Airworthiness Directive Schedule

Aeroplane

Diamond DA42

18 April 2019

Notes:

1. This AD schedule is applicable to Diamond DA 42 aircraft manufactured under European Aviation Safety Agency (EASA) Type Certificate No. A.005 and Diamond DA42 aircraft fitted with a Lycoming L/IO-360-M1A engine embodied by Transport Canada STC SA09-54.
2. The European Aviation Safety Agency (EASA) is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for these aircraft. State of Design ADs can be obtained directly from the EASA website at http://ad.easa.europa.eu/
3. The date above indicates the amendment date of this schedule.
4. New or amended ADs are shown with an asterisk *

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From 1 October 2012 the Civil Aviation Authority of New Zealand (CAA) will no longer rewrite the text of State of Design ADs. Applicable State of Design ADs will be listed below and you can obtain them directly from the National Airworthiness Authority (NAA) websites. Links to the NAA websites are available on the CAA website at http://www.caa.govt.nz/airworthiness-directives/states-of-design/ If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ, they will be added to the list below. 8
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DCA/DA42/1 Wing Safety Walk Material – Replacement and AFM Amendment

Applicability: Model DA 42 aircraft, S/N 42.004 and onwards.

Requirement: To prevent an adverse effect on the aircrafts single engine climb performance that is caused by the surface roughness of the wing stub safety walks Series 300, gray color (equivalent to sandpaper grid 40), accomplish the following:

1. Amend the aircraft AFM Doc. 7.01.05-E by inserting temporary revision TR-MÄM-42-103, revision 2 or earlier, which is part of Diamond Aircraft Industries GmbH (DAI) MSB42-005.

Note 1: TR-MÄM-42-103 has to remain in the AFM until requirement 2 or 3 is accomplished.

Note 2: Previous compliance with AD A-2005-001 or AD A-2005-001R1 satisfies this requirement.

2. For S/N 42.004 through 42.035, and 42.037 replace the wing stub safety walks per paragraph 1.8, actions 2 a) and 2 b) of Diamond Aircraft Industries GmbH (DAI) MSB-42-006/1, dated 20 September 2005.

Remove obsolete TR pages from the AFM and insert TR-MÄM-42-111/a per paragraph 1.8, actions 2 c) to 2 e) of DAI MSB-42-006/1.

3. For S/N 42.036, 42.038 through 42.064, 42.107, 42.109, 42.110, and 42.177 remove obsolete TR pages from the AFM and insert TR-MÄM-42-111/a per paragraph 1.8, actions 3 a) to 3 c) of DAI MSB-42-006/1.

Note 3: Only install manufacturer released safety walk P/Ns with a surface roughness equal to or finer than sandpaper grid 100.
Do not install safety walks Series 300 (equal to sandpaper grid 40), gray color, P/N D60-1127-10-51 (no revision letter attached).

Note 4: AFM-TR-MÄM-42-111/a, or a later temporary revision, or an AFM revision containing the information of TR-MÄM-42-111/a, must remain part of the DA42 AFM, Doc. No. 7.01.05-E.

(Austrian AD A-2005-003 refers)

Compliance:
1. Before further flight, unless already accomplished.
2. By 30 May 2006.
3. By 30 May 2006.

Effective Date: 30 March 2006

DCA/DA42/2 Propeller System Check Valve Bracket - Inspection

Applicability: Model DA 42 aircraft, S/Ns 42.004 through 42.129, 42.177 and 42.AC001

Requirement: To prevent failure of the attachment fittings of the propeller control system pressure lines which may cause the lines to crack and result in loss of propeller control which may lead to inflight engine shutdown, install an additional bracket per the instructions in Diamond Mandatory Service Bulletin (MSB) No. 42-024/2 or later approved revisions.

(EASA 2006-0277 AD refers)

Compliance: Within the next 50 hours TIS or by 31 October 2006.

Effective Date: 28 September 2006

DCA/DA42/3 Auxiliary Fuel Tank Venting – Inspection

Applicability: Model DA 42 aircraft, S/Ns 42.015, 42.028, 42.036, 42.044, 42.055, 42.059, 42.062, 42.067, 42.069, 42.075 through to 42.100, 42.105, 42.106, 42.108, 42.114, 42.115, 42.117 through to 42.122 and 42.124

Requirement: To prevent the inability to transfer the complete auxilliary fuel quantity to the main tanks and cause the possible collapse of the auxilliary tank, accomplish the following:

1. Inspect and modify the auxiliary fuel tank system per the instructions in Diamond Aircraft Industries Mandatory Service Bulletin (MSB) 42-032/1 or later approved revisions.

