Gods of Thunder: Tackling Team Hitches

He streaks across the cloud-racked sky, a rising storm in his wake. Sparks fly from the flinty hooves of his prancing goats and lightning flashes from their horns. His hammer strikes a mighty blow and thunder rolls behind...

Whoa just a minute there, Thor! Before you start hurling thunderbolts, you have to make sure those goats of yours are hitched up right! Wouldn't want to cause a chariot crash!

Have you ever thought of channeling Thor and driving a team of goats to glory? If so, you're not alone! My husband Phil has long dreamt of driving a team of goats in a chariot race. But before he could start on that quest, he had to learn a few technical details. A team hitch is somewhat different from a single hitch, and although the basic principles are the same, there are a few important changes to the harness. This means that if you buy two single harnesses, you need to figure out how to make them talk to each other so your goats can pull together properly. A team setup uses a pole (or tongue) between the goats as the brakes and turning apparatus. This means your britchen and holdbacks must connect to the vehicle somewhat differently.

Not everyone understands this, and I once ordered a "team shaft" from a catalogue company thinking they must be referring to a team pole and doubletree. What arrived instead was an odd-looking giant devil pitchfork with no whiffletrees at all! The

reasoning behind this weird design was that the catalogue company only sold single harnesses, and rather than sell spare parts to make the harnesses work together, they preferred to invent a bizarre set of side-by-side shafts. Personally, I'd rather modify the harnesses!

As I explained in a previous article, the whiffletree is essential to keeping your goat comfortable in his work. A team setup requires two whiffletrees (or singletrees) attached to a larger whiffletree called a doubletree. The doubletree allows your goats to move freely in their harnesses without chafing.

Another piece you need is a "yoke". This slides onto the wagon tongue and hooks to the front of the goats' breastcollars. The width of the yoke should be the same as your doubletree, measured from the hitch points of each (not the ends). A mismatched yoke and doubletree will cause your goats to move crooked.

The main difference between a single harness and one set up for teams is the braking system. Since the pole runs along only one side of the goat, you can't use holdback straps fastened on either side. Instead, you must use a "pole strap" that runs from the breastcollar between the goat's front legs. This strap has a ring on the end which your holdback straps (or quarter straps in team lingo) hook into with sturdy snaps. If you pull forward on

your goat's breastcollar, you'll see that it engages the quarter straps and britchen. Since the yoke is connected to both the breast collars and the wagon tongue, the yoke will push forward when the goats stop, pulling on the breastcollar and engaging the britchen.

Another difference in the team harness is the neck strap. The neck strap on a single harness only serves to hold up the breastcollar from either side. There is no reason why a single goat's breastcollar should be pulled downward. But in a team hitch, the yoke fastens to the front of the breastcollar, and since the yoke holds up the pole, there is a certain amount of downward pressure on the breastcollar. To keep the front of the breastcollar from dipping downward, an extra neck strap runs diagonally from the top of the main neck strap or from the saddle, then down through rings sewn into the front of the breastcollar. My harnesses have this strap running from the top of the neck strap. When the goats stop this can put pressure on their necks just in front of the withers. I would rather the weight fall on their backs, so I attached a short strap from the neck strap to the check hook on the saddle.

Finally, a single harness has shaft loops to hold up the shafts on either side. These are not necessary on a team harness and can be removed. If you have shaft loops that buckle into the belly band, you'll need to remove the extra buckle on your belly band or else use "cheater straps." These straps have a buckle at one end which fastens to the shaft loop billet on your saddle. The other end fastens into the belly band buckle. They keep the loose ends from flapping when you remove the shaft loops. On the other hand, if your girth is equipped with shaft wraps, you will need to remove them (if possible) or buy a belly band without shaft wraps attached.

Once you have all the right harness parts, it's time to hitch up and adjust your suspension. Proper suspension in the hitch means that when the goats are in draft, there will be just enough room in the britchen to slide your hand sideways under it. Your goats should either be "in the breastcollar" or "in the britchen." If your britchen is too loose your goats will get a rude slap in the hindquarters every time they stop. When they start again the wagon will jolt. Also, the goats could get far enough forward on the tongue to pull the yoke off the end and cause a wreck. If the britchen is too tight it won't be a safety hazard, but it will chafe your goats' hindquarters and could make them balky.

