



Forward from Flight Test Journey Log (DAI) - Form Q-157; 3.4 HRS
 Aircraft DA 40 NG, S/N. 40.NC111
 Incorporated
 Registration:
 AC Serial Number:
 Engine Serial Number:
 Prop Serial Number:
 Airframe Total Time:
 N471BL
 40.NC111
 E4-A-05084
 200162
 3.4 HRS

Carried out to current revision 2020-22 all applicable AD's complied with, see
 carried out IAW the applicable Standard of Airworthiness.
 Date: **OCT 29 2020**


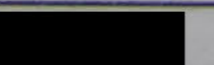
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Blue Line Technical Services, LLC			Engine	
				
Make: Diamond	Model: DA40NG	Serial No: 40.NC111	Tach: 199.8	
Reg. No: N471BL	Eng Model: E4-A	Eng Serial: E4-A-05084	TT Adjust: 0	
	SNEW 199.8	Hobbs: 68.4	Total Time: 199.8	
WORK PERFORMED:				
100/200hr and Annual inspection. Drained engine oil, pulled sample. Serviced engine with 7 liters of Aeroshell Diesel Ultra and using 100 hr kit (P/N: E4A-52-000-KIT). Replaced Fuel filter (P/N: WK724-3). Performed 100hr gearbox service: drained and strained gearbox oil and cleaned oil filter. Topped off coolant with G48. Investigated oil sump for debris or quick drain blockage. Nothing found. Ground run and leak check good. All ADs checked for compliance. I certify that this engine has been inspected IAW a 100/200hr and Annual inspection and per FAR 43 App. D and Austro MM and was determined to be in airworthy condition.				
AD 20-14-07 fuel injectors due at 900TT; no windmill starts reported.				
Rachel Weandt A&P/IA 			3/16/2021	
Name/ Certificate No.			Date	

LICENCE:
AME or AMO/JACA

Services, LLC

Engine		
Serial No: 40.NC111	Tach: 101.5	
Eng Serial: E4-A-05084	TT Adjust: 0	
Hobbs: 148.2	Total Time: 101.5	
Serviced engine with 7 liters of Aeroshell Diesel Ultra (P/N: WK724-3). Performed 100hr gearbox service: Topped off coolant with G48. Ground run and leak check good. This engine has been inspected IAW a 100hr and Annual inspection and was determined to be in airworthy condition.		
AD 20-14-07 fuel injectors due at 900TT; no windmill starts reported.		
1/21/2021		
Date		

Blue Line Technical Services, LLC			Engine	
				
Make: Diamond	Model: DA40NG	Serial No: 40.NC111	Tach: 299.2	
Reg. No: N471BL	Eng Model: E4-A	Eng Serial: E4-A-05084	TT Adjust: 0	
	SNEW 299.2	Hobbs: 208.9	Total Time: 299.2	
WORK PERFORMED:				
100/300hr and Annual inspection. Drained engine oil, pulled sample. Serviced engine with 7 liters of Aeroshell Diesel Ultra and using 100 hr kit (P/N: E4A-52-000-KIT). Replaced Fuel filter (P/N: WK724-3). Performed 300hr gearbox service: drained gearbox oil and serviced with Spirax GSX 75-W80 and replaced gearbox oil filter with new (P/N: E4A-70-000-806). Topped off coolant with G48. Performed MSB-E4-029 modification per work instructions, installed restrictor (P/N: AEP-00361) with new clamps 2 ea (P/N: E4A-41-300-803). Ground run and leak check good. All ADs checked for compliance. I certify that this engine has been inspected IAW a 100/300hr and Annual inspection and per FAR 43 App. D and Austro MM and was determined to be in airworthy condition.				
AD 20-14-07 fuel injectors due at 900TT; no windmill starts reported.				
Rachel Weandt A&P/IA 			4/29/2021	
Name/ Certificate No.			Date	

03/26/2022 13:35

Section 3A: Engine Service and Maintenance Log

DATE / /	TIME RUN		TIME SINCE OVERHAUL		CYCLES		DESCRIPTION OF WORK PERFORMED (INSPECTION, REPAIRS, REPLACEMENT)
	HOURS	min	HOURS	min	Sub Total	TOTAL	

