

N2130L

1976 Beech 58TC Baron

Blackstone Laboratories Oil Report LH Engine



MSN: TK-25

Prepared by the worldwide aviation specialists at RidgeAir, Inc.



OIL REPORT

LAB NUMBER: S434801

UNIT ID: N2130L-LH

REPORT DATE: 7/27/2026

CLIENT ID: 128000

CODE: 20/1,193

PAYMENT: CC: Visa

UNIT	EQUIP. MAKE/MODEL: Continental TSIO-520-WB	OIL TYPE & GRADE: Aeroshell 15W/50
	FUEL TYPE: Gasoline (Leaded)	OIL USE INTERVAL: 35 Hours
	ADDITIONAL INFO: Beech 58TC, S/N: 274261-R	

CLIENT	WAYNE DECOSTA	PHONE: (719) 380-8100
	GREAT WEST CONSTRUCTION	FAX: (719) 380-8804
	5935 TEMPLETON GAP RD	ALT PHONE: (719) 499-7581
	COLORADO SPRINGS, CO 80923	EMAIL: wayne@greatwestconstruction.com

COMMENTS	WAYNE: Both of N2130L's engines are still making excess metal. Here on the left side, copper and tin show increased bronze wear, and nickel (exhaust valve guides) held steady at an elevated level. Aluminum and iron are at least low enough this time to avoid bold marks. If there's an engine monitor on board, monitor for high or erratic temps. Watch for low oil pressure, check the oil filter for metal, and resample in 25 hours for another update. Monitor oil consumption as well, as the 9 quarts of make-up oil show a sharp rise in oil use and can be an issue in itself.
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ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	35	UNIT / LOCATION AVERAGES	32	35	35	22	UNIVERSAL AVERAGES
	MI/HR on Unit	1,541		1,507	1,475	1,836	1,359	
	Sample Date	7/13/2026		12/9/2025	9/17/2025	7/18/2025	4/7/2025	
	Make Up Oil Added	9 qts		4 qts	5 qts	7 qts		
ALUMINUM	16	28	22	19	26	53		10
CHROMIUM	12	11	15	9	11	9		11
IRON	90	106	107	102	90	106		53
COPPER	36	23	25	22	19	18		6
LEAD	4404	4996	4680	5760	4357	4037		5131
TIN	6	4	4	4	4	5		1
MOLYBDENUM	10	12	11	10	11	16		6
NICKEL	74	73	74	56	60	78		18
MANGANESE	1	1	1	1	1	2		1
SILVER	1	0	1	0	0	0		0
TITANIUM	1	1	1	0	1	0		0
POTASSIUM	0	0	0	1	0	0		0
BORON	1	2	1	2	1	2		1
SILICON	13	11	9	12	9	12		9
SODIUM	2	2	2	3	2	2		1
CALCIUM	2	2	2	2	2	3		18
MAGNESIUM	0	1	0	1	1	2		1
PHOSPHORUS	1099	1003	1040	1049	972	903		344
ZINC	3	4	3	4	3	4		3
BARIUM	0	0	0	0	0	0		0

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	88.5	82-105	92.6	87.7	87.2	86.1
	cSt Viscosity @ 100°C	17.62	16.0-21.8	18.60	17.42	17.31	17.04
	Flashpoint in °F	505	>440	490	505	465	465
	Fuel %	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5
	Antifreeze %	-		-	-	-	-
	Water %	0.0	0.0	0.0	0.0	0.0	0.0
	Insolubles %	0.3	<0.6	0.3	0.3	0.2	0.4
	TBN						
	TAN						
	ISO Code						

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

416 E. PETTIT AVE. FORT WAYNE, IN 46806 (260) 744-2380 www.blackstone-labs.com



OIL REPORT

LAB NUMBER: S333317

UNIT ID: N2130L-LH

REPORT DATE: 12/26/2025

CLIENT ID: 128000

CODE: 20/1,193

PAYMENT: CC: Visa

UNIT

MAKE/MODEL: Continental TSIO-520-WB
FUEL TYPE: Gasoline (Leaded)
ADDITIONAL INFO: Beech 58TC, S/N: 274261-R

OIL TYPE & GRADE: Aeroshell 15W/50
OIL USE INTERVAL: 32 Hours

CLIENT

WAYNE DECOSTA
GREAT WEST CONSTRUCTION
5935 TEMPLETON GAP RD
COLORADO SPRINGS, CO 80923

PHONE: (719) 380-8100
FAX: (719) 380-8804
ALT PHONE: (719) 499-7581
EMAIL: wayne@greatwestconstruction.com

COMMENTS

WAYNE: We still have concerns for both engines. This left report shows small increases in aluminum, chrome, iron, and copper, and a notable increase in nickel (exhaust valve guides). Copper, from brass/bronze parts, is at its highest reading yet. We aren't seeing contamination like fuel, water, or excess dirt that would cause wear, and oil's viscosity is correct. If there's an EDM, watch for any erratic spikes or dips in temps. Monitor for any engine roughness, hard starts, or increases in oil use. Inspect both oil filters for metal. Borescope & check compressions.

