

Recently I had to troubleshoot and finally replace the air dryer on a coach that had shut down due to an air problem. Here is some basic information on how the air system works and maintenance requirements.

The air compressor is located on the engine and operates only when the engine is running. Clean, filtered, turbocharged pressurized air from the intake manifold is force-fed into the air compressor. The compressor maintains the air system whenever the system's pressure falls below preset parameters. When the maximum pressure is reached, the compressor output is diverted. An air governor is used to maintain the air pressure from 85 to 125psi.

The air is then passed through the air dryer, which filters the compressed air. The air dryer has an automatic purge valve on the bottom of it to expel the accumulated moisture back into the atmosphere. The purge valve opens when the air compressor stops pumping and goes in standby. The purge valve also blows moisture out each time the compressor reaches the maximum output pressure and shuts off. A desiccant cartridge in the air dryer removes any moisture and oils in the compressed air. The coalescing filter in the air dryer removes any particles of debris still remaining in the compressed air. From the air dryer the compressed air is sent to the wet tank and on to the front and rear brake tanks. This air is now used for the braking and other operations of your coach.

***An important servicing item in your maintenance schedule is to service the air dryer.*** A kit is available that has both the desiccant and the coalescing filter cartridge. Depending on how much you travel, it may be wise to service more often. If the filter and desiccant cartridge get saturated with moisture and oil from the compressor, it will eventually clog the dryer and/ or cause the purge valve to stick open. When this happens, the air system will not build up pressure. This contaminated air will get into the wet tank and on into the system valves where other problems may occur. As you know, this usually happens in the most inconvenient place and time.

I hope this helps you to understand the basic air system and what will happen if the air dryer is not serviced on a regular basis.

**By Jack Bradshaw - Reprinted from Summer 2008 Motorcader**