

Baumuster: Type of Engine:		E4	Baureihe: Model:	E4	Motor - Nr.: Engine serial no:	E4-A-06838	1
Hersteller: Manufacturer:		Austro Engine GmbH A-2700 Wiener Neustadt, Rudolf-Diesel-Straße 11, Austria			Baujahr: Year of manufacture:	2024	
Kennblatt: Data sheet:		EASA.E.200					
Der oben bezeichnete Motor ist als betriebstüchtig anzusehen, wenn er gem. der Zivilluftfahrt- und Luftfahrtgeräte-Verordnung, letztgültige Ausgabe und den Betriebs- und Wartungsanweisungen entsprechend betrieben und gewartet wird. The above mentioned engine is considered to be operationally reliable if operated and maintained in accordance with the Zivilluftfahrt- und Luftfahrtgerät-Verordnung, latest legal issue and the pertinent operational and maintenance instructions.							
Bemerkungen: Remarks:							
Jedes Wartungsereignis, als auch ein Komponenten Tausch muss im Engine Log dokumentiert werden. Please note that every performed maintenance as well as component replacements have to be documented in the log book.							
Prüflauf durchgeführt Test run carried out							
Datum: Date:		22 FEB 2024		Unterschrift Signature:			

SN: E4-A-06838
Status Service Bulletin (SB), & Service Informations (SI)

MSB-No	Title	Status	SB-No	Title
MSB-E4-002/3	Configuration Specification of the E4 Engine	performed, no open action	RSB-E4-017/1	Oil dip stick
MSB-E4-003/10	Software and hardware versions of the E4 engine series	Considered, for next action see this MSB	RSB-E4-019	Inspection of engine bearings
MSB-E4-004/1	Long term conservation of E4 Engines	performed, no open action	RSB-E4-021/1	2nd Pressure Sensor - Control condition for OPS and HRS
MSB-E4-006	Repair of sensor cable for camshaft sensor	N/A by serial number	RSB-E4-028/3	Installation of oil warning MSB-0028-01 for E4P
MSB-E4-007/6	Replacement of waste gate control	N/A by part number	RSB-E4-032/1	Leak test on Exhaust Heat Recovery system
MSB-E4-008/2	Exchange of oil separator hose	N/A by serial number	RSB-E4-038/1	Overhaul Risk inspection for valves
MSB-E4-009/2	Replacement of high pressure pump	N/A by serial number	RSB-E4-040	WPM of wingtip
MSB-E4-013/1	Gearbox oil inspection	Considered, for next action see this MSB	OSB-E4-019/5	Cowling Oil Cooler
MSB-E4-014/2	Replacement of the fuel return line	N/A by revision	OSB-E4-033/5	Oil pump inspection to check assembly
MSB-E4-017/2	Check/Exchange of timing chain	performed, no open action	SI-No	Title
MSB-E4-020	Inspection of Gearbox Housing	performed, no open action	SI-E4-002	Life time and TBO extension
MSB-E4-022/5	Waste Gate Control Rod	performed, no open action	SI-E4-003	Condition of waste gate control system
MSB-E4-024/1	Waste gate - Spring loaded circlip	Considered, for next action see this MSB	SI-E4-004	EECU warning element
MSB-E4-026/3	Fuel injectors	N/A by serial number	SI-E4-006	New Revision - Note for part number
MSB-E4-026/1	Inspection of Engine Harness	N/A by serial number	SI-E4-007	Proper handling of Turbo Charger
MSB-E4-028/3	Oil return line pipe	N/A	SI-E4-009	Two Mass Flywheel and hub
MSB-E4-029/2	Modification of pressure valve hose for damping pressure oscillation	N/A by serial number	SI-E4-010	Condition of Inertia Stack Injection timing hardware
MSB-E4-030/4	Oil pump replacement	N/A by serial number	SI-E4-011	MSDC Waste gate control
MSB-E4-031/2	Oil pump replacement	N/A by revision	SI-E4-013/1	Oil sampling
MSB-E4-034/4	superseded by MSB-E4-036	N/A	SI-E4-014	EECU Data Log
MSB-E4-035/2	superseded by MSB-E4-036	N/A by serial number	SI-E4-015	Handling and storage condition of spare parts
MSB-E4-036/1	High Pressure Pump (HPP) inspection and Replacement	N/A by revision	SI-E4-016/1	Cylinder head identification - Identification
MSB-E4-038/1	Oil Analysis and Piston replacement	N/A	SI-E4-018	High Pressure Pump (HPP) using gas separator
MSB-E4-039/3	Crankshaft-bearing cap screws replacement	N/A by serial number	SI-E4-020	Engine Check Leaks Collection and Action Indication
MSB-E4-042/1		N/A	SI-E4-022/1	Parts Shelf Life
			SI-E4-023	(PA) Adjustment
			SI-E4-024	Safe storage of spare parts
			SI-E4-025	Engine oil replacement and oil test
			SI-E4-026	Engine Parts Return Shipping Instruction

