
Type Acceptance Report

TAR 3/21B/34 – Revision 2

Diamond DA 40 Series

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1. INTRODUCTION	1
2. AIRCRAFT CERTIFICATION DETAILS	2
3. APPLICATION DETAILS AND BACKGROUND INFORMATION	5
4. NZCAR §21.43 DATA REQUIREMENTS	7
5. NEW ZEALAND OPERATIONAL RULE COMPLIANCE	12
ATTACHMENTS	13
APPENDIX 1	13
APPENDIX 2	14

Executive Summary

New Zealand Type Acceptance has been granted to the Diamond Aircraft Industries DA 40 Series based on validation of Transport Canada Type Certificate number A-224. There are no special requirements for import.

Applicability is currently limited to the Models and/or serial numbers detailed in Section 2, which are now eligible for the issue of an Airworthiness Certificate in the Standard Category in accordance with NZCAR §21.191, subject to any outstanding New Zealand operational requirements being met. (See Section 5 of this report for a review of compliance of the basic type design with the operating Rules.) Additional variants or serial numbers approved under the foreign type certificate can become type accepted after supply of the applicable documentation, in accordance with the provisions of NZCAR §21.43(c).

NOTE: The information in this report was correct as at the date of issue. The report is generally only updated when an application is received to revise the Type Acceptance Certificate. For details on the current type certificate holder and any specific technical data, refer to the latest revision of the State-of-Design Type Certificate Data Sheet referenced herein.

1. Introduction

This report details the basis on which Type Acceptance Certificate No. 3/21B/34 was granted in the Standard Category in accordance with NZCAR Part 21 Subpart B.

Specifically, the report aims to:

- (a) Specify the foreign type certificate and associated airworthiness design standard used for type acceptance of the model(s) in New Zealand; and
- (b) Identify any special conditions for import applicable to any model(s) covered by the Type Acceptance Certificate; and
- (c) Identify any additional requirements which must be complied with prior to the issue of a NZ Airworthiness Certificate or for any subsequent operations.

The report notes the status of all models included under the State-of-Design type certificate which have been granted type acceptance in New Zealand, which are listed in Section 2. The history of the Diamond DA 40 Series type acceptance in New Zealand under EASA type certificate number A.022, and its Austro Control predecessors, and subsequently Transport Canada type certificate A-224, is listed in Appendix 1.

2. Aircraft Certification Details

(a) State-of-Design Type and Production Certificates:

Manufacturer: Diamond Aircraft Industries Inc.
Type Certificate: A.224
Issued by: Transport Canada
Production Approval: 161-93

(b) Other State-of-Manufacture Type and Production Certificates:

- (i) Manufacturer: Diamond Aircraft Industries GmbH
Import TC: EASA.IM.A.022
Issued by: European Aviation Safety Agency
Production Approval: AT.21G.0001
- (ii) Manufacturer: Shandong Bin Ao Aircraft Industries Co., Ltd.
Import TC: EASA.IM.A.022
Issued by: European Aviation Safety Agency
Production Approval: EASA.21G.0014
- (iii) Manufacturer: Wanfeng Aircraft Industry Co., Ltd.
Import TC: VTC0154A
Issued by: Civil Aviation Administration of China
Production Approval: PC0043A-HD

Note: For specific aircraft model and serial number applicability under the State-of-Design type certificate refer to the Transport Canada Type Certificate A-224 Note 2.

(c) Models Covered by the Part 21B Type Acceptance Certificate:

