Aerodynamics 101

HOW FUEL IS CONSUMED IN A HEAVY TRUCK ENGINE

TRACTOR-TRAILER AERODYNAMICS

HOW TRAILEF

HOW FUEL IS CONSUMED IN A HEAVY TRUCK ENGINE

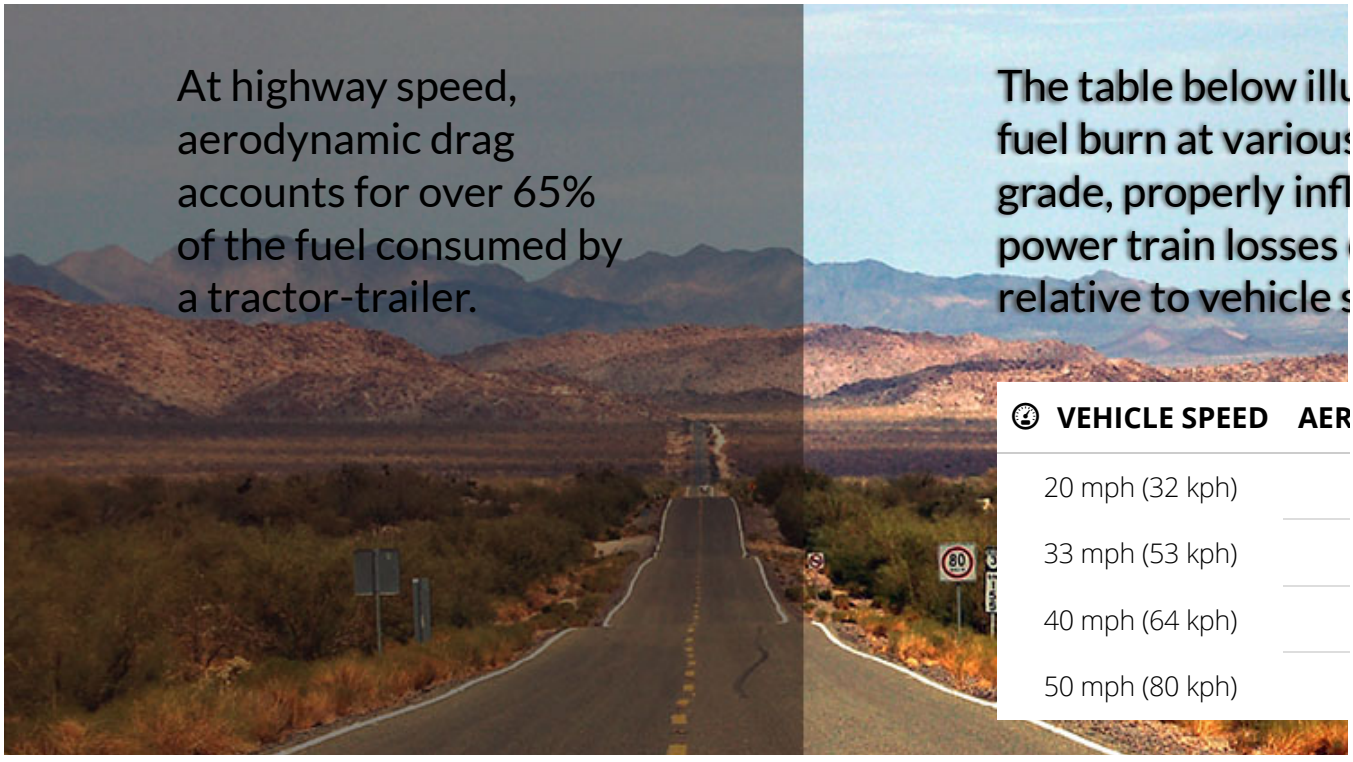
THE CONTRIBUTION TO FUEL BURN CAN BE DIVIDED INTO FIVE EL

AERODYNAMIC DRAG

POWER TRAIN LOSSES

GRADE CHANGES

ACCESSORY LOSSES



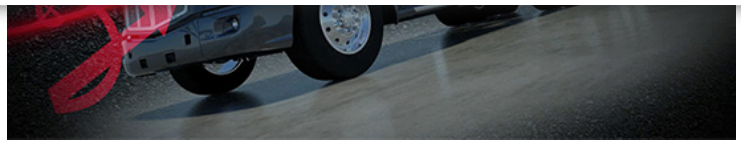
Since aerodynamic drag is but one source of fuel consumption, reducing aerodynamic drag by 20% wil reduction in overall fuel consumption. Rather, it will be 20% multiplied by the percentage contribution at that particular speed.

