#### Tire Tip

#### By Allen Hendrix Hendrix Wire Wheel

We all have heard stories of tires that look like new, but fly apart when traveling down the highway. This is caused from the tires being too old and dried out. The following chart will help you in determining the manufacturing date on tires.

Remember tire manufactures only go back ten years on date codes so you will have to determine if the code is a 1992 or 1982. The reason they only go back 10 years is they consider any tire over 10-years-old, unsafe and no matter how good it looks, it is unsafe. It's nice to be proud that your classic car still has its original tires on it but do not let your pride kill you.

There was a very informative article on tires in a past issue of *British Car* magazine. We placed this article on our web site. If you would like to read it, you can go to <a href="https://www.hendrixwirewheel.com">www.hendrixwirewheel.com</a> and click on the tech tip page.

Keep them rolling and safe.

#### **DOT Serial Number System**

Dept. of Trans. – Mfr & Plant Code # – Tire Size Code # – Group of Opt. Symbols with Mfr. Date of Mfr.

DOT MA L9 ABCD 036 Above is an example of a DOT Safety Standard Code. The following information will tell you how to read serial numbers on all new tires:

DOT means the tire meets or exceeds Department of Transportation's safety standards.

"MA" is the code number assigned by DOT to the manufacturing plant.

"L9" is the tire size; in this case a P195/75R14.

"ABCD" is a group of up to four symbols, optional with the manufacturer, to identify the brand is other significant characteristics of the tire.

"036" means the tire was made during the 3<sup>rd</sup> week of 1996. The first two numbers designate the week, the last number the year.

#### Flat Tire Mystery Solved

by Jerry Cropp

Reading, PA

I traveled the Blue Ridge Parkway (BRP) to Conclave '96 and had a flat just south of Charlottesville, VA. Very mysterious. Could this be tied into "Independence Day" in some way?—you know, like aliens zipping along dropping tacks from their saucers?—or possibly a plot of Virginia tire dealers eager to get a piece of the tourist dollar? Well, relax. I think I might have the solution. But first, let me put it into reverse and go back to my trip to Conclave '95.

Shortly after my spouse, Eleanor, and I crossed into Canada, we pulled into a rest stop area. While sipping iced tea, I looked out at my car and noticed it was leaning to

the left. You guessed it. Flat tire.

Since we were fairly close to Montebello, I decided to put on the spare and repair the tire after we arrived. Later that day I found someone from the Quebec club who ordered a tube for me from Toronto. When it arrived, I took it and the tire into town.

When the mechanic removed the tire and tested the tube, he called me over to look at it. "This is interesting," he said, "the valve stem is leaking. I don't think I ever saw that before." Since I never saw it before and never expected to see it again, I said, "That's nice," and paid my bill.

Accelerating to 1996, we pulled into an overlook area on the BRP to enjoy the view. Returning to the car, I saw it was sagging to the right. Flat tire. I changed it and decided to make for Asheville for repairs, since I now travel with a spare tube as well as a tire.

At Conclave, the tech guy from the Carolinas club tells me they have an arrangement with Jan's Tire Service in Asheville. Off I go to Jan's. They pulled the tube and said—you guessed it—"The valve stem is leaking. I don't think I ever saw that before." (Incidentally, I'd be remiss if I didn't point out that the people at Jan's were super nice and helpful and very reasonable with price. Thanks, guys.)

But, they didn't stop there. They wanted to know why it was leaking, and in short order came up with what (I hope) is the solution. I have new Dayton wire wheels. They noticed that the valve hole is a bit larger than the valve. They said it's more like a truck tire size, so they went into the back room and came out with a plastic bushing that they placed around the valve stem to make it a snug fit. Jan's theory is that the larger hole allows the tire pressure to push the valve up and wear on the side of the valve and/or on the valve seal.

Just to be on the safe side, I had them pull the other three wheels and insert the bushings on those tubes. Total cost, including the new tube, was under \$25.

Possibly AHCA members already knew this difference in valve stem holes existed. I didn't, and I've been driving Healeys for quite some time. I talked to NAPA Auto Parts. At first they knew nothing about these bushings; but after I prodded them to look it up, it turns out that they sell the part. You can get ten of the little suckers for \$3.10. (You'll have to add your own state's sales tax rate, except for you lucky New Hampshire and Delaware members.) That's what I call cheap insurance. The NAPA part number is 90-125. It's listed as a "Rim Hole Bushing."

