

# **CARING FOR YOUR TIRES**

Proper tire care is a common topic of discussion among RV owners. Last month we talked about the use of blocks under your tires to help level your motor homes. The following excerpts from the Michelin on-line Tire Guide address additional aspects of caring for your tires.

### Aging, Weather Checking and Ozone Cracking

During the pre-trip inspection, be sure to check your tires for signs of aging, weather checking, and/or ozone cracking. These show up as tiny cracks in the rubber surface on the sidewall of the tire. If the cracks are less than 1/32" deep, the tire is fine to run. Between 1/32" and 2/32", the tire is suspect and should be examined by your Michelin dealer. If the cracks are any deeper than 2/32", the tire should be replaced immediately.

Here are a few tips to help you protect your tires from these common damage conditions:

- 1. Keep your tires properly inflated.
- 2. Keep your tires clean.
- 3. Avoid prolonged exposure to heat, cold or moisture.
- 4. Avoid prolonged exposure to ultraviolet rays.
- 5. Cover your tires when your vehicle is not in use.
- 6. Do not park near electric generators or transformers.

7. Do not store your vehicle in an area where welding is being done or in a garage that has mercury vapor lamps.

### Long Term Storage and RV Tires

Unless you're a full-time Rver, your vehicle probably spends some time in long-term storage. But what you probably didn't know is that rubber tires age when not being used. So, if you must store your RV, a cool, dry, sealed garage is your best bet. Also, some storage surfaces can cause tires to age faster. That's why Michelin recommends placing a barrier (cardboard, plastic or plywood) between your tire and the storage surface. Here are some other steps you can take to help reduce the aging effects from long-term storage:

- 1. Thoroughly clean tires with soap and water before placing into storage.
- 2. Cover tires to block direct sunlight and ultraviolet rays.
- 3. Store out of a high ozone area.

Note: When a vehicle is stored, tires should be inflated to the inflation pressure indicated on the sidewall.

Before removing your vehicle from storage, thoroughly inspect each tire-this includes sidewalls, tread area, and air pressure. If your tires have lost air, be sure to inflate them to the correct pressure before driving.

### Proper Cleaning of Your RV's Tires

Like the rest of your RV, it pays to keep your Michelin tires clean. Road oil will cause deterioration of the rubber and dirt buildup will hold the contaminants next to the tire.

As with the cleaning of any rubber product, proper cleaning methods must be used to obtain the maximum years of service from your ties. A soft brush and the normal mild soap that you would use to clean your RV may be used. If you use a dressing product to "protect" your tires from aging, use extra care and caution. Tire dressings that contain petroleum products, alcohol or silicones will cause deterioration or cracking and accelerate the aging process.

In many cases, it is not the dressing itself that can be a problem, but rather the chemical reaction that the product can have with the antioxidant in the tire. Heat can add to the negative reaction. When these same dressing products are used on a passenger car tire that is replaced every three to four years, it is rare to see a major problem. However, in most cases, RV tires may last much longer due to limited annual mileage and the chemical reactions have much longer to take place.

### Additional Tire Care Recommendations

**Tire repair:** Even the best drivers can drive over a nail and the best tires can pick up that nail or screw and go flat. If you pick up an object that causes a flat with a Michelin RV tire, the repair must be made to the inside of the tire to be repaired properly. To do this, the tire needs to be demounted and inspected on the inside of the casing for any other damage that the object may have caused. See your Michelin truck tire dealer for the proper repair and damage inspection.

**Tire inspection:** Your RV tires should be inspected thoroughly at least once a year, and any time you drive in rough or rocky terrain, or when you have your RV serviced. This inspection should include both sidewalls, the tread area, and the valves, caps and any valve extensions. Inspect for nails, cuts, bulges, aging or fatigue cracks and weather or ozone checking. Also, check between the duals for objects lodged between them. See your Michelin dealer at once if anything unusual is observed.

On a regular basis, rub the palm of your hand across the face of the tread on your front tires to feel for any feathered wear from "toe" alignment problems.

NOTE: Be careful since severe weather can expose steel belt edges that are very sharp. A "toe" misalignment problem can be caused by impact with a "chuck" hole in the road. Bad "toe" wear can be hard to find visually, but can be felt very quickly with the hand. This type of alignment problem can wear rubber off the tread of your tires in just a few hundred miles.



One topic that continues to be a talking point at rallies and in our Service Center is trailer tires. Everyone has a view about tires, what ones are the best, and opinions continue to vary widely. My contention is that if one tire was markedly better than any other there would only be the one tire(or Brand) being purchased. While the search continues for the "best" ST trailer tire; I thought I would share some things that I have been researching about trailer tires and what can affect their longevity.

### ST Trailer Tire Features (Special Trailer ("ST") Tires)

First, what is an ST trailer tire? ST stands for Special Trailer Service. ST tires have been specifically made for trailers. Special trailer service tires feature heavy-duty construction and accommodate higher inflation pressures to provide the load capacity necessary to match many trailer applications and payloads.

