Model A Ford Tires & Rims for Touring



By

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Model A Ford Tires & Rims



1928 - 1929



1930 - 1931

Numeric tire sizing is most common on bias ply tires which were manufactured from the late 1920's through the late 1960's. This started with the tires that were marketed as Balloon tires, due to their lower air pressure and soft ride.

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Model A Ford Tires & Rims



1928 - 1929
440/450-21



1930 - 1931
475/500-19

The Ford Model A originally used 440/450-21 tires on 21-inch wheels from 1928 to mid 1929. Late 1929, 1930 and 1931 Model A's transitioned to 475/500-19 tires on 19-inch wheels.

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Model A Ford Tires & Rims

Model A Ford Tire Specification By Year

1928 - 1929 21 Inch Rim	
Brand	Goodyear
Construction Ply	4 PLY POLY
Tread Width (IN)	2.75
Tread Depth (32nds)	12
Product Size	450/475-21
Tube or Tubeless	Tube
Rim Diameter	21 inch
Tire Construction	Bias Ply
Tire Series	All-Weather Balloon
Sidewall Style	Whitewall
Width Bias Ply	4.50/4.75
Circumference	89.05
Max Load (LBS)	895 lbs. @ 32 psi
Width (IN)	4.75
Rim Width (IN)	2.75
Diameter (IN)	30.42

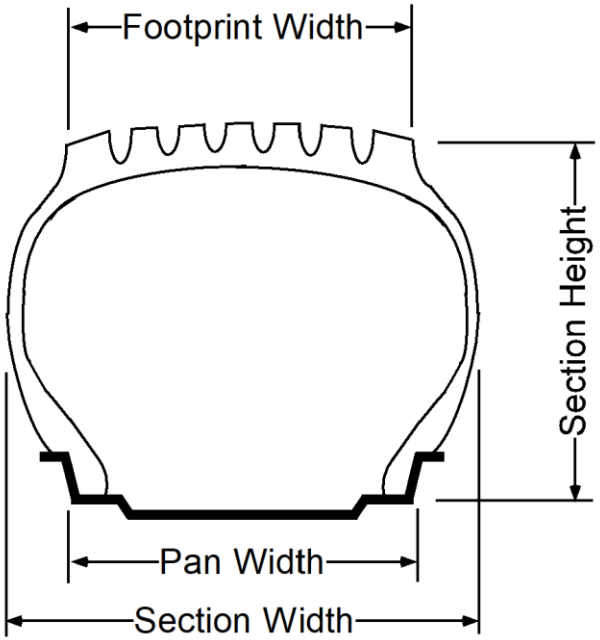
1930 - 1931 19 Inch Rim	
Brand	Firestone
Construction Ply	4 PLY POLY
Tread Width (IN)	3.9
Tread Depth (32nds)	12
Product Size	475/500-19
Tube or Tubeless	Tube
Rim Diameter	19 inch
Tire Construction	Bias Ply
Tire Series	Firestone Classic
Sidewall Style	Blackwall
Width Bias Ply	4.75/5.00
GTIN	842199103922
Max Load (LBS)	895@32 psi
Width (IN)	5.63
Rim Width (IN)	2.50 - 3.00
Diameter (IN)	29.8

From Coker Tire Website

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Model A Ford Tires & Rims

Model A Ford Tire Aspect Ratio



Model A Numeric sized tires are nearly equal in height and width. The Aspect Ratio of a tire is found by dividing the Height by the Width times 100 to get percentage.

$$\text{Aspect Ratio} = \frac{\text{Section Height}}{\text{Section Width}} \times 100$$

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Model A Ford Tire Diameter

Many of the early Numeric sized tires featured a 100 percent aspect ratio, meaning that the sidewall section height is nearly equal to the section width of the tire. In these cases, you can get a rough estimate of the tire's overall diameter by doubling the section width and adding the rim diameter. 4.75-21 tells us that 4.75 + 4.75 + 21 = 30.5 inch, which is close to the dimension shown in the Coker Tire Specification Chart on page 4. The math may not always add up to the exact number, but gives you a close estimate on early car tire sizes. The overall diameter of 30.5 inch is good to know when purchasing a modern tire. Section Width = Section Height

Overall Dia IN = Sec Height + Wheel Dia + Sec Height

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Ford Model B Rim Sizes

In the 1930's starting with the Model B and on the most common tire size was 6.00-16. The 6.00 refers to the section width of the tire, resulting in a tread width of about 4-1/2 inches. After World War II, the automotive world began changing, with futuristic designs, creature comforts and more powerful engines. The 1935 16 inch rim became very popular. The 7.00-16 = 30.6” tire became the tire most chosen. The 7” section width is our target value. By maintaining the wheel diameter, a slightly wider width should provide better performance and still have body clearance.

