

BRIDGESTONE

Firestone



 OFF-THE-ROAD
TIRES

The Bridgestone logo, featuring the word "BRIDGESTONE" in a bold, italicized, black font with a white outline, set against a background of white stars on a blue field.The Firestone logo, featuring the word "Firestone" in a bold, red, serif font with a white outline, set against a yellow background.A background image showing several large off-the-road (OTR) tires with different tread patterns. The tires are set against a backdrop of the American flag, with the stars and stripes visible. The tires are arranged in a way that they appear to be stacked or overlapping.

How to Manager Your OTR Tires When You Can't Get What You Want

Presented by
Jack Dutcher,
National Manager,
OTR Training and Development,
OTR Group,
Bridgestone Firestone North American Tire, LLC

There is obviously a gap between supply and demand of OTR Tires!

- Why? The world economy is good!
- Commodity prices on most items are at record levels.
- China, India, etc. are developing their infrastructure.
- Tire usage is at an all time high!

Tire Supply is at Record Levels, but it's not enough!

- Tire production is at record levels
- Tire production capacity is increasing
 - Most major manufacturers are adding capacity
 - New manufacturers entering the business
- The smaller the tire, the better the supply
- The bigger the tire, the worse the situation

What can you do?

- You've got an operation to run.
- Your operation depends on tires!
 - Just how much do you rely on tires?
 - Have you ever considered how much downtime costs you?
 - How much production is lost due to tire conditions?
 - How much production is at risk if you can't get a replacement tire?

What can you do?

- You've got to "manage" what you've got!
 - You've got to "maintain" your tires!
 - You've got to "maintain" your operating conditions!
- You've got to "forecast" your needs!
- You've got to select the "best alternative" tire that's available!

You've got to "Maintain" your tires!

- A very good tire maintenance program is required and must contain:
 1. A frequent, thorough, accurate air pressure maintenance program
 2. A thorough in-service inspection program
 3. A thorough out-of-service inspection program
 4. An active repair program
 5. An active rotation program

1. A Thorough Air Pressure Program

- a. **WEEKLY** air pressure checks are a must
- b. Stenciled hot and cold air pressures
- c. Use of calibrated air pressure gauges
- d. Correction of air pressures off by 5 psi
- e. Written report of actual and corrected pressures
- f. Review of pressures looking for trends

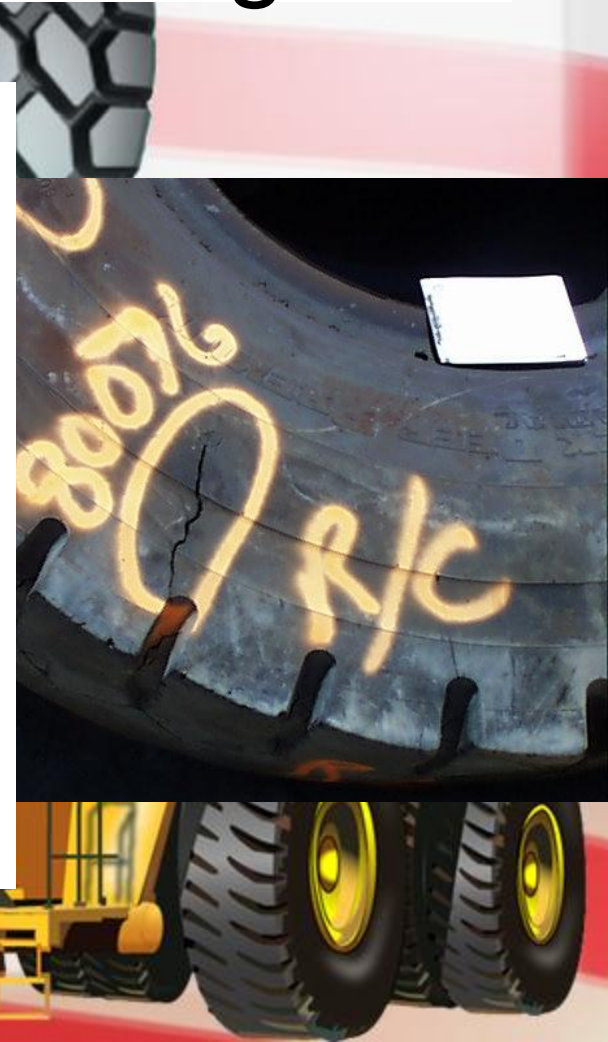
2. You Must Have A Thorough In-service Inspection Program

- EVERYBODY must look at your tires
- Proper training of what to look for is essential for all employees
- Any abnormality must be reported so it can be inspected for possible action
- Any growth of damages must be identified and reported for possible action