2. Insert temporary revision AMM-TR-OÄM-42-056f into the DA 42 Maintenance Manual and update the operator's maintenance program accordingly.

(EASA AD 2007-0047 refers)

Compliance: 1. & 2. By 30 April 2007

Effective Date: 29 March 2007

DCA/DA42/4B Engine Control Unit Back-up Batteries – Modification & AFM Amendment

Applicability: Model DA 42 aircraft, S/N 42.004, 42.006, 42.009 through to 42.156, 42.158 through to 42.176, 42.178 through to 42.190, 42.192 through to 42.233, 42.235 through to 42.246, 42.248 through to 42.254, 42.256 through to 42.261, 42.263 through to 42.269 and Canadian production line S/N 42.AC001 through to 42.AC109.

Note 1: This AD revised to include an approved alternative method of compliance per note 3 of this AD. No further action is required for aircraft in compliance with previous revisions of DCA/DA42/4.

Requirement: To prevent a voltage drop possibly causing the FADEC shutting the engines down inflight, accomplish the following:

1. Modify the engine electrical system by installing additional ECU backup batteries per Diamond Aircraft Industries (DAI) Mandatory Service Bulletin (MSB) 42-042 and DAI Work Instruction WI-MSB-42-042.

2. Amend the DA 42 Aircraft Flight Manual (AFM) by inserting a copy of AFM TR-MÄM-42-240 dated 17 June 2007.

3. Amend the DA 42 Aircraft Maintenance Manual (AMM) by inserting DAI AMM-TR-MÄM-42-240 Temporary Revision dated 17 June 2007.

(EASA AD 2007-0183R2 refers)

Note 2: The AMM and AFM temporary revisions may be removed when the information contained in the temporary revision is incorporated in the normal revision process.

Note 3: Modification of the engine electrical system per the instructions in Diamond Aircraft Optional Service Bulletin (OSB) No. 42-050/1 including the associated documents referenced therein, is approved as an Alternative Method of Compliance (AMOC) to the requirements of this AD.

Compliance: 1. 2. & 3. Within the next 100 hours TIS or by 29 December 2007, whichever occurs sooner.

Effective Date: DCA/DA42/4 - 26 July 2007
DCA/DA42/4A - 27 September 2007
DCA/DA42/4B - 29 November 2007

DCA/DA42/5 Aileron Bellcrank & Rod Ends - Replacement

Applicability: Model DA 42 and DA 42 M aircraft, all S/N fitted with aileron bellcranks P/N DA4-2717-50-00.

Note: Model DA 42 and DA 42 M aircraft, S/N 42.008 through to 42.285, 42.287, 42.289 through to 42.291, 42.295, 42.297, 42.301, 42.302, 42.306 through to 42.308 and 42.AC001 through to 42.AC110 are known to have bellcrank P/N DA4-2717-50-00 and bent rod ends P/N DAI-9027-00-01 fitted at manufacture.

Requirement: To prevent aileron control system failure due to friction and chafing which could result in loss of aircraft control, accomplish the following:

1. Replace aileron bellcrank P/N DA4-2717-50-00 with an improved aileron bellcrank P/N DA4-2717-50-00_01 and replace any bent rod ends P/N DAI-9027-00-01 with straight parts, per the instructions in Diamond Aircraft Industries GmbH MSB-42-043, dated 14 February 2008 or MSB-42-043/1, dated 03 April 2008 or later approved revisions.

2. An aileron bellcrank P/N DA4-2717-50-00 or bent rod ends P/N DAI-9027-00-01 shall not be fitted to any aircraft.

(EASA AD 2008-0086 refers)

Compliance:

1. Within the next 200 hours TIS.
2. From 29 May 2008.

Effective Date: 29 May 2008

DCA/DA42/6A Lightning Strike – Limitation and AFM Amendment

Applicability: Model DA 42 and DA 42 M aircraft, all S/N manufactured by Diamond Aircraft Industries (DAI) in Austria and Canada.

Note: This AD revised to include DA 42 series aircraft manufactured in Canada.

Requirement: To prevent structural failure after a lightning strike which could have exceeded the aircraft lightning design requirement and result in structural damage that may not be visible to the pilot, accomplish the following:

Amend the AFM and include the new lightning strike procedure per Diamond Aircraft Industries GmbH Temporary Revision TR-MÄM-42-270 dated 31 May 2008.