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Model A Ford Tires & Rims

Why Change The Rims

The wheels that came installed on your vehicle are designed to perfectly fit your vehicle's suspension, gearing, and bodywork. Any change will and can affect ride quality and vehicle performance. It's important to note that getting the wrong wheel setup could cause a vibration, or some rubbing on suspension components or vehicle body parts.

Driving conditions have changed. For the Model A, the change to radials is to provide better performance, improve the ride, increase tire mileage, help with traction and stability. Selecting the correct rim is most important. No rim is a perfect match, however a good tire and rim match can be found.

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Model A Ford to Model B Ford Rim Upgrade

Knowing the rim diameter and rim width will help determine the tire diameter.

Year	Ford 1928 - 1929	*Ford 1930 - 1931*	Ford 1932	Ford 1933 - 1934	Ford 1935	Adjustable Spoke Kelsey	Bent Spoke Kelsey	Adjustable Spoke Motor Wheel	Bent Spoke Motor Wheel
Diameter	21	*19*	18	17	16	16	16	18	17
Width	3	*3*	3 1/4	3 1/4	4	4	4 & 4 1/2	4	4
Hub Cap	2 5/8	*4 1/8*	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4	5 3/4

https://www.speedwaymotors.com/the-toolbox/ford-vintage-wire-spoke-wheels-guide-1928-1935/28813

The ideal overall tire diameter should be between 29.8 and 30.6 inches to be close to the original tire height. In this case study, the 1935 16 inch rim will used as our example. Also the slight increase in width will add a bit more stability.

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Model A Ford Tires & Rims

Understanding Terms



Measure Wheel Diameter and Wheel Width

When considering a rim for the Model A, there is no offset, so only the wheel diameter and width need to be measured. The wheel diameter is measured across the rim, bead seat to bead seat. The wheel width is the inside rim distance from inside rim bead edge to inside rim bead edge. This inside rim distance is what is called the pan width.

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Model A Ford Tires & Rims

There are two common types of tires: Bias Ply and Radial.

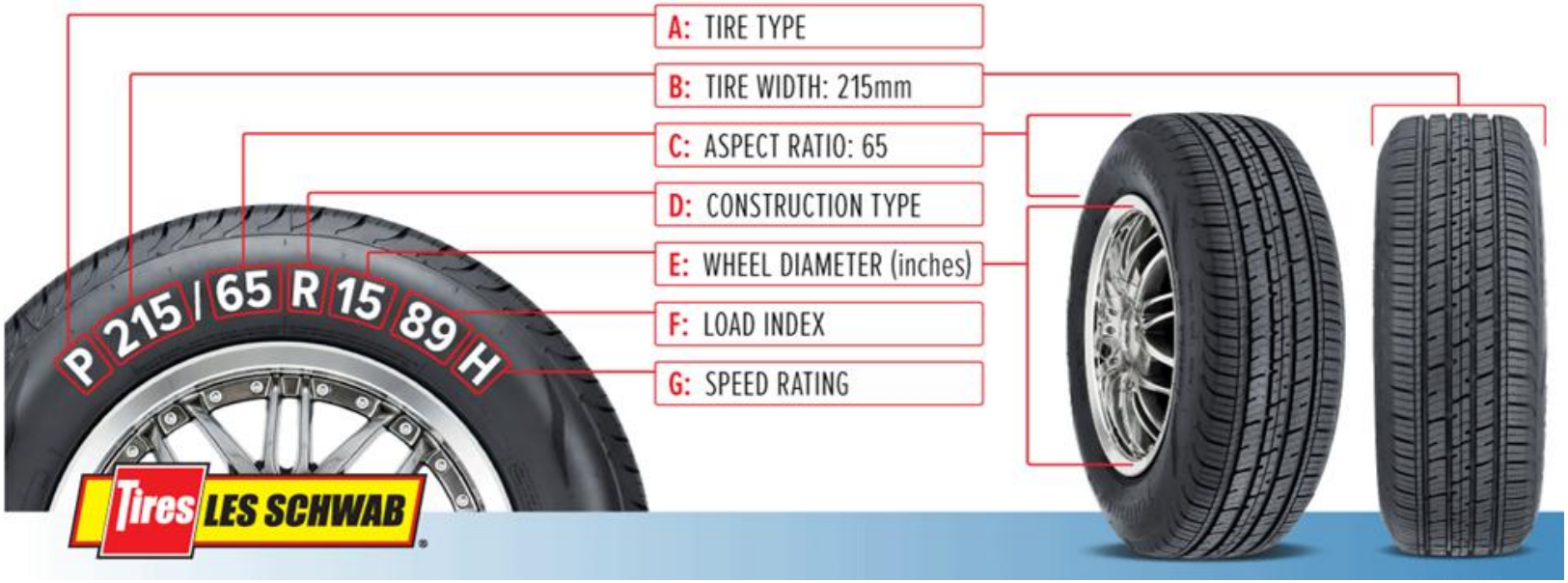
Bias Ply tires are able to carry a heavier loads. They are a more rigid tire, less cushion and the increase in drag develops heat which means higher tread wear. Bias tires are typically used on antique vehicles and for local use such as construction, agriculture or utility.