BLUE LINE TECHNICAL SERVICES
Blue Line Technical Services, LLC

Make: Diamond	Model: DA40NG	Serial No: 40.NC111	Tach: TT Adjust: Total Time:
Reg. No: N471BL	Eng Model: E4-A	Eng Serial: E4-A-05084	
WORK PERFORMED:		SNEW 397.4	Hobbs: 349.7

100/200hr and Annual inspection. Drained engine oil, pulled sample. Serviced engine with 7 liters of Aeroshell Diesel Ultra and using 100 hr kit (P/N: E4A-52-000-KIT). Replaced Fuel filter (P/N: WK724-3). Performed 100hr gearbox service: Drained and strained oil and cleaned oil filter. Topped off coolant with G48. Ground run and leak check good. All ADs checked for compliance. I certify that this engine has been inspected IAW a 100/200hr and Annual inspection and per FAR 43 App. D and Austro MM and was determined to be in airworthy condition.

AD 20-14-07 fuel injectors due at 900TT; no windmill starts reported.

Rachel Weindt A&P/IA [Redacted] Signature
6/4/2021 Date

BLUE LINE TECHNICAL SERVICES
Blue Line Technical Services, LLC

Make: Diamond	Model: DA40NG	Serial No: 40.NC111	Tach: TT Adjust: Total Time:
Reg. No: N471BL	Eng Model: E4-A	Eng Serial: E4-A-05084	
WORK PERFORMED:		SNEW 494.9	Hobbs: 487.4

100hr and Annual inspection. Drained engine oil, pulled sample. Serviced engine with 7 liters of Aeroshell Diesel Ultra and using 100 hr kit (P/N: E4A-52-000-KIT). Replaced Fuel filter (P/N: WK724-3). Performed 100hr gearbox service: Drained and strained oil and cleaned oil filter. Topped off coolant with G48. Ground run and leak check good. All ADs checked for compliance. I certify that this engine has been inspected IAW a 100hr and Annual inspection and per FAR 43 App. D and Austro MM and was determined to be in airworthy condition.

AD 20-14-07 fuel injectors due at 900TT; no windmill starts reported.

Robert T Robinson III A&P/IA [Redacted] Signature
7/22/2021 Date

Diamond AIRCRAFT
DIAMOND AIRCRAFT IND.
D.O.T. APPROVED MAINTENANCE ORGANIZATION 161-93

Registration: N471BL
Airframe Total Time: 517.3 hrs
AC Serial Number: 40.NC111
Work Order: SO 073193

The following work was performed:

- Adjusted prop governor speed stop 1/2 turn out
- LH/RH Control stick attach bolts re torqued

The Maintenance Described has been performed IAW the Applicable Standards of airworthiness

ACA [Redacted] Date: **AUG 06 2021**
End

THIS PAGE TOTALS	
PREVIOUS TOTALS	
TOTALS SINCE NEW	

BLUE LINE TECHNICAL SERVICES
Blue Line Technical Services, LLC
3149 B Swift Creek Rd.
Smithfield NC, 27577

Make: Diamond Model: DA40NG
Reg. No: N471BL Eng Model: E4-A
WORK PERFORMED: SNEW

1 hour Test flight successful. No issues reported.

Robert T Robinson III A&P/IA [Redacted] Signature
Name/ Certificate No. [Redacted]

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Blue Line Technical Services, LLC

Engine

Make: Diamond	Model: DA40NG	Serial No: 40.NC111	Tach: 562.7
Reg. No: N471BL	Eng Model: E4-A	Eng Serial: E4-A-05084	TT Adjust: 0
WORK PERFORMED:		SNEW 562.7	Hobbs: 579.1
Total Time: 562.7			

Consulted manufacture about engine roughness issue, they reviewed data downloads and recommended fuel injector replacement. Replaced all fuel injectors with new PN# E4A-35-100-000 with new gasket PN# E4A-03-000-801 and new screws PN# E4A-03-000-201. Replaced fuel filter with new PN# WK724-3. Sumped all fuel drains and sumps found clear. Performed ground run, one minute full power and ops check. Ground run and ops check normal. Released for test flight.