They have larger polyester cords than other trailer tire models, greater strength and greater resistance to the elements. Their stiffer sidewalls help control sway for enhanced towing stability and they offer more bruise resistance than typical passenger tires.

ST trailer tires have a maximum speed rating of 65 miles per hour and on the average can be used for three to five years.

### Bias Ply vs. Radial Tires trailer tires

When it is time for new tires for the trailer, it is better to invest in radial tires. While bias ply tires are safe and well made, they do not provide as smooth a ride as radial tires. Bias ply tires also tend to wear out quicker and use more fuel than radial tires. By contrast, radial tires are fuel efficient, create less friction and can be used in any type of weather.

### **Air Pressure in Tires**

Did you know? Low air pressure will decrease the life of the tire by approximately 25% (low air press to increased flexing of side walls) and decrease gas mileage by 5%. Low air pressure can also increase tire wear by 10%.

Tires can lose one pound per square inch (psi) per month under normal conditions. Additionally, tires can lose 1 psi for every 10° F temperature drop. Check air pressure monthly and routinely (including your spare).

Never release air from a hot tire in order to reach the recommended cold tire pressure.

Normal driving causes tires to run hotter and air pressure to increase. If you release air when your tires are hot, you may dangerously under inflate your tires.

Tires should sit at least 3hrs.after driving before checking for cold tire pressures.

If you must add air when your tires are hot, add four pounds psi above the recommended cold air pressure. Recheck the inflation pressure when the tire is cold.

According to guidelines put out by the Rubber Manufacturers Association (RMA), any tire that has been run at less than 80% of recommended air pressure for the load it is carrying should be inspected for possible damage.

For proper tire inflation know your tire's load carrying capacity. Under-inflated tires can cause "excessive wear onthe outer edge of the tire and heat build-up." When inflated too low, the tire has more room to flex over bumps, rocks, rails, and road, with each flex adding an opportunity for your tire to become damaged. Over-inflated tires on the other hand can cause excessive wear on the center of the tire, leaving the tire more vulnerable

### (Air Pressure in Tires Con't)

to damage from sharp corners, objects, or to a break in the tire itself. This can lead to a tire blowout. Filling a tire too full also causes the rubber to be taut and increasing the likelihood of the rubber breaking rather than bending over the road.

### Heat affects tire performance

The amount of flex or heat generated in a tire will increase the risk of damage to a tire. Heat damage is not necessarily instantaneous. Excess heat will cause the compounds in the tire to work out of the tire prematurely leading to what is referred to as "dry rot."

Tires suffering heat damage previously may appear to fail for no apparent reason later in their life.

The factors directly contributing to the amount of heat generated through tire flexing are: Size of Load being carried, Speed you are driving, Distance traveled, Inflation Pressure of tire, Tire Construction/Rubber Compound and the ambient temperature it is being operated in or on (such as hot asphalt).

The hotter a tire runs the less efficient it becomes and the more susceptible it is to damage. When a tire runs hot: Tire wear rate increases, Tires are more prone to cutting, Heat increases the rate of casing fatigue (dries out tire compounds), it increases the chance of heat separation, and it increases the chance of tire burst, the greater rate of repair failure.

When researching for information on tire failures the two main topics that keep coming up are, damage from the heat that can be generated in tires and inflation pressures, both under and over inflation. A tire can look perfectly normal but may have suffered internal damage.

Summary: The above information is some of what is available from various tire manufacturers concerning tires and their enemies. So far I have not found any information on the "perfect tire". I do believe if we understand more of the things that affect tire life we have a better chance of traveling safely while Airstreaming.

# Inside Colonial...

It's that time of year again. The **"Dog Days of Summer"**. So far this summer has been hot and humid. The sun plays havoc with the exterior of your RV, mainly the roof area and tires. The intense rays of the sun can cause the roof sealers to dry out and eventually cause rain leaks into your unit, make sure you do periodic visual inspections. If your RV sits for extended periods it's a good idea to purchase tire covers, which will protect the sidewalls from drying out and cracking prematurely from the suns rays. Also if your tires are over 6 years old they should be replaced. RV Tires should be replaced 6 years from the build date on the tires. The cover article of this newsletter is very informative on care and maintenance of your tires.

Colonial has recently purchased a Sealtec leak detector. This machine will aid our technicians in locating rain leaks in your RV should the occasion ever arise.

Along with our RVDA/RVIA Certified technicians, we have two ASE Certified Chassis technicians to address most of your motorhome and tow vehicle maintenance needs when needed.

We have convenient hours to accommodate your needs and would be happy to schedule your reservation, Monday thru Saturday 8:30 AM to 5:00 PM. When an emergency should arise we will do our best to fit your RV into our schedule. For those who do not live locally, we can accommodate you by having a spot with electric open, so you can come in the night prior to your service reservation.