22 FEB 2024

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Anderungsstand / Modification record

3330 AIRPORT LOOP
SALISBURY, NC 28147
OFFICE: 704-431-6862
INFO@SOUTHTTECAVIATION.COM

DATE: MAY 20, 2024 | AUSTRO E4 | S/N: E4-A-06838 | REG: N113NG | ACFT SN: 40.NC021
TACH: 3893.8 HRS. TTE: 0 HRS.

PERFORMED ENGINE AND ASSOCIATED COMPONENT CHANGE DUE TO SERVICE LIMITS.
REMOVED ENGINE SN: E4-A-00131; INSTALLED NEW ENGINE SN: E4-A-06838. ALL CURRENT
COMPONENT SERIAL #s ARE NOTED IN AUSTRO ENGINE LOGBOOK.

SERVICED ENGINE WITH 7 LITERS OF AEROSHELL DIESEL ULTRA AND REPLACED ENGINE OIL
FILTER.

SERVICED GEARBOX WITH SHELL SPIRAX S6 GXME 75W-80.

SERVICED ENGINE COOLANT SYSTEM WITH 50/50 MIX XEREX VALVOLINE G05.

NO LEAKS NOTED DURING LEAK CHECKS; ALL ENGINE PARAMETERS SATISFACTORY.

THIS AIRCRAFT HAS BEEN SERVICED IN ACCORDANCE WITH THE CURRENT DIAMOND DA40NG
AND AUSTRO E4 SERIES MAINTENANCE MANUALS AND WAS DETERMINED TO BE IN AN
AIRWORTHY CONDITION.

Signature: Scott Seamon

AP 3581287

Registration: N113NG ESN: E4-A-06838
Engine TTSN 98.4 TSO N/A
AC Serial Number: 40.NC021
Airframe TT: 3992.20
WO: 7747



Maintenance performed:

Complied with 100 HR inspection referencing Diamond DA-40NG and Austro E4-A MM. Drained the engine and gearbox oil, removed and replaced the Oil Filter (FAA 52-300-RT1) and Fuel Filter (WK724-3). Inspected the old filters, found no evidence of contamination. Inspected Gearbox filter, found no metal. Ops checked the Waste Gate Controller, ops check good. Serviced engine oil with 7 liters of Aeroshell Diesel Ultra. Serviced Gearbox oil with Spirax-56-GXME. Serviced the coolant with Glystatin Protect Plus G48 referencing Austro E4-A MM. Ground run and leak check good. The aircraft, or component(s) identified above was repaired, installed or inspected IAW regulations of Federal Aviation Administration and was determined airworthy and approved for return to service only for the work performed. Next Due at AFIT: 4092.2.

