

ANNUAL INSPECTION

2025

S/N: 7000019

1970 MOONEY M20E CHAPARRAL

N9398V

PAID IN FULL

MHE Aviation LLC
2675 N Decatur Blvd.
Unit 570831
Las Vegas, NEVADA 89157
210-810-9070

Invoice: 1055
Date: 05/31/2025
Terms: Due Upon Receipt
Written By: Mohammad Ebrahimi

Customer:
FEDERICO CHRIS BLAIR DI
3784 CALUMET FARM CIR
NORTH LAS VEGAS, NV 89031-0147

Manufacturer: Mooney
Model: M20E
Tail: N9398V
S/N: 700019

TTAF:	Tach:	TTE:	TTP:	Hobbs:	Misc Time:
	3626.57				

Labor/Repair	Hours	Per Hour	Total
Annual Inspection			2500.00
Re-safety wired propeller mounting bolts.	1.00	125.00	125.00
Removed & Replaced left & right main tires & tubes.	2.00	125.00	250.00
Removed & replaced ELT battery.	0.50	125.00	62.50

Parts	Qty	Cost	Total
ELT Battery	1	\$132.95	\$132.95
AB3E2 Air hawk 6.00-6 Tire	2	\$123.00	\$246.00
XA1AD AirTran 6.00-6 Tube	2	\$102.85	\$205.70

Labor Total:	\$2937.50
Part Total:	\$584.65
Misc Total:	
Sales Tax: (8.35%)	\$48.82
Shipping:	\$12.81
Fuel:	
Total:	\$3583.78
Payments:	-\$3583.78
Amount Due:	\$0.00

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DISCREPANCY SHEET

REG.#: N9398V

DATE ISSUED: 05/26/2025

MAKE: MOONEY

DATE COMPLETED: 02/02/2025

MODEL: M20E CHAPARRAL

TACH TIME: 3426.57

S/N: 700019

HOBBS TIME:

ITEM # 1	DISCREPANCY:	CORRECTIVE ACTION:			
	PERFORM AN ANNUAL INSPECTION.	PERFORM AN ANNUAL INSPECTION.			
MECHANIC: L.M.		HOURS:	MECHANIC: L.M.		
ITEM # 2	DISCREPANCY:	CORRECTIVE ACTION:			
	TAKE ENGINE COMPRESSION CHECK.	#1	#2	#3	#4
		77	78	76	78
		80	80	80	80
		COMPRESSIONS ARE EXCELLENT.			
MECHANIC: L.M.		HOURS: X	MECHANIC: L.M.		
ITEM # 3	DISCREPANCY:	CORRECTIVE ACTION:			
	ONE PAIR OF PROP HOLD DOWN BOLTS ARE TIGHTENED BACKWARDS	RESTARTED PROP HOLD DOWN BOLTS			
MECHANIC: L.M.		HOURS: 1	MECHANIC: L.M.		

[illegible]

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Fuel:	
Total:	\$3583.78
Payments:	-
Amount Due:	\$3583.78

DI FEDERICO
Owner: CHRIS BLAIR Date: MAY 26, 2025

Address: 3784 CALUMET FARM CO. A/C Hobbs Time _____

NORTH LAS VEGAS, NV A/C Tach Time 3626.57

Phone Number: _____ FAX Number: _____

Registration Number: N9398 ✓

Aircraft Serial Number: 700019

~~Engine~~ Engine Model: IO360 A1A Serial Number: 14079-57A Brand of Oil: _____

Eng. Total Time: _____ Hours SMOH: _____ OIL Weight: _____

Prop Make: McCaughey Model: CD36C415-C S/N: 901423

INSPECTED BY

1. Is approved POH or owner manual in aircraft?

Yes

No

AM

2. Are current logbooks in aircraft?

Yes

No

AM

3. Is Registration Certificate in aircraft?

Yes

No

AM

4. Is Airworthiness Certificate in aircraft?

Yes

No

AM

5. All applicable Airworthiness Directives C/W?

Yes

No

AM

6. Weight and Balance Record current?

Yes

No

AM

7. IFR/VFR 2 year certification current?

Yes

No

AM

8. All applicable factory service information C/W?

Yes

No

AM



100 HOUR - ANNUAL INSPECTION GUIDE

Date 06/02/2020

Owner's Name CHAS BLAKE Address _____
Reg. No. N 939B A/C Serial No 700019 A/C tach time 3624 hrs. Date of last annual _____
Engine Model and Serial No Cont. 20340 A1A Prop Design and Serial No. As Country
Engine time _____ hrs. Brand of oil and weight used _____

