



ANALYTICAL SIGN IN SHEET

DATE: 6/10/2025	AIRCRAFT # N8152R
ENGINE SERIAL # 249189-R	CMI-ASI FILE # 2024-078

PRINT NAME	Lisa Jersild	PRINT NAME	Kurt Gibson
SIGNATURE	[REDACTED]	SIGNATURE	[REDACTED]
ORGANIZATION	Continental	ORGANIZATION	NTSB
PHONE		PHONE	[REDACTED]
PRINT NAME	Randy Bryant	PRINT NAME	Paul Beavers
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ORGANIZATION	Continental	ORGANAZAION	Textron
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PRINT NAME		PRINT NAME	
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PHONE		PHONE	
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PHONE		PHONE	
PRINT NAME		PRINT NAME	
SIGNATURE		SIGNATURE	
ORGANIZATION		ORGANIZATION	
PHONE		PHONE	

Date	Engine Model	Engine Serial Number	Aircraft Registration	RMA / Case / File Number
6/10/2025	IO550B	249189-R	N8152R	2024-078

ENGINE COMPONENT INFORMATION			
COMPONENT	MANUFACTURER / OVERHAULER	PART NUMBER	SERIAL NUMBER / DATE or HEAT CODES / WORK ORDER NUMBERS
Magneto LEFT	Slick Champion Aerospace		
Magneto RIGHT	Slick Champion Aerospace	6310	21040766
Ignition Harness	Slick Champion Aerospace		M2380 (LH) M2379 (RH)
Sparkplugs	Tempest	URHB32E	N/A
Fuel Pump	TCM	646766-4A1	B02IA243R
Throttle Body Metering Unit	TCM	646628A7	A02IA221R
Fuel Manifold	TCM	646508-14A6	C02IA215R
Nozzles	GAMIjectors	1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____	1. G1168 2. G1168 3. G1151 4. G1151 5. GF143 6. GF143
Crankcase		Left - _____ Right - _____	
Crankshaft	TCM	Not legible	N02EA746
Camshaft			

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ENGINE COMPONENT INFORMATION			
COMPONENT	MANUFACTURER / OVERHAULER	PART NUMBER	SERIAL NUMBER / DATE or HEAT CODES / WORK ORDER NUMBERS
Lifters		Intake - _____ Exhaust - _____	N/A
Main Bearings	_____	1. _____ 2. _____ 3. _____ 4. _____ 5. _____	1. _____ 2. _____ 3. _____ 4. _____ 5. _____
Connecting Rod Bearings	_____	1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____	1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____
Connecting Rods	_____	_____	1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

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ENGINE COMPONENT INFORMATION			
COMPONENT	MANUFACTURER / OVERHAULER	PART NUMBER	SERIAL NUMBER / DATE or HEAT CODES / WORK ORDER NUMBERS
Cylinders		1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____	1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____
Pistons		1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____	1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____
Turbocharger	N/A	Left – _ N/A _____ Right – _ N/A _____	Left – _ N/A _____ Right – _ N/A _____
Turbocharger Controller	N/A	N/A	N/A
Wastegate	N/A	N/A	N/A
Overboost Valve	N/A	N/A	N/A
Starter Motor	Hartzell	646275	H-W092???
Starter Adapter			

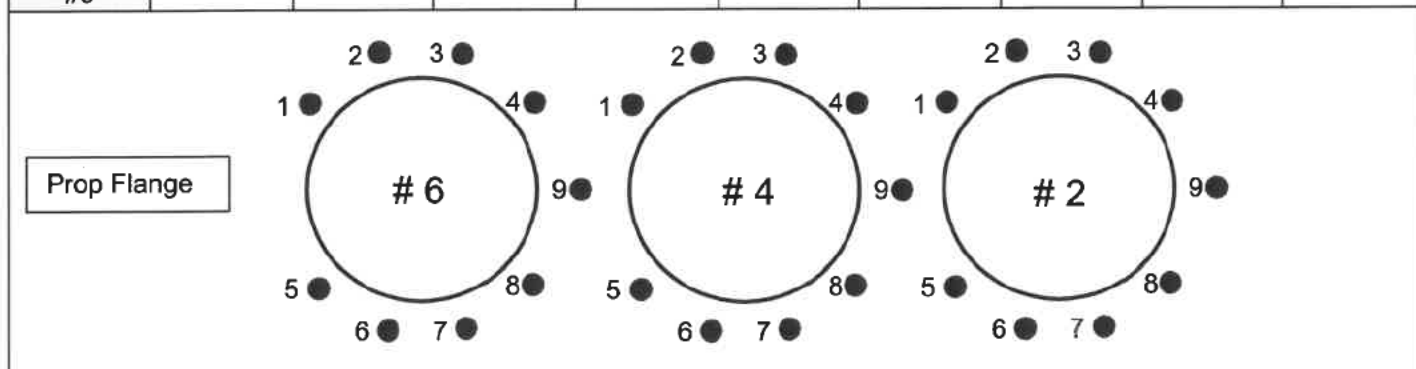
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ENGINE COMPONENT INFORMATION			
COMPONENT	MANUFACTURER / OVERHAULER	PART NUMBER	SERIAL NUMBER / DATE or HEAT CODES / WORK ORDER NUMBERS
Carburetor	N/A	N/A	N/A
Vacuum Pump	Tempest	AA3216CW	10DM08
Propeller Governor	McCawley	C290D3- J/T23	930879
Oil Cooler	POSITECH International	635996	12134 44994
Intercooler	N/A	N/A	Left- N/A Right- N/A
Alternator	AEROTECH B&C Specialty Products	Primary- 649304 Secondary- BC410-1	Primary- 001HA081 Secondary- 0186961 K
Rocker Arms		<u>Intake</u> <u>Exhaust</u>	<u>Intake</u> <u>Exhaust</u> 1. _____ 1. _____ 2. _____ 2. _____ 3. _____ 3. _____ 4. _____ 4. _____ 5. _____ 5. _____ 6. _____ 6. _____
Prop Gear	N/A	N/A	N/A
Reduction Gear	N/A	N/A	N/A
Prop Reduction Gear Bearings	N/A	N/A	N/A
Prop Gear Bearings	N/A	N/A	N/A

