

INTRODUCTION

H **TIREMAX** [®] **PRO**

The Problem...

- The increased popularity of automatic tire inflation systems (ATIS) has alerted fleets that trailers equipped with ATIS do not always maintain the desired target pressure.
- Today's tire inflation systems are incapable of controlling desired pressure levels leading to overinflated conditions, or in the case of dual tires, mismatched pressures.
- Several factors contribute to this:
 - *Today's systems are only capable of indicating when a tire pressure is low. Tire pressures that extend beyond the target pressure often go undetected.*
 - *Automatic tire inflation systems constantly fill tires with air at ambient temperature. Over time, these systems fill tires with cold dense air, which can alter a tire's pressure, especially when the trailer returns to warmer temperatures which causes this air to expand.*

Evolution of tire solutions



1 Checking

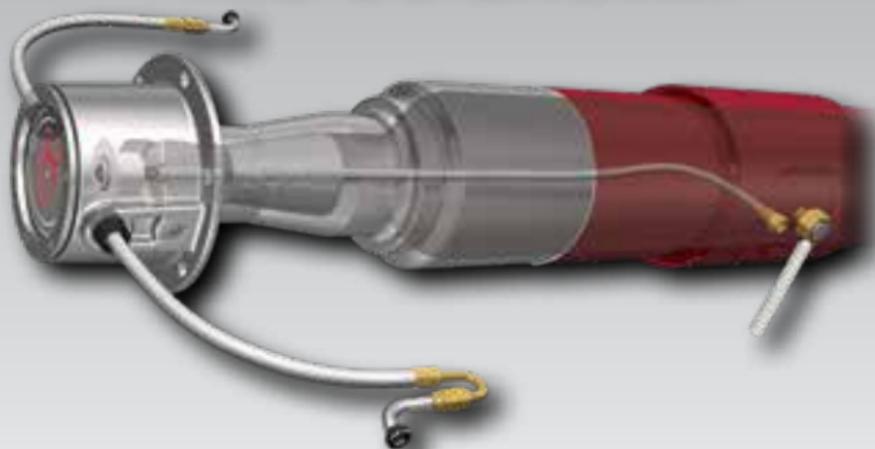


2 Monitoring

- Persistently overinflated or mismatched tires can drastically decrease tire life resulting in less than desirable tread wear and leaving tires more susceptible to road hazards.

From maintenance to downtime to overall operating costs, tires significantly impact a fleet's bottom line.

The Solution...



Hendrickson's revolutionary TIREMAAX® PRO is unique to the trailer industry.

TIREMAAX PRO is the only system available that controls tire pressure by inflating low tires, equalizing pressure across all wheel positions and relieving pressure from overinflated tires.