- (i) **Model:** DA 40
- MCTOW: 1150 kg (2535 lb)
1200 kg (2646 lb) – with MÄM 40-227
- Max. No. of Seats: 4
- Noise Standard: JAR 36 and ICAO Annex 16
- Engine: Lycoming IO-360-M1A
Type Certificate: 1E10
Issued by: Federal Aviation Administration
- Propeller: MTV-12-B/180-17()
Type Certificate: P.013
Issued by: European Aviation Safety Agency
- (ii) **Model:** DA 40 D
- MCTOW: 1150 kg (2535 lb)
- Max. No. of Seats: 4
- Noise Standard: JAR 36 and ICAO Annex 16
- Engine: TAE 125-01
TAE 125-02-99 – with MÄM 40-256 and OSB D4-061
Type Certificate: E.055
Issued by: European Aviation Safety Agency
- Propeller: MTV-6-A/187-129
Type Certificate: P.094
Issued by: European Aviation Safety Agency
- (iii) **Model:** DA 40 F
- MCTOW: 1150 kg (2535 lb)
- Max. No. of Seats: 4
- Noise Standard: ICAO Annex 16
- Engine: Lycoming O-360-A4M
Type Certificate: 286
Issued by: Federal Aviation Administration
- Propeller: Sensenich 76EM8S10-0-63
Type Certificate: P4EA
Issued by: Federal Aviation Administration

MT 88R135-4G
Type Certificate: P.006
Issued by: European Aviation Safety Agency

(iv) Model: DA 40 NG

MCTOW: 1280 kg (2822 lb)
1310 kg (2888 lb) – with MÄM 40-662

Max. No. of Seats: 4

Noise Standard: CS-36 and ICAO Annex 1

Engine: Austro Engine E4
Type Certificate: E.200
Issued by: European Aviation Safety Agency

Propeller: MTV-6-R/190-69
Type Certificate: P.094
Issued by: European Aviation Safety Agency

3. Application Details and Background Information

The application for New Zealand type acceptance of the Diamond DA 40 D was from the manufacturer, dated 29 April 2003. The first-of-type example was serial number D4.037, registered ZK-SFH. The Diamond DA 40 Series is a low-wing four-seat light monoplane with an all-composite airframe and T-tail configuration. The DA 40 and DA 40 F Models have conventional aviation piston engines, while the DA 40 D has a geared turbocharged FADEC-equipped water-cooled compression-ignition engine with single pilot control.

Type Acceptance Certificate No. 3/21B/34 was granted on 25 July 2003 to the Diamond Model DA 40 D based on validation of Austrian Type Certificate number FZ 021-JAA (Austro Control has JAA PCA status for the DA 40). There are no special requirements for import into New Zealand.

This report was raised to Revision 1 to include the original DA 40 and the new DA 40 F models, after application from the manufacturer dated 18 October 2005. The opportunity was also taken to note the change to an EASA type certificate. Type acceptance of both models was granted on 26 April 2006.

Revision 2 to this report was issued to include the DA 40 NG model, and note the change in State-of-Design responsibility for the type certificate. The opportunity was also taken to update the format, separate out the engines and propellers into specific type acceptance reports, and note the additional countries where manufacture has been certified. Type acceptance of the DA 40 NG was granted on 12 November 2020.

The DA40 is a development of the original two-seat DV20 Katana. The initial model had the 180 hp Lycoming IO-360-M1A, while the DA 40 D was modified to install the 135 hp Thielert diesel engine, in accordance with Major Modification OÄM 40-100. The changes needed to accomplish this included new engine mount, cowlings, intercooler, water and oil coolers, and exhaust system. The fuel system was modified, the electrical system changed to 12V, an engine ECU fitted, and the throttle quadrant modified for single-power-lever-control (SPLC) operation. The TAE125, marketed as the Centurion 1.7, is a conversion of a Mercedes-Benz four-cylinder inline automotive diesel engine. It cannot be overhauled, but has a claimed Time-Before-Replacement life of 2400 hours. The DA 40 F is a further derivative with an alternative engine and propeller aimed at the US market. The DA 40 and DA 40 F are available with the Garmin G1000 EFIS system. The DA 40 NG is the latest version of the aircraft using the 170 hp Austro Engine E4 diesel engine, which was developed by Diamond Aircraft. MAUW was increased to compensate for the heavier engines, and the GFC700 autopilot, large rudder and winglets are fitted as standard.