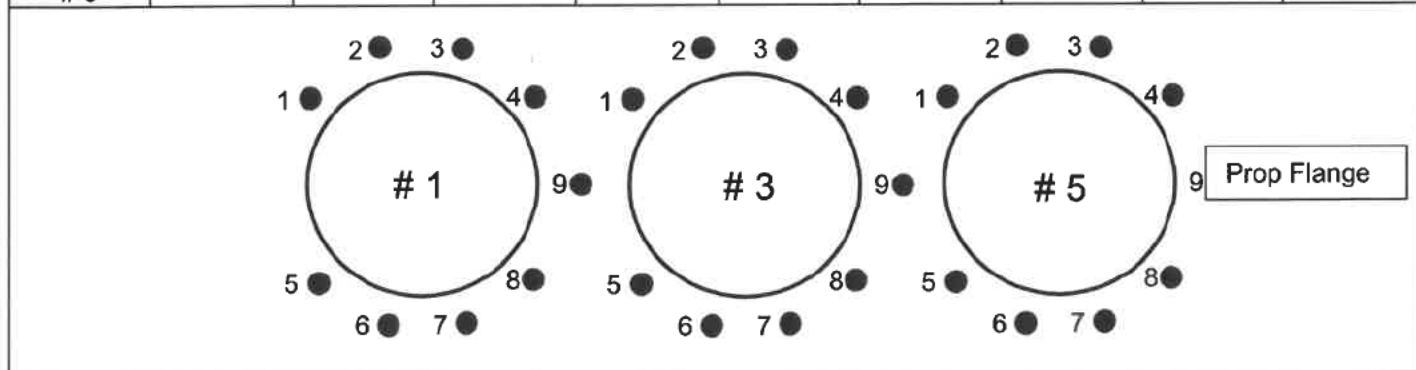
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Cylinder Through-Bolt and Deck Stud Break-Away (Tightening / Loosening) Torque Measurements Inch-Pounds)
(Position numbers 1 and 5 are through-bolts)

12 Point Nuts on Through Bolts	Bolt 1	Stud 2	Stud 3	Stud 4	Bolt 5	Stud 6	Stud 7	Stud 8	Stud 9
	Tight / Loose	Tight / Loose	Tight / Loose	Tight / Loose	Tight / Loose	Tight / Loose	Tight / Loose	Tight / Loose	Tight / Loose
Cylinder #2	/	/	/	/	/	/	/	/	/
Cylinder #4	/	/	/	/	/	/	/	/	/
Cylinder #6	/	/	/	/	/	/	/	/	/



12 Point Nuts on Through Bolts	Bolt 1	Stud 2	Stud 3	Stud 4	Bolt 5	Stud 6	Stud 7	Stud 8	Stud 9
	Tight / Loose	Tight / Loose	Tight / Loose	Tight / Loose	Tight / Loose	Tight / Loose	Tight / Loose	Tight / Loose	Tight / Loose
Cylinder # 1	/	/	/	/	/	/	/	/	/
Cylinder # 3	/	/	/	/	/	/	/	/	/
Cylinder # 5	/	/	/	/	/	/	/	/	/