Thank you,

Anthony A. Cursi Service & Parts Director



### Service Staff

Anthony A. Cursi, Service & Parts Director – ext 110 Airstream Certified Technician

Michael Mackown,	Service Consultant – ext 109
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ASE Certified Technician



### Fiamma Bicycle Rack (bicycle not included) Exclusively for Airstream Travel Trailers \$749.95 plus tax installed





Get your entire RV tested for leaks today for only

\$249.99 Plus Tax

THE SEALTECH 430R makes ingenious use of a very simple fact: air flowing through an opening covered with a soapy water ("surfactant") solution produces a bubble precisely at the opening. The system draws outside aire into the RV via the roof vent, where it is dispersed, creating a positive interior pressure. This pressure difference causes air to flow outward through any outer skin faults. The application of a soapy water solution to suspicious areas of the outer skin results in a very visible bubble exactly over each fault. Because of the large surface areas involves, and the numerous routes for air to escape a typical RV, the SEALTECH 430R is engineered and built to produce high air flow, but only to safe nominal pressures.







[Left] The damage done to a subfloor by a water leak. [Right] The SEALTECH machine in action. The bubbles shown here Identify where the vold in the sealant Is. This allows us to address each leak accurately.



## Motorhome Dingy Tow Package



## **Includes:**

<u>Alfa Tow Bar</u> - The Alpha<sup>™</sup> tow bar is for use with towed vehicles up to 6,500 lbs. This easy foldaway tow bar mounts and stores on the back of the RV when not in use. It is selfaligning, has quick disconnect hookup pins and Signature Series easy-release locking handles. It is constructed with solid steel. Mounts and stores on back of RV. Self-aligning, with quick disconnect hookup pins. Easy release locking handles for quick disconnect. Dependable steel construction. Off-set triple lugs to better align towing forces and prevent binding. Rubber boots to protect from road grime. Includes 7,500 lb. safety cables. Weighs less than 40 lbs. Three year tow bar warranty.

Base Plate - three year warranty on baseplate.

<u>Blue Ox Accessory Kit</u> - Towing Accessory Kits Contains safety cables, bulb and socket kit, 6wire electrical cable, 3-lock set, 4-diode kit and tow bar cover.

Drop Bar (if needed)

**Patriot Wireless Braking System** - The Patriot from Blue Ox gives you the comfort needed for when you're braking your tow vehicle. Not only is it convenient and easy to store, but it also proportionally applies the brakes while you're slowing down to a stop, instead of suddenly jolting your tow vehicle causing costly damage to your brakes. All Blue Ox braking systems come with a one year warranty. The Patriot works for you motorhome and tow car by safely bringing it to a smooth stop with proportional braking.

### Tail Light Wiring for Towed Vehicle

<u>Toad Charging System for Towed Vehicle</u> - No More Dead Dinghy Batteries Due to Parasitic Loads! Automatically charges and maintains the battery in your dinghy vehicle (or "Toad") while you're towing it. Eliminates battery discharge problems due to leaving the ignition switch on, supplemental braking systems, etc. Full One-Year Warranty. Toll-free technical support, 7 days a week. Satisfaction guaranteed. Designed, Built and Supported in the USA.



# **Sticky Subject**

Airstream travel trailer classic (riveted) window glass may adhere to the rubber gasket during the gasket's curing process.

CAUSE: EPDM rubber is a high quality weather seal and has been on the market for many years. It does not break down under severe Ultra Violet ray (UV) conditions and will remain soft and pliable for many years. EPDM rubber's formula must include a small amount of petroleum distillates needed for the extruding process. The amount of petroleum distillates are very slight, but when subjected to heat and intense UV, the oil in rubber seal "bleeds" as it continues to cure. The compressed bleeding seal and sun, generates a chemical reaction resulting in a "stuck window." Forcing the window open may cause the window to shatter. Always follow the guidelines below for releasing a stuck window.

### To release a stuck window glass

1- Unlatch the window latches securing the windows on the interior.

2- Apply some 303 Aerospace Protectant to a nylon window tool.

3- Starting in the corner, tuck the end of the nylon tool under the glass and gently slide to opposite end. (As shown in Fig. 1)

**CAUTION:** Prying up or applying pressure to the window may cause the window to shatter resulting in personal injury or unit damage. Once the window is released, wash the gasket with a

mild soap and water solution, dry, and apply **303 Aerospace Protectant** to the window gasket.

To apply: Spray/pour 303 Aerospace Protectant into a soft rag or sponge and apply a generous coating directly to the gasket. Remove any residue that comes in contact with the exterior aluminum skin. 303 Aerospace Protectant may be obtained from Airstream's or our parts department. Airstream's part number is 44845WR. \*Until the rubber fully cures, this preventative



maintenance may need to be completed on a monthly basis depending on the environmental conditions surrounding the unit.

\*\* Through testing, **303 Aerospace Protectant** has shown to provide the most favorable results and is also recommended by Fantastic Vent to prevent the rubber from adhering to their vent lid.



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