With the several Michelin inner tubes (radial for radial that have purchased, a bushing came with the tube.—Ed.

# Care and Maintenance of Wire Wheels

#### BY MARK SCHNEIDER

PRESIDENT, AUSTIN-HEALEY CLUB USA

My British Motor Industry Heritage Trust certificate lists wire wheels as one of the equipment options delivered from the factory on my 1966 BJ8. Original equipment wire wheels were painted a silver-grey color and were not chrome plated. Chrome wire wheels have always been an after-market option, but one that greatly enhanced the visual effects of these cars.

As with any alteration to our Austin Healey classics, the addition of chrome-plated wire wheels to the car can be quite expensive. A full set of four wheels (five with the spare), including new tubes, mounted and balanced tires and new splined hubs could cost well over \$ 3,000.00. Despite this cost, Healey owners have not been slow to convert to the chrome wheels. Any gathering of them serves to demonstrate that many owners have made this investment. At the Healey Rendezvous in Bend, OR last June, 74% of the Big. Healeys on display possessed chrome wire wheels!

This is an investment well worth owner care and maintenance. While the following article is not intended to be allencompassing, it does outline some typical methods that have been found to be useful to attain this goal.

A first step with a set of new wheels is to seal center hub spoke ends so they won't seep spline grease. A good quality silicone caulk or adhesive applied over the ends of the spokes will accomplish this quite well (ensure that the area is free of oils or grease prior to application of the silicone). This task will minimize the amount of grease, which may cause the accumulation of road dust and grime on the wheel surfaces, that can seep from the central wheel hub and migrate down the spokes toward the rim.

The knock-off nut locks the wire wheel on the splined hubs. When the knockoffs are new the chrome is nicely finished. Over the years the knockoffs can take a beating from any maintenance requiring removal and remounting of the wheels The use of the wrong tool to loosen/tighten this knockoff can lead to its denting. This may be avoided by the use of either a lead/antimony hammer, a leather or plastic tipped knockoff hammer or one of the specialty knockoff tools found through after-market dealers.

It is imperative to avoid the over-tightening of the knock-of Damage to the wheel hub and knock-off may result from over tightening. My practice is to spin the knock-off on by hand until snug and perform a final tightening with the hammer while the car is on jack stands or, at least, elevated off the ground. Testing the wheel's snugness is accomplished by attempting to rotate the wheel back and forth while the brakes are applied. The wheel is properly attached when there is no more play.

Eventually, road wheels, whether painted or chrome, are going to require a thorough cleaning, as they operate in a very hostile environment. Debris collecting on the wheels varies from dry disc brake dust to rain soaked mud to road grease. The use of warm water and soap or a commercial wheel cleaner, and a means of physically scrub-

bing with a soft brush (such as a 2" wide natural bristle paint brush) will serve to scrub the chrome without scratching it.

There are a number of companies that produce pump bottles of automotive wheel detailing supplies. However, caution is advised in the product selection as some contain an acid component to aid in their cleaning action on chrome. However, the spokes on the chrome wheels wire wheels are stainless stee and may be dulled by continual use of any such product

specified for "Chrome Only".

The wheel cleaners considered safe for chrome wire wheels are Meguiars "Hot Rims", either in the less aggressive aluminum grade or the stronger Wheel & Tire product, Always follow the directions on the bottle. Once you have worked your way all around the wheel with the soft brush, liberally any residual soap suds from of the wheel. Repeat the soaping and rinsing procedure once more, this time using a mild dish detergent, such as Dawn or Ajax. Water spotting may be eliminated by utilizing a leaf blower to dry your wheels. Just be careful to avoid blowing dust and dirt from the surface upon which your car is resting. This entire cleaning and detailing process may be completed in 30 minutes or less.

Now, get those wheels clean and enjoy a pleasant ride through the country

Never allow wire wheel equipped Healeys to be towed backward. Some tow practices raise the rear axle clear off ground and lower it onto a wheeled dolly. The car is then towed backward with the front tires in contact with the ground. This can lead to loosening of the knockoffs and loss of the front wheel(s).