A radial tire has steel belts that are oriented at a significantly different angle than the 90 degree used in bias ply. This allows the sidewall and tread to function as two independent features of the tire. Radial tires typically have a smoother ride, lower noise, better handling, less rolling resistance and better traction.

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Model A Ford Tires & Rims

Understanding Tire and Size Numbers



Only A through E are used to determine tire size.

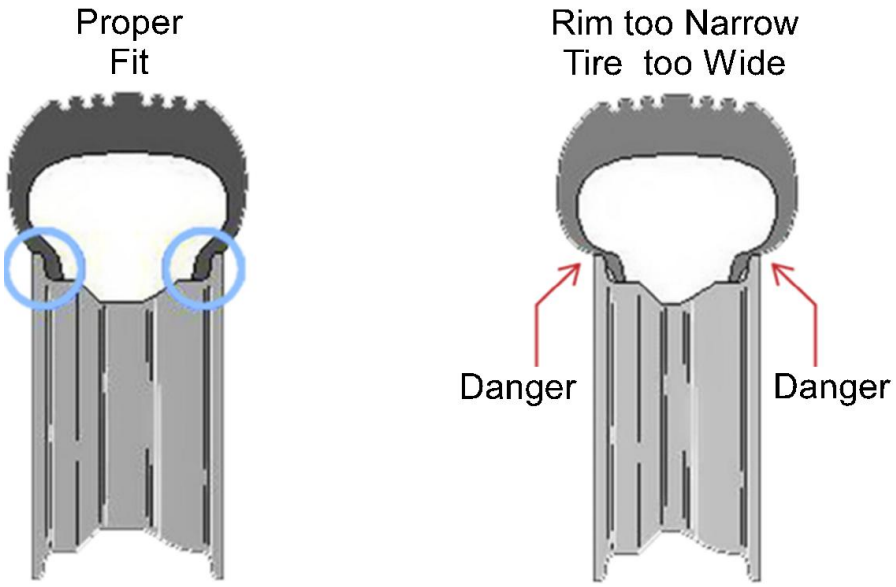
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Model A Ford Tires & Rims

TIRE SIZE GUIDE - WHEEL WIDTH MINIMUM AND MAXIMUM

https://premiertiresandwheels.ca/pages/tire-size-guide

To allow for body clearance the diameter and width needs to be as close as possible to the Model A & B rim speciation's. This guide will give an understanding of modern tire fit in rim width minimum and max sizes.

