

Air Dryers

During our recent trip we had a problem with our air dryer. Before making the trip down the mountain in Asheville, NC, we had Interstate RV come to the campground and by-pass the air dryer so we could get home safely. We were unfamiliar with the purpose of the air dryer but obviously didn't like the blinking red light on the dash. However, with the help from Steve Masterson (which is always awesome) and the work from Interstate, we came home safely and with yet another piece of very important information related to the maintenance of our RV. The below article was an excerpt from the internet and hope it's helpful.

“.....On the larger Motorhomes air is used to apply the brakes instead of brake fluid. In order to do this, the motorhome needs a compressor to compress the air which is stored in the air tanks. This is at a pressure of around 120 PSI. The air is then used to apply the brake.

One important factor is that the air that comes from the compressor has to be dry. If the air contains any moisture, it can freeze the air system in the winter months, or corrode the brake components.

In order to achieve dry air, the compressor passes through an air dryer before it is stored in the tanks. When air is compressed it becomes hot, then as this hot air cools down moisture is created. The job of the air dryer is to remove this moisture by passing it through the base of the air dryer casting, which removes a high proportion of this. Following this, the semi-dry air enters a replaceable cartridge of the dryer, this cartridge contains desiccant which absorbs moisture. This moisture then stays in the cartridge.

The cartridge has the same usable life on it as a large goods vehicle does, although would be very difficult to estimate how long one would last on an American Motorhome. On a large goods vehicle that has an air dryer fitted, the filter would need to be replaced on every large service around 90,000km (56,000 miles). If applied to an American Motorhome you may never need to change it, and you may say “so what”.

The desiccant in the replaceable cartridge is housed in a textile bag which has a habit of deteriorating; allowing the desiccant beads to enter the air system, or the desiccant can become water logged which then lets water into the air system.

As a guide, the cartridge should be changed every 3 to 4 years if outside metal casing could start to corrode badly. The cartridge case houses the full 120 PSI air pressure, so any weak point can and will cause a large air leak.....”



Steve Wood
SKP 113382