# Racing Wheels

#### / DOUG ESCRIVA

VINTAGE RACER AND AHCUSA MEMBER

When selecting new wheels for vintage racing, the first question you need to ask is, "What type is allowed in the sanctioning race groups I'll be competing in." Some race clubs require the use of the style of wheel that was only available when the car was raced in period. That usually means spline drive wire wheels. Others may allow any wheel that can be mounted using the original factory configuration. With our Healey's, that's either bolt-on or spline drive. Although bolt-on aluminum wheels are the lightest option for a racer, they may not be always an available choice.

Vintage racing on a spline drive wire wheel demands special attention by

your preparation and maintenance crew. First, I recommend Dayton's steel 72-count heavy-duty .225-inch spoke painted wire wheels. Chrome and stainless look nice, but aren't strong enough for the stress of racing. Second, select the tubeless style so you can avoid chafing and manage tire pressure and temrature accurately. Finally, put a clock on your new wheels and be prepared to replace them every 2-3 years if you usually run a full season. Besides breaking spokes, spline wear can lead to a catastrophic accident.

Spline drive cast aluminum wheels are my choice for racing. They're lighter, stronger and have a much longer lifecycle then steel wire wheels. In fact, if well cared for, they can be used indefinitely due to their replaceable center steel spline. Aluminum wheels run truer and keep their balance much better then steel wires ever will. There are many manufactures producing this "Minilite" style wheel with subtle differences between each. Unsprung weight being the major consideration when selecting a wheel, do your homework prior to making any purchase.

If your wheels are not racing legal, you'll never see the track. If your wheels are too heavy or fit improperly you'll be seeing the track from the back of the pack. In the end, I suggest every vintage racer should have a selection of wheels to choose from, especially if you participate with multiple sanctioning race groups.









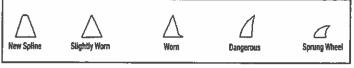
Spline drive cast aluminum wheels pictured above are my choice for racing. They're lighter, stronger and have a much longer lifecycle than steel wire wheels.

# Frequently Asked Questions about Wire Wheels

BY ALLEN HENDRIX

HENDRIX WIRE WHEEL, GREENSBORO, NORTH CAROLINA

ere is the "Wheel" question that needs to be addressed. How do I know if and when I need new wheels? Safety is the number one concern. After years of use the splines in your wheels and hubs wear to a point of being potentially dangerous. When hubs and wheels are new, the splines are wide and are flat on top. As they wear they become thinner, sharper and start to roll over until one day the wheel either stops transferring power to the ground or it just spins off the car. How do I know that the splines are safe? Here is a chart that provides a visual inspection.



#### **TESTING the SPLINES and SPOKES**

There is another way, however. The wheel splines and hub splines will wear the same and match each other. If your old wheel will not mesh readily into a new hub, then it is time to replace both the wheels and the hubs. This is expensive, but a safe practice to observe, as the utilization of one of the worn components can lead to damaging the replacement part.

After verification that the splines on both the wheels and the hubs are sound, you will want to look for loose and broken spokes. A few broken spokes are not too expensive to replace, but you must gauge when the cost of repair exceeds that of wheel replacement.

Loose spokes are generally not a problem, unless the spoke and nipple have rusted together and may no longer be adjusted. This may be tested by holding the nipple with a 1/4 inch open end wrench and trying to tighten or loosen the spoke by turning the nipple. If this cannot be done, you will either have to replace this particular spoke/nipple assembly or the entire wheel, should too many spokes be frozen (the only possible exception to this rule is if the wheel is very rare or is very costly to replace).

In the event that the rim is bent, the best course is to purchase a new wheel. No amount of spoke adjustment is going to make a bent rim perfectly straight again.

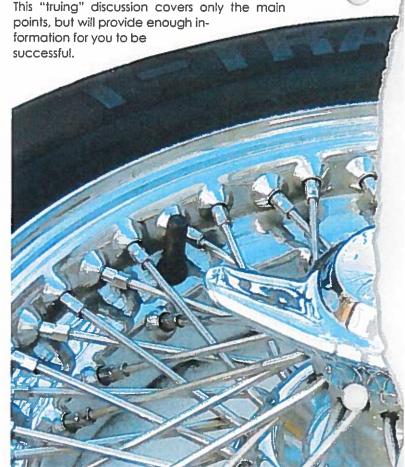
#### TRUING the WHEELS

Jack up the front of your car, mount the wheel on the car's hub and tighten the knockoff nut. Now spin the wheel and look for wabble (NOTE: you need to check it this way be cause mounting the wheel on a tire balancer with a cor can give you a false reading). This method will give you an accurate understanding of how the wheel performs on the car.

