



Technical Service Bulletin

Date: 8/29/05

Revision: 12/8/10

Product Description: All AMSOIL Synthetic Engine Oils

Subject: Using AMSOIL in engines with possible sludge issues

OBJECTIVE:

Inform AMSOIL customers that, according to OEM letters and *Consumer Reports*, the engines identified in this bulletin appear to be prone to sludge. The use of AMSOIL Synthetic Motor Oils at regular drain intervals established by the vehicle manufacturer will reduce the likelihood of sludge formation, provide the best protection and insure the vehicle manufacturer honors owners' extended warranties.

ISSUES:

Engines from four different automobile manufacturers are candidates for possible sludge problems. To satisfy customers, Audi/Volkswagen, Lexus/Toyota and Saab have all extended their warranties to eight-years/unlimited mileage. Chrysler/Dodge is the only manufacturer without an extended warranty program and handles claims on a case-by-case basis.

Provisions of the extended engine warranty coverage include changing the oil within the OEM-recommended interval and documenting proof of maintenance performed to the engine.

TECHNICAL DISCUSSION:

Sludge formation is caused by oil being subjected to abnormal operating conditions such as high heat, excessive blow-by gasses, glycol contamination or poor crankcase ventilation. Sludge formation, if severe enough, can block the oil passages and oil pump pick up screen, resulting in oil starvation.

AMSOIL Synthetic Oils have better oxidation resistance, detergency and dispersancy than conventional petroleum oils, and they do a better job of resisting sludge. However, they will not stop sludge formation under abnormal engine operating conditions. The use of synthetic oil for the best possible engine protection is endorsed by many of the engine manufacturers listed.

RECOMMENDATION:

Purchasers of used vehicles listed in Table A should take extra precautions to protect their purchases by reviewing maintenance records or requesting an internal engine inspection prior to purchase.

Follow regular OEM-recommended drain intervals with the appropriate AMSOIL Synthetic Motor Oil for cars prone to sludge. The AMSOIL XL and OE series oils may be a more cost effective option depending on personal preference.

Keep accurate records of all maintenance, engine inspections and oil/filter changes, such as receipts from quick lubes or proof of product purchase and documentation of installation for those who install their own oil.

Submitted By: DW

Reviewed By: DP

Approval Date: 12/8/10

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**TABLE A
AFFECTED ENGINES/APPLICATIONS**

Make	Engine	Model	Warranty Coverage
Audi/Volkswagen (1), (2)	1.8L 4cyl Turbo	1997-2004 Audi A4 1998-2004 Volkswagen Passat	8 years/unlimited mileage
Chrysler/Dodge (3)	2.7L V-6	1998-2002 Chrysler Concorde 1998-2002 Chrysler Sebring 1998-2002 Dodge Intrepid 1998-2002 Dodge Stratus	None. Handled on a case-by-case basis
Toyota (4)	2.2L 4cyl 5S-FE	1997-2001 Toyota Camry 1997-1999 Toyota Celica 1999-2001 Toyota Solara	8 years/unlimited mileage
Lexus/Toyota (4)	3.0L V-6 1MZ-FE	1997-2002 Lexus ES300 1999-2002 Lexus RX300 1997-2002 Toyota Camry 1997-2002 Toyota Avalon 1998-2002 Toyota Sienna 1999-2002 Toyota Solara 2001-2002 Toyota Highlander	8 years/unlimited mileage
Saab (5)	2.0L 4cyl Turbo 2.3L 4cyl Turbo	2000-2002 9-3 2000-2003 9-3 Convertible 1999-2003 9-5 1999-2002 9-3 Viggen	8 years/unlimited mileage

Sources:

- (1) Audi of America, Inc. Warranty Extension Letter
- (2) Volkswagen of America, Inc. Warranty Extension Letter
- (3) ConsumerReports.org
- (4) Toyota Motor Sales, USA Inc., Customer Support Program Letter
- (5) Saab Cars USA, Inc. Special Warranty Coverage Letter

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