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Engine Run	✓		
Engine Teardown			
Crankshaft End-Play (Only on engine runs)	.009		
Crankshaft Run-Out (Only on engine runs)	.005		
Crankshaft Deflection (Only on engine runs)	.003		
Magneto-to-Engine Timing (Spec)	22°	(R) 26°	(L) 25°
Logbook Returned	Yes	Yes	No
Checked Internal Timing	Yes	Yes	No

Cylinder Compression Check (Only on Engine Runs)

Cold Compression					
#1- 9 (exh)	#2- 42 (rings)	#3- 17 (exh)	#4- 18 (rings/exh)	#5- 42 (rings)	#6- 39 (exh-rings)
Hot Compression					
#1- 42 (rings) 62 (rings/exh)	#2- 65 (rings)	#3- 64 (rings)	#4- 63 (rings)	#5- 66 (rings)	#6- 65 (rings)

Check the Following Boxes					
Component	Picture Taken	Component Not Returned	Data Plate Missing	Component Removed Prior to Inspection	Not Applicable
Left Magneto					
Right Magneto					
Ignition Harness					
Spark Plugs					
Fuel Pump	✓				
Throttle Body – Metering Unit					
Fuel Manifold					
Nozzles					
Starter Motor	✓				
Starter Adapter					
Oil Pump					
Oil Filter					
Alternator	✓				
Vacuum Pump	✓				
Propeller Governor	✓				
Oil Cooler					
Carburetor	N/A				✓
Rocker Arm / Shafts					

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Check the Following Boxes

Component	Picture Taken	Component Not Returned	Data Plate Missing	Component Removed Prior to Inspection	Not Applicable
Induction System					
Exhaust System					
Lifters					
Oil Sump					
Oil Pick-up Tube & Screen					
Wastegate	N/A				✓
Overboost Valve	N/A				✓
Turbocharger	N/A				✓
Turbocharger Controller	N/A				✓
Intercooler	N/A				✓
Crankcase					
Crankshaft					
Counterweights & Snap Rings					
Camshaft					
Main Bearings					
Connecting Rod Bearings					
Connecting Rods & Bushings					
Cylinders					
Pistons					
Piston Pins					
Accessory Gears					
Prop Gear	N/A				✓
Reduction Gear	N/A				✓
Prop Gear Bearings	N/A				✓
Reduction Gear Bearings	N/A				✓

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Notes

- Removed the fuel pump and the drive coupling was intact, the pump rotated freely by hand.

Right mag Drop + 200 rpm spark plug shunted Replaced plug
mag checked 9000-

Right mag drop 30 after spark plug change

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Engine Operational Test Log

ENGINE RUN PARAMETERS

Record	RPM	MP/TDP " Hg	Oil		Fuel				Cell °F	Cylinder Heat Temp (CHT) / Exhaust Gas Temp (EGT) °F					
			PSI	°F	Lbs/Hr	Nozz PSI	Pump PSI	Fuel °F		# 1	# 2	# 3	# 4	# 5	# 6
1	1200	14.5 / N/A	71	142	25.3	5.4	15.1	87	N/A	274 / 741	265 / 816	279 / 831	230 / 808	227 / 818	184 / 724
2	1600	17.8 / N/A	65	173	47.1	6.7	20.9	84	N/A	338 / 904	311 / 977	341 / 1001	271 / 974	274 / 995	210 / 891
3	2100	23.4 / N/A	59	217	92.6	8.6	29.9	84	N/A	405 / 1014	382 / 1134	404 / 1149	344 / 1146	305 / 1141	276 / 1083
4 4 min	2450	26.3 / N/A	63	217	126.3	14.4	36.0	90	N/A	403 / 1133	446 / 1173	394 / 1219	404 / 1224	336 / 1226	301 / 1159
5	F/T 2700	24.7 / N/A	68	203	146.9	16.7	42.1	87	N/A	378 / 1141	428 / 1159	387 / 1225	382 / 1224	341 / 1194	287 / 1163
6	Idle 620	13.4 / N/A	13	220	10.2	5.0	10.0	85	N/A	310 / 413	293 / 471	298 / 436	297 / 422	221 / 310	197 / 296
7		/								/	/	/	/	/	/

Ambient Air Temperature °F	Ambient Air Pressure	Transfer Collar Δ P		Maximum Rated Power Engine Operational Parameters.				
85.58	30.038	IN	OUT	RPM	" Hg MP	Fuel Flow Lbs/Hr	Metered PSI	Unmetered PSI
		46.2	47.1	2700		146-156	16.5-18.4	29.2-36.2

Notes: Operator – Lisa Jersild.

Transfer collar pressure delta measured at full throttle power setting.

All recorded data was taken at 5-minute intervals unless otherwise noted.

Engine Performance Test				
Test RPM	Left Magneto	Left Magneto	Right Magneto	Right Magneto
	RPM	RPM Drop	RPM	RPM Drop
2100	2130	50	2150	220