Signature:

TRAPPER EVANS 4087361A&P

Date: 6/14/2024

Registration: N113NG ESN: E4-A-06838
Engine TTSN 193.2 TSO N/A
AC Serial Number: 40.NC021
Airframe TT: 4087.00
WO: 8050



Maintenance performed:

Complied with 100 HR inspection referencing the aircraft and engine MM. Drained the engine and gearbox oil, replaced engine and fuel filters. Inspected the old filters, found ok. Inspected Gearbox filter, found no metal. Serviced engine oil with 7 liters of Aeroshell Diesel Ultra. Serviced Gearbox oil with Spirax-56-GXME. Serviced the coolant with Glystatin Protect Plus G48 referencing the engine MM. Run up and leak check good. I certify that this engine has been inspected IAW 100 HR. Inspections and was found to be airworthy. Next Due at AFIT: 4187.0.

Date: 7/19/2024

Signature:

WAYNE MATTSON 3736097A&P

Modification record

Std.: Datum: Unterschrift & Lizenz Nr.
Date: Date: Signature & License No.

Änderungsstand / Modification record

Ges. Std.: Datum:
TCN: Date:

Unterschrift & Lizenz Nr.:
Signature & License No.:

Date: 9/6/2024
Tach: 4186.9
TSNEW: 293.1

CRAFT
FLIGHT TRAINING & SIMULATION

Model: DA40 NG
SN: 40NC021
Reg. N: N113NG
Inspected a 100hr inspection (FAA 14 CFR FAR 43.13 Appendix (D)) using Diamond Aircraft DA40 NG AMM, Diamond Aircraft
Inspected Checklist, and Austro Engine Manual as a guide
1. Drained oil and refilled with Aeroshell Diesel Plus
2. Oil filter inspected for metal, no metal noted
3. Checked oil sample for analysis at blackstone laboratories
4. Replaced oil filter P/N: H4815328
5. Checked gearbox magnetic plug for metal, no metal noted
6. Inspected and drained gearbox filter
7. AD 20-14-07 Fuel Injector replaced at 2893.8 No windmill starts reported
8. AD's researched however this date, no new AD's apply at this time
Ground run engine no issues/faults noted. Engine approved for return to service at this time.
Engine approved for return to service at this time.
Certify that this engine was inspected IAW a 100hr inspection and was determined to be in airworthy condition at this time.

Garrett Redback 3710708 A&P

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Änderungsstand / Modification record

Lufttüchtigkeitsanweisung bzw. Änderung:
Airworthiness directive or modification:



Ges. Std.: TSN:	Datum: Date:	Unterschrift & Lizenz Nr.: Signature & License no.:
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3330 AIRPORT LOOP
SALISBURY, NC 28147
OFFICE: 704-431-6862
INFO@SOUTHTECAVIATION.COM

DATE: NOVEMBER 14, 2024 | AUSTRO E4-A | S/N: E4-A-06838 | REG: N113NG
TACH: 4289.1 HOURS TTE: 395.3 HOURS

100 HR INSPECTION COMPLETED THIS DATE USING DIAMOND AIRCRAFT DA40 NG INSPECTION CHECKLIST, AIRPLANE MAINTENANCE MANUAL, AND AUSTRO MAINTENANCE MANUAL E4 SERIES.

NO AD'S DUE AT THIS TIME.

1. CUT OIL FILTER, NO METAL NOTED.
2. **COLLECTED OIL SAMPLE** FOR ANALYSIS TO BE PERFORMED BY BLACKSTONE
3. CHANGED OIL AND SERVICED ENGINE WITH 7 QTS OF AEROSHELL DIESEL OIL
4. REPLACED OIL FILTER ORING, P/N: E4A-52-300-KIT
5. REPLACED FUEL FILTER, P/N: (WK724-3)
6. COMPLETED MSB EA-043/0, PISTON INSPECTION. BOROSCOPE PICTURES REVEALED CRACKS AT THIS TIME.

GROUND RAN ENGINE, NO FAULTS NOTED.
Glenn M. Lawler
GLENN M. LAWLER

A&P 2161929 JA



DATE: JANUARY 7, 2025 | AUSTRO ENGINE | S/N: E4-A-06838 | REG: N113NG
TACH: 4371.8 HRS. TTE: 479.0 HRS.

