosternum. The lack of understanding a breed's correct front end is widespread today and fanciers need to understand that upright scapula blades are incorrect for virtually every breed with just one or very few exceptions. Parenthetically, I also believe that many fanciers, including some veteran breeders, misunderstand the phrase 'straight front.' Many believe that the phrase's definition is upright shoulders and they are mistaken. The correct definition of a 'straight front' involves viewing the dog head on; the forearms are running perpendicular to the ground as well as parallel to one another. This is a gun-barrel front end also often referred to in our terrier breeds by longstanding, seasoned fanciers as 'straight and true.' The phrase in no way references the layback of shoulders (scapula blades), and further, even in our 'straight-fronted' terrier breeds they, along with nearly all other breeds require sloping, well laid back shoulders.



Along with the steep shoulders, a number of advertisements depict dogs with poorly set necks. It is a given that a well-set neck has proper placement into the shoulder region and portrays an imperceptible blending into the forequarters, otherwise known as blend-in. On breeds that require well-arched or crested necks, we often see flat, swan or even ewe necks. In breeds calling for long, reachy necks we may find short, thick necks set nearly perpendicular to the thoracic trunk. Steep shoulders also typically go hand in hand with incorrect, short necked appearances.

In the same vein, as we flip through the color ads we see dogs with incorrect humerus (upper arm) angulation with some so straight that a plumb line dropped straight down from the point of shoulder touches the front of the toes! Not even our Ibizan hound blueprint that specifies well laid back shoulders and, importantly, at the point of the shoulder, the scapula and humerus join creating a rather upright upper arm -- would consider such a vertical plumb line correct. Some of the various advertised dogs have no return of the upper arm. In other words, the humerus should run downwards and backwards from the point of shoulder to the articulating elbow joint. This angle created by the articulation where the scapula and humerus meet is very important to movement as I discuss further down. In some publicized dogs, a line drawn vertically from the point of the elbow intersects the cervical vertebrae or base of the neck. Even in a few cases this line will intersect the dogs ears or, as noted all-breed Australian judge Wendye Slatyer has described it, "the top of the dog's head is placed directly above the sole of the dog's foot." This in direct comparison to a correctly angled dog with sloping shoulders and excellent return of the upper arm which, as a result, his legs are well set underneath the body and whose vertical line drawn up from the point of elbow will intersect just below the back side of the scapula blade. For those who are interested, the scapula spine is an excellent indicator of the angulation of the scapula blades as it runs nearly center the length of these blades.

There are usually very few exceptions to the front end dictums. One being our sighthound genre with their long legs, especially those capable of very fast bursts of speed, as these will have a slightly lesser degree of shoulder layback and pelvic limb angulation than almost all other breeds. Slightly more open angles in our sighthound breeds are typical and acceptable providing that their shoulders indeed are long, still set sloping while having a nearly equally long humerus

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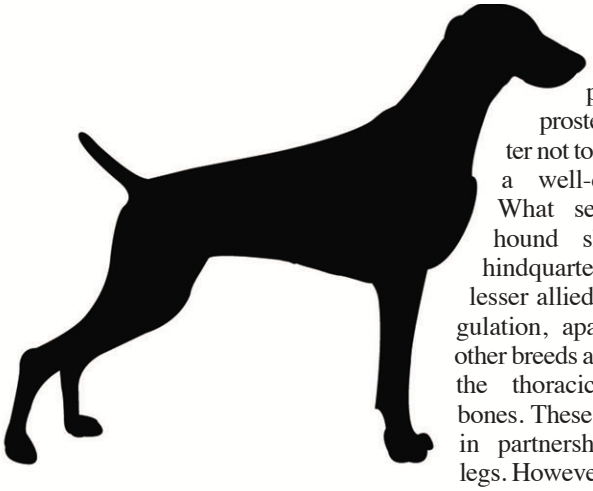

setting the legs well underneath the body with a protuberant prosternum. The latter not to be mistaken as a well-defined keel. What sets the sighthound shoulders and hindquarters, with their lesser allied degree of angulation, apart from most other breeds are the length of the thoracic and pelvis bones. These are to be long in partnership with long legs. However, such slightly more open angle does not advocate steep shoulders but instead describes one being approximately 95-100 degrees as angulated to its upper arm.

