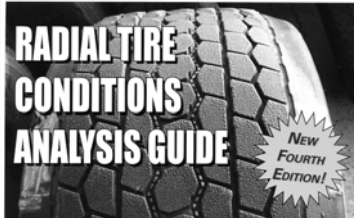


## Tire Underinflation - Major Factor for Tire Issues



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Recently, TMC of the American Trucking Association, released their 4<sup>th</sup> edition Radial Tire Conditions Analysis Guide. This outstanding manual is recommended for all fleets in identifying tire issues. It's amazing how many tire conditions are caused in part or in full by underinflation. Even though we have been preaching the importance of keeping your tires inflated ALL the time for more than 30 years, it is still a serious issue for fleets. There are several reasons why underinflation continues to be an issue even for the best maintained fleets:

- Takes too long to check 18 or more tires
- Get dirty
- Lots of bending over & reaching into the wheel hand-holes to check the pressure
- Gauges are inaccurate
- Check a tire pressure before you leave and then you can pick up a nail 5 minutes later

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The list of tire conditions where underinflation is a cause fall into 2 primary categories:

- Casing Conditions
- Tire Wear

By casing, we mean any tire issue that is NOT associated with the tread. It is everything below the tire tread. The tire wear category is specifically tire wear conditions where underinflation played a role. When irregular wear develops, that tire will be coming out of service early which will significantly affect your tire budget. The best solution is to maintain a serious

tire program with the goal of keeping tires inflated to the spec pressure ALL the time.

### Casing Conditions:

#### Bead Area

- Bead Damage from rim flange wear
- Bead Deformation
- Bead damage due to overload/underinflation
- Reinforce/chafer separation

#### Sidewall Area

- Crack at edge of retread wing
- Circumferential fatigue rupture (zipper break)
- Run flat (only sidewalls remain)

#### Crown Area

- Wild wire
- Lug base cracking
- Rib tearing
- Belt lift/separation

#### Tire Interior

- Open innerliner splice
- Innerliner cracking
- Pulled/loose cords
- Run Flat
- Failed tire repair from underinflation

### Tire Wear:

#### Steer Axle

- Cupping/scallop/wavy wear
- Rib depression/punch wear
- Spot wear

#### Drive Axle

- Rapid shoulder wear – one shoulder
- Shoulder wear/chamfer wear
- Heel/toe wear

#### Trailer Axle

- Center Wear
- Shoulder step/chamfer wear
- Cupping/scallop/wavy wear