



Fireground Tips and Tricks by Jimm Walsh

Firefighter ladders: Finding the balance point

Carrying the ladder a few inches off from its balance point can waste a tremendous amount of a firefighter's energy

By Jimm Walsh

***Author's note:** There are so many great tips and tricks that can be applied to the fire service. We can all agree that our job is already difficult enough as it is. We will be accepting submissions from our readers to be considered in this column. To submit your tips and tricks, please email them to me at Jimm.Walsh@FireRescue1.com.*

Marking the balance point on our ladders is a quick and simple way to work smarter not harder on the fireground.

A ladder is much easier to handle when carried perfectly balanced. An unbalanced ladder requires additional effort and energy to "right" the ladder back into a comfortable carrying position.

Simply by carrying the ladder a few inches off from its balance point can waste a tremendous amount of a firefighter's energy. This effort would be better spent carrying an additional tool, or leaving a free hand for a flashlight.

Believe it or not, each ladder has a different balance point. For example, the roof ladder's balance point is not exactly centered on the ladder — it is actually one set of rungs closer to the tip due to the added weight of the hooks.

Pictured below is a 14ft roof ladder and a 24ft extension ladder side by side. It is apparent that the balance point of the 14 is closer to the tip due to the weight of the roof hooks.



The balance point of each ladder is easy to find: simply place the ladder on the ground, resting on the beam. Then pick the ladder up with one hand and watch how the ladder behaves.

If the tip hits the ground, the balance point is closer to the tip. If the butt of the ladder hits the ground, the balance point is closer to the butt.

Keep adjusting the point where the ladder is picked up until the ladder balances perfectly level with the ground. Once the balance point is located, it needs to be marked for quick reference. Pictured below is a ladder that is perfectly balanced.



The balance point can be marked in a number of different methods; spray paint or reflective tape seems to be the most common.

It is also a nice touch to include a unit identifier on the balance point. This makes it easier to determine which rig a ladder needs to be returned to when taking up after the fire.

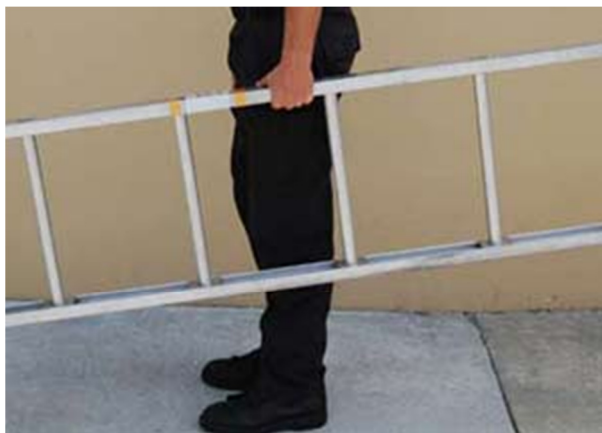
In addition to the written company identifier, a different color could also signify a different unit. Another reason to mark the ladder with the unit identifier is simply for company pride.

Take a quick look at the pictures around your firehouse; it sure would be nice to be able to see that the ladder in operation in that photo was from Truck 61.

Perhaps the most important reason to mark the balance point with the company identifier is to possibly help locate a crew member in need of assistance.

For example, if a crew member from Truck 61 is performing a Vent, Enter, and Search (VES) on the second floor of side B and find themselves needing assistance, it may narrow down exactly which ladder they ascended when multiple ladders are present.

Obviously a ladder can be carried even if it is not perfectly balanced on our shoulder, but as we mentioned earlier it requires additional effort and energy to "right" the ladder back into a comfortable carrying position. Remember, we always need to work smarter not harder on the fireground.



Here is a ladder that is being carried off balance with the butt end of the ladder tilting toward the ground.



Here is a ladder that is being carried off balance with the tip end of the ladder tilting toward the ground.

Finally, this photo below shows a balance point marked with reflective tape, and company identifier.



About the author

Jimm Walsh is the owner and webmaster of VentEnterSearch.com, a fire department training website dedicated to Truck Company functions. Jimm is currently a Division Chief with Winter Park, Fla., Fire Department where he has served for more than 14 years. Jimm has been a fire service instructor for more than 10 years and has lectured around the nation on various subjects including Leadership, and Truck Company Functions. You can contact Jimm with feedback at Jimm.Walsh@firerescue1.com.