AD 34-15-10 COMPLIED WITH IN ACCORDANCE WITH **AUSTRO MSB-E4-043/0** PISTON
BOROSCOPE INSPECTION. PULLED INJECTOR COVER AND INJECTORS FOR ACCESS.
PERFORMED THOROUGH INSPECTION OF PISTON CROWN NO CRACKS FOUND AT THIS TIME.
USING KIT PN: MSB-E4043-KIT REINSTALLED INJECTOR COVER AND INJECTORS. **NEXT DUE AT**
NOV 4 2025 11 HRS 110 FH
PERFORMED SATISFACTORY ENGINE RUN. NO FAULTS OR LEAKS NOTED.

ALL WORK PERFORMED I.A.W DA-40NG MAINTENANCE MANUAL AND AUSTRO E4 SERIES
MAINTENANCE MANUAL.

Luke C. Walters
LUKE C. WALTERS

A&P 4778771

3330 AIRPORT LOOP
SALISBURY, NC 28147
INFO@SOUTHTECAVIATION.COM
OFFICE: 704-431-6862

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PROP S/N:211632

NSN: 0052-004-012-9005

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Änderungsstand / Modification record

Lufttüchtigkeitsanweisung bzw. Änderung:
Airworthiness directive or modification:Ges. Std.:
TSN:Datum:
Date:Unterschrift & Lizenz Nr.:
Signature & License no.:

ENGINE

N113NG - JAN 24, 2025 Austro E4-A S/N- E4-A-06838

Cleaned, lubed and serviced Engine as per FAR 43 appx D, with AC43.13 and Austro E4 series AMM. Replaced fuel and oil filter as required. Serviced Engine with 7 Qts Aeroshell Diesel oil. Engine run and systems checked normal, with no leaks observed. Cut oil filter with no metal noted. Collected oil sample for analysis. No Recurrent AD's at this time. See airplane records for AD Compliance.

Airframe	TT	4338.3	Tach	4338.3
Eng	TT	494.5	SMOH	494.5
Propeller	TT	1369.8	SMOH	1542.5

I certify that this engine has been inspected in accordance with a 100 HR inspection, and was found to be in airworthy condition.
Harry Ketchel - A&P# 2790864

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Änderungsstand / Modification record

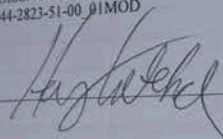
Lufttüchtigkeitsanweisung bzw. Änderung:
Airworthiness directive or modification:Ges. Std.:
TSN:Datum:
Date:Unterschrift & Lizenz Nr.:
Signature & License no.:

ENGINE

N113NG - MAR 4, 2025 AUSTRO E4-A S/N 06838

ELECTRIC FUEL PUMPS REPLACED DUE TO ECU A FAILURE CAS MESSAGE PRESENT AND FUEL PUMP A MAKING GRINDING NOISE. OPS CHECKS GOOD. ALL WORK PER DA40 NG MM. P/N REM: D44-7311-00-02 INST: D44-2823-51-00. P/IMOD S/N REM: N/A S/N INST: N/A

Harry Ketchel - A&P# 2790864



PROP S/N-211632

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Änderungsstand / Modification record

Lufttüchtigkeitsanweisung bzw. Änderung:
Airworthiness directive or modification:

Ges. Std.: TSN: Datum: Date: Unterschrift & Lizenz Nr.: Signature & License no.:

ENGINE

N113NG – MAR 8, 2025 Austro E4-A S/N- E4-A-06838
Cleaned, lubed and serviced Engine as per FAR 43 appx D, with AC43.13 and Austro E4 series AMM. Replaced fuel and oil filter as required. Serviced Engine with 7 Qts Aeroshell Diesel oil. Engine run and systems check normal, with no leaks observed. Cut oil filter with no metal noted. Collected oil sample for analysis. Replaced Engine oil filter with Mann filter P/N: HU 615/3X and fuel filter P/N: WK724/3 Engine run and systems check normal, with no leaks observed.
See airplane records for AD Compliance.

