

Considering the Cart



What to Look for in a Combined Driving Vehicle

By Leia Gibson

Photos courtesy of Action Taken Photography

The longer I've been out there spreading the word about how much fun combined driving events are, the more people I've found who want to play but are intimidated by the idea that they need a lot of specialized equipment in order to compete. They hear about marathon shafts and all the rest of the scary terms bandied about with such enthusiasm by sport devotees and understandably say "Eeek!" The harness they figure they can probably handle with a little help but what about that largest of investments, the cart? Do you really need all that fancy stuff just to get your toes wet? Have no fear; it's not as bad as it sounds.

CDE is perhaps the least tradition-bound of the driving sports and competitors really enjoy using

the latest materials and design innovations to try to give their horses that competitive edge. It's fun, it's a challenge, and it gets more important as you move up the levels to the point where it truly becomes an "extreme sport." The lower levels, however, are all about having a good time and celebrating the process of learning for both horse and driver. The focus is more on safety than anything else and you can readily participate with the kind of basic equipment any driver might typically have for a day of trail driving.

So how do you know if the cart you have will work? A good CDE vehicle is one that is balanced, stable, and comfortable for both horse and driver. It should enable the horse to work to the best of his ability and let

the driver focus on his reinsmanship rather than staying in the cart. What that means will be different for each combination of horse and driver as what is comfortable for a long-legged gentleman with a stout 32" gelding is different for a petite junior driver with a slim 38" mare. What is important is what works for you.

One all-purpose cart or two specialized vehicles?

For full-sized horses it's a little more expensive to get started in combined driving as it's difficult to maneuver through a typical marathon hazard in a Meadowbrook or other two-wheeled cart with straight shafts. Most drivers who become serious about CDE quickly invest in a four-

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wheeled marathon carriage or “war wagon” that they can use in dressage and cones as well if desired. The turn radius is much tighter, they are built to take hard bumps and slides and of course there’s that lovely backstep for your required navigator to ride on and help you keep the cart upright.

For those of us in the Very Small Equine division things are a little different. The American Driving Society ruled that single equines under 39cm at the withers (“VSE”) do not have to carry a navigator and of course a hazard that is tight to a Friesian or Halflinger might as well be a freeway to an agile miniature horse or donkey. Assuming your vehicle is sturdy, light and comfortable, the beginning driver will find little need for a specialized marathon vehicle and can instead consider what is most cost effective.



What kind of cart?

Many new drivers come to CDE from the world of registry shows and already have a show cart. If you have an open-wheeled version and can outfit it with wooden wheels instead of pneumatic tires then you are admirably prepared for dressage and cones with a lovely presentation vehicle. Take off the patent boot (assuming the floorboards are the same color as the shafts), add footman’s loops for the breeching to run through and you’re all set. Most show drivers also have a training cart of some kind and you can use that for marathon to spare your presentation vehicle the bumps and

scrapes of bouncing off posts and less congenial terrain.

If you have a closed-wheel show cart or are a beginning driver starting from scratch then you have a few choices to make. Depending on your budget, your goals, and your interests outside of CDE there are a variety of all-in-one vehicles that might meet your needs.



Photo courtesy of Maggie Bennett

For someone who wants to compete at ADS Pleasure Driving Shows or driving classes at the local fair as well as in combined driving, a traditional wooden road cart might be a good choice. Not as heavy as a Meadowbrook, road carts are comfortable and very classy looking with a variety of stains and upholstery options.



If you have a young driver in the family or want something the neighborhood kids can play with between shows without worry, then a basic metal easy entry cart may be just the ticket. With a few modifications, it can be made both more beautiful and completely appropriate for all levels of CDE. You don’t have to worry if it gets dirty or a little banged up and if you do eventually buy a fancier vehicle it can still serve as a marathon cart or be resold for what you paid for it. Easy entries are ever popular and hard to find used.

If you have a slightly larger budget and want a purpose-built CDE vehicle suitable for both cross-country and dressage there are many wonderful options on the market now. Most are two-wheeled metal carts or metal with wooden accents and they come with a bewildering array of features from one end of the vehicle to the other. Let’s take a look at some of the factors you need to take into account.



Some points of turnout

First of all, what kind of horse do you have? Is he a solidly built country mover or a refined and flashy fellow with legs up to his ears? Does he carry his neck high and elegant or prefer a long low frame? When you ask him to move on, does he get up and go or prefer to take his time? Formal turnouts are rarely seen in miniatures but there are a select few who can pull it off. If you have one of those elegant movers you may wish to put them with a more formal-looking vehicle such as a custom gig. Most minis look best with what’s called a country turnout, meaning something you’d see on a beautiful Sunday morning driving to church. This typically includes a stained wood or other less formal cart, a small neat hat of straw or felt on the driver and perhaps a picnic basket or other decorative touch. Russet harnesses are always informal and should only be used on a wooden cart with brown shaft trim. No matter what, you want your turnout to be appropriate and to flatter both you and your horse. Pick a style that suits the animal.