3. You Must Have A Thorough Out-of-Service Inspection Program

- The tire boss and the “tire team” must inspect every tire removed from service with your local supplier
 - Your “team” must identify damage trends
 - Operational issues must be identified for possible change



4. An Active Repair Program is a Must

- Every injured tire must be considered for possible repair if the result is a **safe** tire
- In-service tire damages should be considered for possible repair in order to extend the overall life of the tire
- Economics (remaining tire hours) should not be the only consideration other than safety when deciding to repair or not to repair

5. An Active Rotation Program is Essential

- Tires should be rotated to minimize “odd” wear patterns
- Start new tires on front axle in **most** cases
- Rotate tires from machine to machine to match operating conditions
- Rotate tires to provide “matched” tires for duals and powered axles

You've got to "maintain" your operating conditions!

- Operational conditions directly affect tire performance
 - Maintain the best possible operating conditions
 - to improve tire life (and to reduce the need for replacement tires)
 - to improve productivity
- Everything that improves tire life, improves productivity!

Hauling road conditions affect tire performance and overall productivity

- Bumps and potholes
 - Increase the likelihood of impact damage to tires
 - The additional flex in the tire causes additional fatigue
 - Slows vehicles to improve operator comfort
- Rocks on the road
 - Increase the likelihood of cut damage to tires
 - Slows vehicles to improve operator comfort or to “drive around” the rocks

Look at:

- The condition of your haul roads
- Your curves: too sharp, no supers, etc.?
- The amount of road crown: too much/little?
- Your usage of water trucks
- Your loads: too much, centered?

An Active Rim Program is Required

- OTR rims do not have an indefinite life
 - Most manufacturers claim rim life of only 10,000 to 15,000 hours!
 - Rust, corrosion, damages weaken this key component
 - Rim leaks can destroy tires by causing “run low” conditions

You've Got to Forecast Your Needs

- In this short supply situation, you must anticipate your OTR tire needs
 - You need to know:
 - How often you use each size tire
 - The current status of each of your tires
 - How soon you will need tires by size
 - How current and future operating conditions will affect tire needs

Tire Forecasting

- The ONLY way to accurately forecast your OTR tire needs is by using actual tire performance information
 - You need to know
 - Current status: RTD, damages, repairs, positions, etc.
 - Wear rates
 - Failure rates
 - Failure types
 - Failure trends

Anticipating Needs

- Tire records must be maintained
 - On paper
 - On spreadsheets
 - On tire recordkeeping software (ie: Treadstat)
- Tire data must be analyzed frequently
 - Looking for trouble areas
 - Looking for trends

Select the “Best” Option

- If you need an OTR tire, it is important to select the best available tire that suits your application
- Tires have different limits and abilities
 - Choosing the wrong fit for your operation can cause higher expenses, lower production and more hassles

Different Abilities

- OTR tires have different abilities
 - Different tire constructions have different abilities
 - Radial Tires
 - Steel radials
 - Nylon radials
 - Bias Tires
 - Bias Belted Tires
 - Steel belted
 - Nylon belted

Different Limitations

- OTR tires have limits
 - How much air pressure they can contain
 - How much load they can support
 - How much impact they can withstand
 - How much traction they can provide
 - How much ride comfort they offer
 - How easy they cut

Selecting the Best Available Tire

- You must select the best combination of:
 - Tire type (radial or bias)
 - Ply/star rating
 - Tire type (E-3, E-4, L-4, L-5)
 - Tread pattern
 - Tread compound
 - Tread depth
 - Overall tire size

Ask the Question: How will this tire perform in my operation?

- The wrong choice may:
 - Cause you to slow the vehicle down to avoid overheating the tire
 - Less production from that vehicle
 - May slow other vehicles resulting in lower overall production
 - Cause you to lighten the load on the vehicle
 - Loss of production

The wrong selection may adversely affect your operation

- The pattern may not provide the cut protection or the traction you need for your operation
- The compound may overheat the tire or cause more and deeper cuts
- The casing strength (ply/star rating) may not be high enough to withstand the air pressures you need to support the loads

Consider Many Things When Selecting an OTR tire

- Consider:
 - Cost versus expected performance
 - Warranty
 - Support of supplier/manufacturer
 - How the tire will perform in your operation
 - How the tire will affect your machine's performance

Get Involved

- Forecast your needs
 - Know where you've been, where you are and how your tires are trending
 - Anticipate, based on data, your needs for at least a year out
- Select the best tire available that fits your specific needs

Use Your Assets

- You have help available – use it
 - Manufacturers' reps
 - Local supplier reps
 - OEMs
 - Repair/retread shops
 - Training courses
 - Trade organizations

Thank you!

- Thank you for your time and attention!
- If I can help you, please contact me
- Be Productive, but be SAFE!