Rebalancing the wheel begins with getting all the spokes tighter. You will need a spoke wrench and a dial indicator. Go around the rim and tighten, in small increments, all of the long spokes until you have some tension on all of them. This may take several rotations. Now, tighten the short spokes the same way. You are now ready to true the wheel. Place the dial indicator on the flat spot of the wheel's outside edge

Turn the wheel and see how out of true it is. Let's say the dial indicator reads .040 (that is, 40 thousands of an inch) at the highest spot. This will be adjusted by the long spokes, since they control side to side wobble. Mark the high spots and move 180 degrees to the other side and tighten the opposite spokes. That will pull the rim straighter. Your ideal goal is to get the variance to "0" on the dial, however, .020" or less is within tolerance. Just be sure to move slowly and check your results often.

The short spokes control the up and down, or "roundness", of the rim. With the tire removed, place the dial indicator on the inside off the rim. Mark the high spots and tighten the short spokes opposite of these marks.



#### **PAINTING the WHEELS**

Powder coating a completed wheel is not the best idea, as it disables the ability to adjust the spokes. The best method refresh an Original Equipment Wire Wheel (that is, one at is NOT Chrome Plated), is paint. Moss Motors Silver-Grey wheel paint (part number 220-560) or Dupli-Color Engine Enamel (DE-1615 Aluminum) are good matches. The latter paint is found in any Auto Supply Store.

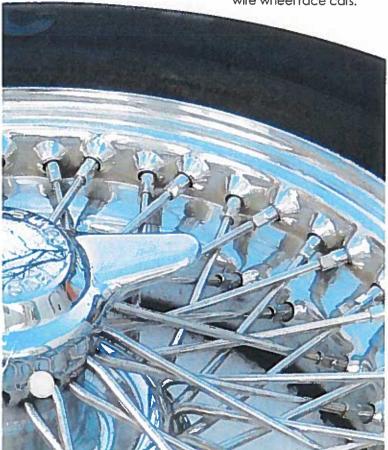
#### **NEW WHEELS**

There are two choices for our British cars. Dayton Wire Wheel (Dayton, Ohio) and MWS (Dunlop) built in England. Both rims are of excellent quality and will look good on your car. The MWS wheel's paint color is not as dark as Dayton's.

Chrome or Painted rims: Chrome Plated wheels were always an after-market option and never a factory item. All currently manufactured chrome wheels use stainless steel spokes due to safety reasons (chrome-plated spokes tended to be brittle due to the plating process). The decision of painted or chrome-plated wheels may depend upon how you want your car to look and how much money you want to spend. A set of 4 chrome wheels could be \$500 more than the comparable set of painted units.

#### Tubeless or tubes:

We always use tubes at Hendrix Wire Wheel as they allow oke adjustments without breaking the air seal of the rim. We use the same tubes we put in all SCCA vintage wire wheel race cars.



Tubeless rims make life less complicated, as you needn't be concerned about the proper tube selection or the problems encountered when installing them.

When using tubes, they should fit the tightly inside of the rim and not crease (fold) over. You need to prep the wheels and tires for tubes by removing all labels from the inside of the rims and tires. These may wear into a tube and cause an air leak.

Use a good rim tape. Bands have fallen out of favor as they tend to hold moisture to the inside of the rim and create rust. Breathable PVC tape is commonly used, with rubber coating for tubeless rims. You can still buy the rim bands if you do not want to use today's newer tape, but DO NOT USE DUCK TAPE. It dries out and may cause abrasion problems later.

When using a tube, always vacuum out the tire and sprinkle talcum powder inside of it first. This allows the tube to slip into position and keeps it from sticking to the inside of the tire (NOTE: use only pure talc and not a baby powder that has corn starch in it, as corn starch tends to clump).

#### Valve Stems:

You may have an older rim with a larger valve stem hole. The solution is the use of a valve stem grommet in the rim so today's smaller valve stems will fit snugly and be centered in the larger opening.