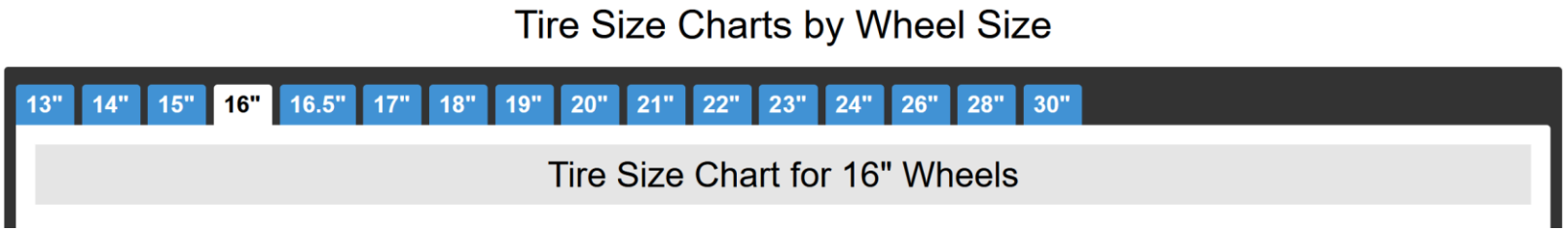


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Model A Ford Tires & Rims

Calculating Tire Dimensions
https://tiresize.com/chart/

A too wide tire width and a 1935 too narrow rim can be a problem. This chart will help select the correct tire size. Just click the rim size shown on the blue tab and scroll down to select the tire diameter.



The modern tire size followed by the diameter and section width is shown. R is for radial and the 16 is rim size.

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Model A Ford Tires & Rims

Calculating Tire Dimensions
https://tiresize.com/chart/

The Model A tire diameter range is between 29.8 and 30.6 inches. Average diameter is 30.2 inches.

29" Tire Diameter		30" Tire Diameter
225/75R16 = 29.3x8.9R16		215/85R16 = 30.4x8.5R16
235/70R16 = 29x9.3R16		235/80R16 = 30.8x9.3R16
235/75R16 = 29.9x9.3R16		245/75R16 = 30.5x9.6R16
245/70R16 = 29.5x9.6R16		255/70R16 = 30.1x10R16
255/65R16 = 29.1x10R16		265/70R16 = 30.6x10.4R16
275/60R16 = 29X10.8R16		285/65R16 = 30.6X11.2R16
285/60R16 = 29.5X11.2R16		

Charts show:

Tire number/rim size = diameter x section width/rim size.

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Model A Ford Tires & Rims

What is the Correct Tire

1. The tire diameter should be between 29.8 and 30.6 inches.
2. The section width needs to be as close to the 7” target value as possible.
3. Tire needs to be a Radial.
4. Tire needs to fit a 16” diameter rim.
5. Tire needs to be available for purchase.

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Model A Ford Tires & Rims

What is the Correct Tire

Tire Diameter Between 29.8" and 30.6"
215/85R16 = 30.4 x 8.5 R16
235/75R16 = 29.9 x 9.3 R16
245/75R16 = 30.5 x 9.6 R16
255/70R16 = 30.1 x 10 R16
265/70R16 = 30.6 x 10.4 R16
285/65R16 = 30.6 X 11.2 R16

The tires are listed in order of preference. The top two tires have the best fit section width. Tires 3 through 6 may fit, but width is approaching max section width or beyond.

The 215/85R16 would be first choice.

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Service Type Tire Designations

P = When a tire size begins with a "P," it signifies the tire is a "P-metric" size that was designed to be fitted on vehicles that are primarily used as passenger vehicles.

LT = If a tire size **begins** with "LT," it signifies the tire is a "Light Truck-metric" size that was designed to be used on vehicles that are capable of carrying heavy cargo or towing large trailers.

LT = If a tire **ends** with "LT," it signifies the tire is a "Flotation" Light Truck size designed to be used on vehicles that are capable of carrying heavy cargo and towing trailers.

ST = If a tire size begins with "ST," it signifies the tire is a "Special Trailer Service" size that was designed to only be used on trailers. Do not use this tire. Use only tires with the prefix of P or LT.

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Radial Tire Inner Tubes

https://www.tireinnertube.com/57-all-tire-inner-tubes-by-rim-size?srsltid=AfmBOoo5dFVDwYW4IFUyZK6u5vSyzVMz4isq5JwIXEhxwrjoxFCYGC00

The tire to rim is not a perfect match. For Safety reason a tire should always have an inner tube. Once a tire has been selected, use the chart attireinnertube.com to make sure you have the correct inner tube.

The valve stem opening for the 1935 rim is 5/16th. The opening is offset which should be correct for most tubes.

Radial tires run hotter than bias tires. Therefore always run a radial rated inner tube.

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