

# INTRODUCING BRAKE SAFE® .... THE VISUAL BRAKE STROKE INDICATOR SYSTEM



**Brake Safe<sup>®</sup>** is a visual brake stroke indicator that shows brake stroke status without the need to crawl under the equipment.

- Identifies brakes that are out-of- adjustment or approaching the adjustment limit
- Detects non-activating brake chambers
- Identifies brakes that have failed to release
- Indicates weak or broken parking brake springs

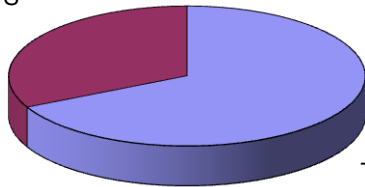


# Brake Safe<sup>®</sup> eliminates the number one fleet brake problem: OUT-OF-ADJUSTMENT BRAKES

## OUT OF SERVICE VIOLATIONS MAJOR DEFECTS

OPERATION AIR BRAKE - MAY 7, 2008 - CANADA & USA

ALL OTHER DEFECTS  
32%



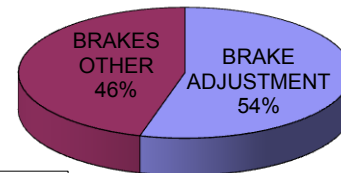
TOTAL BRAKE DEFECTS  
68%

■ TOTAL BRAKE DEFECTS  
■ ALL OTHER DEFECTS

Brake defects accounted for 68% of out-of-service violations.

## OUT OF SERVICE VIOLATIONS BRAKE DEFECTS

OPERATION AIR BRAKE - MAY 7, 2008 - CANADA & USA



■ BRAKE ADJUSTMENT  
■ BRAKES OTHER

Brake adjustment defects were the leading cause of brake related out-of-service violations (54% of all brake defects).

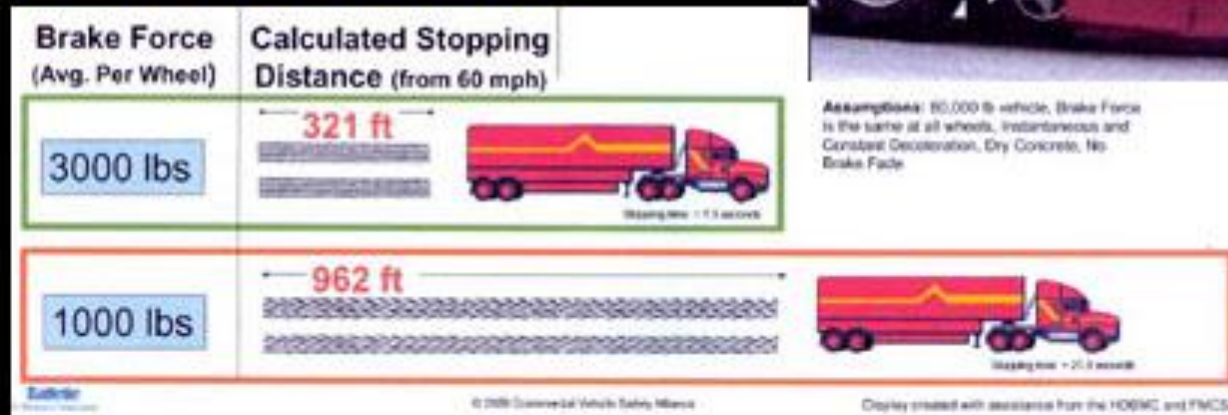
Vehicles equipped with automatic slack adjusters accounted for 67% of brake adjustment defects resulting in out-of-service violations.

# The Importance of Brake Adjustment

At DOT adjustment limit brake force is approximately 3,000 lbs.

Beyond the DOT adjustment limit brake force decreases significantly.

At the Manufacturer's travel limit brake force is non-existent.



**Proper Brake Adjustment Means Shorter Stopping Distance**



# Brake Safe<sup>®</sup> Benefits

## Reduced Maintenance Costs

- Fewer unnecessary brake adjustments
- Pre-empt costly repairs by identifying existing and potential brake repairs
- Assists balanced braking reducing uneven brake and tire wear.



