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Carriage Weight & Your Horse: How Much Weight is Safe for a Horse to Pull?

Given the increased participation of Very Small Equines (VSE) in ADS (American Driving Society) events, we find the need for guidance in how much these small horses should be pulling. This information is equally valuable for larger horses.

DRIVER RESPONSIBILITY

The driver is responsible for knowing the venue as well as limits and capabilities of his/her horse. Ron Whiteman writes in Carriage Driving World

Every event has the conditions and types of the terrain posted in advance. Entering an event when the posted terrain will obviously be overwhelming to one's horse, or not withdrawing from a competition when the conditions warrant, would be irresponsible no matter what size horse one might drive.

THINGS TO CONSIDER

1. Horse strength - weight, physical condition (fitness & feeding), natural ability, temperament, conditioning
2. Road surface - hard vs. soft surface (level asphalt/concrete vs. dirt/gravel/deep sand/heavy mud)
3. Horse shoes & traction - Slippery surfaces make more work for the horse, especially starting & stopping. Plain horseshoes are acceptable on some surfaces, but may be very slippery on hard pavement or icy roads. Proper shoeing (slip protection @ the toe & studs) is essential. Also, try borium on the shoe to help prevent slipping.
4. Vehicle - Know the unladen weight of your cart/wagon and inscribe it on the pole. (Consider weighing yourself and your horses as well.) There's also friction between the axle, wheel, and the ground, so be sure to regularly lubricate wheels & turntable
5. Weight distribution - On heavy loads weight should be one-third on the front axle and two-thirds on the rear axle. Also, adjust the reins and alter the leverage of the doubletrees or eveners.
6. Grade - Increase in grade means more work for the horse.
7. Type of work - speed, stops & starts, acceleration needed
8. Harness & hitching - proper harness fitting, be sure check rein allows horse to stretch his neck, adjust angle of draft of the trace for max pulling power
9. Driver's skill - smooth starts & stops
10. Animal Care & Rest- Give rests after heavy exertion. When halting on a steep incline, engage brake or place brake-shoe under rear wheels. Cover horse with a rug in the sun or cold. Water horse often in hot weather

11. Weather conditions - Be especially vigilant of temperature and humidity.

SUGGESTED WEIGHT RANGES

Horses' capabilities are partly defined by their conditioning. The type of work expected seriously impacts how much weight the horse can handle safely. The following ratios are general guidelines for load weights. It's up to the driver to adjust the load according to factors that change the amount of work required.

Continuous work with occasional heavy pulling and short rests:

- 1:3 - Flat road (horse can pull 3 times its own body weight)
- 1:2 - Bad or hilly roads
- 1:1 - Very bad roads, fields, sand, mountains - (horse can pull its own weight)

Combined driving marathon:

- 1/2 to 3 times the horse's body weight

VERY SMALL EQUINES (VSE)

Background: In the early stages of miniature horse breeding, the goal was to develop the smallest horse. "In pursuits to that end a diversity of genetics from all the smaller breeds of horses was infused into developing the miniature horse. Many of those foundation breeds were developed from hardy stock that worked in underground mines and survived in such harsh environments that most equines would have perished. The ultimate goal was to produce a horse under a certain height that maintained the proportions of a wellbalanced horse." In the 1970's, breeders began developing a miniature horse specifically suited for pulling a cart. It seems that their efforts produced a small horse breed with unique endurance and abilities

How much weight should a healthy, fit VSE be expected to pull? The driver should responsibly consider all the factors listed, especially combinations of exceptionally challenging conditions. Under certain conditions, minis can handle a higher ratio of carriage and driver to horse than larger horses, as much as 1 1/2 up to 10 times their own weight.

These numbers are very impressive, but what is a safe, practical guideline? When conditioned for a specific task, the average 34-inch, 200-pound VSE can easily pull about 1 1/2 times his weight.

Obviously, there isn't a simple answer to the weight question, but a responsible driver can make an educated estimate based on the information provided here.

REFERENCES:

"Very Special Equines: Small but Strong, A Driver's View on Suitability" by Ron Whiteman. Carriage Driving World. February/March 2008. p32-34.

"How Much Weight Should a Horse Pull?" Driving Digest Magazine. p35 & 42.