The central and important principle to understand is that a canine's front end is responsible for supporting more than half of the dog's weight. These bones are not useless or trivial components of the canine anatomy. In fact, the lay of the shoulder, its length of blade, and the angulation created at the point of shoulder (the shoulder and upper arm articulation) with the length of the angled humerus directly affect the extent of forward reach and overall movement. Please note that strong muscle development attaching the scapula blades to the thoracic vertebrae and ribcage are also vital to movement.

Moreover, included here is an abstract from the extensive research studies conducted by Oricom Technologies, on essential leg mechanics research. Elemental leg mechanics enable canines to maximize their front reach which is determined by the forequarters angulation (shoulder joint) or where angulation of shoulder to upper arm is assessed. For every gait from walk to run, the heel of the extended foot hits the ground first, and so must take up the shock of impact, while the toes are the last to leave the ground at the start of each suspension, and so should add some extension and spring to the step for maximum effect. For these reasons, the feet of dogs and cats and humans have padded heels for softening impacts, and all animals have a series of tendons and leverages in the feet and lower legs for pushing off. A correctly made dog's forward movement produces a momentum arc. It is here where we see the repercussions between a well-made dog front end and a poorly constructed one. While gaiting, a momentum arc is created and conformation of the front with the back assembly which produces this arc is essential.

As a dog is trotting, his forward lead leg is held straight and the ankle joints plus pads register the major shock. If the forward angle of the leg is correct, given the stride, then the force of impact will be lessened. If the leg comes down too soon at too steep an angle -- as a result of shortened stride from a steep shoulder -- then the foot "pounds" into the ground, increasing the force of impact. Conversely, if the leg comes down at too shallow an angle -- excessive reach a.k.a tremendous reach in TRAD -- the dog will lose grip and skid. Canine pounding is akin to humans who are pounding walkers. Their heels crash into the floor at every step. Pounding amounts to a shortened stride and increased impact forces. Consequently, upright shoulders shorten the length of the forequarters stride and the dog will break down much sooner due to increased impact forces.

There is no arguing that the front assembly is key as it is the dog's main shock absorber. A number of valuable well-known sources cite as much, for instance, Canine Terminology by Harold Spira and Fred Lanting's Front and Rear Angulation in the Working Dog. Lanting reiterates the basics by stating the analogy of shock absorption, in which a dog with greater angulation can absorb the impact of landing better than a dog with a straighter front assembly. This is because the greater angulation allows the dog an imperceptibly longer period of time for the muscles to slow the impact.

In conclusion, unless you have dog that never moves, these facts are fundamental to our breeds. Steep front ends as well as overangulated hindquarters are afflictive for dogs but also for another important segment which many fanciers do not appreciate. It is worthy to iterate what I touched upon several years ago in The Canine Chronicle May 2010 issue.

A poorly informed, undiscerning breeder affects new pet owner's lives. A breeder may be cultivating a bloodline of dogs that are structurally unsound and incorrect, or that have congenital defects such as poor muscle development. Due in large part to their lack of schooling these breeders are unaware of their engineering problems, the importance of the musculoskeletal system which affects, by way of perpetuation in their breeding programs, future quality of life. Incorrect angulation and poor assembly causes additional stress to tendons predisposing dogs to increased injuries to their bones, joints, muscles, tendons, ligaments, and feet. Inferior muscling or unbalanced muscling increases susceptibility to injury as well. As a result, in almost all cases the defects cause pain, making necessary the need for pain relievers and anti-inflammatory medications over the course of a dog's lifespan.

All of which definitively affect unknowing pet owners who cherish their canine best friend and family member, who are heartbroken to either have to maintain their beloved pet on chemicals and medications for the remainder of the dog's life, or worse, euthanize him well before his time because the dog could no longer get up to defecate or urinate outside.

Would a breeder who has never received quality mentoring understand any or all of this having only gleaned their breed and canine husbandry knowledge from exhibiting at dog shows?

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