# Brake Safe® Benefits

## Improved Fleet Productivity

- Less driver time on brake pre-trip inspection
- Less downtime from out- of- service infractions
- Reduced PM time spent on foundation brake system
- Equipment is on the road quicker with less downtime in shop





# Brake Safe<sup>®</sup> Benefits



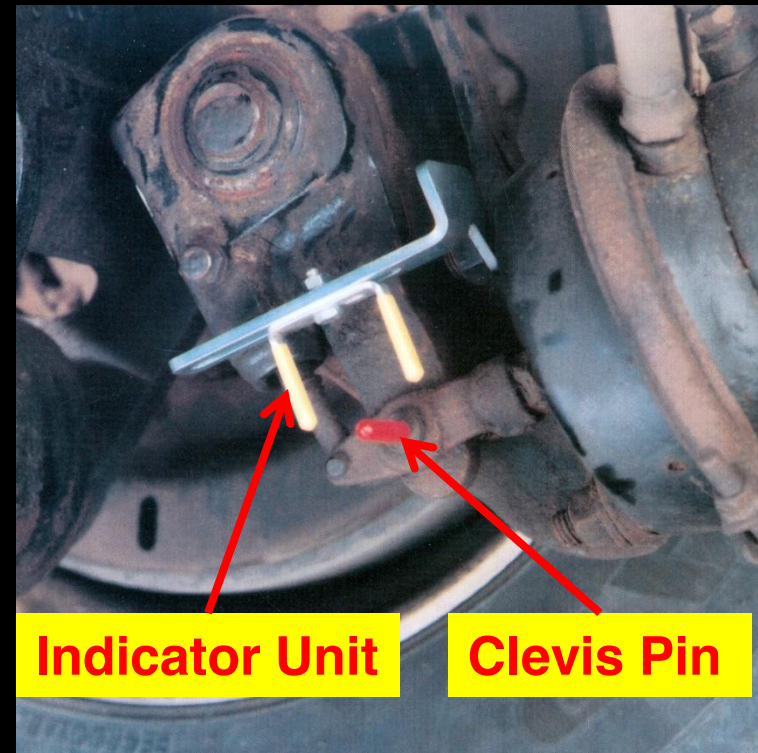
## Improved Fleet Safety

- Ensure maximum braking capability in normal or emergency situations
- Eliminate roadside infractions and resulting fines
- No loss of brake related demerit points
- Increase operator confidence in safety and reliability of fleet equipment
- Demonstrate safety commitment to regulatory and inspection agencies

# Brake Safe<sup>®</sup> Features



- Brake stroke status shown at each wheel-end position
- Easy to see pre-measured indicator units ensure adjustment accuracy
- Clevis pin has tooled pointer for permanent visibility





# Brake Safe® Features



- Brackets & Indicator units are fabricated in “one piece” for superior strength
- High quality steel fabrication with corrosion resistant zinc plating for extended operational life

