MAINTENANCE MATTERS

The air dryer

The cold months are coming, which means it’s time to perform fall maintenance on your MCI coach. The air dryer is one of the most important parts of the coach air system and warrants special attention this time of year. If not properly maintained, it can freeze up and leave your coach literally out in the cold. Also, water or oil in the system can cause the purge valve to stick open and prevent the system from building up necessary air levels. For this reason, it’s necessary to drain your air tanks at least once a day.

In addition to daily draining, there are simple periodic maintenance chores associated with the air dryer. Each model air dryer has its own maintenance protocol, and MCI has used many different air dryers over the years.

Periodic maintenance by model

ADP-2 (Part 4R-10-13)

Every 25,000 miles: Check for moisture in the air system by draining the air tanks; if 2 oz. or more of moisture is present, the desiccant cartridge may need changing. The rule of thumb is to change the desiccant and purge valve at least once a year, whether it appears to be needed or not. The heater element should also be checked yearly, and the air governor should be checked as well. For more information, see your MCI Maintenance Manual, Section 4.

ADP-4 (Part 4R-19-19)

Like the AD-2, this dryer must be checked every 25,000 miles. All air tanks should be drained, and, if any water is present, the dryer desiccant should be changed. The purge valve should pop off at air governor cut-out pressure (125 psig). If the valve stays open, replace the purge valve. Rule of thumb: Rebuild dryer and check the heater element at least once a year.

ADP-9 (Part 41-19-90)

This dryer is somewhat different to maintain than the others, as it requires an inspection every 100,000 miles for water or oil in the air tanks. Bendix recommends service every 300,000 miles or 36 months to rebuild the dryer. MCI recommends changing the purge valve and desiccant at least once a year.

ADIP Dryer (Part 04-19-1001)

This dryer, used on E and J coaches until 2003, is also a little different than the others. It has a spin-on desiccant cartridge and has two cycles: the Charge Cycle and the Purge Cycle.

ADIP DUU Dryer (Part 04-19-1046)

This dryer appeared with 2003 E3R engines due to compressor changes. The air governor was moved to the dryer, which is a constant purge dryer.

The next check is at 100,000 miles or 12 months. At 300,000 miles or 36 months, completely rebuild the dryer.

Haldex Air Dryer (Part 04-01-1001)

This dryer has a compact multiple treatment cartridge. It also has an internal air governor, a muffler on the bottom for quiet operation, an internal heater and an internal regeneration valve. The maintenance on this dryer is extremely important due to the internal air governor.

Every 25,000 miles: Use a measuring cup to check the wet tank:

<table>
<thead>
<tr>
<th>QTY OF WATER</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 2 oz</td>
<td>air dryer is working</td>
</tr>
<tr>
<td>&gt; 2 oz; &lt; 3 oz</td>
<td>change desiccant cartridge</td>
</tr>
<tr>
<td>&gt; 3 oz</td>
<td>change desiccant cartridge; check purge valve cycle:</td>
</tr>
</tbody>
</table>

- If purge valve cycle > 17 seconds, replace regeneration valve

Change the purge valve and service the air governor as required or at 300,000 miles.

Rule of thumb: Change desiccant and service at least once a year.

For additional information, please refer to Section 4 of your MCI Maintenance Manual, or call Motor Coach Industries Technical Support at 800-241-2947.

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