

News / Equipment

## Mountain Driving 101: Video series guides truck drivers in the mountains

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by **Jim Park**  
February 4, 2021

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Drivers exposed to long mountain grades for the first time face a dilemma. They may not be aware of the physical limitations of their equipment to keep them at a safe speed during the descent. They probably won't be aware of the profile of the grade, or where the steeper sections are, so they won't be able to determine a safe speed for the descent.



(Photo: Volvo Trucks North America)

They may also be led down a dangerous path by observing the speed of other trucks on the hill. Those trucks may be empty or loaded lightly compared to their own truck. If they follow the guidance found in many commercial driver training manuals, they may under the assumption that snubbing the brakes or maintaining a constant light brake application pressure is the correct way to descend a grade.

That's fine on short grades where minor speed corrections are necessary, but prolonged use of service brakes on long grades will lead to overheating and brake fade — a condition from which there's no turning back.



This ad will end in 21

And then there's old adage, "come down the hill in the same gear you went up." Well, that's not much use to you if you never climbed that hill before. And will today's engines with all their torque and horsepower, you'll be climbing faster than you should be descending anyway. Forget what you think you know about driving in mountains. This video series explains how it should be done.

Mountain Driving 101 — a four-part training series produced by Today's Trucking, and sponsored by Volvo Trucks North America — explains how to safely descend any grade without using any service brake at all, relying instead on the correct gear selection and proper use of the engine brake.



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The series is split into four episodes for easier consumption and better retention. Each covers a specific topic related to the subject of mountain driving.

Episode 1 explains the fundamentals of how brakes work, why they get hot and how that affects braking performance.



## Mountain Driving 101: How truck brakes work, and how they overheat

This video is a primer on brakes. Equipment Editor Jim Park cover the basics on how they work and what happens when brake drums get hot. Hot brakes can diminish ... [Continue reading](#)



Episode 2 covers the brake walk-around drivers should conduct to verify the brakes are in good working order before heading down a long steep grade.



## Mountain Driving 101: Inspecting brakes before heading downhill

When driving across the prairies or the plains, you'd probably never notice if a brake or two were out of adjustment, but you can't take brakes for granted when driving ... [Continue reading](#)



Episode 3 offers a deeper understanding of the warning signs commonly found on roads in mountainous areas, as well as the proper operation of a Volvo I-Shift automated transmission and the Volvo engine brake to maintain a safe speed during a descent.



## Mountain Driving 101: Understanding signs, and using an AMT

Some grades have signs that display a profile of the hill; some signage offers ambiguous warnings like, "Use Lower Gear" or "Slow Down," but lower than what or how slow? ... [Continue reading](#)



Episode 4 brings together all that insight for a drive down a 6-mile (10 km) 7% grade called the Blueberry-Paulson Hill, located in the Kootenay Mountains near Castlegar, B.C..



## Mountain Driving 101: Match the truck gear and speed to the grade

Mountain driving instructor Andy Roberts and equipment editor Jim Park talk their way through a downhill descent, explaining gear selection, desired road speed. They make two trips down the hill, ...  
[Continue reading](#)



Our mountain driving instructor, Andy Roberts, brings more than 30 years of mountain driving experience to this production. He's the owner and president of the Castlegar-based commercial vehicle driving school, Mountain Transport Institute. He has been instructing his students in proper mountain driving techniques for more than 15 years.

- *Newcom Media thanks Volvo Truck North America for supporting this video and helping to make mountain driving a safer and more enjoyable experience.*



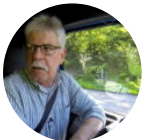
## Mountain Driving: The art and science of mountaineering

This story stems from a horrific truck crash that occurred on Interstate 70 near Denver, Colo. in late April 2019. An apparently out-of-control truck careened down an 8-km stretch of ... [Continue reading](#)



Truck News

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by **Jim Park**

Jim Park was a CDL driver and owner-operator from 1978 until 1998, when he began his second career as a trucking journalist. During that career transition, he hosted an overnight radio show on a Hamilton, Ontario radio station and later went on to anchor the trucking news in SiriusXM's Road Dog Trucking channel. Jim is a regular contributor to Today's Trucking and Trucknews.com, and produces Focus On and On the Spot test drive videos.

## Have your say

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**John Wihksen** says:

February 7, 2021 at 11:34 pm

Hi-A "professional" driver selects a prudent combination of gear choice-"light" brake application & retarder on any grade and respect for adverse road environment. 60 years in the industry and appalled by today's commercial accident's happening too often. – Thanks – John W. Vancouver, BC.



**Ron Spring** says:

February 10, 2021 at 3:29 pm

this is a well done an practical set of videos that every fleet should make a part of their training program. Both Jim Park and Andy Roberts do a very professional and informative 'REAL LIFE' presentation.

All our drivers get trained and mentored for working through this area. This is our 'neighbourhood' that we operate in regularly. If you can drive the Kootenays , you're GOLDEN.

[Reply](#)



**William McNamee** says:

March 23, 2021 at 8:23 am

After 28 years OTR I thought I knew my mountain driving skills... then my employer (Carbon Express) sent a small group to ANDY for training... my world changed 150% after the mountain driving course... what an incredible amount of knowledge and practical application!! I've spent the last 2 years using all of the (proper) techniques to descend mountain grades and have never felt safer or more professional on the descent... brakes are my tools... but my skill & knowledge of how to PROPERLY descend are the icing on my career... this course was outstanding!!

[Reply](#)



**Brian Bullock** says:

April 22, 2021 at 5:09 pm

Hi Jim and Andy, These videos are much needed in the industry. Congratulations on the content and the simple direct way the message

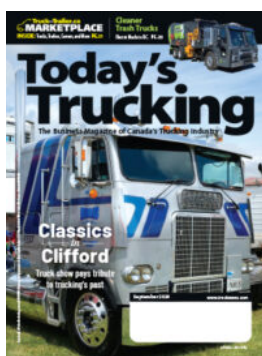
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