When is it Time to Replace Worn Tires?

Tire wear is a function of application. Spinning of tires, sharp turns especially at high speed, heavy loads, running over rough surfaces or debris left on flo or, contact with certain chemicals and/or impact with pallets, dock plates etc. will severely reduce tire life. These conditions will affect pneumatic and solid tires.

Pneumatic-Shaped Solid Tires

Pneumatic-shaped solid tires should be replaced when the thickness of the tire has worn to about three quarters of the original section height.

Example:

A 700 x 12 5.00 tire with an original outside diameter of 26.75" is considered worn out when the tire diameter is 22.4".

Press-On Tires

Rubber press-on tires should be replaced when 30% of the tire's original tread rubber has been worn off. Using a tire past 30% significantly increases shock transmission to the forklift resulting in forklift damage and potential operator injury. Once a tire has been worn past 30%, just a 10% increase in tread wear will increase shock transmission over 250%. Exposing your equipment and forklift operators to excessive shock could cost you thousands of dollars in repairs and lost work hours.

Example:

An 18" tire should be replaced when the diameter is 16.4" with a tread thickness of 1.8".

The following table shows more examples for other tire sizes.

| Tire Size | Diameter (when tire is worn) | Thickness of Remaining Tread |
|-----------------|---------------------------------|---------------------------------|
| 18 x 7 x 12-1/8 | 16.4" | 1.8" |
| 18 x 8 x 12-1/8 | 16.4" | 1.8" |
| 22 x 8 x 16 | 20.4" | 1.9" |
| 22 x 9 x 16 | 20.4" | 1.9" |
| 22 x 12 x 16 | 20.4" | 1.9" |
| 28 x 12 x 22 | 26.4" | 1.9" |



Take into account the following factors when making a tire replacement decision:

- 1. Loss of load capacity associated with decreasing diameter, causing accelerated wear and overheating.
- 2. Slower speed due to the smaller diameter.
- 3. Reduced ride comfort for the operator.
- 4. Lower ground clearance and lifting height.
- 5. Increased degree of chunking on the tread and sidewall.

Please Note: Forklift trucks are used in a large variety of applications.