Balance - Good balance is essential in a vehicle used for dressage and hard extended cross-country runs. An unbalanced cart will put a lot of

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weight on the shafts and can bounce around on rough ground, soring the horse's back and making it difficult for him to work comfortably. A good cart will float along behind without jolting or dragging downward on the tugs so that all the horse has to do is keep it moving forward and concentrate on his job.



Make sure the cart you buy is balanced for the height of your horse and the weight of the driver. The shafts should sit level or slightly uphill from cart to saddle; one that slopes down to your horse is too big and should be rejected unless you can get smaller wheels for it. Have a friend hold the shafts at tug height and ask him how much weight he feels when you climb in. Ideally there shouldn't be more than five pounds of pressure when you're sitting up correctly. Some carts have seat sliders which can be easily adjusted while driving; still others adjust at the axle and require tools so aren't very convenient in situations requiring frequent tweaking. All carts can be adjusted somewhat by changing the height of the tugs.

There's another kind of balance that's important too, and that's visual balance. The vehicle must be in scale for your horse to look good and to make his job easy. You don't want it towering above him nor do you want a narrow tin can hopping along at his heels. Get a cart that sits reasonably low behind your horse and is wide enough to remain stable through fast turns and on hillsides.

Wheels - The American Driving Society allows pneumatic tires and wire wheels only at Training level.

Check with the organizer before entering as use of them is at the organizer's discretion and some events will not allow pneumatics at all due to terrain or environmental issues. If they are allowed, be sure to purchase and use some kind of No-Flat insert so you don't get stuck out on course with a flat tire. Trust me; walking home with a flat is no fun at all! Since you are required to use a non-wire-spoke, non-pneumatic tire with smooth rubber rims at Preliminary level and above anyway it's best to move up to steel or wooden wheels as soon as possible and avoid the entire issue.



Whichever kind you choose, buy the biggest wheel you can without getting out of scale to your horse. Large wheels are easier to pull and provide a smoother ride because instead of bouncing in and out of every available pothole they will simply roll right across without stopping. Of course the larger the wheel the more it will weigh, but that's a tradeoff many people are willing to make. The size of the wheel you order will also depend on the type of cart you have. You can put much larger wheels on a show cart where the axle runs under the seat than on a road cart or easy entry where the axle is down low to the ground. You don't want to choose such a large wheel that it raises the shafts up your horse's sides; that's a good way to make a low cart fit a taller horse but a miserable way to outfit the one it was correct for!

Another factor to consider is the width of your tire. Most carriage wheels have flat rubber rims and can be ordered in different widths depending on how much weight

you are willing to add in trade for a wider footprint. You need to take into account what the footing is like in your area and the capabilities of the horse you plan to drive when deciding what's right for you. A large wooden wheel that rolls along smoothly may make marathon easy for your horse if you work on firm ground but if your hazards are full of deep sand you could exhaust your equine as the narrow edge of the wheel cuts into it. You could even flip the cart if you aren't careful! A metal wheel with a wide flat rim floats on top of deep footing but adds more drag on hard-pack and of course more weight as well.



Shafts - Shaft design is very important in a CDE vehicle. Many show carts have straight shafts that do not allow the horse sufficient room to bend his ribcage and move his hips over. If your horse is fairly narrow it might not be a problem, but otherwise you need to look for a vehicle that is wide where it joins the cart, then narrows considerably at the tugs and points back out again by the shoulders.



Shaft is too narrow

Many modern metal carts offer adjustable curved shafts where you



Shaft is just right

can not only change the length but also rotate the shaft to be wider or narrower for any given horse. An added advantage of the curved design is that the shaft tips point down and away from the horse so they will not poke him in the neck or shoulder as he tries to make a sharp turn.



Marathon shafts that end at the saddle in a closed loop are even better because they leave the front of the horse completely free and allow him to bend more dramatically for sharper turns. Many horses are more comfortable in this arrangement given a little padding under the shaft tip and become quite enthusiastic about spinning the vehicle at speed. It's far easier to muscle over shafts that run through his center of mass than ones that pop up over his shoulder.

Another advantage of lowered or bent shafts is that the footman's loop can be placed at about the level of the horse's stifle which means the breeching can hang horizontally instead of being pulled upward in front as you often see with straight wooden shafts. Not only does this make the harness lie more

smoothly but it prevents the rear of the breeching from dropping and perhaps scooping the horse's legs out from under him even when properly fitted. Be careful, however, that the horse does not get a leg over the shaft.

