



OIL REPORT

LAB NUMBER: J67905

UNIT ID: N3212T

REPORT DATE: 10/11/2017

CLIENT ID: 23123

CODE: 41/32

PAYMENT: CC: Visa

UNIT

MAKE/MODEL: Lycoming O-320-E2D

OIL TYPE & GRADE: Aeroshell W100 (AD)

FUEL TYPE: Gasoline (Leaded)

OIL USE INTERVAL: 52 Hours

ADDITIONAL INFO: Cessna Cardinal 177; Eng S/N L-20623-27A

CLIENTCHARLES MOUNT
3504 MORNINGWOOD CT NE
SUWANEE, GA 30024PHONE: (904) 813-0636
FAX:
ALT PHONE:
EMAIL: chuck@mountpoint.org**COMMENTS**

CHARLES: Aluminum, chrome, and iron stand out in this latest report. We're hoping corrosion from inactivity explains aluminum and iron, but chrome usually doesn't get the same excuse. Unless you have some chrome bores in use, it's possible this engine has a ring problem in one (or more) of the cylinders. It'd be a good idea to test compressions and borescope to look for any signs of trouble in the cylinder area. Until flight time picks up, use shorter oil runs (or try for at least ~5 hours a month) to combat corrosion and keep metals down. Check back to monitor.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	52	UNIT / LOCATION AVERAGES	44	44	35	22	25	UNIVERSAL AVERAGES
	MI/HR on Unit	678		602	535	2,335	416	394	
	Sample Date	9/17/2017		3/8/2016	7/9/2014	2/9/2013	1/14/2012	9/10/2011	
	Make Up Oil Added	2 qts		2 qts	4 qts	2 qts	1 qt	2 qts	
	ALUMINUM	16		10	5	6	4	5	
	CHROMIUM	23		25	17	20	20	26	
	IRON	78		81	56	47	34	34	
	COPPER	5		6	6	7	6	6	
	LEAD	4809		5051	3736	2954	2365	2300	
	TIN	1		3	3	1	4	3	
	MOLYBDENUM	0		0	0	0	0	0	
	NICKEL	4		6	6	6	5	5	
	MANGANESE	1		1	0	1	0	0	
	SILVER	0		0	0	0	0	0	
	TITANIUM	0		0	0	0	0	0	
	POTASSIUM	1		2	0	0	0	3	
	BORON	0		1	0	1	1	0	
	SILICON	5		4	4	4	4	4	
	SODIUM	1		2	1	1	0	0	
	CALCIUM	1		0	0	0	0	0	
	MAGNESIUM	0		0	0	0	0	0	
	PHOSPHORUS	342		6	0	26	4	0	
	ZINC	3		2	2	2	1	0	
	BARIUM	0		0	0	0	0	0	

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	98.5	86-105	99.2	98.5	94.5	85.8	90.7
	cSt Viscosity @ 100°C	20.00	17.0-21.8	20.18	20.01	19.05	16.97	18.15
	Flashpoint in °F	520	>460	470	445	530	460	515
	Fuel %	<0.5	<1.0	<0.5	0.8	<0.5	TR	<0.5
	Antifreeze %	-		-	-	-	-	-
	Water %	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Insolubles %	0.2	<0.6	0.4	0.3	0.4	0.3	0.0
	TBN							
	TAN							
	ISO Code							

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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