

OIL REPORT

G36984 LAB NUMBER:

10/7/2014

UNIT ID: CHADMILLISOR F350

REPORT DATE: CODE: 20/636

CLIENT ID: 73637 PAYMENT: CC: MC

MAKE/MODEL: **FUEL TYPE:**

Navistar 6.0L Power Stroke

Diesel

ADDITIONAL INFO: Ford F-350 OIL TYPE & GRADE:

Diesel Engine Oil

4,711 Miles OIL USE INTERVAL:

KEVIN ADAMS

LUBRICATION SPECIALTIES

255 NEAL AVE

MT. GILEAD, OH 43338

PHONE:

FAX:

ALT PHONE:

EMAIL:

KEVIN: This is the initial test at 217,548 miles. Metals are very high in this sample, primarily iron (from steel parts), along with aluminum and chrome (pistons/rings) and copper and lead, from bearings. The high levels of potassium and sodium indicate a coolant leak, with ~1.92% antifreeze present in this oil sample. That's probably causing a lot of the wear, along with the high insolubles. The initial particle count reading was 22/21/18.

MI/HR on Oil	4,711		ASAREM SIANA	3444644	1,6-5,5-5,5-5,5	242/44/2011/12	从外部制度人	
MI/HR on Unit	217,548	UNIT / LOCATION		Smartal and		Material Control		UNIVERSAL
Sample Date	10/01/14	AVERAGES	如於四個關係	但在"政策"。45	DOM: YOUNGE	国际实验的	原始交流的特殊	AVERAGES
Make Up Oil Added	a deservación	AVENMOLU	Machanie	Level Edition	A participant of a life of the participant of the p	izenskjestraces,	20年代4月2日日本	
	18		21.597.0				η 	
ALUMINUM	20							1236/17/18/13
ALUMINUM CHROMIUM IRON	6	增加的数据的						对种国际的联系1
IRON	186	Military Control						20
COPPER	7	TARTED TO SAIL						3
LEAD TIN	14							3
TIN	1		9111111111					J. 1
	86			VW/2-				35
MOLYBDENUM NICKEL MANGANESE	7	有限型制度的						PERSONAL C
MANGANESE	2	SON THE SECOND						/李紹治/印起 C
SILVER	0	TORRESSES	ĝ					140000000000000000000000000000000000000
RILLANILIM	2	新教金额						经被指数法数据(
POTASSIUM	1034	NAMED OF STREET						12
BORON	35	477.000 19.07.01G						61
SILICON	31	发生的现在分				mute		40 April 14 11
POTASSIUM BORON SILICON SODIUM	962	waywalas		Ĭ.				où Makadik
CALCIUM	2070	West Stronger	- 30/10/10	100000000000000000000000000000000000000				2521
MAGNESIUM	98	PROPERTY.			Maria A			244
PHOSPHORUS	1198	Application in N	Landing					1104
ZINC	1083	aresta de la compa						127
BARIUM	11	1-10-1-10-2				1		PERMIT

Values

Should Be*

61.5	A.134664774546		er sample of devices and the sample of the s	ISO CODE (2)
10.65			ļ	NAS 1638 Class
410	>415		3	ISO CODE (3)
0.5	<2.0		Ö –	>= 2 Micron
1.92	0.0			>= 5 Micron
0.0	<0.1			>= 10 Micron
0.6	<0.6			>= 15 Micron
		- Alan Panada	X	>= 25 Micron
A WAY WAY TO THE TOWN	titler i Mark	and the state of t	<u>2</u>	>= 50 Micron
22/21/18	11 1/4/11 (27/25)	1		>= 100 Micron
	10.65 410 0.5 1.92	10.65 410 >415 0.5 <2.0 1.92 0.0 0.0 <0.1 0.6 <0.6	10.65 410 >415 0.5 <2.0 1.92 0.0 0.0 <0.1 0.6 <0.6	10.65 410 >415 0.5 <2.0 1.92 0.0 0.0 <0.1 0.6 <0.6

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

21/18

12

22/21/18

41,182

15,258

4,224

1.631

391

37





OIL REPORT LAB NUMBER: G37254

UNIT ID: CHADMILLISOR F350

REPORT DATE: 10/7/2014 CODE: 20/636

CLIENT ID: 73637 PAYMENT: CC: MC

MAKE/MODEL: Navistar 6.0L Power Stroke Diesel

OIL TYPE & GRADE:

Diesel Engine Oil

ADDITIONAL INFO:

Ford F-350

OIL USE INTERVAL: 4,929 Miles

CLIENT

KEVIN ADAMS LUBRICATION SPECIALTIES PHONE: FAX:

255 NEAL AVE

FUEL TYPE:

ALT PHONE:

MT. GILEAD, OH 43338

EMAIL:

COMMENTS

KEVIN: This is the second sample, taken at 217,776 miles (the spectral analysis was already completed prior to your phone conversation yesterday, so that's why those results were already included). There's been a significant drop in iron, and in the level of coolant contamination -- sodium and potassium. Insolubles improved as well (0.5% is an acceptable level for engine oil), and the particle count improved to 17/16/13.