The DA 40 was developed in Austria and type certificated by Austro Control under type certificate number FZ 021-JAA, which was transferred to EASA under A.022. In the 1990s Diamond set up a subsidiary company in Canada, which manufactured several models under license. In 2016 Chinese company Wanfeng Aviation Industry Company Limited acquired a 60% share of the Diamond Group, and subsequently in 2017 completed a 100% purchase. This led to some re-organisation of the design and production arrangements. On 15 November 2017 design approval holder and

airworthiness authority responsibilities for the DA 40 Series were transferred from DAI Austria and EASA respectively to DAI Canada and Transport Canada. A.224 became the State-of-Design type certificate and EASA.IM.A.022 became an import type certificate. The type design was unchanged during the transfer process. (See TCDS for details of serial numbers under the applicable State-of-Design.)

4. NZCAR §21.43 Data Requirements

The type data requirements of NZCAR Part 21B Para §21.43 have been satisfied by supply of the following documents:

(1) State-of-Design Type certificate:

Transport Canada Type Certificate Number A-224

Transport Canada TCDS Number A-224 at Issue 10 dated June 24, 2020

- Model DA 40 approved February 28, 2002
- Model DA 40 F approved February 28, 2006
- Model DA 40 D approved November 15, 2017
- Model DA 40 NG approved November 15, 2017

Supersedes:

JAA Aeroplane Data Sheet JAA/23/00-001 DA 40 Series – Iss.9 18-Jun-2003
Austro Control Type Certificate Number FZ 021-JAA – DA 40, DA 40 D

EASA Type Certificate EASA.IM.A.022 for DA 40 issued 21 January 2005
EASA Type Certificate Data Sheet IM.A.022 at Issue 23 dated 15 Nov 2017

- Model DA 40 approved 24 October 2000
- Model DA 40 D approved 24 October 2000
- Model DA 40 F approved 15 April 2005
- Model DA 40 NG approved 8 April 2010

(2) Airworthiness design requirements:

(i) *Airworthiness Design Standards:*

The Transport Canada certification basis of the DA 40 Series is AWM 523, Change 523-4, 1 September 1996, plus FAR 23 Amendments 23-46 and 23-48 thru 23-52, adopted by reference in AWM 523, effective 30 June 1997, (NPA 97-168). This is equivalent to the EASA certification basis for the DA 40 and DA 40 F of JAR-23 issued 11-Mar-1994, and JAR-1, at Change 5 issued 15-Jul-1996, plus elect-to-comply with NPA 23-3 ACJ material and 23-6 printing errors, which was updated for the DA 40 D and DA 40 NG to JAR-23 including Amendment 1.

This is an acceptable certification basis in accordance with NZCAR Part 21B Para §21.41 and Advisory Circular 21-1A, because FAR 23 is the basic standard for Normal Category Airplanes called up under Part 21 Appendix C. For the DA 40 and DA 40 F there were four Special Conditions, while for the DA 40 D and DA 40 NG nine Special Conditions were complied with and there were five and seven, respectively, findings of equivalent safety. These have been reviewed and accepted by the CAA. There are no non-compliances and no additional special conditions have been prescribed by the Director under §21.23.

(ii) *Special Conditions:*

CRI applicable to all DA 40 Models:

CRI F-01 – Protection from the Effects of HIRF JAR 23.1309; 23.1431(a) – Standard Special Condition specifying HIRF environment to be met for electrical and electronic systems and equipment, the failure of which would prevent the continued safe flight and landing of the aircraft.

CRI F-03 – Protection from the Effects of Lightning Strikes; Indirect Effects JAR 23.867, JAR 23.954, JAR 23.1309 – Specifies the system design provisions, functionality requirements and the acceptable test standards for environment and test waveforms, lightning zoning and the indirect effects of lightning (EUROCAE Documents ED-81, ED-84 and ED-91).

CRI applicable to the DA 40 and DA 40 F Models:

CRI O-01 Glider Towing – This was issued to specify the detailed technical standards to be used for a glider towing approval in the absence of any JAA harmonized requirements.

CRI O-02 Tow Rope Retraction Unit – This was issued to specify technical requirements for an electric tow cable retraction mechanism in the absence of any JAA harmonized guidance.

CRI applicable to the DA 40 D and DA 40 NG Models:

CRI E-05 Reciprocating Engine Using Jet Fuel – Rules did not envisage use of Jet Fuel for reciprocating engines. Interpretation was required for rules which state turbine only (particularly because kerosene-based fuels absorb greater amounts of water than gasoline fuels and potential for fuel system icing), and for some reciprocating engine rules which were not actually applicable.