After any lightning strike, the aircraft should be inspected per paragraph 5.D in chapter 05-50 of DA 42 Aircraft Maintenance Manual.

(EASA AD 2008-0136R1 refers)

Compliance: By 25 September 2008

Effective Date: DCA/DA42/6 - 28 August 2008
DCA/DA42/6A - 25 September 2008

DCA/DA42/7 Engine Mount Bolts – Inspection

Applicability: Model DA 42 aircraft, all S/N fitted with Thielert TAE125-01 engines.

Note 1: The engines identified in DAI MSB-42-058 by S/N have been fitted with wedge locking washers and bonded bolts, and are not affected by this AD.

Requirement: To prevent the engine mounting bolts loosening which could result in an in flight engine shut-down, accomplish the following:

1. Inspect the rear RH engine support bracket mounting bolts and accomplish the corrective actions per Diamond Aircraft Industries GmbH Mandatory SB MSB-42-058 dated 21 May 2008 or later approved revisions, and the instructions in action 1 of Work Instruction WI-MSB-42-058.

2. Replace all rear RH engine support bracket mounting bolts with wire locked bolts P/N D60-9071-26-01 per DAI MSB-42-058 and the instructions in action 2 of Work Instruction WI-MSB-42-058.

Note 2: The repetitive inspection in requirement 1 is no longer required once requirement 2 of this AD has been accomplished.

3. Rear RH engine support mounting brackets shall not be fitted to any aircraft unless they are fitted with wire locked bolts P/N D60-9071-26-01.
(EASA AD 2008-0139 refers)

Compliance:
1. Within the next 100 hours TIS and thereafter at intervals not to exceed 100 hours TIS until requirement 2 of this AD is accomplished.
2. By 28 April 2009.
3. From 28 August 2008

Effective Date: 28 August 2008

DCA/DA42/8A Cancelled – DCA/DA42/10 refers

Effective Date: 24 February 2010

DCA/DA42/9A Rear Passenger Door – Inspection

Applicability: Model DA 42, DA 42 M, DA 42 NG and DA 42 M-NG aircraft, all S/N.

Note: The requirements of this AD revised to include the AFM at the latest revision (which includes the requirements in AFM-TR-MAM 42-443) as an acceptable means to comply with the requirements in this AD.

Requirement: To prevent loss of the rear passenger door in flight, accomplish the following:

1. Accomplish the following actions concurrently per the instructions in Diamond Aircraft Industries GmbH Mandatory Service Bulletins No. MSB 42-083 or MSB 42NG-014 dated 13 July 2010 (single document) and the associated Work Instructions or later approved revisions of these documents. Determine the P/N of the rear passenger door retaining bracket. If a P/N DA4-5200-00-69 is found fitted, replace with a bracket P/N DA4-5200-00-69-SB, and revise the AFM and incorporate DAI Temporary Revision AFM-TR-MAM 42-443 or amend the AFM with a revision that includes the information in AFM-TR-MAM 42-443.

2. A rear passenger door retaining bracket P/N DA4-5200-00-69 shall not be fitted to any aircraft.
(EASA AD 2010-0235R1 refers)

Compliance:
1. Within the next 200 hours TIS after 25 November 2010 (the effective date of DCA/DA42/9) or by 25 November 2011 whichever occurs sooner.
2. From 25 November 2010 (the effective date of DCA/DA42/9).

Effective Date: DCA/DA42/9 - 25 November 2010
DCA/DA42/9A - 30 June 2011

DCA/DA42/10A **Main Landing Gear – Inspection**

Applicability: Model DA 42 and DA 42 M aircraft, all S/N manufactured by Diamond Aircraft Industries in Austria and Diamond Aircraft Industries in Canada.

Note 1: This AD retains the requirements in superseded DCA/DA42/10 and extends the compliance time for requirement 2. That AD introduced improved steel parts as a terminating action to the repetitive inspections.

Requirement: To prevent failure of the Main Landing Gear (MLG) due to possible cracks in the damper/trailing arm joints, accomplish the following:

1. Inspect the MLG joint P/N D60-3217-23-5x per the instructions in Diamond Aircraft Industries GmbH MSB-42-088/2 revision 2, dated 03 February 2011 and the associated Work Instruction WIMSB-42-088 revision 1, dated 03 February 2011 or later approved revisions of these documents.

If any cracks are found, replace the affected MLG joint P/N D60-3217-23-5x per the instructions in DAI MSB-42-088 and the associated Work Instruction WI-MSB-42-088.