of tire solutions



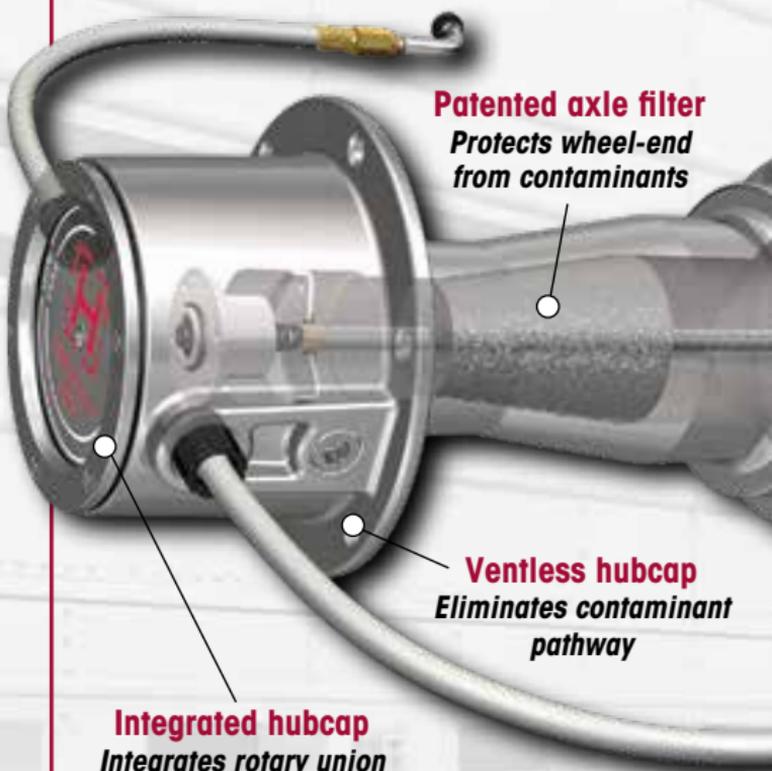
3 Inflating



4 Controlling

SYSTEM OVERVIEW

The industry's first tire pressure control system, TIREMAAX[®] PRO is the only system available that was specifically designed to allow air to flow in both directions — to and from tires.



Patented axle filter
*Protects wheel-end
from contaminants*

Ventless hubcap
*Eliminates contaminant
pathway*

Integrated hubcap
*Integrates rotary union
and tire hose connections
into the hubcap*

Patent-pending controller

- *Controls tire pressures to maintain desired pressure level*
- *Relieves air from tires when target pressure is exceeded by venting excess air at the controller*
- *Inflates low tires to desired pressure level*
- *Equalizes tire pressure across all wheel positions to help reduce friction and maximize life on dual tires*
- *Isolates tires when trailer is parked*

TIREMAAX[®] PRO

ERVIEW

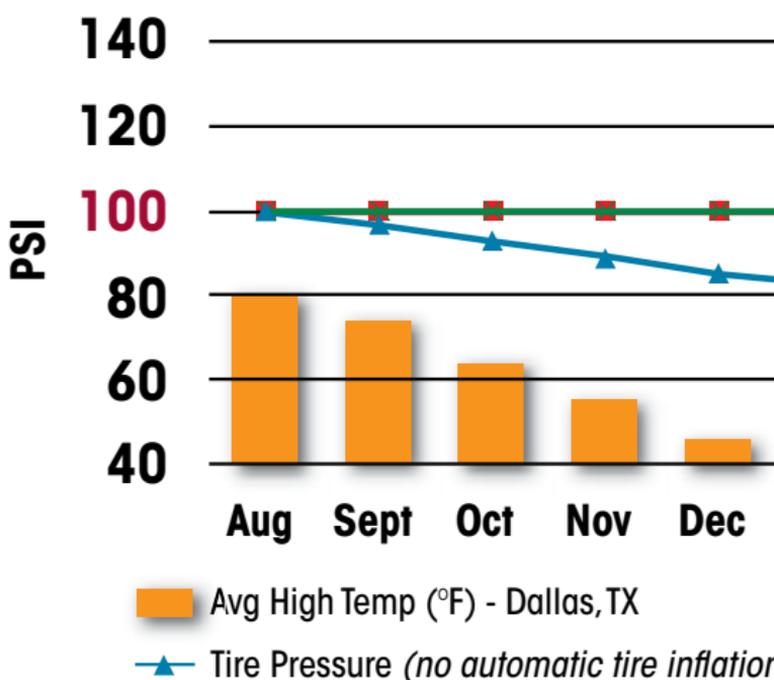
The system features a unique integrated hubcap and sophisticated controller to address the problems of overinflation and mismatched tire pressures.



ENVIRONMENTAL IMPACT

The graph below is an example showing the impact of one trip to Northern US / Canada in January when equipped with a typical industry standard automatic tire inflation system.

Tire Pressure Over Time



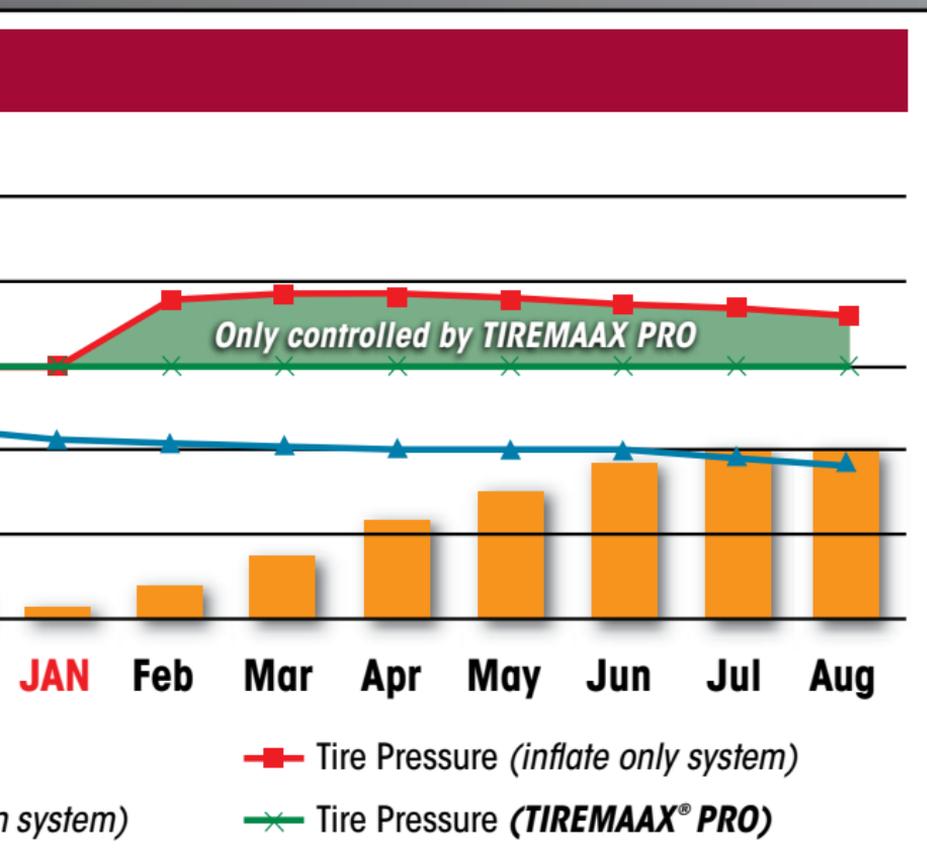
This January exposure to an ambient temperature of -30 degrees Fahrenheit causes an immediate overinflated condition of more than 15 psi upon returning to Dallas, TX.

TIREMAAX PRO is the only system in the industry that is capable of controlling overinflated tire conditions that result from exposure to extreme ambient temperature changes.

TIREMAAX[®] PRO

MENTAL IMPACT

Typical inflate-only systems have no way to control pressures above the target PSI, which can result in overinflated tire conditions that will persist for many months without manual intervention.



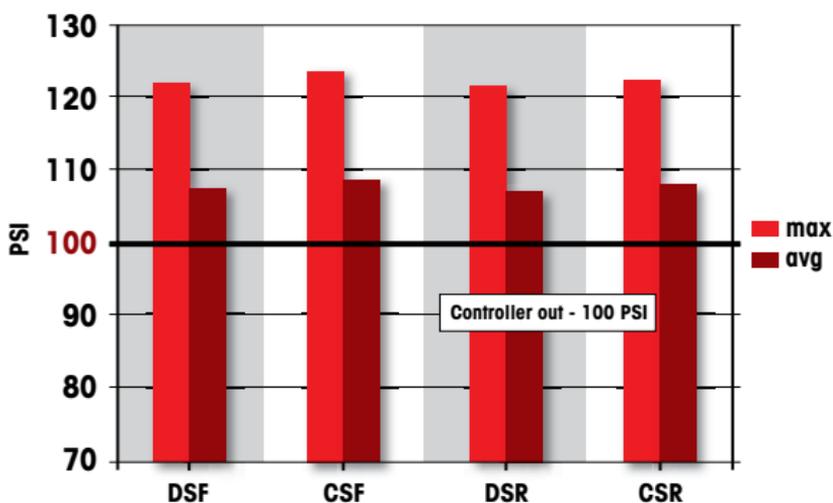
OVERINFLATION

DID YOU

1 Overinflated tires are harder than properly inflated tires making them more susceptible to tread surface cutting, impact breaks, punctures and shock damage.