- | | | | |
|---|-----------------|----------------------------------|-----------------|
| 1. Is approved flight or owners manual in aircraft? | <u>Yes</u> - No | Current and in proper condition? | <u>Yes</u> - No |
| 2. Are current log books in aircraft? | <u>Yes</u> - No | Current and in proper condition? | <u>Yes</u> - No |
| 3. Is Registration Certificate in aircraft? | <u>Yes</u> - No | Current and in proper condition? | <u>Yes</u> - No |
| 4. Is Airworthiness Certificate in aircraft? | <u>Yes</u> - No | Current and in proper condition? | <u>Yes</u> - No |
| 5. Is Weight and Balance Record in aircraft? | <u>Yes</u> - No | Current and in proper condition? | <u>Yes</u> - No |
| 6. Is all applicable factory service information complied with? | <u>Yes</u> - No | | |
| 7. Are all applicable FAA Airworthiness Directives complied with? | <u>Yes</u> - No | | |

NOTE: This sheet is a guide only - refer to the specific model service manual for aircraft, engine and propeller inspections.

Mechanic Signature..... Inspector Signature.....

ENGINE SECTION: (Refer to engine manufactures Manual and Mooney Service & Maintenance Manual for appropriate model).

MEC. INSP.

MEC. INSP.

1. Remove and clean engine cowlings and baffling; inspect for cracks, wash engine-----
2. Perform a hot engine differential compression check; cylinder reading: 1. 77 2. 78 3. 76 4. 78
5. X 6. X 411 Oct 80
3. Lubricating System
a. Drain sump and change oil filter (if installed)-----
b. Remove pressure and suction screens. Check for metal particles-----
c. Clean and inspect screens. Reinstall and safety screens-----
d. Check engine for oil leaks (note and correct)-----
e. Inspect condition of oil cooler-----
f. Service engine with recommended lubricating oil (Refer to Lycoming Specification 301E and Service Instruction 1014 or T.C.M. Service Manual)-----
4. Ignition System
a. Inspect spark plugs, replace or clean, and regap-----
b. Inspect ignition harness for general condition, free from fraying or chaffing-----
c. Inspect magnetos and points: check magneto timing; check distributor block for erosion or cracks-----
5. Electrical System
a. Inspect battery for security, battery box for corrosion, and vent for obstruction-----
b. Inspect generator or alternator and accessories-----
c. Inspect electrical components and wiring-----
d. Inspect starter and starter drive; lubricate starter drive-----
6. Fuel System, M20B,C,D,G
a. Inspect and drain carburetor, clean screens, and check fuel flow-----
b. Inspect carburetor heat system for leaks and proper operation-----
c. Remove, clean, inspect, and recoil air filter-----
d. Inspect carburetor airbox and induction system for condition-----
e. Inspect fuel selector valve for operation and proper pointer indication-----
f. Operate boost pump; check pressure and all lines for leaks-----
g. Clean electric fuel pump screen, 1963 and previous models-----
h. Drain fuel sumps and fuel selector valve (R & L tanks)-----

7. Fuel System, M20E,F,J,K.
 - a. Inspect fuel injection system, clean screens, and injector nozzles (Refer to Bendix Service Manual or T.C.M. Service Manual)-----
 - b. Check power boost system for proper door operation and seal for leaks(M20E,F & J)-----
 - c. Remove, clean, and inspect dry-air filter-----
 - d. Inspect air induction system and alternate air valve-----
 - e. Inspect fuel selector valve for operation and proper pointer indication-----
 - f. Operate boost pump; check pressure and all Lines for leaks-----
 - g. Drain R & L tank fuel sumps selector fuel valve or gascolator-----
 - h. Check unmetered fuel pressure per Mooney Service & Maintenance Para. 3-6 (M20K)-----
8. Remove heater jacket and inspect exhaust system for leaks and cracks. Remove exhaust cavities, inspect area-----
9. Inspect clamps for tightness at turbocharger-----
0. Inspect firewall for proper sealing and freedom from cracks-----
1. Inspect tubular engine mount for cracks; bolts and rubber mounts for security-----
2. Lubricate engine controls and inspect for security, full travel, free movement-----
3. Lubricate cowl flaps and inspect for proper opening and operation (Note: M20C & G, 1968 & on, cowl flaps are fixed.)-----
4. Remove propeller spinner and check for cracks and general condition-----
5. Inspect Hartzell propeller hub for grease leakage; check hub bolts and mounting bolts for proper torque; inspect blades for cracks nicks, and dents; lubricate as needed (Refer to appropriate manufacturers' handbooks.)-----
6. Reinstall spinner, check for correct interference fit with prop. cylinder - shim with teflon tape A/R. (M20J & K)-----

AIRFRAME SECTION: (Refer to Mooney Service & Maintenance Manual.)