No Recurrent AD's at this time. See airplane records for AD Compliance.

Airframe	TT	4403.3	Tach	4403.3
Eng	TT	559.5	SMOH	559.5
Propeller	TT	1434.8	SMOH	1607.5

I certify that this engine has been inspected in accordance with § 100 HR/ANNUAL inspection, and was found to be in an airworthy condition.
Harry Ketchel – A&P# 2790864

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Wartungsübersicht / Maintenance record

Unterschrift & Lizenz Nr.:
Signature & License no.:

Betriebsstunden: Engine hours: Gesamt: TSN: Seit letzter GÜ.: Work performed: Since last GÜ.: TSO:

ENGINE

N113NG – MAY 23, 2025 Austro E4-A S/N- E4-A-06838

Cleaned, lubed and serviced Engine as per FAR 43 appx D, with AC43.13 and Austro E4 series AMM. Replaced fuel and oil filter as required. Serviced Engine with 7 Qts Aeroshell Diesel oil. Engine run and systems check normal, with no leaks observed. Replaced Engine oil filter with Mann filter P/N: HU615/3X and fuel filter P/N: WK724/3 Engine run and systems check normal, with no leaks observed.
No Recurrent AD's at this time. See airplane records for AD Compliance. Replaced air/oil separator S duct hose as required. All work per Austro E4A EMM. Performed 50 hour boroscope inspection per AD 2024-19-10.

Airframe	TT	4502.7	Tach	4502.7
Eng	TT	593.9	SMOH	593.9
Propeller	TT	1534.2	SMOH	1706.9

I certify that this engine has been inspected in accordance with a 100 HR inspection, and was found to be in an airworthy condition.
Harry Ketchel – A&P# 2790864

PROP S/N: 211620

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AUS
HOBBS: 6471.7

AUSTRO, E4-A, S/N: E4-A-06838

PROPELLER TT: 1845.6

Table 1. *Continued*

1. Complied with 100 hr engine maintenance per AE 4 series MM. Drained engine oil; collected sample and sent to Acorn for analysis. Removed and replaced oil filter with new PN: E4A-03-000-801. Cut open and inspected seal on filter. No damage wear noted. Serviced engine with 7 liters Aeroshell Diesel Ultra. Drained, inspected, and refilled pump oil. Replaced and replaced fuel filter with new WK7242 filter and new seal bushing PN: BU1-12-08-0025-42. Removed, cleaned, and refilled the restrictor with new clamps PN: E4A-41-300-803. Installed 1 EA PN AEP-00073-1 - Kit, Oil Sample, Strainer, needed 1 EA PN 550041177 - Aeroshell Diesel Ultra.
2. AD 2024-19-10 effective October 9, 2024. Complied with (g) (1) (i) by borescope inspection of pistons, no cracks noted. See below.
3. TACH 4741.4 (50 +/- 10 flight hours).
4. Reinstalled injectors with new gaskets 4ea PN E4A-03-000-801 and new screws 4ea PN E4A-03-000-201 by Acorn 687550.

Work was also performed by Dan Ebersole.

Work was also performed by Dan Ebersole.
I certify that this engine has been inspected in accordance with an 100 hour inspection and found to be in airworthy condition in the
and has been inspected or repaired in accordance with current federal aviation regulation 43 (as applicable).
When work performed, this engine is approved for return to service. Details of work performed are on file with [Signature]

With respect to the work performed, this engine is Corporation under work order: WO_113NG-189.

Christopher L. Nelson A&P 3599098

Christopher Nelson

[illegible]

Wet weight

100

Summary:

... letter GU.1

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Durchgeführte Arbeiten
Work performed:

Unterschrift & Lizenz Nr.:
Signature & License no.:

ENT: 0052-00-012-9005