If you have a show cart meant for use without breeching, it's fairly easy to add aftermarket footman's loops. You can purchase these small metal brackets from any carriage supply store for about \$5 a pair. With the horse harnessed and between the shafts, locate the appropriate position (ahead of and approximately level with the stifle if possible) and drill two holes on the underside of the shaft. Then screw in the footman's loops and voila! An instant conversion from show cart to CDE vehicle. Make sure your footman's loops are far enough forward that your breeching can come into play before the shafts pass the point of the shoulder.

Lower draft - One feature that is often paired with curved shafts is a lowered singletree. By attaching the singletree in a lower position on the cart you make it easier for the horse to pull and do much to smooth the jostling of cross-country driving because the horse is now exerting upward force on the vehicle frame and is able to lift the wheels easily out of holes.



Some CDE carts offer what's called "adjustable draft," meaning several locations you can attach the singletree, but it's easy enough to have a local welder add a bracket wherever you want it on your existing cart. If you don't plan on switching to a neck collar then it may be best to simply attach the

singletree to the underside of its current crossbar so you can still comfortably use a breastcollar while improving the angle of draft. Make sure the singletree still has room to swing freely.

Suspension - What kind of suspension your cart has can have a big impact on your comfort during a long cross-country drive. There's a wide range of options from coil springs under the seat to leaf and elliptical springs or the newer torsion axles and air bag suspension systems. The type of cart you have will often dictate the style of suspension, but try to factor in your weight and the kind of terrain you'll be rolling through when making the decision to purchase a particular vehicle. Springs that may be perfect for a heavier driver can be quite stiff to a junior whip; a cart with very sensitive suspension may not be suitable for frequently taking passengers and driving at full load capacity.



Torsion axles, while heavier than springs, absorb motion at the level of the wheel without transferring it from side to side or bouncing back over bumps the way a spring can. This makes them an excellent choice for rough ground or someone with a bad back.

Look for suspension that smoothes the ride for both horse and driver; any type of suspension that is solely under the seat benefits the driver but leaves the horse rattling along in front. In that circumstance it's particularly important to harness him with care for his comfort and make sure the cart is balanced to ride as smoothly as possible.

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Seat type - Most mini carts come with a bench seat that can fit the driver and one passenger. This kind of seat is perfectly acceptable for combined driving and you'll want to pick one that is deep enough, thick enough, and wide enough to be comfortable for you. Your seat should not be so narrow that you sit braced against the seat back as you'll find this is usually very uncomfortable and also affects the balance of the cart. On the other hand it's a good idea to have a seat back as its job is to catch and scoop you forward with the cart

if you part company with the seat cushion going over a bump.



To create a more secure base of operations you can make or add any number of removable aftermarket wedge seats that have padded sides to bracket your hips and usually feature a "wedged" triangular foam cushion which slopes down in the front so that more of your weight is placed on your feet. Using one of these allows you to concentrate on your driving instead of on staying in your seat and can really help over rough ground or fast turns. If you carry a passenger, make sure your wedge is placed on the right

side of the cart, otherwise it can be in the center.

Retrofitting - For a cart that is almost perfect but needs a little adjustment there's usually a lot that can be done. You can add a raised footboard for a petite driver to brace against or drop the floorboards for a long-legged whip, your local upholstery shop can often add thicker foam to a seat or build a deeper seatboard for you, and a local welder may be able to modify your shafts or add a lower singletree connection if you want one. Modifying things to fit the driver is pretty easy; modifying a cart to fit the horse is much more difficult. The horse should come first every time! **If it fits you but doesn't fit her, you need a new cart.**

There are also ways to make a metal training cart prettier for presentation. Tired of the clashing red seat your easy entry cart came with? Refinish it in black vinyl or hide it with a classy cloth seat cover. Want a more finished-looking singletree without those rawhide straps? Switch out the blade-ended singletree it came with for a stained wooden version with brass hooks purchased from a carriage shop. Change white shaft caps for black or brass ones to be less obtrusive. You can get black shaft caps at the local pharmacy disguised as replacement rubber cane tips. Use black bungees or russet leather straps to add a picnic basket to the floorboards for a nicer look. You can even add a wood dash or wooden seat back for a more traditional turnout.

Don't be afraid to get out there with the equipment you've got. Just be sure it's safe, comfortable, and balanced and always put your horse first. I'll see you on course!

Leia Gibson has been involved in combined driving events with her gelding Kody since 2004 and now competes at the Preliminary Level in the Pacific NW. She runs a combined driving website and forum at www.cde4use.com.

All photos by Leia Gibson unless otherwise noted.