

Automotive Transmission Fluid Evacuation Service

Fluid evacuation systems in the automatic transmission service industry are commonly being used in lieu of traditional transmission service methods. Sometimes this procedure is referred to as a fluid flush. These systems are used to pump the old fluid out of the transmission and to refill with fresh fluid. This avoids dropping the pan and draining the unit which can be time consuming and messy. The use of this method to replace the transmission fluid is a clean, efficient, and safe way to remove hot oil from a transmission. However, there are some risks to doing a fluid evacuation service.

There have been instances where the cooler lines were damaged or seals began to leak when the evacuation process was not performed correctly. Another issue to be aware of is that many fluid flush machines use an inexpensive generic transmission fluid as the flush fluid. Once the flush is completed, the shop adds a bottle of "fluid converter" to modify the friction characteristics of the fluid to match the car manufacturer's recommendations. Most car manufacturers recommend that if a fluid flush procedure is performed, that the proper fluid be used or the warranty could be voided.

There have been instances regarding transmission failures shortly after an evacuation service, without filter removal. At the time of a fluid evacuation service, there is no way to know the condition of the filter and how clogged it may be. Today's transmissions are far more susceptible to malfunctions caused by fine dirt contamination. The filter's job is to collect and hold contaminants, (dirt, metal filings, friction particles, etc.), and prevent these particles from causing malfunction in such components as electronic force motors and solenoids. Without servicing the filter, there is no way to know if the filter is clean of debris or nearing capacity. If the filter is nearing capacity, transmission failure may not be far off. This is also a sign that there may be other internal problems in the transmission. Recognizing these warning signs could eliminate major service later.

Some of the transmission failures after an evacuation service have occurred on relatively high mileage transmissions that have not been serviced in some time. One reason for this is that the sludge and dirt buildup within the transmission will not completely be removed during the service. When the new fluid (which has detergent properties) is placed in the transmission, over days and weeks, the internal components begin to wash the insides of the transmission.

This sludge does finally work loose and settles in the transmission filter, clogging it up even further than it may have been before service. In these extreme cases, where service has not been performed in some time, changing the filter may not completely fix the problem. Some mechanics recommend a second service a few weeks after the first, replacing the filter again, which may be partially clogged due to the cleaning process in the transmission.

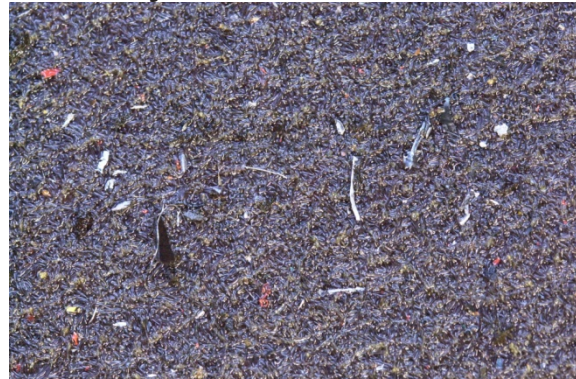
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Fluid evacuation service should not be mistaken for complete transmission service. Some people believe that the removal and cleaning of the pan and inspection and servicing of the filter are unnecessary. This is a major misconception. Most transmission filters contain felt media. Felt holds dirt particles within tiny pores in the felt. It will not wash out or flush out. If a felt filter becomes clogged it must be replaced. Clogged filters restrict fluid flow, which lowers pressure to clutches and bands. This can cause slippage and eventual burnout of the transmission.

New felt media soaked in fresh automatic transmission fluid:



Dirty restricted filter media:



Typically transmission service is performed at 15,000 miles (24,140km) for severe service such as city driving, desert (hot dusty) driving, extreme cold, frequent short trips, trailer towing, and delivery service. In normal operating conditions it is recommended to inspect and replace the filter at least every 30,000 miles (48,280km). Even in vehicles with 100,000 mile (160,934km) or higher drive train service warranties, the manufacturer recommends filter replacement sooner if the vehicle sees severe service conditions. Refer to your manufacturer's recommendations for your particular application.

Even if the fluid evacuation method is desired to remove the used transmission fluid, the pan should be removed also, and an inspection should be made of the pan contents, fluid, and filter to determine the condition of the transmission. Aluminum filings in the pan or iron filings on the pan magnet are signs of internal wear and may give light to potential problems in the transmission. Transmission service is performed for preventative maintenance. Evaluating the overall condition of the transmission by removing the pan should be part of this preventative maintenance also.

The Filter Manufacturers Council urges everyone to dispose of all used filters properly.

FOR ADDITIONAL INFORMATION, CONTACT:

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