

## Advanced Tires

Tires play critical roles in the operation of a vehicle. Operators have found that maintaining proper tire pressures and alignment reduces both fuel use and tire wear. Research on tire design and compounds have resulted in tires that are more durable, safer and energy efficient. New tire designs can reduce fuel consumption by up to 4% in dual tire configurations.

Significant change is occurring in truck tire applications. For decades most combination trucks have had dual tire assemblies on the drive and trailer axles, with two sets of wheels and tires at each end of an axle.

One promising technology that is endorsed by the US EPA and BC Trucking Association is single wide-base tires, often called "super singles".

A single wide-base tire and wheel is lighter than two standard tires and wheels and costs less. Total weight savings for a typical combination truck using single wide-base tires on its drive and trailer axles ranges from 800 to 1,000 pounds. The weight savings reduce fuel consumption, or increase cargo carrying capacity for trucks that are weight-limited. Wide-base tires also have lower rolling resistance and aerodynamic drag further enhancing fuel mileage.

Using one tire also increases a truck's stability as the clearance between the wheel centers increases. Additionally, fleets can achieve cost savings through reduced tire repairs and lower recycling fees.

View the US EPA's SmartWay program statement on wide base tires.

There may be differences in the total load carrying capacity allowed when using wide base tires in British Columbia. Contact the BC Ministry of Transportation for up to date information.

As with any tires, proper alignment remains a factor in fuel efficiency gains.