#### 48 / 60 / 72 Spoke Wheels:

The selection of wheels other than the original equipment depends on your car and your type of driving. Please review the wheel chart in the "SAGA of the WIRE WHEEL" article found in this issue of the Austin Healey Magazine for the proper wheel sizing.

The 60-spoke wheels will not work on some of the earlier Big Healey models due to the size of the drum brakes. You can use the 48 or 72-spoke models on them and they will not scrape against the brake drum. The BN1, with the 1-7/8 inch front brake drums, will work with the 60-spoke units as will all front disc brake cars.

A point of information: 60-spoke wheels were made in the late 1950s for MGA race cars. It became a dealer option to upgrade the car from 48-spoke wheels to the new MGA racing 60-spoke units. By the early 1960s, all Healey models were equipped with 60-spoke wheels. 72-spoke units became available to accommodate the wider tires and increased torque found in modified race engines.

You can call us here at anytime and discuss any questions you have on wheels and tires.

Allen Hendrix -(336) 852-8909 - www.hendrixwirewheel.com



# The Saga of the Wire Wheel

#### BY GLENN ABELLO

MODERATOR OF THE HEALEY.ORG FORUM, AND AHCUSA MEMBER

We have all attended British Car Shows in which a number of our Healey Classics were on the field. They generally look grand with a recent detailing of wax and polished chrome. Arguably, the most striking, eye-catching items are the shining, chrome wire wheels. The car looks as though it was designed around those spoked gems.

There are a few facts that will dispel yet another myth surrounding our beloved Healeys. The 4-cylinder models (BN1) and BN2) were assembled at the factory with 48-spoke painted wire wheels as standard equipment. However, when the 6-cylinder cars were being designed, the standard equipment wheel was specified to be pressed steel. These steel wheels would have been attached with 5 lug nuts and topped with a small centrally located hub cap. It ould have given the car an appearance of a stylized Nash atropolitan!

However, most of us have never seen a Healey equipped with these wheels, as the cars were largely designed and produced for export to America and Donald Healey had a definite vision as to what the American market wanted. Almost 9 of 10 Big Healeys built were shipped to the United States. They came equipped with factory options such as an overdrive unit, a Coopers Heater, a laminated windscreen and wire wheels. Therefore, wire wheels mounted on the exported cars could be considered a "Standard Option".

The wire wheels for all Healey models were painted a silvergrey color. Chrome wheels were an aftermarket item and not factory originals. All models from the BN1 models in 1953 through the early BJ7 cars came to the USA equipped with 48-spoke wire wheels that had a 15-inch diameter and a rim width of 4.5-inches. Later BJ7 and all BJ8 cars had 60-spoke wheels with a diameter of 15-inches and a rim width of 4.5-inches. This change was made to accommodate the increased torque of the engines fitted in the later BJ7 and BJ8 models. All of these cars had an original tire size of  $5.90 \, x$ 15 (bias ply). The replacement radials were the  $165 \times 15$  tires.

There were several aftermarket alternatives to these original wheels. These included the (now) ubiquitous chrome rims with stainless steel spokes in both 60 and 72 spoke configurations and the wider rimmed variants of 5.0 and 5.5-inch widths.\*

	100-4	100-6	3000 Mk 1	3000 Mk II	3000 Mk iii
ORIGINAL EQUIPMENT	BN1/BN2	BN4/BN6	BN7/BT7	BN7/BT7	BJ7/BJ7/BJ8
Disc Wheels	Not Offered	4J x 15	Standard	Wheels	THE VENTOR
Dunlop 48-spoke, painted	15x4.5 standard	15 x 4.5	Optional to	BJ7 C24366	Not Offered on late BJ7 and all BJ8 cars
Dunlop 60-spoke, painted	Not Offered		15 x 4.5	Optional	15 x 4.5 Standard
WHAT FITS			de la companya della companya della companya de la companya della		11
Dunlop 48-Spoke	Will fit all	cars, but	loads	generated	by modern tires
Painted 15 x 4.5	make a	60 or 72	spoke	wheel a	better choice if they
Chrome 15 x 4.5	will fit				
Dunlop 60-Spoke		Will not fit BN2 and alf 100-6 front hubs due to 2.25" brake drums			
Painted 15 x 4.5	Fits BN1			Fits all 3000s	
Chrome 15 x 4.5	THE PARTY				
unlop 72-Spoke	DAY STATE				
Painted 15 x 4.5	Will fit all	cars, but	tires must	be carefully	selected for BN1/2
Chrome 15 x 4.5	to avoid	rubbing on	fenders		

◆ This chart may be used as a guide. for wheel selection for your particular Healey model. Please drive safely and enjoy your ride!

