

Statement of Dan Jackson

Hello my name is Dan Jackson

I am the Senior Tire Mgr. for TRAC Intermodal. I have held this position for the past 2.5 years

In my capacity as the Sr. Tire Mgr. I oversee all Tire Operations for TRAC with respect to Purchasing, Quality Control and Inventory Control.

For the 18 yrs. previous to TRAC, I had worked at Hanjin Shipping Co., where I was the Maintenance and Repair Manager for the Americas overseeing all Maintenance and Repair activities for Hanjin's International Shipping Containers and Marine Intermodal Chassis Fleet.

Maintenance and repair is the single largest cost incurred in owning chassis and within the maintenance and repair cost, tires make up the biggest cost component.

Today I'm here to discuss the Tire which is used by the Marine Intermodal Chassis Fleets of which TRAC is a member, and highlight some of the unique physical attributes of the Tire. I will also illustrate why it is a specialized tire that is unique to the Marine Intermodal Chassis Leasing Industry, and why it is a tire that provides the best service to the this industry.

In our Marine Intermodal Chassis Business, virtually all of the tires we utilize are 1000x20 Bias Tube Tires. A 1000x20 Tube Tire is a tire with a Nominal Section Width of 10.00 Inches and Rim Diameter of 20 Inches.

It is estimated that more than 90% of the country's Marine Intermodal Chassis Fleet is operated on 1000x20 Bias Tube tires and has been since the inception of the Marine Intermodal Chassis Leasing Industry in the 1960's.

The 1000x20 Bias Ply Tube Tire is unique for multiple reasons:

1. The Bias Ply Tire has body and tread plies are made of Nylon Cords vs. that of the more common Radial Tire which uses steel cords. Because of this difference in construction between the 2 ply types, the Bias and Radial Tires operate and react quite differently than one another with respect to flex and movement of the sidewalls and tread area (contact patch) while being operated on the road. Because of this difference, these two Tire Types cannot be operated on the same Chassis at the same time.
2. Unlike most TBT's, the 1000x20 Tire we utilize requires the use of an Inner Tube to hold and maintain its air pressure. Most all other TBTs do not require the use of an Inner Tube. These types of Tires, also referred to as Tubeless Tires, rely on the Tire's inner liner to hold and maintain air pressure.

Because the 1000x20 Bias Tube Tire does require the use of a Tube, it also requires the use of a 2 Piece Rim and Lock Ring Wheel assembly which is a very unique Rim. Tubeless TBT's cannot use a 2-piece Rim assembly but instead must be installed on a Single Piece Rim.

This is extremely important since, based on my research, there is no other type of tire manufactured in the US that can be placed on the 2 piece rim assembly used by our chassis.

3. Further, the 1000x20 Bias Type is also unique in that the Rim Diameter required is a 20" Rim whereby most all other commercial Truck and Trailer Tires are utilizing a 22.5" Rim. This is important to note because a tire that requires a 22.5" Rim cannot be installed on a 20" Rim and vice-versa.
4. Also important to note, Bias Ply Tires are more forgiving when it comes to sidewall impact. This difference is important because of the high extent of sidewall impact incurred in our industry. Because Bias Ply Tires have a more forgiving casing or sidewall on flex, we do not experience the same

rate of sidewall damage as seen with the steel plies used in Radials. The Bias Ply tire can withstand a greater % of these impacts than the Radial without being removed from service, which is an operational benefit in our industry.

5. Bias Ply Tires can also withstand cuts to the sidewalls and Tire Bead areas without being permanently removed from Service. When the Nylon cord material of Bias Ply Tires is exposed (and not cut) these Tires can be patched and repaired and returned to service, unlike the Radial Tire. Once a Steel Ply is exposed, the likelihood that a Radial Tire will have to be removed from service permanently and scrapped is higher than that of the Bias. Steel Plies exposed to water and/or the atmosphere can rust and weaken thus presenting a potential Tire and/or Safety issue. This factor is important to note because in the Intermodal Industry we have to replace tires much more frequently as a result of damage rather than normal wear and tear.
6. Lastly, an inherent problem in our industry is proper Air Pressure. Intermodal Marine Chassis owners primarily rely on 3rd party vendors to check and Air tires and struggle to enforce proper airing. Because of this issue, Radial Tires may incur a higher percentage of degradation to the sidewall plies vs. that of the Bias Tire which is more forgiving when being run on lower air pressure.

I raise these unique physical characteristics in order to note that the 1000x20 Tire we are, and have been using, is a Tire that suits the operational needs for our industry and not a tire that is simply interchangeable with any other Tires that may be available.