CRI E-06 Use of Diesel Fuel and Diesel/Jet Fuel Blends – Rules did not envisage use of diesel fuel for reciprocating engines. Clarification of some rules was required, particularly because the EN590 specification allows much wider production variations. (However the TAE 125 is approved for operation with any fuel mixture ratio of Jet A-1 [ASTM 1655] and Diesel [EN 590])

CRI E-09 Engine Vibration Level JAR 23.251, 23.572, 23.573, 23.613, 23.627, 23.629 – The engine uses three attachment points with softer than usual shock mounts, to reduce vibration. Vibration levels for all possible failure modes were evaluated, including starting and stoppage. The effect on the fatigue spectrum and flutter were also considered.

CRI E-10 Engine Torque JAR 23.361 – A diesel with much higher compression ratio has its maximum torque at a lower RPM value. Substantiation of the torque factor of 2 was required, either by test and analysis, or by comparison with the original Lycoming IO-360 installation.

CRI F-06 Installation of a FADEC Diesel Engine and Propeller JAR 23.1309 – Applies to the integrated FADEC control of the engine and propeller propulsion system. The aircraft must be protected from unacceptable effects or faults due to a single cause, including software problems, electrical power and data supply integrity, local events, environmental effects and lightning and other electromagnetic effects.

CRI F-07 Human Factors in in Integrated Avionic Systems JAR 23 Change 1 – The G1000 introduces Novel Features, including new technology, new pilot interface and different use of equipment which need Special Conditions. These cover ease of operation, including automation; effects of pilot errors; normal and abnormal operations workload and adequacy of feedback.

CRI F-08 Software, Hardware Assurance Level and Highly Integrated or Complex Aircraft Systems JAR 23.1309(a) and (b) – There is no JAA guidance material available for Software and Hardware Assurance Level definitions and certification considerations for highly integrated or complex systems. The CRI specified acceptable application criteria and certification considerations to be shown compliance with during the installation of the Garmin G1000 electronic flight instrument system.

(iii) Equivalent Level of Safety Findings:

CRI applicable to the DA 40 D and DA 40 NG Models:

CRI D-01 Single Lever Power Control JAR 23.777, 23.779, 23.871, 23.1141 – Single Lever Power Control (SLPC) are not covered by existing design requirements. For equivalence to existing split lever functions means must be established for pre-flight power verification checks and propeller governing checks.

CRI E-07 Coolant Tank JAR 23.1061(b), JAR 23.1063 – Rules do not cover the use of a closed loop cooling system, which is state of the art for automobiles. Expansion tank and overflow bottle capacity must be sufficient to ensure safe operation following loss of cooling fluid, and both must be able to withstand the vibration, inertia and fluid loads experienced. A low fluid level warning device will also be provided for the pilot.

CRI E-08 Electronically-controlled Reciprocating Diesel Engine – The diesel has no ignition system but is electronically controlled and requires electrical power for continued operation. Electrical system and battery reliability and independence requirements were addressed, and an engine shut-down means equivalent to an ignition switch provided.

CRI E-11 Fuel System – Hot Fuel Temperature – Impact of elevated fuel temperature on fuel system hot weather operation and fuel tank flammability and structural strength required. This is because the engine has a significant return fuel flow at relatively high temperature (up to 80°C), and the aluminium tanks are installed within the composite wings which reduces airflow cooling.

CRI F-05 Powerplant Instruments JAR 23.1305, 23.1521 – A Manifold Pressure gauge is not an adequate indication of power for a SLPC diesel engine. The DA 40D instead has a power indicator, and a cooling fluid temperature gauge is used in lieu of a CHT indicator.

FAA Memo – Equivalent Level of Safety; ACE-03-01 – One ELOS was granted by the FAA for the auxiliary fuel level indication system in the DA40 equipped with long range fuel tanks per Optional Design Change OAM 40-071/b. The level indication system is reliable but not fully accurate. However AFM guidance on how to deal with the level measurement band of uncertainty was accepted as meeting §23.1337(b). This was carried over to the G1000 STC.