NOTE: a careful selection of tires is recommended for the BN1 and BN2 cars utilizing these wider rimmed wheels to evoid rubbing on their fenders. Also, check the fitment of the bo-spoke wheels on earlier cars with larger drum brakes.

## Spare Tire - Downsized

Think small. It was the first advertising for the VW back in the 1960's. Now "downsizing" is all the range from Banks, loan and insurance companies, and automotive companies (Chrysler, GM). Everything is getting smaller—except government. OK, no more political commentary.

Since "everyone" is "downsizing" I decided to as well. When I restored my Healey I installed a spare tire that was needed for concours—an original Dunlop road speed 5.90X15. That tire was good looking, but 40 something years old. With all the "talk" on the internet about tire age and old tires not being safe or reliable I decided to purchase a new spare tire. Now you know what the column this month is about.

So for the last eight years I have been driving my car with a "really unsafe "spare tire. At the last North Jersey club meeting I brought up the tire and we had a lot of laughs about how long that tire would last if I ever needed it. The comments ranged from, it will go flat as soon as you jack it down, to it would "blow up" in a few miles. (The most votes).

The spare tire concern, really hit me when I was driving back from Encounter last August on route 78. There are some sections of that road with no shoulder at all. With the trucks zooming by, a flat and then a spare tire blow out on a Sunday in the summer did not seem like fun or a good idea.

Ok it is no big deal or expense to buy a new spare tire, about \$125 for a Verdestein Classic. But the size to buy bothered me. Usually the "up size" to buy is a 165X15, but I have noticed that that size is a little big to fit under the tire blocks that hold it down in the trunk. Those two blocks are mounted on the back of the trunk wall and the left inside wheel well. When I drove my Healey all the time in the 1970's I had a 165 Verdistein and I had to remount the blocks higher so the tire would fit under and not take up too much space.

So what is this about "downsizing"? As I was driving home one night I saw a full size car go by with a tiny little spare tire. I thought why not try that with the Healey. So when I went to EuroTire in Fairfield NJ we tried an experiment with a 155X15 Verd Classis and it fit perfectly under the blocks and actually took up a little less space. The size and weight capacity should not impact the car for the short time it is needed and it certainly will not affect the BJ8's ABS and ESP.

See you at Encounter.



This entry was posted in Travel, Wheels & Tires on October 19, 2014 [http://www.austin-healey-stc.org/tech-articles/travel] by rick.

#### **Tired Tires**

Is It Time to Retire Those Tired Tires?

By Baird Foster

An experienced, licensed race car driver in the UK excitedly climbed into his recently acquired vintage BMW for a drive. While executing a corner quite quickly, but at the legal speed, a front tire blew out. He tried his best to control the car; but without steering, it was too tricky for the driver, who ended up rolling the car onto its side. The driver was unhurt, the car damaged but repairable.

"The tires that were on the car were an old set (over 10 years old), and the previous owner suggested that the tires would benefit from changing, despite their legal tread depth. The new tires were on my list, but unfortunately, were not acquired in time," the driver confessed.

Lesson learned.

Do you know how old your collector/vintage car tires are? How long has it been since you checked your tire pressure and conducted a very careful tire inspection?

Like most of us, you probably can't give a definite answer to those questions about these four very important round things that separate you, your passengers, and your car from the road—and potential disaster.

#### When is a tire old?

A tire can be considered old if it is five to six years past the date of manufacture. To determine the manufacture date of the tire, examine the side wall carefully. There are many markings; look for the "DOT" (Department of Transportation) letters. Following these will be another list of numbers. If the tire was manufactured before the year 2000, there will be three (3) numbers: the first two indicate the week of manufacture, the last number the year. For example, "273" means the tire was made in the 27th week of (probably) 1993. (This three-digit numbering goes back a decade or more from

2000, so the tire could have been made in the 27th week of 1983!) If there are only three digits for the date code, your tires are over 10 years old and should be replaced.