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	32	UNIT / LOCATION AVERAGES	35	35	22			UNIVERSAL AVERAGES
	MI/HR on Unit	1,507		1,475	1,836	1,359			
	Sample Date	12/9/2025		9/17/2025	7/18/2025	4/7/2025			
	Make Up Oil Added	4 qts		5 qts	7 qts				
	ALUMINUM	22		19	26	53			
	CHROMIUM	15		9	11	9			
	IRON	107		102	90	106			
	COPPER	25		22	19	18			
	LEAD	4680		5760	4357	4037			
	TIN	4		4	4	5			
	MOLYBDENUM	11		10	11	16			
	NICKEL	74		56	60	78			
	MANGANESE	1		1	1	2			
	SILVER	1		0	0	0			
	TITANIUM	1		0	1	0			
	POTASSIUM	0		1	0	0			
	BORON	1		2	1	2			
	SILICON	9		12	9	12			
	SODIUM	2		3	2	2			
	CALCIUM	2		2	2	3			
	MAGNESIUM	0		1	1	2			
	PHOSPHORUS	1040		1049	972	903			
	ZINC	3		4	3	4			
	BARIUM	0		0	0	0			

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	92.6	82-105	87.7	87.2	86.1		
	cSt Viscosity @ 100°C	18.60	16.0-21.8	17.42	17.31	17.04		
	Flashpoint in °F	490	>440	505	465	465		
	Fuel %	<0.5	<1.0	<0.5	<0.5	<0.5		
	Antifreeze %	-		-	-	-		
	Water %	0.0	0.0	0.0	0.0	0.0		
	Insolubles %	0.3	<0.6	0.3	0.2	0.4		
	TBN							
	TAN							
	ISO Code							

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OIL REPORT

LAB NUMBER: S293177

UNIT ID: N2130L-LH

REPORT DATE: 10/3/2025

CLIENT ID: 128000

CODE: 20/1,193

PAYMENT: CC: Visa

UNIT	MAKE/MODEL: Continental TSIO-520-WB	OIL TYPE & GRADE: Aeroshell 15W/50
	FUEL TYPE: Gasoline (Leaded)	OIL USE INTERVAL: 35 Hours
	ADDITIONAL INFO: Beech 58TC, S/N: 274261-R	

CLIENT	WAYNE DECOSTA	PHONE: (719) 380-8100
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	COLORADO SPRINGS, CO 80923	EMAIL: wayne@greatwestconstruction.com

COMMENTS	WAYNE: Well, wear metals in the left engine's sample still look better now than they did in the 4/7/25 sample, but notice that copper went up and tin and nickel are still elevated. We are seeing similar results on the right side, so maybe some of the extra metal is just situational in nature. It'd be strange if both engines develop the same issues to a similar extent simultaneously, but it isn't impossible. Copper and tin are from bronze parts like bushings and bearings, and nickel is from the exhaust valve guides. More notes in the right engine's report.
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ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	35	UNIT / LOCATION AVERAGES	35	22			
	MI/HR on Unit	1,475		1,836	1,359			
	Sample Date	9/17/2025		7/18/2025	4/7/2025			
	Make Up Oil Added	5 qts		7 qts				
	ALUMINUM	19	35	26	53			10
	CHROMIUM	9	11	11	9			11
	IRON	102	105	90	106			54
	COPPER	22	21	19	18			6
	LEAD	5760	5011	4357	4037			5163
	TIN	4	4	4	5			1
	MOLYBDENUM	10	13	11	16			6
	NICKEL	56	74	60	78			18
	MANGANESE	1	1	1	2			1
	SILVER	0	0	0	0			0
	TITANIUM	0	1	1	0			0
	POTASSIUM	1	0	0	0			0
	BORON	2	2	1	2			1
	SILICON	12	12	9	12			9
	SODIUM	3	2	2	2			1
	CALCIUM	2	2	2	3			18
	MAGNESIUM	1	1	1	2			1
	PHOSPHORUS	1049	958	972	903			357
	ZINC	4	4	3	4			4
	BARIUM	0	0	0	0			0

Values
Should Be*

PROPERTIES	SUS Viscosity @ 210°F	87.7	82-105	87.2	86.1			
	cSt Viscosity @ 100°C	17.42	16.0-21.8	17.31	17.04			
	Flashpoint in °F	505	>440	465	465			
	Fuel %	<0.5	<1.0	<0.5	<0.5			
	Antifreeze %	-		-	-			
	Water %	0.0	0.0	0.0	0.0			
	Insolubles %	0.3	<0.6	0.2	0.4			
	TBN							
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