**Steel Fabrication**



**Zinc Plating**

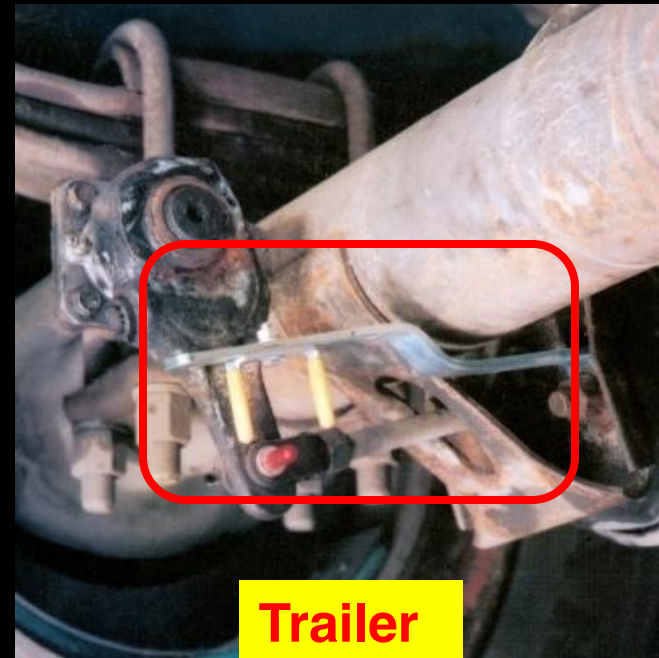
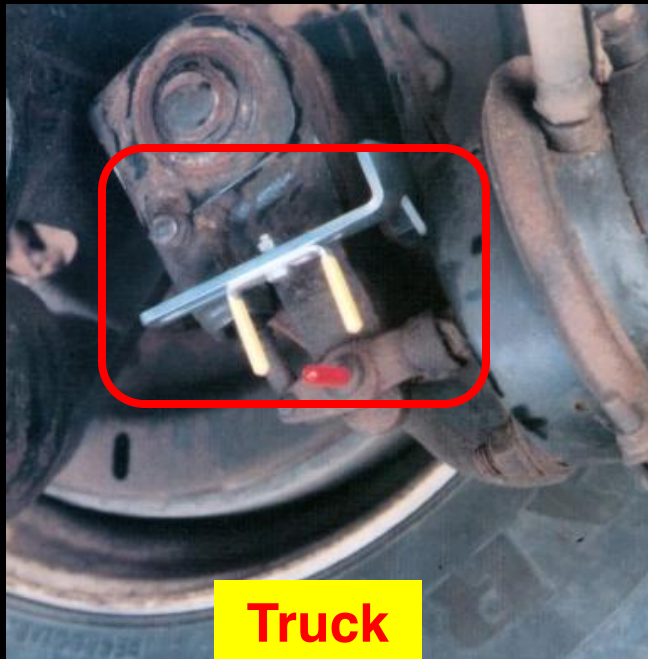


**“One piece” indicator unit**

# Brake Safe<sup>®</sup> Features



- 2 universal formats: one for trucks and one for trailers



# Brake Safe® Features



- Highly visible Brake Safe® identification sticker.

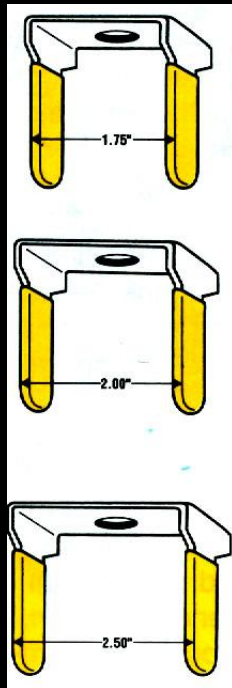


- Installs in minutes with regular shop tools.

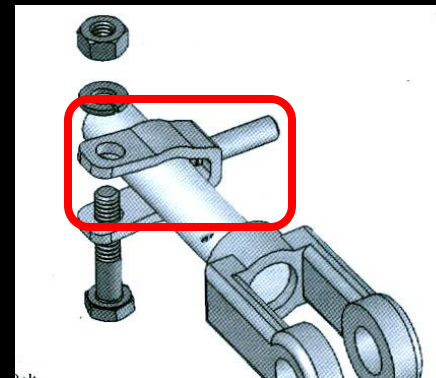
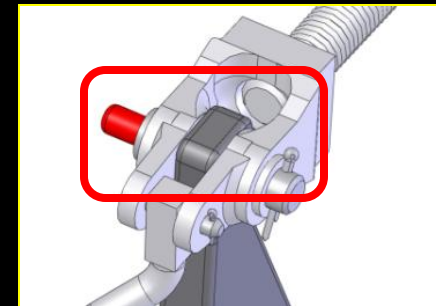
# Brake Safe<sup>®</sup> Features



- Pre-measured indicator units are set to DOT specifications of 1.75", 2.00" or 2.50"