Robert T Robinson III A&P [Redacted] Signature Date 9/23/2021

Blue Line Technical Services, LLC

Engine

Make: Diamond	Model: DA40NG	Serial No: 40.NC111	Tach: 563.5
Reg. No: N471BL	Eng Model: E4-A	Eng Serial: E4-A-05084	TT Adjust: 0
WORK PERFORMED:		SNEW 563.5	Hobbs: 580.6
Total Time: 563.5			

1 hour Test flight successful. No issue noted. Released from maintenance.

Robert T Robinson III A&P [Redacted] Signature Date 9/23/2021

Blue Line Technical Services, LLC

Engine

Make: Diamond	Model: DA40NG	Serial No: 40.NC111	Tach: 594.8
Reg. No: N471BL	Eng Model: E4-A	Eng Serial: E4-A-05084	TT Adjust: 0
WORK PERFORMED:		SNEW 594.8	Hobbs: 624.8
Total Time: 594.8			

100/200/300/600hr and Annual inspection. Drained engine oil, pulled sample. Serviced engine with 7 liters of Aeroshell Diesel Ultra and using 100 hr kit (P/N: E4A-52-000-KIT). Replaced Fuel filter (P/N: WK724-3). Performed 300hr gearbox service: Drained oil and serviced with Sprax GSX 75-W80 and replaced oil filter with new (P/N: E4A-70-000-86). Topped off coolant with G48. Removed gearbox for access. Removed flywheel for inspection, good at this time. Reinstalled flywheel using new screws (P/N: E4A-73-000-801). Reinstalled gearbox. Replaced high pressure fuel pump with serviceable (P/N: E4A-30-000-000, S/N: 12-01-09-03-00736) using new gaskets 2 ea (P/N: DIN7603-12X16X2.0) and new sealing rings 2 ea (P/N: DIN7603-A12X16-AL). High Pressure pump replacement due 751.1TT. Ground run and leak check good. All ADs checked for compliance. I certify that this engine has been inspected IAW a 100/200/300/600hr and Annual inspection and per FAR 43 App. D and Austro MM and was determined to be in airworthy condition.

AD 20-14-07 fuel injectors due at 900TT; no windmill starts reported.

Rachel Weindt A&P/IA [Redacted] Signature Date 10/13/2021

Blue Line Technical Services, LLC

Engine

Make: Diamond	Model: DA40NG	Serial No: 40.NC111	Tach: 628.3
Reg. No: N471BL	Eng Model: E4-A	Eng Serial: E4-A-05084	TT Adjust: 0
WORK PERFORMED:		SNEW 628.3	Hobbs: 670.5
Total Time: 628.3			

Topped off gearbox oil with Spirax GSX 75W-80.

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Section 3A: Engine Service and Maintenance Log

DATE / /	TIME RUN		TIME SINCE OVERHAUL		CYCLES	
	HOURS	min	HOURS	min	Sub Total	TOTAL

DESCRIPTION OF WORK PERFORMED:
(INSPECTION, REPAIRS, REPLACEMENT)

Blue Line Technical Services, LLC

Make: Diamond Model: DA40NG Serial No: 40.NC111
 Reg. No: N471BL Eng Model: E4-A Eng Serial: E4-A-05084

WORK PERFORMED: SNEW 653.5 Hobbs: 704.3

Tach: 653.5
 TT Adjust: 0
 Total Time: 653.5

Report of power loss on takeoff. Data download reviewed and the following work performed by Diamond Technician. Replaced turbo with serviceable spare PN# E4A-00-410-BHY (393 TT). Installed with new sealing rings PN# DIN7603x12x16x2.0 and new turbo inlet oring PN# DIN3771-46.2x3.55. Replaced low pressure fuel bypass valve with new PN# D67-9028-00-01. Replaced intercooler inlet hose with new PN# D44-8126-00-10_2, installed new clamps TORRO_50-70_12_W1. I inspected the work performed and determined it to be satisfactory. Ground run good and data review good. Performed test flight and test flight normal. Returned to Service.

