

# AUTOMATED UNDERCARRIAGE DIAGNOSTICS

## **VIS-Check**

is an undercarriage diagnostic system that automates the inspection of brake, steering and suspension components.

## **VIS-Check for Repair Shops:**

- Boosts service shop profitability
- Finds otherwise undetectable repairs
- Automates undercarriage diagnostics
- Builds lasting customer loyalty

## **VIS-Check for Fleets:**

- Increases driver satisfaction
- Lowers fuel and tire consumption
- Improves vehicle safety & reliability
- Accelerates maintenance activities



**Low profile VIS-Check conveniently mounts on the floor of a conventional service bay.**

## **VIS-Check quickly detects:**

### **Brakes**

- incorrect brake adjustment
- compressor performance issues
- air distribution problems
- faulty slack adjusters
- glazed or contaminated linings
- damaged S cam components
- drum out of round conditions
- broken parking brake springs
- unbalanced braking force
- weak braking force

### **Steering & Suspension**

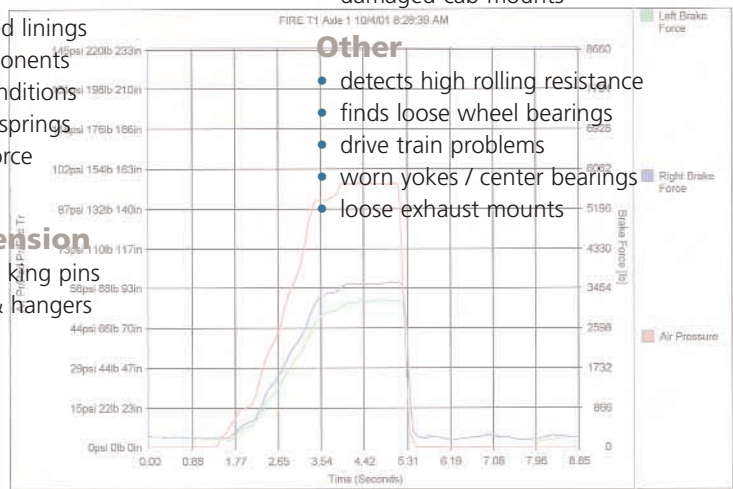
- worn tie rod ends and king pins
- spring pins, shackles & hangers
- worn bushings
- shock absorbers
- loose U bolts
- air bag integrity

### **Frame & Chassis**

- weight distribution
- axle load balance
- worn engine mounts
- damaged cab mounts

### **Other**

- detects high rolling resistance
- finds loose wheel bearings
- drive train problems
- worn yokes / center bearings
- loose exhaust mounts



## **System Overview**

VIS-Check is a performance based brake tester (PBBT) combined with a dynamic road simulator.

The brake tester measures the braking force produced by each wheel on a vehicle, right to left and axle by axle. It then produces a definitive report on the health of a vehicle's brakes including a PASS or FAIL rating to DOT specifications.

The road simulator allows technicians to view steering and suspension components under harsh operating conditions. Otherwise undetectable mechanical issues are easily spotted on the VIS-Check simulator.





**In 15 minutes, VIS-Check can verify peak vehicle performance or pinpoint safety and operating efficiency issues.**

## VIS-Check Peace-of-mind:

- Identifies ride issues, reduces driver fatigue
- Measures brake performance, confirms vehicle safety
- Measures rolling resistance, improves fuel economy
- Trouble shoots undercarriage, extends tire life



### The VIS-Check Process

#### Step 1

Position the vehicle's front tires on the VIS-Check rollers. VIS-Check determines brake performance and measures:

- axle weight per wheel
- wheel rolling resistance
- service brake application timing
- service brake air / hydraulic pressure
- service brake release timing
- brake balance left to right



#### Step 2

Position the vehicle's front tires on the simulator plates. A hydraulic jack lifts weight off the wheels. The road simulator motions then reveal undercarriage flaws, including:

- front axle steering linkage components
- front axle suspension components
- engine and chassis mounts
- wheel bearing movement



#### Step 3

Position the vehicle's rear tires on the VIS-Check rollers. VIS-Check determines brake performance and measures:

- axle weight per wheel
- wheel rolling resistance
- service brake application timing
- service brake air / hydraulic pressure
- service brake release timing
- brake balance left to right



#### Step 4

Position the vehicle's rear tires on the simulator plates. A hydraulic jack lifts weight off the wheels. The road simulator motions then reveal undercarriage flaws, including:

- rear axle and suspension components
- driveline component integrity
- chassis and body mounts
- wheel bearing movement
- fifth wheel components



#### Step 5

Repeat the brake test and road simulation procedures for trailer or additional axles.

#### Step 6

Complete and print out the VIS-Check Safety and Efficiency report for all axles and wheel positions.

### About VIS:

Since 1994 VIS has specialized in the implementation of workplace automation in heavy vehicle service shops.

By automating vehicle inspection and servicing, VIS customers achieve higher customer satisfaction and profitability from their existing resources.

See [www.vischeck.net](http://www.vischeck.net) or call **1-866-847-8721** toll free for more information.