CRI applicable to the DA 40 NG Model:

CRI E-12 Electric Fuel Pumps JAR 23.991(a), 23.991(b) – The requirements for direct driven main engine pump and independence of fuel pumps could not be met. EASA specified a series of conditions for the Main and Emergency Pumps related to function, independence, power supply and failure effects.

CRI B-01 Stall Warning JAR 23.207(c) – It was found that both avoidance of nuisance (early) stall warnings and fulfilment of the 5kt margin “warning in sufficient time” could not be achieved at every weight, CG and stall condition combination, because the DA 40 is elevator-limited and has very gentle handling qualities. The aural stall warning must activate not less than 3kt prior to the stall speed and continue until the stall occurs. The pilot must be able to take averting action even with the reduced warning and with recovery initiated not less than 5s after the warning begins.

(iv) Airworthiness Limitations:

See Airworthiness Limitations Section of Maintenance Manual

For the DA 40 NG see the AMM 6.02.15 Addendum 1

(3) Aircraft Noise and Engine Emission Standards:

(i) Environmental Standard:

The DA 40 Series has been certificated for noise against ICAO Annex 16, Volume 1, as detailed on the TCDS, plus JAR 36 and CS-36 for some models.

Under the Transport Canada type certificate the environmental standard is specified as AWM 516, Change 516-8, effective March 8, 2007

(ii) Compliance Listing:

Doc. No. 6.07.00 Chapter O-100/CRI A-03 – Additional National Environmental Requirements – Aircraft Noise – Revision 2 dated 19 Nov 2002 (DA 40 D)

Doc. No. 6.07.06 Chapter CRI A-03 – Additional National Environmental Requirements – Aircraft Noise – Revision 0 dated 26 May 2000 (DA 40)

Noise Measurement Report – DA40F – Date of Measurement: 17.03.2005

Type Certificate Data Sheet for Noise EASA.A.022 – Issue 13 dated 5 April 2016

Under the Transport Canada type certificate certificated noise levels are listed in Chapter 5 of the AFM.

(4) Certification Compliance Listing:

CRI E-04 Propeller Type Certification JAR 23.905 – JAR Advisory material requires propellers to be type certificated against JAR-P. The MTV-6 is certified against FAR 35, which requires individual validation by some JAA Countries. (France and the UK)

Doc. No. 6.07.00 Chapter 1 – Report Means of Compliance DA 40
Revision 10 dated 02-Dec-2004 – approved by ACG as PCA (JAA) 25 April 2005

Doc. No. 6.07.00 Chapter O-100/5 – Project Description – DA40 with TAE 125

CRI A-01 Issue 17 dated 08.03.2005 – Type Certification Basis

Part A – Initial Certification Basis for the Basic DA 40

Part B – Final Certification Basis (Includes Major Design Changes)

Doc. No. 6.07.00 Chapter V004/1 – Report Means of Compliance DA 40 NG

Doc. No. 6.07.00 Chapter V004/5 – Project Description – DA 40 NG

(5) Flight Manual: ACG-Approved Airplane Flight Manual Diamond DA 40 D

Doc. No. 6.01.05-E – CAA Accepted as AIR 2832

JAA-Approved Airplane Flight Manual Diamond DA 40

Doc. No. 6.01.01-E – CAA Accepted as AIR 2947

EASA-Approved Airplane Flight Manual Diamond DA 40 F

Doc. No. 6.01.02-E – CAA Accepted as AIR 2948

EASA-Approved Airplane Flight Manual Diamond DA 40 NG
Doc. No. 6.01.15 – CAA Accepted as AIR 3963

(6) Operating Data for Aircraft, Engine and Propeller:

(i) *Maintenance Manual:*

Doc. No. 6.02.01 Airplane Maintenance Manual – DA 40 Series

Garmin G1000 Maintenance Manual – Diamond DA 40 and DA 40 F – Part
Number 190-00545-00