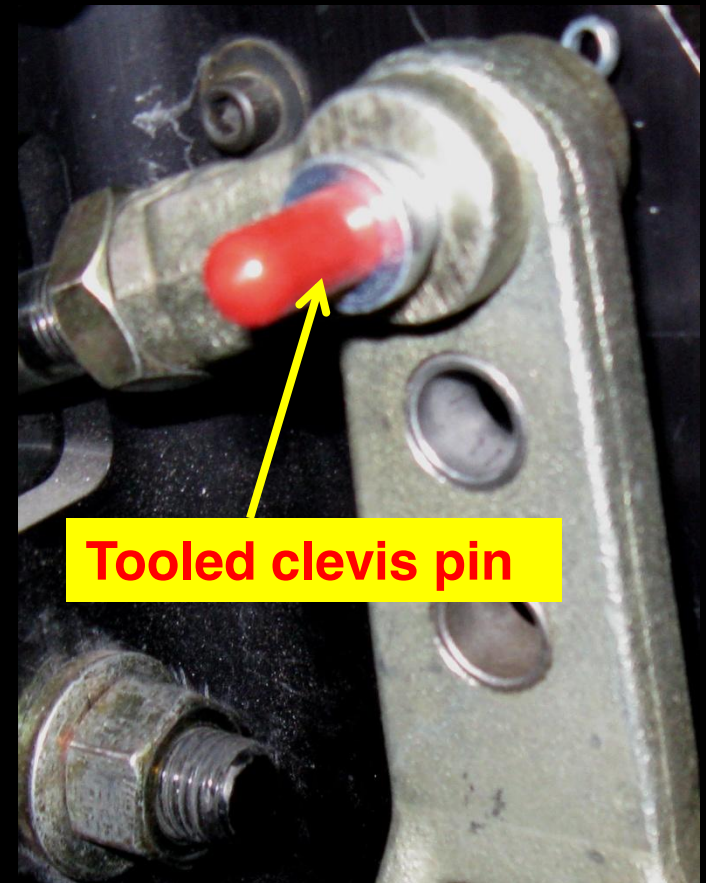
- Replacement clevis pin and clamp pin have tooled point for permanent visibility and accuracy



# How Does Brake Safe® Work?



- The Brake Safe® tooled clevis pin with the red pointer cover is inserted into the slack adjuster yoke replacing the existing clevis pin.





# How Does Brake Safe® Work?



- The Pre-measured reference unit with the yellow pin covers is attached to the steel, zinc plated mounting bracket.