Work performed by Neil Grant

Robert T Robinson III A&P/IA [Redacted] Signature Date: 11/12/2021

Blue Line Technical Services, LLC

Make: Diamond Model: DA40NG Serial No: 40.NC111
 Reg. No: N471BL Eng Model: E4-A Eng Serial: E4-A-05084

WORK PERFORMED: SNEW 694.5 Hobbs: 759.5

Tach: 694.5
 TT Adjust: 0
 Total Time: 694.5

100hr and Annual inspection. Drained engine oil, pulled sample. Serviced engine with 7 liters of Aeroshell Diesel Ultra and using 100 hr kit (P/N: E4A-52-000-KIT). Replaced Fuel filter (P/N: WK724-3). Performed 100hr gearbox service: drained and strained gearbox oil and cleaned oil filter. Topped off coolant with G48. Ground run and leak check good. All ADs checked for compliance. I certify that this engine has been inspected IAW a 100hr and Annual inspection and per FAR 43 App. D and Austro MM and was determined to be in airworthy condition.

AD 20-14-07 fuel injectors due at 900TT; no windmill starts reported.

Rachel Weindt A&P/IA [Redacted] Signature Date: 11/29/2021

Blue Line Technical Services, LLC

Make: Diamond Model: DA40NG Serial No: 40.NC111
 Reg. No: N471BL Eng Model: E4-A Eng Serial: E4-A-05084

WORK PERFORMED: SNEW 745.6 Hobbs: 828.8

Tach: 745.6
 TT Adjust: 0
 Total Time: 745.6

High pressure fuel pump replacement due. Replaced HPFP with new (P/N: E4A-30-000-BHY, S/N: 21-06-03-02-01473) using new sealing rings 2 ea (P/N: DIN7603-A12X16-AL) and new gaskets 2 ea (P/N: DIN7603-12X16X2.0). Next due at 1345.6TT. Topped off gearbox oil. Ground run and leak check good.

Rachel Weindt A&P [Redacted] Signature Date: 12/22/2021

TOTALS SINCE NEW						
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CARRY FORWARD to Top of Next Page

Make: [Redacted] Eng M: SNEW
 Reg. No: N471BL
WORK PERFORMED:
 100/200hr and Annual inspection. Drained engine oil, pulled sample. Serviced engine with 7 liters of Aeroshell Diesel Ultra and using 100 hr kit (P/N: E4A-52-000-KIT). Replaced fuel filter (P/N: WK724-3). Performed 100hr gearbox service: drained and strained gearbox oil and cleaned oil filter. Topped off coolant with G48. Ground run and leak check good. All ADs checked for compliance. I certify that this engine has been inspected IAW a 100hr and Annual inspection and per FAR 43 App. D and Austro MM and was determined to be in airworthy condition.

AD 20-14-07 fuel injectors due at 900TT; no windmill starts reported.

Registration #: N471BL
 Manufacturer: Austro Engines
 Serial No: E4-A-05084
 Part/Model No: E4A
 Work Order No: 120

100/300/900hr and Annual inspection. Drained engine oil, pulled sample. Serviced engine with 7 liters of Aeroshell Diesel Ultra and using 100 hr kit (P/N: E4A-52-000-KIT). Replaced fuel filter (P/N: WK724-3). Performed 100hr gearbox service: drained and strained gearbox oil and cleaned oil filter. Topped off coolant with G48. Ground run and leak check good. All ADs checked for compliance. I certify that this engine has been inspected IAW a 100hr and Annual inspection and per FAR 43 App. D and Austro MM and was determined to be in airworthy condition.

AD 20-14-07 C/W by replacing fuel injectors with new (P/N: E4A-35-100-000) and associated parts. Next due at 900TT.

Replaced ring terminal at secondary alternator. Replaced storage regulator 100A fu.

Screw stripped threads during fuel injector replacement. Consulted with Daimler cylinder head and associated parts. Installed Austro cylinder head camshaft (P/N: E4A-23-30A-00, S/N: 000) and new intake camshaft (P/N: E4A-23-30A-00, S/N: 000) using repair kit (P/N: E4A-23-30A-00, S/N: 000).

