

Tech Tips:

Tires: TICKING TIME-BOMBS!

This could ruin your day



Tommy Moscoso's 10 year old left front tire exploded at 50 mph.

Patrick Raley's tire separated two days later.

John Camichos' 15 year old tire lost rubber a few months earlier.

The tires were on their MGs and looked like new.

It's a fact: *Tires on collector cars don't wear out.
They just get old.*

This month I will discuss what defines an "old tire", how to find the age of your tires, tips on choosing the size for your car, and I'll show you a special way to true and balance your tires for a perfect ride.

• SIX YEARS

The Tire Safety Group states "Six years from the date of manufacture, most tires are no longer safe for use on a vehicle." General Motors, Ford, Chrysler, Nissan, and Mercedes-Benz tell consumers to replace tires six years after their production date, regardless of tread life. Some tire manufacturers say that a tire can last up to ten years, provided you get annual tire inspections after the fifth year.

Oxidation causes the flexible components of a tire to harden, become brittle, and crack. This cracking can eventually cause the steel belts in the tread to separate from the rest of the tire. The tire will simply fall apart under normal stress. Research by the National Highway Traffic Safety Administration (NHTSA) found that tires age more quickly in warmer climates and with exposure to sunlight and coastal climates.

Spare tires and tires that are sitting in a garage or shop also age. A spare tire in the trunk, is "baking in a miniature oven," says Dan Zielinski, senior vice president of public affairs for the Rubber Manufacturers Association. If the tire has been inflated and mounted on a wheel, it is technically "in service," even if it's never been used.

• READ THE DATE CODE

Tires made after 2000 have a four-digit DOT date-of-manufacture code on the sidewall. The first two numbers represent the week in which the tire was made. The second two represent the year. The DOT date code on this tire is **5107**. It was made in the **51st week of 2007**.



The date code is usually on only one side of the tire, so you may need to crawl under the car to read it

Note: Tires with a three-digit date-of-manufacture code were made before 2000.

Photo: TireRack.com

• WHAT SIZE?

The original tires on MGs were taller and narrower than modern tires. TA-B-C tires had a 100 aspect ratio. TD/TF, MGA, MGB, Midget bias-ply tires had a 92 aspect ratio. Later or optional metric tires were 82 aspect. (*Aspect ratio is the height of the sidewall measured from the rim to the tread, divided by the widest dimension of the sidewall.*) 165/80R15 : "165" = Width (mm), "80" = Aspect Ratio; "R" = Radial; "15" = Wheel Diam (inches)

The tallest, narrowest radial tires that we can easily buy for our cars have an 80 aspect ratio, e.g. 165/80R15. Substituting overly wide tires requires new wider wheels and may not improve handling. Choose tires that have a combination of width and aspect that produces an outside diameter that is within 3% of the outside diameter of the tires that MG originally installed on the car.

$$\text{Bias-ply Outside Diameter Inches} = (2 \times \text{Width} \times \text{Aspect} \div 100) + \text{Wheel Diam}$$

$$\text{Metric Outside Diameter Inches} = (2 \times \text{Width} \times 0.03937 \times \text{Aspect} \div 100) + \text{Wheel Diam}$$

ORIGINAL MG TIRE SIZES AND APPROXIMATE OUTSIDE DIAMETER

TIRE SIZE	5.20-13	145-13	5.60-14	155-14	165-14	5.50-15	5.60-15	5.90-15
ASPECT	92	82	92	82	82	92	92	92
DIAMETER	22.57"	22.36"	24.30"	24.01"	24.65"	25.12"	25.30"	25.86"

RADIAL TIRE SIZES SUGGESTED BY MOSS MOTORS

MG MODEL	RECOMMENDED SIZE	APPROX. O.D.	NOTES
Midget	145/80R13 or 155/80R13	22.13", 22.76"	Original wheels
MGB	155/80R14 or 165/80R14	23.76", 24.39"	Early, w/4" steel wheels
MGB	175/70R14 or 185/70R14	23.65", 24.20"	"Rostyle" 5" wheels
MGB	185/70R14 or 195/65R14	24.20", 23.98"	5.5" alloy wheels (Check for tire clearance)
MGA, TD, TF	155/80R15 or 165/80R15	24.76", 25.39"	4" wheels or 48-spoke
MGA	165/80R15 or 175/80R15	25.39", 26.02"	4.5" wheels & 60-spoke
MGA	175/80, 185/70, 195/70	26.02", 25.20", 25.75"	5.5" 72-spoke wheels (check for clearance on the wider tires)

Many of our MGs were made before the advent of tubeless tires. Tubeless tires can often be mounted onto tube-type wheels. However, if your rims leak, then you will need to use tubes in your tubeless tires. You can use radial tubes in bias-ply tires, but you can't use bias-ply tubes in radial tires. Ask the tire shop to grind away the manufacture tag that is molded inside radial tires if it could cut the tube.

• TRUE AND BALANCE

Wheels or tires may not be perfectly round. Hubs may be out of balance. Modern balancing machines may hold MG wheels off-center. However, tires can be shaved to make them round; and spin balanced on the car to balance the tires, wheels, and hubs as a unit.

Doug's Alignment in Sanford uses vintage equipment to true tires and spin balance wheels while they are on the car. My TF has a severely out of balance front hub. It now rides as smooth as a new car after Mark at Doug's Alignment performed his magic.



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[\[CLICK HERE \]](#) To watch a 5-minute video of tires being trued, pile of rubber removed, then spin balanced.

Now – go check the age of your tires.