

## FIX-N-FAX #32

### CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

Number 32

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#### **Automatic Transmission Fluid Oxidation**

Operating temperature for automatic transmission fluid under normal operating conditions is 175 degrees F.

The oxidation rate increases rapidly as the temperature increases. In fact, oxidation rate doubles for each temperature increase of 20 degrees F.

Therefore, if at :

- 175° F., fluid life is 50,000 miles,
- 195° F., fluid life is reduced to 25,000 miles,
- 215° F., fluid life is reduced to 12,000 miles,
- 235° F., fluid life is reduced to 6,000 miles,
- 255° F., fluid life is reduced to 3,125 miles,
- 275° F., fluid life is reduced to 1,500 miles,
- 295° F., fluid life is reduced to 750 miles,
- 315° F., fluid life is reduced to 325 miles.

At temperatures above 300° F., metal transmission parts begin to warp, seals begin to fail, and friction material begins to burn.

Operating an automatic transmission for more than a few minutes with fluid temperatures above 300 degrees F. will result in serious damage and a catastrophic failure.

[\(see FIX-N-FAX INDEX\)](#)