



# Towing Is Sometimes an Uphill Battle

**Instructor Notes:** Steep uphill and downhill grades can put an extra strain on trucks as well as drivers, but with a little help drivers can steer smartly through mountain passes by taking certain precautions. Use this opportunity to discuss safe mountain driving habits with your drivers before they are put to the test.

**Steep mountain roads** are not exclusive to Colorado or Utah. In fact, both are nowhere near the top of the list as the most mountainous states in the U.S. Surprisingly, West Virginia holds the crown for being the least flat state, but from coast-to-coast driving up or down a mountain is still very difficult no matter the state you're in. In fact, depending on the road, you could face dramatically different elevations and grades.

## Driving Uphill

In mountain driving, gravity plays a significant role in slowing you down when climbing a hill. The steeper the grade, the longer the grade and/or the heavier the load, the more you must use lower gears to climb hills or mountains. When driving a large tow truck up a mountain, it's best to down-shift gears to help maintain a consistent pull on your truck. Driving uphill in the wrong gear can make your truck come to a complete stop, causing traffic backup, embarrassment and, even worse, a collision. Also, driving uphill in a lower gear may prevent your truck from jerking due to engine lugging, improve gas mileage and reduce engine overheating.

During hot temperatures, turn off your air conditioning and roll down your windows if you're traveling up a particularly steep grade. Running the AC puts an additional strain on your engine that can cause it to overheat.

## Driving Downhill

Drive down the mountain in a low gear – "2" or "L" if your truck has an automatic transmission. This will allow the slowing power from your engine to do most of the work. Shift the transmission to a low gear before starting down the grade. Do not try to downshift after your speed has built up. Remember, the use of brakes on a long and/or steep downgrade is only a supplement to the braking effect of the engine. The braking effect of the engine is the principal way of controlling your speed. This is greatest when it is near the governed RPMs and the transmission is in the lower gears. Save your brakes so you will be able to slow or stop as required by road and traffic conditions.

When you do use your brakes, apply them firmly to slow your truck quickly. Riding your brakes could cause them to overheat and fail. Once on level ground, shift back into "Drive" or use your regular gears and brake normally.

## Brake Fade

Go slowly enough so your brakes can hold you back without getting too hot. If the brakes overheat, they may begin to "fade." This means you have to apply them harder and harder to get the same stopping power. If you continue to use the brakes hard they can keep fading until you cannot slow down or stop at all.

If gearing down and brakes fail, you may have to use a sand- or gravel-filled runaway truck ramp. A runaway truck ramp, escape lane, emergency escape ramp or truck arrester bed is a traffic safety device enabling vehicles with braking problems to stop safely. If you must use one, keep your hands firmly on the steering wheel, keep your truck's wheels as straight as possible and be prepared for your vehicle to be slowed quickly.

## Prepare for Mountain Mishaps

- Stay on your side of the road and give extra space between your vehicle and the vehicles in front of you.
- Mind the posted speed limits and look for signs warning about steep grades ahead.
- Take extra caution if you have a vehicle in tow as it may dramatically affect your truck's ability to drive up a hill or stop while coming down.
- Only pass slower-moving traffic when you have a clear view of the road ahead. Never pass a vehicle on a blind curve or when your visibility is compromised.

*If you need ideas on how to prepare and present this information to your drivers, please call me at 847-894-0042 or email patrick@towingexpert.com.*



This article is a part of TowSafe, a safety program designed for towing operators. For more information contact April at 407-706-6796.