APPLIANCE IDENTIFICATION AND CURRENT MAINTENANCE RULES OF THE FEDERAL AVIATION ADMINISTRATION (FAR) PART 43, APPENDIX D, AND AUSTRO MM AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.

Pertinent details of maintenance are [Redacted]

Date: 03/24/2022 Signature: [Redacted] AP Number: 411/1

03/26/2022 13:34



Blue Line Technical Services, LLC

Engine

Make: Diamond	Model: DA40NG	Serial No: 40.NC111	Tach: 794.2
Reg. No: N471BL	Eng Model: E4-A	Eng Serial: E4-A-05084	TT Adjust: 0
WORK PERFORMED:		SNEW 794.2	Hobbs: 896.2
100/200hr and Annual inspection. Drained engine oil, pulled sample. Serviced engine with 7 liters of Aeroshell Diesel Ultra and using 100 hr kit (P/N: E4A-52-000-KIT). Replaced Fuel filter (P/N: WK724-3). Performed 100hr gearbox service: drained and strained gearbox oil and cleaned oil filter. Topped off coolant with G48. Ground run and leak check good. All ADs checked for compliance. I certify that this engine has been inspected IAW a 100/200hr and Annual inspection and per FAR 43 App. D and Austro MM and was determined to be in airworthy condition.			
AD 20-14-07 fuel injectors due at 900TT; no windmill starts reported.			
Robert T Robinson III A&P/IA			1/28/2022
Name/ Certificate No.		Signature	Date

Registration #: N471BL
 Manufacturer: Austro Engines
 Serial No: E4-A-05084
 Part/Model No: E4A
 Work Order No: 120



TACH: 893.10
 HOBBS: 1,033.50
 A/C Total Time: 893.10
 Aircraft Serial No: 40.NC111
 Date: 03/24/2022

- 100/300/900hr and Annual inspection. Drained engine oil, pulled sample. Serviced engine with 7 Lts of Aeroshell Ultra Diesel and using 100hr kit (P/N: E4A-52-000-KIT). Replaced fuel filter (P/N: WK724-3). Performed 300hr gearbox service: drained oil and serviced with Spirax GSX 75W-80 and replaced filter with new (P/N: E4A-70-000-806). Topped off coolant with G48. Ground run and leak check good. Checked all ADs for compliance. I certify this engine has been inspected IAW a 100/300/900hr and Annual inspection per FAR 43 App. D and Austro MM and was determined to be in an airworthy condition.
- AD 20-14-07 C/W by replacing fuel injectors with new (P/N: E4A-35-100-000) using new gaskets (P/N: E4A-03-000-801) and new screws (P/N: E4A-03-000-201). Next due at 1793.1 TT.
- Replaced ring terminal at secondary alternator voltage regulator 100A fuse connection.
- Screw stripped threads during fuel injector replacement. Consulted with manufacturer, and no repair is approved. Removed old Daimler cylinder head and associated parts. Installed Austro cylinder head (P/N: E4A-00-M02-BHY, S/N: 01182) with new exhaust camshaft (P/N: E4A-23-30A-00, S/N: 00083) and new intake camshaft (P/N: E4A-23-40A-000) with all associated parts to perform conversion IAW Austro MM. Extended cam 2 sensor using repair kit (P/N: E4A-95-R15-000). Ground run good.

THE AIRCRAFT, AIRFRAME, ENGINE, PROPELLER, OR APPLIANCE IDENTIFIED ABOVE WAS REPAIRED AND/OR INSPECTED IN ACCORDANCE WITH AND CURRENT MAINTENANCE RULES OF THE FEDERAL AVIATION REGULATIONS AND IS APPROVED WITH RESPECT TO WORK PERFORMED AT THIS TIME IN RETURN TO SERVICE.

Pertinent details of maintenance are held in this Maintenance Facility under Work Order No 120 dated .

Date: 03/24/2022 Signature: _____ Work Order: 120

AP Number: A&P/IA

03/26/2022 13:34