2 Overinflated tires change a tire's footprint which can affect tire traction and lead to irregular wear patterns.

Inflate-only System*



TIRE POSITION KEY

DSF - DRIVER SIDE FRONT **CSF - CURB SIDE FRONT**

**Actual field data collected over a 3-month period*

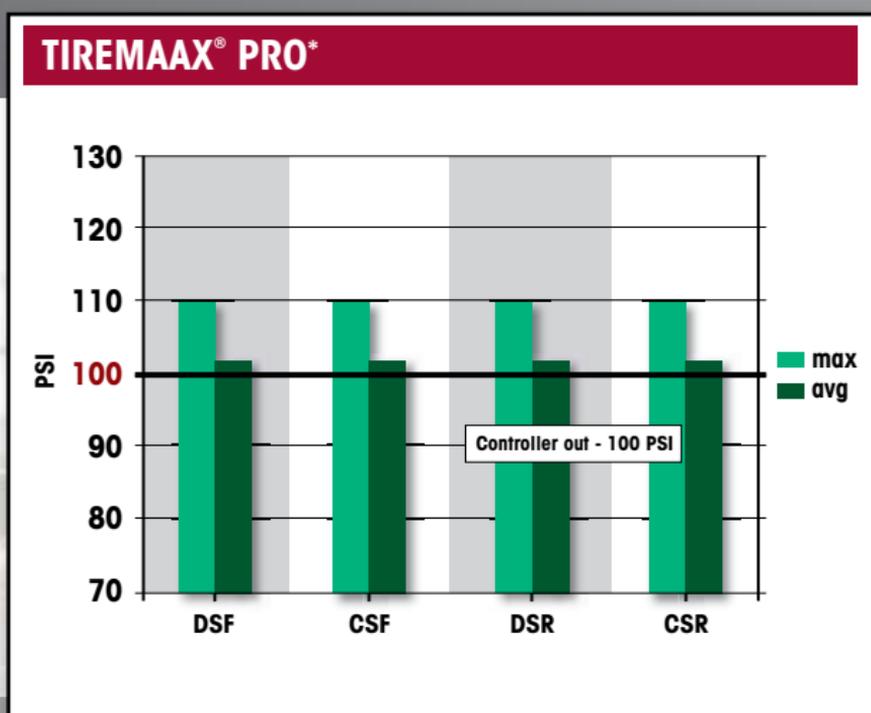
KNOW...

3

A 2003 FMCSA study found that 16 percent of all trailer tires are overinflated by more than 5 psi and 5 percent of tires by more than 10 psi.

4

Overinflated tires can experience accelerated tread wear costing from 7 to 15 percent of life.



DSR - DRIVER SIDE REAR

CSR - CURB SIDE REAR

TIREMAAX® PRO is the only solution proven to address overinflated tires to maximize tread wear, reduce instances of damage and achieve maximum tire life.

Hendrickson's field data proves that inflation-only systems cannot address overinflated tire conditions.