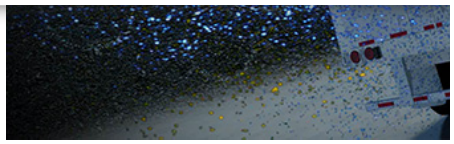
For example, a 20% reduction of aerodynamic drag via the use of aerodynamic devices would have an reducing fuel consumption by approximately 9.4% at 50 miles per hour.

These fuel savings would rise as speed increased to a maximum value of approximately 14.4% at 75 mi

As a rule of thumb, aerodynamicists approximate the percentage of fuel saved by an aerody of the percent change in drag.

TRACTOR-TRAILER AERODYNAMICS





A truck in motion encounters resistance from the air flowing into and around it. This drag is made up of pressure drag and skin friction drag.

The oncoming airflow pushes against the front of the tractor, creating a **high-pressure region**, just as it does on the wheels and the front of the semi-trailer.

The truck moving forward in t **low-pressure region** behind t semi-trailer: these areas "suck" the vel

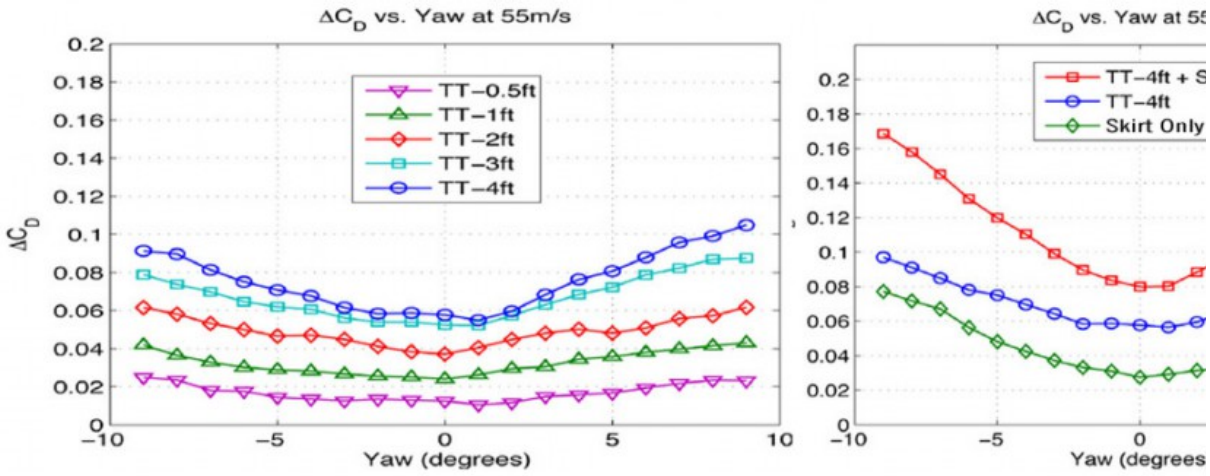
The most fuel efficient and profitable trucking fleets utilize aerodynamic trucks, minimize the gap be trailer, install side skirting to prevent air from hitting the trailer's rear axles and TrailerTail® technology the rear of the vehicle.

HOW TRAILERTAIL® TECHNOLOGY WORKS

TrailerTail® technology lowers vehicle fuel consumption by reducing low-pressure suction drag that occurs directly behind the tractor-t

The large low pressure area at the back of the trailer acts as vacuum causing drag and a turbulent vortex is created by unstable airflow.

TrailerTail® technology diminishes the reducing drag and streamlining the ai stability and fuel efficiency.



Drag reduction for different TrailerTail® lengths (left) and drag reduction for AeroTrailer™ (Trailer combination package).

The higher the bar on the graph, the greater the reduction in aerodynamic drag

TrailerTail® fuel savings are complimentary to other aerodynamic technologies. TrailerTails® reduce ae over 12%, equating to over 5% fuel efficiency improvement at 65 mph and over 12% efficiency improve with ATDynamics side skirts and other minor trailer modifications.

Features	SuperSpare	OEMs	Dealer Map	SuperTruck
Specs	Custom	Financing	International	SmartWay/C
Installation				Videos
Top 5 Questions				Photos
Photos and Videos				