**Pre-measured  
reference unit**

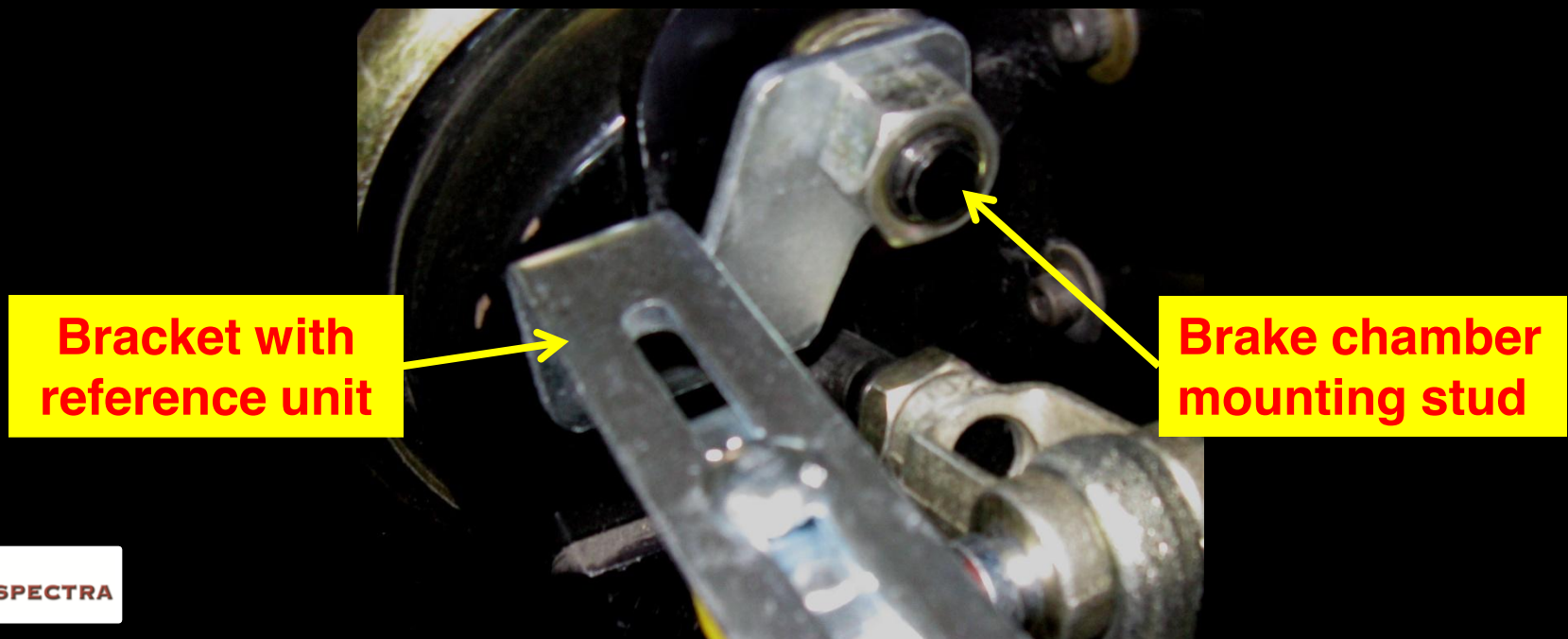
**Mounting  
bracket**



# How Does Brake Safe® Work?



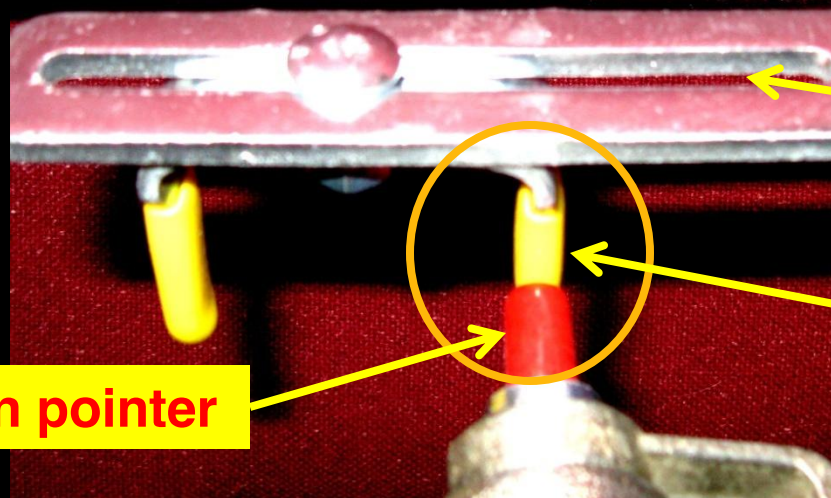
- The steel bracket with the pre-measured reference unit is mounted on the brake chamber using the existing mounting stud.



# How Does Brake Safe® Work?



- With the brakes released, the pre-measured reference unit is moved along the bracket slot to align with the tooled clevis pin pointer.
- The clevis pin pointer is aligned center to center with the 1<sup>st</sup> pin of the indicator unit.



