



OIL REPORT

LAB NUMBER: D86917 UNIT ID: 2002 F-350
 REPORT DATE: 9/3/2009 CLIENT ID: 22627
 CODE: 22/284 PAYMENT: Prepaid

UNIT	MAKE/MODEL: Navistar 7.3L Power Stroke	OIL TYPE & GRADE: Shell Rotella T 5W/40 (Syn)
	FUEL TYPE: Diesel	OIL USE INTERVAL: 6,107 Miles
	ADDITIONAL INFO:	

CLIENT	JIM OELKER	PHONE: (513) 752-5468
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COMMENTS
 JIM: Lead, from bearings, increased again and that is a good indication of bearings wearing poorly in your F350. Now 14 ppm is not a lot of lead in the grand scheme of things, but the trend is something to watch. If you are using recycled waste vegetable oil as fuel, that might be part of the problem. If you are using regular diesel, we can't tell you why the bearing wear is getting worse--only that it is. No diesel fuel, excess soot, moisture or anti-freeze was present in this oil. All other wear metals were okay. Try a shorter oil change. Maybe try Rotella 15W/40. Check back.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	6,107	UNIT / LOCATION AVERAGES	8,943	8,367	6,130	5,131	4,938	UNIVERSAL AVERAGES
	MI/HR on Unit	66,167		60,060	51,117	42,750	35,588	29,965	
	Sample Date	08/14/09		03/20/09	11/30/07	03/07/07	07/29/06	05/13/06	
	Make Up Oil Added	2 qts		2 qts	2 qts	2 qts	2 qts	0 qts	
ALUMINUM	2	2	2	2	2	2	2	2	2
CHROMIUM	1	1	2	1	1	1	1	1	1
IRON	17	14	15	13	12	12	12	12	17
COPPER	4	3	4	4	2	2	2	2	4
LEAD	14	7	10	9	3	4	3	4	4
TIN	1	1	2	3	0	0	0	0	1
MOLYBDENUM	51	11	3	2	1	4	5	23	23
NICKEL	1	1	1	0	1	1	0	1	1
MANGANESE	1	0	0	0	0	0	0	0	0
SILVER	0	0	0	0	0	0	0	0	0
TITANIUM	0	0	0	0	0	0	0	0	0
POTASSIUM	4	4	7	8	2	5	0	2	2
BORON	29	12	21	19	1	2	0	84	84
SILICON	7	8	7	7	6	12	8	9	9
SODIUM	2	2	1	2	0	2	2	4	4
CALCIUM	1161	2546	2338	2488	3575	2303	3411	3101	3101
MAGNESIUM	996	174	8	7	9	12	11	89	89
PHOSPHORUS	1027	1114	998	1062	1128	1349	1118	1116	1116
ZINC	1191	1306	1156	1256	1301	1604	1327	1294	1294
BARIUM	0	0	0	0	0	1	0	1	1

Values Should Be*

PROPERTIES	SUS Viscosity @ 210°F	66.7	66-78	73.0	70.0	71.1	69.9	68.6
	cSt Viscosity @ 100°C	12.08	11.9-15.3	13.75	12.96	13.23	12.94	12.57
	Flashpoint in °F	420	>410	390	440	430	420	430
	Fuel %	<0.5	<2.0	2.0	<0.5	<0.5	<0.5	<0.5
	Antifreeze %	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Water %	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Insolubles %	0.2	<0.6	0.1	0.2	0.1	0.2	0.3
	TBN							
	TAN							
	ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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