For tires made in the year 2000 or later, there are four (4) numbers: the first two indicate the week; the latter two, the year of manufacture. For example, "3003" means the tire was made in the 30th week of the year 2003.

#### But my tires look like new!

From the outside, the tires probably still look good, especially if they're on one of our collector cars probably driven only a few miles per year. The tread looks great, but you may be in for a surprise upon inspection of both sides of the sidewall. Tires age out before they wear out on most collector cars. There are a number of factors affecting the aging of tires. They include improper inflation; lack of maintenance (e.g., rotation); faulty alignment; climate conditions; oil or brake fluid on the sidewall facing in on the vehicle; overloading; damage from potholes, curbs, etc.; infrequent use; improper tire size for the car; and the quality of the tire manufacturer's product.

These same aging issues apply to the tires on infrequently used trailers and motor homes, to all spare tires, and to your daily driver.

When should you replace your collector car's (or any) tires?

Answering this question is like trying to decide when to buy a new mattress, in that there are so many variables to consider. Care and use, brand of tire, climate conditions, and the liability factor in America's litigious society all add to the mix. Still, there are some universal guidelines to help you.

Several reputable tire vendors to collector car owners have offered their comments. Hendrix Wire Wheel (www.hendrixwirewheel.com) indicates that since tires are made from rubber, oil products, and metal (steel cords), they will wear and dry out due to age. Tires dry out from the inside and become brittle; although the tire may look brand new on the outside, it may be brittle inside. About ten years is the absolute maximum any tire may be expected to last—just from the aging process, not including tread wear.

The ten-year guideline depends upon the tire brand, use, care, and environment. Hendrix recommends thorough safety inspection of the tires, especially for tires more than five years old. Old tires will fail—not as a matter of IF, but WHEN.

Coker Tire (www.coker.com) indicates the same five year age for careful inspection for cracking, rot, and bubbling on both sides of the tire. Differing conditions (as above) will cause different aging wear rates; check thoroughly as a matter of routine maintenance. (For museum pieces or never-driven and trailered show cars, if the tires hold air, they're good!)

The report from Tire Rack (www.tirerack.com) agrees that tires are perishable items and may age out before the treads wear out. For example, typical bias ply tires in the 1970s lasted fewer than 20,000 miles and were expected to be in service for about two years—no real issues with aging. The difference today is that many radial ply tire treads will last for 50,000-60,000 miles; tires on infrequently used vehicles such as collector cars will age out first. When properly stored and cared for (such as proper inflation), most street tires have a useful life in service of between six to ten years.

#### Other guidelines on aging tires

Tire companies abroad sing the same song. It is of interest to note that in 2001, the British Rubber Manufacturers Association (BRMA) recommended that unused tires should not be put into service if over six years of age, and that all tires should be replaced ten years after the date of their manufacture.

In 2005, the Japan Automobile Tire Manufacturers Association (JATMA) said that customers are encouraged to have their tires properly inspected after five years of use. It is recommended that all tires (including spare tires) that were made more than ten years ago be replaced with new tires.

Several European makers of high speed and high performance vehicles say that under no circumstances should tires older than six years be used.

According to the National Highway Traffic Safety Administration (NHTSA), a large insurance company said that from 2002 to 2006, 77% of its tire claims came from five states with hot ambient temperatures. Even more significant was that 85% of those claims were for tires that were more than six years old.

While the guidelines vary, all seem to indicate that if your tires—whether on your collector cars, trailers, motor homes, or daily transport vehicle—are over five or six years old, you should pay very close attention to those tires and use extreme caution with "tired tires."

#### Inspecting aging tires

All tires, spares included, regardless of age, should be inspected on a regular basis (more frequently than every ten years, whether they need it or not!). This applies to those on the vintage car as well as on the daily driver. Ensure that the tires have proper inflation and show no signs of bulging, cracks, excessive wear, etc. Botox won't help.

If your tires are older than five or six years, you need to perform a very careful inspection of the entire tire on both sides, and the tread, on a regular basis. You may even wish to remove an old tire from the wheel and inspect the inside of the tire for cracks, bulging, hardening, and/or dry rot.

