



Towing tractors / Tuggers are typically rated with either a drawbar pull rating or towed load rating.

A towed load rating appears to be simple and straight forward. For example, a vehicle with a towed load rating of 20,000 lbs. supposedly will tow a rolling load weighing 20,000 lbs. However, this rating assumes some specific values for some important variables and just like a drawbar pull rating, a towed load rating may be misleading unless you understand the factors involved.

In order to determine whether a vehicle's towed load rating is correct for your application, you will need to know what factors it is based on and how your application may vary from those factors. Those factors or variables are the same ones upon which drawbar pull ratings are based; towed load condition and travel surface conditions.

A drawbar pull rating is a measure of the maximum pulling force in pounds that the vehicle can produce given the following factors or conditions:

- The travel surface is smooth and free of potholes, and is **level - 0-degrees of grade.**
- The travel surface is free of debris, moisture, grease, oil, etc. - **clean dry pavement with 0.9 coefficient of friction.**
- The towed load has wheels or tires and running gear (axles, etc.) in good condition such that the starting resistance is, for example - **40 lbs. per 1000 lbs. of gross weight.**

A general rule of thumb is that the drawbar pull rating of a vehicle is equivalent to approximately 5% of the towed load weight. Thus, a vehicle with a drawbar pull rating of 4,000 lbs. can tow a rolling load weighing approximately 80,000 lbs., assuming that the above factors or conditions are met.

Using this rule of thumb will get you into the "ballpark" for the correct vehicle for your towing application.

Next, you will need to consult with the towing vehicle manufacturer to survey your rolling load and travel surface conditions and utilize their engineering data and practical knowledge base of information in order to arrive at a final determination of the correct towing vehicle for your application.

In addition to getting the towed load moving and keeping it moving, you also need to be able to control it and stop it. Steering and braking capabilities are not specifically addressed by drawbar pull or towed load ratings and you will need the expertise and practical experience of the manufacturer in order to select the correct vehicle for your application.