41,182-1641

	MI/HR on Oil	4,929		4,711	4,711		
t s	MI/HR on Unit	(217,776	UNIT / LOCATION	217,548	217,548		UNIVERSAL
449	Sample Date	10/01/14	AVERAGES	10/01/14	10/01/14		AVERAGES
	Make Up Oil Added						
Z	ALUMINUM	19			20		3
MILLION	CHROMIUM	5			6		1
三	IRON	128			186		20
Σ	COPPER	9			7		3
出	LEAD	16			14		3
۵	TIN	0			1		
RIS	MOLYBDENUM	106			86		35
	NICKEL	3			7		0
A	MANGANESE	2			2		0
Z	SILVER	0			0		0
	TITANIUM	2			2		0
13	POTASSIUM	840			1034		12
a	BORON	28			35		61
ELEMI	SILICON	33			31		11
	SODIUM	270			962		5
N	CALCIUM	1915			2070		2521
13.5	MAGNESIUM	87			98		244
	PHOSPHORUS	1107			1198		1104
1 - 5	ZINC	1008			1083		1271
	BARIUM	10			11		1

Values Should Be*

	SUS Viscosity @ 210°F	62.9			61.5		ISO CODE (2)	16/13
	cSt Viscosity @ 100°C	11.04			10.65		NAS 1638 Class	8
S	Flashpoint in °F	405	>415		410	3	ISO CODE (3)	17/16/13
PERTIES	Fuel %	1.0	<2.0		0.5	E COUN	>= 2 Micron	1,641
2	Antifreeze %	0.54	0.0		1.92	E	>= 5 Micron	608
	Water %	0.0	<0.1	e e	0.0	금	>= 10 Micron	168
RO	Insolubles %	0.5	<0.6		0.6	PARTICL	>= 15 Micron	65
<u>a</u>	TBN					4R	>= 25 Micron	15
	TAN	(1)				Б	>= 50 Micron	1
	ISO Code	17/16/13		21/20/17	22/21/18		>= 100 Micron	0

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE





OIL REPORT LAB NUMBER: G52932 **REPORT DATE:** 1/2/2015

UNIT ID: BASELINE **CLIENT ID: 73637**

PAYMENT: CC: MC CODE: 20/636

MAKE/MODEL: Virgin 15W/40

FUEL TYPE:

ADDITIONAL INFO:

Shell Rotella

OIL TYPE & GRADE:

Shell Rotella T 15W/40

OIL USE INTERVAL:

CLIENT

KEVIN ADAMS LUBRICATION SPECIALTIES 255 NEAL AVE

MT. GILEAD, OH 43338

PHONE:

FAX:

ALT PHONE:

EMAIL:

COMMENTS

KEVIN: This is the baseline sample for Rotella for comparison purposes. No water or solids were found and the particle count read 17/16/14, which is clean. This is serviceable oil.

MI/HR on Oil	L WASHUINE	THE PERSON	A DESIGNATION OF THE PARTY OF T	
MI/HR on Unit	I Alertoni de l	UNIT / LOCATION	UNIVERSAL	
Sample Date	12/29/14	AVERAGES	AVERAGES	
Make Up Oil Added	建新原门程		# 75282 - 58	7度 然后至187 188年以前48年
ALUMINUM	1	51	0	
CHROMIUM	0	0	0	
CHROMIUM IRON	2	2	KC08 200501	
COPPER	0	0	0	
LEAD	0	0	0	
1 TIN	0	0	0	
✓ MOLYBDENUM ✓ NICKEL	1	wind least	28	
NICKEL	2	2	0	
MANGANESE	0	0	0	
SILVER	0	0	0	
TITANIUM	0	0	2	
POTASSIUM BORON SILICON SODIUM	4	4	10000000000000000000000000000000000000	
BORON	43	43	63	
SILICON	4	4	5	
SODIUM	2	2	3	
CALCIUM	2098	2098	2113	
MAGNESIUM	6	6	303	
PHOSPHORUS	913	913	975	
ZINC	1010	1010	1139	
BARIUM	0	0	111111111111111111111111111111111111111	

Values Should Be*

SUS Viscosity @ 21	0°F 77.1	69-78			ISO CODE (2)	17/13
cSt Viscosity @ 100	°C 14.79	12.7-15.3		5	NAS 1638 Class	8
Flashpoint in °F	455	>415		3	ISO CODE (3)	17/16/14
Fuel %	-			COUN	>= 2 Micron	1,818
Antifreeze %	-	4416		ш	>= 5 Micron	673
Water %	0.0	<0.1			>= 10 Micron	186
Insolubles %	0.0	<0.8		ARTICL	>= 15 Micron	72
TBN				3	>= 25 Micron	17
TAN				4	>= 50 Micron	1
ISO Code	17/16/14			1	>= 100 Micron	0

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE