MARYLAND

Vehicle Emissions Inspection Program

REPAIRCARE

Catalytic Converter Replacement

When it is time for a vehicle's catalytic converter to be replaced, choices on the replacement converter need to be made and replacement guidelines followed. Factors such as converter cost, vehicle age/condition, and how long the owner will have the vehicle will influence the replacement choice.

The most crucial choice is between OEM or aftermarket converters. There are advantages and disadvantages to both. An OEM converter is the best choice. This converter will fit and function like the original. This converter should have a design life of no less than 100-120 thousand miles while maintaining a pollutant reduction efficiency of 97/85/97 % for HC/CO/NO_x respectively. For many 1996 and newer vehicles an OEM converter is the only choice due to the vehicle's emission classification/certification rating.

The other replacement option is an aftermarket converter. Aftermarket converters are found in two varieties, CARB (California Air Resources Board) certified (OBD and non-OBD) and EPA certified. While initially cheaper, aftermarket converters may cause unforeseen vehicle operational issues. Many aftermarket converters are designed for installation on a variety of vehicle makes and models. These "universal" converters may cause changes in exhaust backpressure, converter operating temperature, or the illumination of the check engine light, all of which may cause the vehicle owner to bring back the vehicle to fix the related performance issues. These converters are also designed to a lower standard. An EPA certified converter is required to have a reduction efficiency rating of 70/70/50 % for HC/CO/NO_x respectively, while meeting EPA's emission reduction performance standard for 25,000 miles.

If an aftermarket converter is the chosen option, check with your parts supplier to verify if a CARB certified converter is available. A CARB certified converter maintains a better reduction efficiency than an EPA certified aftermarket converter. A non-OBD CARB certified converter has a 70/70/60 % reduction efficiency for HC/CO/NOx respectively. For 1996 and newer vehicles there may be an OBD CARB certified converter available for the vehicle being repaired. These converters have a reduction efficiency of 96/83/96 % for HC/CO/NO_x ------(Turn Over)

Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

www.mde.state.md.us

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
Shari T. Wilson, Secretary

(very close to the OEM) respectively as well as a 5 year/50,000 mile warranty. So when ordering a cat ask your parts supplier if a CARB certified cat is available.

The U.S. EPA has established regulations a shop must follow when replacing a catalytic converter. Here is a summary of some of those regulations.

1. Save copies of invoices and statements for 6 months and the replaced converter for 15 days. (The saved converters must be identified or marked as to which customer's car they came from.)
2. Install the same type, the proper converter and in the same location as the original.
3. Penalties for violations by individuals, service or repair shops or fleet operators are up to $2,500/ violation. (each improper installation is considered a violation) New car dealers can be penalized up to $25,000 per violation. Any person who causes a violation could be subject to the same penalty as the installer.

To find out more information about catalytic converter replacement policies, converter types, and converter identification procedures you can view and download the EPA document from the MDE VEIP website. Click the following link to be taken to the webpage. VEIP repair industry webpage If you are unable to download this document, please call (410) 537-3270 and one will be mailed to you.