Bracket slot

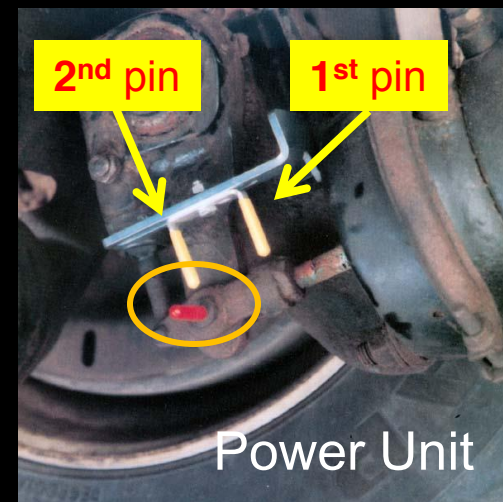
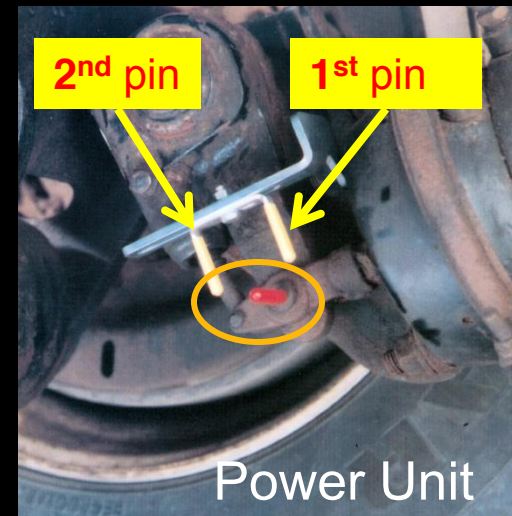
1<sup>st</sup> pin of pre-measured reference unit

Clevis pin pointer

# How Does Brake Safe<sup>®</sup> Work?



- Brakes are applied with 90-100 psi and the push rod moves the clevis pin from the 1<sup>st</sup> pin of the pre-measured indicator unit towards 2<sup>nd</sup> pin.
- Brakes are in-adjustment as long as the clevis pin pointer does not pass the indicator unit's 2<sup>nd</sup> pin.
- Brakes are out-of adjustment when the clevis pin pointer passes the indicator unit's 2<sup>nd</sup> pin.



# Brake Safe® will save your fleet time and money!

- Reduced Maintenance Costs

- ✓ No unnecessary brake adjustments
- ✓ Pre-empt costly repairs
- ✓ Balanced braking

- Improved Productivity

- ✓ Mechanics
- ✓ Drivers
- ✓ Equipment

- Improved Fleet Safety

- ✓ Eliminate roadside detention
- ✓ Avoid costly inspection fines



# Brake Safe® Product Line

## Truck (Power Unit) Kits:

<u>Brake Safe Part No.</u>	<u>Clevis Pin Size</u>	<u>Chamber Types</u>	<u>Ref.Unit Stroke</u>	<u>Typical Applications</u>
PU242	1/2"	16,20,24	1.75"	Most steering axles
PU250LS	1/2"	24LS,30LS sq.port	2.50"	Long-stroke, square port chambers, drive & steer
PU250LSCP	1/2"	24LS,30LS sq.port	2.50"	Clamp-on pointer for long push rods
PU302	1/2"	30,16L,20L,24L	2.00"	Most drive axles & long stroke steering axles
PU302CP	1/2"	30 extended pushrod	2.00"	Clamp-on pointer for long push rods

## Trailer Kits:

<u>Brake Safe Part No.</u>	<u>Clevis Pin Size</u>	<u>Chamber Types</u>	<u>Ref.Unit Stroke</u>	<u>Typical Applications</u>
TL250LS	1/2"	30LS sq.port	2.50"	Long-stroke, square port chambers
TL250LSCP	1/2"	30LS sq. port	2.50"	Vantraxx & Intraax suspensions, clamp-on pointer
TL302	1/2"	30	2.00"	Regular 30-30 brake chambers
TL302CP	1/2"	30	2.00"	Vantraxx & Intraax suspensions, clamp-on pointer

Note: Kits with 5/8 inch clevis pins are available



# Equip your fleet with Brake Safe® today!

For more information on Brake Safe®:

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Toronto, Ontario, Canada

[www.spectraproducts.ca](http://www.spectraproducts.ca)

[www.brakesafe.ca](http://www.brakesafe.ca)

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