

**Lake Country Antique Tractor Association  
presents  
Antique Tractor Pulls**

**The Sled**

The sled was built by some of the Lake Country Antique Tractor Association (LCATA) members. Some things to watch for:

- \* You will see small Farmall Cubs, Models A, B, and C pull the sled some 100 plus feet.
- \* You will see small John Deere Models L, and LA, and H pull the sled some 100 plus feet.
- \* You will also see some larger tractors of different brands & colors pull the sled some 100 plus feet
- \* You will also see some very large tractors pull the sled some 100 plus feet.
- \* You will also see the modified high horsepower tractors pull the sled some 100 plus feet.

Now a question arises: Shouldn't large tractors pull the sled farther than the smaller tractors? Now did you really watch the heavy concrete weights on top of the sled? Did the concrete weights travel the same distance on top of the sled each trip? This is a physics class in operation. The physics portion of the sled involves weights, pulleys, inclines, gears, and friction.

The sled has an operator. The operator determines the gear ratio for each class and weight of the pulling tractor. For each weight class, the gear ratio is set and will not be changed until the tractor class changes. This gives each tractor puller a fair opportunity during the pulling contest. The smaller the tractor, the slower the gear ratio to pull the weight to the top of the sled. The concrete weights travel to the top of the inclined ramp which transfers the weight to the front pad of the sled. The pad comes in contact with the ground causing friction between the pad and ground. This friction has a drag rating which will eventually determine just how far a tractor can pull the weight. This sled determines the capability of the pulling tractor.

**What determines the tractor class?**

Each tractor must be weighed prior to being entered for the pull. The tractor weight determines the tractor class. A tractor may be entered in one weight class and you may see the operator add additional weights so the same tractor can be entered into another weight class. There are normally twelve or thirteen weight classes. Some of the larger tractors will weigh about 10,000 pounds.

The sled has a hook up team. Different members of the club perform this task. They have final say as to who can hook up to the sled. Certain conditions must be met prior to the pull. One condition is the draw bar height measurement. The drawbar can be no higher than 20 inches high from the ground.

Other members function as safety inspectors, flagmen to start, and flagmen to stop the tractor, announcers, scale operators, record keepers, pull back tractor operators, and the measuring electronics operator. The sled has a device mounted to accurately measure to the 1/10<sup>th</sup> of an inch the distance the sled has traveled from start to finish.

A safety person will visually look at each pulling tractor prior to and during the pull for signs of fuel leakage, oil leakage, and other things that might become a safety concern during the pull. We keep fire extinguishers readily available just in case.

During the pulling contest, you will probably see some tractors that are not stock antique farm tractors. They are antique tractors, but have something different that is not usually found in normal working farm tractors. These tractors are called modified antique tractors and do not compete with the normal antique farm tractors. These tractors are also crowd teasers and pleasers. These tractors will keep you awake during the show.

Normally during the pulling contest our announcers will give some specific information about a tractor or a class of tractors. This is interesting information about antique tractors. To qualify for the Antique Tractor title, the tractors usually were built prior to 1970. The older the better.

Sit back and enjoy the pull.