EQUALIZATION

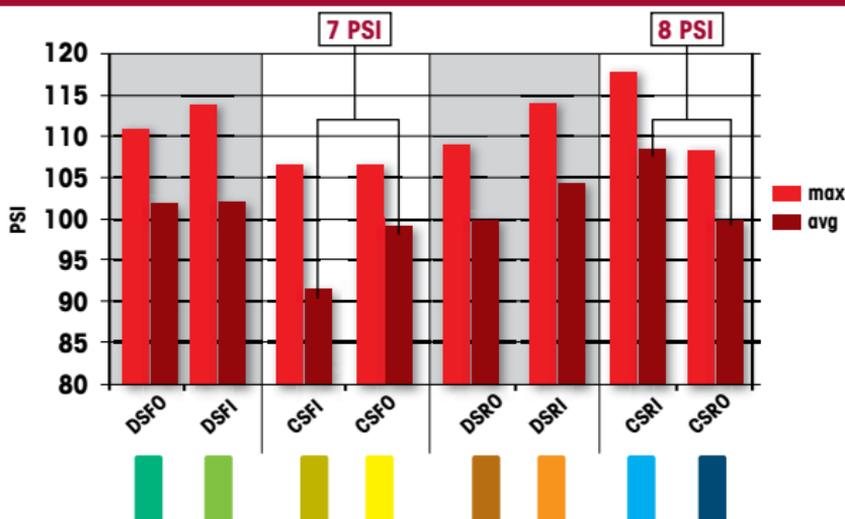
DID YOU

1 Mismatched tire pressures on dual tires and its relationship to tread wear, tire life and fuel economy can be problematic.

2 Within a matter of weeks, mismatched pressures can cause permanent irregular wear patterns, which can lead to early tire removal.

3 Almost 25 percent of trailer dual assemblies have mismatched air pressures greater than 5 PSI, and testing has shown that a five PSI difference between duals creates a 5/16-inch difference in tire circumference.

Inflate-only System



WHEEL POSITION GUIDE



KNOW...

4

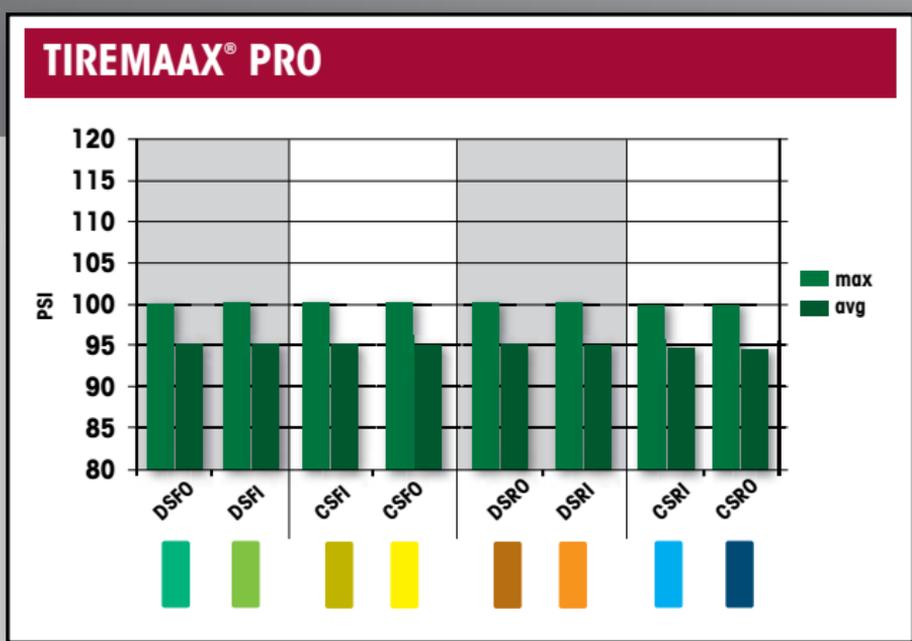
Since dual tires are bolted together and must rotate at the same speed, any differences in tire diameter can cause the smaller tire to be scuffed and dragged against the road.

5

The tire with the larger diameter carries a disproportionate amount of the trailer's load which can result in abnormal tread wear.

6

Ultimately, failure to properly equalize dual tire pressures can lead to unequal tread wear for both tires.



*Actual field data collected over a 3-month period

In general, a tire makes about 500 revolutions per mile. In 100,000 miles, that's 50 million of those 5/16-inch drags and that works out to 246 miles. So it's as though you spun the smaller tire against the pavement at highway speed for 246 miles!

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