This is a good illustration of proper suspension in the hitch. These goats are traveling downhill and are therefore "in the britches." Even so, there is only a little slack in the traces. The yoke straps are broken upward from the line created by the shoulder blades because the tongue has pushed the yoke forward. Once the goats are on level ground the yoke will drop back to its normal position and the yoke strap will come in line with the shoulder blades.

When adjusting your traces, make sure your goats' hind feet are well clear of the whiffletrees. If you let your traces out longer and the yoke starts coming off the pole, you need a longer pole! The traces should be the right length to keep the yoke against the stop without pulling the breastcollars forward. One way to gauge proper suspension is to look at your team from the side.

The yoke straps should come away from their chests at approximately the same angle as their shoulder blades. If the angle is broken upward, the britchen is too loose or the traces are too short. If the angle is broken downward, you have the opposite problem.

What do you do if, like me, one of your goats is longer than the other? Do not start by lengthening his traces! You must lengthen his quarter straps and/or the pole strap instead. To pull evenly, your goats' chests must be even with each other. If you lengthen the traces on the longer goat, then you must lengthen the traces on the shorter goat as well so that his chest can come up even with the long one. If their traces are set unevenly, your goats will never be able to pull as a team.

Now for those reins! Teams are driven with a special set of reins called "coupling lines". Coupling lines split to allow the driver to control both goats with only two reins instead of four. The "draft line" is the continuous rein that runs from the driver's hand to the outside bit ring of the goat on that side. The "coupling line" or "stub line" is the line that fastens into the draft line and runs to the inside ring on the opposite goat's bit. When the driver pulls on the right rein, the outside bit of the right goat and the inside bit of the left goat are pulled simultaneously to turn both goats to the right. From the driver's seat, you'll see the reins cross in an X.

Coupling lines are adjustable to accommodate different widths between goats. The stub line, when laid out on

the ground, should reach slightly further than the draft line to account for the spacing between animals. Adjustment is going to depend on the width of your yoke/doubletree. You will probably have to play with the adjustment to get it right. If one or both of your goats are consistently walking with their heads pointed away from each other, you should shorten your stub lines by moving the buckles back toward you on the draft lines. If one or both goats are pointing their noses inward, lengthen your stub lines by moving the buckles forward (away from you) on the draft lines. You should always adjust both stub lines equally even if only one goat is walking with its head turned. Often the more sensitive and/or compliant goat is the only one turning its head in response to uneven rein pressure. Play with the adjustment until you feel it is right. When you pull the right rein, both goats should feel equal pressure at the same time. When you stop, your goats should feel even pressure on both sides of their bits.

Now, you may be wondering why I am referring to bits in a goat driving tutorial. Most goats are driven in halters, and since they are not overly strong creatures, a halter is usually all that is necessary for controlling them. Team driving, however, takes a certain amount of finesse not required for single driving. I started my team out in halters for our first several drives and I found that although the boys were very compliant, they were having a hard time working together in turns. Our equipment was causing a communication breakdown. Halters, no matter how well they fit, have a certain amount of play in them that allows them to slide back and forth on the nose. When I pulled one rein to turn, one or both' halters would slide that direction and mess up the adjustment of my coupling lines. This caused inconsistent rein pressure in turns and subsequently in stops as well. Inconsistent rein pressure confused the goats and made it

more difficult for them to work as a team through turns and stops.

We use 3-inch mullen mouth bits with half-spoon cheeks. The mullen mouth is a mild, stable bit well-suited for driving. The solid mouthpiece helps keeps the goats straight in line with the bit, and it slides smoothly in the mouth without pinching the tongue. Because goats have a low palate, I do not recommend using a single-jointed snaffle. The half spoon cheeks keep the bit from sliding through the goat's mouth should he open it, and they also provide a little pressure on the outside of his jaw to help turn his head. Do not use full- cheek snaffles when driving. The upward-pointing cheek is a poking hazard and can get hooked on the other goat's bridle or rein. Our goats protested angrily at having bits put in their mouths at first, but once the bits were in place they went very well in them from the first drive. As long as you are gentle with the reins your goats will soon learn that the bits do not hurt them, and that they are in fact more comfortable than halters.

Figuring out your equipment is the first step toward making your goats comfortable and happy in their work. A properly adjusted hitch makes teamwork easy! With a little practice you'll be well on your way toward channeling the Thunder God and racing that chariot to glory!

Please see the Team Harness Diagram on the Articles page at www.goatorama.com