¼ Scale Competition Sled Configuration

The use of a progressive sled is a consistent way of quantifying the performance of multiple tractors during simulated field conditions.

A progressive sled is a weighted vehicle that is supported on a wheeled axle at the rear end and a pan type surface at the front. When a tractor is initially hooked up to the sled (at the pan end), a box of weights is positioned either over the rear axle or behind it. Thus as the tractor begins to pull, there is very little weight on the front pan and the tractor can pull the sled easily. As the tractor moves the sled forward, the box of weights is progressively pulled towards the pan end of the sled. The weight transfer to the pan increases and the reaction force against the tractor is gradually increased. Thus the tractor's maximum pulling capability is determined as a direct result of the distance pulled. A diagram and picture of the progressive sled is shown below:

SLED WILL BE SET UP AS FOLLOWS:

CHAIN AT BASE OF PAN

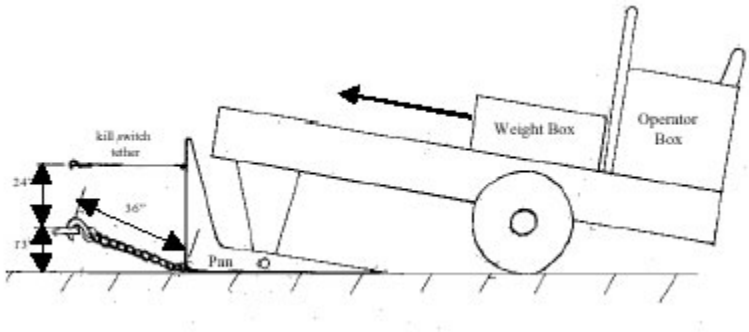

Figure 1: Sled Configuration.

Figure 2a: Typical Progressive Sled in Action.