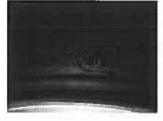
Prompted by my own research on tires, I installed new Michelin XZX 165 SR 15 tires on my BJ7, replacing my old tires of the identical size and make. My old tires were about 8 years old and looked quite good, with only about 24-27K miles. When the old tires were dismounted, I had a good look at the inside of one of them: they looked like new. I thought, "This old tire information is rubbish! Have I spent all this money for nothing?" However, close examination of the tread (by pressing the sidewalls together) revealed fairly severe cracking between the tread blocks...nothing I'd risk my life on! That was the proof for me. You could not detect these cracks with the tire mounted on the wheel, unless you looked with a good light and perhaps with a magnifying glass.

Tires that exceed five or six years from the manufacture date—especially those over 8 to 10 years old—should be replaced. Tired tires are dangerous; and it is up to us, the responsible owners, to ensure the safety of our passengers, ourselves, and our cars.

At a recent sports car club's tech session, a responsible car owner with years of driving/racing experience was demonstrating his newly restored sports car on a dynamometer. While revving up to high speed on the machine, a tire delaminated. Big bits of tire flew out the shop door, narrowly missing several shocked club members. The faulty tire was about 10 years old with excellent tread depth.



This older tire shows severe sidewall cracking and dry rot—not a safe tire to use.



Note the newer manufacture date code of four digits; this numbering system began in 2000. The "2003" indicates manufacture in the 20th week of the year 2003. This tire was replaced.

# Cleaning Wire Wheels and Door Shut Pillars

Now that's a good idea!

Cleaning you wire wheels for the summer? Do you have grease running down the spokes? Try this cure.

First clean out all the grease from the center hub area with gas and spray carb cleaner (wear protective eyewear) especially where the spokes heads come through. Second, apply silicon chalking (bathtub size tube works great) in the cavity to cover the heads of the spokes. Third, have a beer while it dries. Fourth, grease the splines up again and you're done. No more grease streaks and more Healey driving!

Bob Smith sent in a good idea for regarding the aluminum trim plated inside the door opening and shut pillars. I am sure you have noticed how they oxidize, age and loose their luster over the years. I have tried to repair them with chrome cleaner and metal cleaner but it was hard work and it never really looked any better. Bob took his off and gave them to a shop that does zinc plating. Bob didn't know exactly what they did to them but they looked great. They were smooth, not oxidized, and had the correct lusted. Something to check out before you plunk down \$200 plus dollars on replacements.

### A Jack That Works

#### By Steve Jekogian

How do you get it up. That is a question guys are always thinking about on a warm summer night and so does the girl in the front seat beside you. It's bound to happen as we and the cars get older, and things wear down. Someday it will be flat, and hopefully not when you are going at full speed.

That's right. At some point you are going to have a flat tire and will have to jack up the car to change it. Do you have the tool(s) that can get it up? Ever see the original jack, what a contraption! Great color so you can find it in the trunk, but exactly how does it work? Did you ever see one work? I have one for show only and it does not look like it would fit under the frame if I did have a flat. The AAA guys jack probably will not fit under the frame and I bet he would have to jack up the whole car to get the tire off.

What's a Healey owner to do. Do you even have a jack in the trunk? What kind is it? Does it work, do you think?

I recently wanted to buy a jack for my car and had a real dilemma All the car part stores and Wal-Mart had only hydraulic jacks and the smallest one had a minimum height of 7 inches! Considering the Healey frame is only four inches off the ground when the tires are full of air, seven inches seems problematic. I wanted to buy a scissor jack, popular in the 1970 with the long crank handle but could not find one. What to do?

Well I looked in the trunk of my Chrysler and there was a scissor jack that lowered to about 2 inches and had a short handle. Great, but where to get one. I went to an auto junk yard and explained what I wanted and for \$20.00 I had my pick. Look for a small one that will fit in the original space, which is the left side of the trunk under the mat in the hole between the fender well and the bumper bracket. Actually the original jack was held to the bumper bracket with a "Jack strap" (Moss sells them for \$35.00). If your new jack will not fit in that space, then another good area is under the spare tire wrapped in a towel (so it will not clang around) with the crank held down by the tire, which should be held down by the tire belt (also a Moss item).

What else should be in the trunk well of course a knock off hammer, I have a can of flat tire inflator, (can't hurt) and a fire extinguisher. What do you carry in your Trunk? That is a future article of Healey spares for the road.