Doc. No. 6.02.15 Airplane Maintenance Manual – DA 40 NG

(ii) *Current service Information:*

DA 40 Series Service Bulletins and Service Information

(iii) *Illustrated Parts Catalogue:*

Doc. No. 6.03.01/02 IPC – DA 40 and DA 40 F

Doc. No. 6.03.05 IPC – DA 40 D

Doc. No. 6.03.15 IPC – DA 40 NG

IPC for the DA 40 Series is now only online at <http://ipc.diamond-air.at/ipp/>

(7) Agreement from manufacturer to supply updates of data in (5), and (6):

Letter from Manfred Reichel, Chief, Office of Airworthiness, dated 20-Apr-2003

All manuals are available on the website at <http://support.diamond-air.at>

(8) Other information:

Doc. No. 6.05.01 List of Applicable Publications – DA40-180 Diamond Star

Doc. No. 6.05.01 List of Applicable Publications – DA40-TDI Diamond Star

STC Number SA01254WI – Installation of Garmin G1000 Integrated Avionics
System in the Diamond DA 40, DA 40F aircraft

Garmin Dwg. 005-C0004-00 – Master Drawing List STC SA01254WI

5. New Zealand Operational Rule Compliance

Compliance with the retrospective airworthiness requirements of NZCAR Part 26 is a prerequisite for the grant of a type acceptance certificate.

Civil Aviation Rules Part 26

Subpart B – Additional Airworthiness Requirements

Appendix B – All Aircraft

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
B.1	Marking of Doors and Emergency Exits	<i>To be determined on an individual aircraft basis</i>
B.2	Crew Protection Requirements – CAM 8 Appdx. B # .35	Not Applicable – Agricultural Aircraft only

Compliance with the following additional NZ operating requirements has been reviewed and were found to be covered by either the original certification requirements or the basic build standard of the aircraft, except as noted:

Civil Aviation Rules Part 91

Subpart F – Instrument and Equipment Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
91.505	Seat belts/Shoulder Harness if Aerobatic; >10 passengers; used for Flight Training	JAR §23.785 – See Flight Manual Section 7.6 – 3-point safety harness is fitted to all seats as standard equipment
91.507	Pax Information Signs – Smoking, safety belts fastened	Not Applicable – Less than 10 passenger seats
91.509 Min. VFR	(1) ASI (2) Machmeter (3) Altimeter (4) Magnetic Compass (5) Fuel Contents (6) Engine RPM (7) Oil Pressure	JAR §23.1303(a) – Std Fit * <i>N/A – No Mach limitations</i> JAR §23.1303(b) – Std Fit * JAR §23.1303(c) – Std Fit * JAR §23.1305(a) – Std Fit * ¥ JAR §23.1305(d)(e) – Std Fit * □ JAR §23.1305(b) – Std Fit * □
		(8) Coolant Temp Gauge (9) Oil Temperature (10) Manifold Pressure (11) Cylinder Head Temp. (12) Flap Position (13) U/c Position (14) Ammeter/Voltmeter
		Standard Fit * □ JAR §23.1305(c) – Std Fit * □ JAR §23.1305(h) – See F-05 N/R – See CRI F-05 JAR §23.699(a)(2) [3 lights] <i>N/A – Fixed undercarriage</i> JAR §23.1351(d) – Std Fit * ¥
	* See Flight Manual Section 2.13 Kinds of Operation for minimum operational equipment fit □ Displayed on the Compact Engine Display (CED) – All models ¥ Displayed on the Auxiliary Engine Instrument (AED 125) – Model DA 40 D only	
91.511 Night	(1) Turn and Slip (2) Position Lights	Fitted as Std * See FM §7.4 #14 Fitted as Std * See FM §7.10.1
91.517 IFR	(1) Gyroscopic AH (2) Gyroscopic DI (3) Gyro Power Supply (4) Sensitive Altimeter	Fitted as Std * See FM §7.4 #17 Fitted as Std * See FM §7.4 #29 Fitted as Std * See FM §7.4 #16 UI 5934PD-3 or LUN 1128
		(3) Anti-collision Lights (4) Instrument Lighting (5) OAT (6) Time in hr/min/sec (7) ASI/Heated Pitot (8) Rate of Climb
		Fitted as Std * See FM §7.10.1 Fitted as Std * See FM §7.10.1 Fitted as Std * See FM §7.4 #13 Fitted as Std * See FM §7.4 #13 Fitted as Std * See FM §7.11 Fitted as Std * See FM §7.4 #19
	IFR Approval just introduced via major change OAM 40-136	
91.519	IFR Communication and Navigation Equipment	Operational requirement – Compliance as applicable
91.523	Emergency Equipment (a) More Than 10 pax – First Aid Kits per Table 7 – Fire Extinguishers per Table 8 (b) More than 20 pax – Axe readily acceptable to crew (c) More than 61 pax – Portable Megaphones per Table 9	Operational requirement – Compliance as applicable Operational requirement – Compliance as applicable Not Applicable – Less than 20 passenger seats Not Applicable – Less than 61 passenger seats
91.529	ELT - TSO C91a after 1/4/97 (or replacement)	To be determined on an individual aircraft basis
91.531	Oxygen Indicators – Volume/Pressure/Delivery	Not fitted as standard
91.533	Oxygen for Non-Pressurised Aircraft >30 min above FL100 – Supplemental for crew, 10% Pax – Therapeutic for 3% of Pax Above FL100 – Supplemental, Therapeutic, 120 l PBE	Maximum demonstrated operating altitude in Flight Manual is 5,000 m Oxygen system not fitted as standard No Optional Supplement in Flight Manual or SB available
91.541	SSR Transponder and Altitude Reporting Equipment	Operational requirement – Compliance as applicable
91.543	Altitude Alerting Device – Turbojet or Turbofan	Not Applicable – Not turbo jet or turbofan powered
91.545	Assigned Altitude Indicator	Operational requirement – Compliance as applicable
A.15	ELT Installation Requirements	To be determined on an individual aircraft basis

Civil Aviation Rules Part 135

Subpart F – Instrument and Equipment Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
135.355	Seating/Restraints – Shoulder harness flight-crew seats	See compliance with NZCAR §91.505 above
135.357	Additional Instruments (Powerplant and Propeller)	JAR §23.1305 instruments fitted/propeller not reversible
135.359	Night Flight	Operational requirement – Compliance as applicable
	Landing light, Pax compartment	
135.361	IFR Operations	Operational requirement – Compliance as applicable
	Speed, Alt, spare bulbs/fuses	
135.363	Emergency Equipment (Part 91.523 (a) and (b))	Operational requirement – Compliance as applicable
135.367	Cockpit Voice Recorder	Not Applicable – Less than 10 passenger seats
135.369	Flight Data Recorder	Not Applicable – Less than 10 passenger seats
135.371	Additional Attitude Indicator	Not Applicable – Not turbo jet or turbofan powered

NOTES: 1. A Design Rule reference in the Means of Compliance column indicates the Design Rule was directly equivalent to the CAR requirement, and compliance is achieved for the basic aircraft type design by certification against the original Design Rule.

2. The CAR Compliance Tables above were correct at the time of issue of the Type Acceptance Report. The Rules may have changed since that date and should be checked individually.

3. Some means of compliance above are specific to a particular model/configuration. Compliance with Part 91/119 operating requirements should be checked in each case, particularly oxygen system capacity and emergency equipment.

Attachments

The following documents form attachments to this report:

Three-view drawing Diamond Aircraft Industries Model DA 40 NG
Copy of EASA Type Certificate Data Sheet EASA.A.022

Sign off



.....
David Gill
Team Leader Aircraft Inspection



.....
Checked – Tim Dutton
Flight Test Engineer

Appendix 1

List of Type Accepted Variants:

Model:	Applicant:	CAA Work Request:	Date Granted:
DA 40 D	Diamond Aircraft Industries GmbH	3/21B/34	25 July 2003
DA 40, DA 40 F	Diamond Aircraft Industries GmbH	6/21B/1	26 April 2006
DA 40 NG	Diamond Aircraft Industries Inc	20/21B/15	12 November 2020

Appendix 2

Three-view drawing DA 40 NG:

