

2003 Ford Mustang V8-4.6L SOHC VIN X

Vehicle > Technical Service Bulletins

## A/T - COOLER FLUSHING SERVICE TIPS

Article No.

03-14-8

07/21/03

TRANSMISSION - NEW TRANSMISSION COOLER  
FLUSHER - SERVICE TIPS

FORD:

1992-1997 CROWN VICTORIA, PROBE, THUNDERBIRD

1992-2003 ESCORT, MUSTANG, TAURUS

1994-1997 ASPIRE

1995-2000 CONTOUR

2000-2003 FOCUS

2002-2003 THUNDERBIRD

1992-1996 BRONCO

1992-1997 AEROSTAR, F SUPER DUTY, F-250 HD, F-350

1992-1999 F-250 LD

1992-2003 ECONOLINE, EXPLORER, F-150, RANGER

1995-2003 WINDSTAR

1997-2003 EXPEDITION

1999-2003 SUPER DUTY F SERIES

2000-2003 EXCURSION

2001-2003 ESCAPE, EXPLORER SPORT TRAC, EXPLORER SPORT

LINCOLN:

1992-1997 TOWN CAR

1992-2002 CONTINENTAL

1993-1998 MARK VIII

2000-2003 LS

1998-2003 NAVIGATOR

2002-2003 BLACKWOOD

2003 AVIATOR

MERCURY:

1992-1997 COUGAR, GRAND MARQUIS

1992-2000 TRACER

1992-2003 SABLE

1995-2000 MYSTIQUE

1999-2002 COUGAR

1993-2002 VILLAGER

1997-2003 MOUNTAINEER

This article supersedes TSB 00-1-5.

## ISSUE

The number one cause for repeat transmission repairs is that contamination from the transmission cooler system (lines and tank) will work their way back into the rebuilt or new transmission. For this reason a new transmission cooler flusher has been released, "Turbo-Tank Heated Cooler Line Flusher" Rotunda Tool number 22-00001.

## ACTION

The transmission cooling system (cooler and lines) **MUST** be flushed every time the transmission is overhauled or replaced in order to minimize the likelihood of repeat repairs. The use of this new "Turbo-Tank Heated Cooler Line Flusher" (222-00001) is the most effective way to remove contamination from its cooling system. Refer to the following Service Procedure and Equipment instructions (supplied with the "Turbo-Tank Heated Cooler Line Flusher").

## SERVICE PROCEDURE

Prior methods of cooler flushing have not obtained the level of cooler cleaning and contaminant removal that is required to prevent repeat repairs. The "Turbo-Tank Heated Cooler Line Flusher" uses heated Automatic Transmission Fluid (ATF) and a pulsating action to loosen system contamination.

Previous equipment used solvents to clean & flush coolers, lines and torque-converters. There are 2 issues with this method:

^ Residual solvent contamination can cause damage to friction bonding materials within the transmission (Clutches and Bands).

^ Lack of fluid heating and agitation prevents this method from completely removing contamination from lines, in-radiator coolers and auxiliary coolers.

Aerosol Solvents should never be used for several reasons.

^ They do not provide the volume necessary to remove heavy contaminants.

^ They evaporate quickly and essentially leave contaminants in pockets, bends, or wherever they are as the solvent dries.

## NOTE

**YOU MUST IDENTIFY THE RETURN COOLER LINE TO START THE BACK FLUSHING PROCEDURE.**

A quick way to identify the return cooler line (fluid coming out of the cooler and returning to the transmission) is to locate the return cooler line fitting on the transmission case. Refer to the following lists:

### Rear Wheel Drive

^ TORQSHIFT, 4R100, E40D, C6 - The REAR transmission case filling receives the return line.

^ 4R70W, AODE, AOD - The TOP transmission case filling receives the return line.

^ A4LD, 4R44/55E, 5R55E, 5R55N, 5R55W, 5R55S

- The TOP transmission case filling receives the return line.

#### Front Wheel Drive

^ CD4E - The REAR or Pump End transaxle case fitting receives the return line.

^ 4F27E - The REAR or Cover End transaxle case fitting receives the return line.

^ AXOD, AXODE, AX4S, AX4N, 4F50N - The BOTTOM transaxle cooler line fitting receives the return line.

#### **NOTE**

IF AN IN-LINE FILTER HAS BEEN INSTALLED IN THE COOLER LINE, IT MUST BE REMOVED BEFORE FLUSHING THE COOLER OR COOLER LINES.

Purge the cooler and cooler line before flushing:

Located on the "Turbo-Tank Heated Cooler Line Flusher" is a fluid transfer and purge valve. This valve can be used to purge the cooler and cooler lines of contaminated fluid before starting the back flush procedure of the fluid cooling system (refer to step 5a of this Service Procedure or Equipment instructions, supplied with the "Turbo-Tank Heated Cooler Line Flusher").

#### Flush Procedure

1. Check and top off fluid level of the "Turbo-Tank Heated Cooler Line Flusher" tank with transmission fluid.
2. Allow the fluid in the flusher 15-30 minutes to heat up to 140° F (60° C) before using.
3. Install line adapters into the transmission cooler lines.
4. Attach the flusher's blue line to the transmission return cooler line quick disconnect.
5. Attach the flusher's red line to the transmission outlet cooler line quick disconnect.
  - a. Follow equipment instructions, to purge cooler lines and cooler prior to starting flushing procedure (using factory installed purge valve and clear hose on "Turbo-Tank Heated Cooler Line Flusher").
6. Allow the cooling system to back-flush for 10-15 minutes, then flush the cooler in a forward/normal flow direction for an additional 10-15 minutes.

For ordering information on this new "Turbo-Tank Heated Cooler Line Flusher" (222-00001), contact Rotunda at 800-ROTUNDA (800-768-8632 or outside U.S. 262-656-5805).

#### **CAUTION**

THIS FLUSHER CANNOT BE USED TO FLUSH COOLERS ON VEHICLES EQUIPPED WITH THE TEMPERATURE BYPASS-TYPE TRANSMISSION COOLER CURRENTLY FOUND IN 1998-2003 CROWN VICTORIA, GRAND MARQUIS, AND TOWN CAR VEHICLES.

OTHER APPLICABLE ARTICLES: NONE

SUPERSEDES: 00-1-5

WARRANTY STATUS: INFORMATION ONLY

**NOTE:** The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford, Lincoln, or Mercury dealership to determine whether the Bulletin applies to your vehicle.

## Disclaimer