1. Inspect exterior and interior of aircraft for general condition, collision damage, loose rivets, dents, and corrosion-----
2. Inspect tubular structure lower longerons for corrosion.-----
3. Inspect wings and empennage for general condition, collision damage, loose rivets, dents, and corrosion-----
4. Inspect control surfaces for security of attachment, proper rigging, free movement, collision damage, loose rivets, dents, and corrosion-----

5. Lubricate flight control system guide blocks, hinge points, rod end bearings, and bell cranks
6. Inspect all wing, fuselage, and empennage drain holes for obstruction
7. Inspect empennage trim system for proper operation and rigging
8. Inspect downspring end loops, cable and pulley for wear and corrosion (M20K)
9. Inspect flap system for proper operation and rigging. Lubricate in accordance with Mooney S & M Manual
10. Inspect flight instruments, filters, and vacuum system for proper operation, marking, and condition. Clean vacuum air filter (1966 and subsequent models)
11. Inspect cabin lights, circuit breakers, and electrical components for proper operation
 - a. Check operation of stall warning system
12. Inspect PC system components for security, leaks, and proper operation; servo seals for deterioration; other autopilot components for security and proper operation
13. Inspect vacuum step for security and proper operation; fixed step for security
14. Inspect wing interior in fuel tank area for fuel leaks, fuel tank vents for obstruction, and fuel filler caps for security and proper operation
15. Inspect cabin and baggage doors for condition, proper operation, and sealing
16. Inspect windshields and windows for cracks, crazing, scratches, distortion
17. Inspect seats, seat belts and shoulder harnesses for security, proper operation, and condition
18. Inspect compass and compass deviation card for proper indication and compensation (Refer to Mooney Service Bulletin M20-150A)
19. Inspect radio equipment for proper installation and operation
20. Inspect cabin for proper sealing

LANDING GEAR OPERATION CHECK (Refer to Mooney S & M Manual)

1. Raise aircraft on jacks
2. Inspect brakes, hydraulic brake cylinders, and hydraulic system for leaks and general condition. Service reservoir with Mil-O-5606 (red) fluid
3. Remove wheels, inspect, repack, reinstall, and safety. Lubricate brake guide pins using Silicone-base lubricant. Check wheels for free rotation and proper brake action
4. Lubricate and inspect landing gear pivot points and moving parts
5. Manual gear retraction system
 - a. Check operation and rigging
 - b. Check warning system lights and horn
 - c. Check down lock preload
 - d. Check doors for proper closing
 - e. Check retract lever welds for cracks

6. Electric gear retraction system
 - a. Check operation and rigging
 - b. Check warning system lights, horn and visual indicator
 - c. Check air pressure safety switch or squat safety switch
 - d. Check downlock preload
 - e. Lubricate actuator gear box (Dukes and ITT actuators only)
 - f. Check doors for proper closing
 - g. Check emergency system by lowering gear using emergency gear extension system. Do not attempt gear retraction using emergency system. (Refer to Mooney S & M Manual)
7. Inspect shock absorbers (main and nose gears) in accordance with Mooney S & M Manual
8. Fixed gear: inspect landing gear fairing (M200)
9. Check air seals in wheel well areas

POST-INSPECTION OPERATION CHECK (Refer to Mooney Owner's Manual)

1. Check propeller governor operation with engine running at 2000 rpm and pitch control at low pitch (High rpm); when propeller control is pulled out to high pitch (low rpm), engine speed should decrease at least 500 rpm
2. Check ease of operation for all engine controls with engine running
3. Check generator or alternator output indication
4. Check oil pressure indication
5. Check fuel pressure indication
6. Check fuel quantity indication
7. Check cylinder head temperature indication
8. Check oil temperature indication
9. Check idle rpm, idle mixture, and idle cutoff
10. Check propeller pitch through range
11. Check cabin and panel lights
12. Check radio operation
13. Check autopilot operation
14. Check magneto drop and ground
15. Check brake operation
16. Check fuel selector valve operation
17. Test vacuum warning lights and instruments for proper operation
18. Flight check gear-up warning horn at 12" manifold pressure
19. Flight check aircraft rigging and PC or other autopilot systems for proper operation
20. Make a cabin ventilation and heating system carbon monoxide check
21. Check EGT gauge and any other items of installed equipment
22. Check flap position indicator
23. Check trim position indicator

REMARKS: