INSURING ADEQUATE OIL DRAINAGE

Some Dana 30, Dana 35, Dana 44 and Ford 8.8 axles were manufactured with poor oil drainage between the axle tubes and the differential housing. This can often result in one of the axle tubes filling up with differential oil while running. In most cases this will result in a blocked air vent which will cause the differential housing to pressurize and expel oil from the axle seals at the wheels or force oil into the Air Locker air lines, eventually expelling oil at the solenoid valve. This is a design flaw that was corrected by most automakers in the later releases of their axle assemblies.

Inspect the differential housing for the presence of adequate drainage in both axle tubes. If no adequate drainage points are present in the differential housing then it is critical that you modify the housing to include them (refer to the figure below).

Note that before any modifications it is important to cover the differential housing cavity and the axle tube openings with a rag to protect them from metal filings. Afterwards, remove any sharp edges and thoroughly clean the housing.