



**Jacobs Vehicle Systems™**

## *History*

It's good to be the first and best. For four decades, Jake Brake has been the #1 choice of owner-operators and fleet owners alike.

## *Manufactur*

Certified to ISO 9001 methodologies, manufacturing and testing operate under the most stringent quality control.

## *Partnership*

Our cooperative development relationships with the world's premiere diesel engine manufacturers ensures a partnership that yields the best product possible.

## *Design*

The design spirit of our engineering staff is that of undying pursuit for optimum performance, reliability and durability.

## *Innovation*

Jacobs Vehicle Systems is committed to the success and adaptation of its new integrated engine braking design that provides a 20-25% increase in horsepower and up to 80% reduction in weight.



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**A Driving Force  
in the Industry**

**Continuous  
Improvement**

**Relentless Research**

**A Clear Direction  
for Tomorrow**

*Engineered*

*for the*

*Road Ahead<sup>SM</sup>*



# Jacobs Vehicle Systems™



## What is a Jake Brake retarder?

Jake Brake Retarders are an integral part of today's heavy duty diesel engines, and are used as an aid in slowing the vehicle. They provide enhanced vehicle control down long steep hills, as well as on flatlands for speed control, or in stop and go driving.

## Why do I need one?

### Roads & Loads

Today's vehicles are harder to slow down. Vehicle improvements have created a greater need to supplement the service brakes.

### Productivity

By controlling your downhill speeds, a retarder allows for faster safe descents, reducing trip times, thus increasing productivity.

### Lowens Costs

Supplementing the vehicles braking system drastically extends brake life, and keeps brakes and tires temperatures cooler. Therefore, associated costs of wheel end repairs and tire replacement are also reduced. At trade-in, vehicles equipped with a Jake Brake Engine Brake are worth on average about \$1500 more.

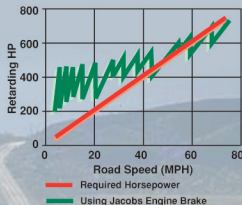
### Driver Satisfaction

Fleets know the high costs of employee turnover. Drivers request them because they know retarders enhance their control of the vehicle and reduces driving fatigue.

### Compatible with vehicle systems

The Jacobs Engine Brake is compatible with vehicle systems such as cruise control, autoshift transmissions, ABS, and collision warning systems.

The power of a Jacobs Engine Brake can be seen as well as felt. Below 45 MPH in many instances, the vehicle will have more retarding horsepower than necessary to maintain a constant downhill control speed.



Gear	Control Speed
10th	45 MPH
11th	51 MPH
12th	63 MPH

Control Speed Calculations based on typical drivetrain configuration and vehicle weight. Specifications will vary with engine configuration.

# Engineered

for the  
Road Ahead<sup>SM</sup>