



Technical Service Bulletin

Date: 9/29/2005

Product Description: All AMSOIL Synthetic Engine Oils

Subject: Using AMSOIL in engines with possible sludge issues

OBJECTIVE:

To inform AMSOIL customers that operating conditions of certain engine designs are reported to be "abnormal". According to 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 that the vehicle manufacturer honors your extended warranty.

ISSUES:

The August 2005 issue of Consumer Reports identified engines from four different automobile manufacturers that are candidates for possible sludge problems. To satisfy customers, Audi/Volkswagen, Lexus/Toyota, and Saab have all extended their warranties to 8-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 maintaining documentation for proof.

TECHNICAL DISCUSSION:

Sludge formation is caused by the oil being subjected to abnormal operating conditions such as high heat, excessive blow-by gasses, glycol contamination or poor crankcase ventilation to name a few. 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. AMSOIL Synthetic Motor Oils 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 Consumer Reports.

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 XL Synthetic Motor Oil for Audi/VW and Saab.

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.

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TABLE A: **AFFECTED ENGINES/APPLICATIONS:** (1)

Make	Engine	Model	New Warranty Coverage	U.S. Engine Population
Audi/Volkswagen	1.8L 4cyl Turbo	1997-2004 Audi A4 1997-2004 Volkswagen Passat	8 years/ unlimited mile- age	447,000
Chrysler/Dodge	2.7L V-6	1998-2002 Chrysler Concorde Chrysler Sebring Dodge Intrepid Dodge Stratus	None. Chrysler will handle on a case by case basis	797,000
Lexus/Toyota 2.2L 4cyl	3.0L V-6	1997-2001 Lexus ES300, Toyota Camry, Toyota Avalon, Toyota Si- enna; 1999-2001 Lexus RX300, Toyota Camry Solara; 2001 Toyota Highlander	8 years/ unlimited mile- age	1,577,000
	2.2 L 4 cyl	1997-2001 Toyota Camry 1996-1999 Toyota Celica 2001 Toyota Camry Solara	8 years/ unlimited mile- age	1,757,000
Saab	2.0L 4cyl Turbo	2000-2002 9-3 Hatchback 2000-2003 9-3 Convertible	8 years/ unlimited mile- age	82,000
	2.3L 4cyl Turbo	1999-2003 Saab 9-5 1999 9-3 Viggen	8 years/ unlimited mile- age	68,000

(1) Source: ConsumerReports.org

http://www.consumerreports.org/main/content/display_report.jsp?FOLDER%3C%3Efolder_id=665845&ASSORTMENT%3C%3Eeast_id=333137&bmUID=1127493370780#

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TABLE B: Recommended Drain Intervals (2)

Make	Engine	Model	Oil Drain Intervals for Extended Warranty Coverage
Audi/ Volkswagen	1.8L 4cyl Turbo	1997-2004 Audi A4	5,000 miles, or six months (normal/ severe)
		1997-2004 Volkswagen Passat	
Chrysler/Dodge	2.7L V-6	1998-2002 Chrysler Concorde	3,000 miles, or three months (severe) 5,000 miles, or six months (normal)
		1998-2002 Chrysler Sebring	
		1998-2002 Dodge Intrepid	
		1998-2002 Dodge Stratus	
Lexus/Toyota	3.0L V-6	1997-2001 Lexus ES300	5,000 miles, or four months (severe) 7,500 miles (normal)
		1999-2001 Lexus RX300	
		1997-2001 Toyota Camry	
		1997-2001 Toyota Avalon	
		1997-2001 Toyota Sienna	
		1999-2001 Toyota Camry Solara 2001 Toyota Highlander	
Toyota	2.2L 4cyl	1997-2001 Toyota Camry	5,000 miles, or four months (severe) 7,500 miles (normal)
		1996 -1999 Toyota Celica	
		2001 Toyota Solara	
Saab	2.0L 4cyl Turbo	2000-2002 9-3 Hatchback	5,000 miles, or six months (severe) 10,000 miles (normal)
		2000-2003 9-3 Convertible	
	2.3L 4cyl Turbo	1999-2003 9-5	
		1999 9-3 Viggen	

(2) "2005 Car Care Guide", Motor Information Systems, Troy, Michigan, 2005

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