2. Replace every MLG joint P/N D60-3217-23-5x with a MLG joint P/N D64-3217-23-0x per the instructions in DAI MSB-42-088 and the associated Work Instruction WI-MSB-42-088.

3. A MLG joint P/N D60-3217-23-5x shall not be fitted to any aircraft which is in compliance with requirement 2 of this AD, or aircraft that already have MLG joints P/N D64-3217-23-0x fitted.

Note 2: The accomplishment of requirement 2 is a terminating action for the repetitive inspections mandated by requirement 1 of this AD.

Note 3: Inspections and corrective actions accomplished prior to the effective date of this AD per the instructions in DAI MSB-42-088 at original issue or revision 1 are acceptable to comply with the initial requirements of this AD. After the effective date of this AD repetitive inspections and corrective actions must be accomplished per the instructions in DAI MSB-42-088 revision 2 or later approved revisions.

(EASA AD 2011-0020R1 refers)

Compliance:

1. Within the next 20 hours TIS after 30 September 2010 (the effective date of DCA/DA42/8A) and thereafter at intervals not to exceed 100 hours TIS.

2. By 29 June 2012 unless previously accomplished.

3. From 24 February 2011 (the effective date of DCA/DA42/10).

Effective Date: DCA/DA42/10 - 24 February 2011
DCA/DA42/10A - 29 March 2012

DCA/DA42/11 Upper Centre Wing Skin/Spar Joint – Inspection

Applicability: Model DA 42 and DA 42 NG aircraft (modified by DAI from a DA 42 per DAI optional SB 42-068), S/N 42.006 through to 42.007, 42.010, 42.012 through to 42.014, 42.016 through to 42.033, 42.035 through to 42.043, 42.045, 42.046, 42.048 through to 42.051, 42.053, 42.055 through to 42.059, 42.061 through to 42.081, 42.083 through to 42.093, 42.096 through to 42.097, 42.099 through to 42.120, 42.122 through to 42.125, 42.127 through to 42.148, 42.150 through to 42.156, 42.158 through to 42.170, 42.172 through to 42.176, 42.178, 42.179, 42.181 through to 42.190, 42.192 through to 42.200, 42.202 through to 42.224, 42.AC001 through to 42.AC028 and 42.AC030 through to 42.AC052, and

Model DA 42 M aircraft (modified from a DA 42 per DAI optional SB 42-056) and model DA 42 M-NG aircraft (modified by DAI from a DA 42 M per DAI optional SB 42-081), S/N 42.008, 42.157 and 42.191.

Requirement: To detected voids in the adhesive joint between the centre wing spars and the upper centre wing skins in the area between the fuselage and the engine nacelles, accomplish the following:

Inspect the adhesive joint between the centre wing spars and the upper centre wing skin per the instructions in Diamond Aircraft Industries GmbH MSB 42-092/42NG-022 (single document) and the associated associated Working Instruction (WI), both dated 20 May 2011 or later approved revisions of these documents. Report the results to the aircraft manufacturer per the instructions in the MSB.

If voids are found which exceed the criteria specified in the WI, repair the aircraft per the instructions in section III.2 of the WI, or accomplish a manufacturer approved repair before further flight.

(EASA AD 2011-0100 refers)

Compliance: Within the next 100 hours TIS or by 30 September 2011, whichever occurs sooner.

Effective Date: 30 June 2011

DCA/DA42/12 Main Landing Gear Shock Absorbers – Inspection

Applicability: Model DA 42 and DA 42 NG aircraft, all S/N
Model DA 42 M and DA 42 M-NG aircraft, all S/N

Requirement: To prevent main landing gear failure, accomplish the requirements in EASA AD 2012-0174.

Note 1: A copy of EASA AD 2012-0174 can be obtained from the EASA AD web site at http://www.easa.eu.int/certification/airworthiness-directives.php

Note 2: Diamond Aircraft Industries (DAI) RSB 42-089 / RSB 42NG-017 dated 06 October 2010, or RSB 42-089/1 / RSB 42NG-017/1 dated 19 April 2011; DAI WI-RSB 42-089 / WI-RSB 42NG-017 dated 06 October 2010; DAI MSB 42-095 / MSB 42NG-026 dated 11 November 2011 and DAI WI-RSB 42-095 / WI-RSB 42NG-026 dated 11 November 2011 or later EASA approved revisions are acceptable to comply with the requirements of this AD.

(EASA AD 2012-0174 refers)

Compliance: At the compliance times specified in EASA AD 2012-0174.

Effective Date: 27 September 2012

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If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ, they will be added to the list below.

2013-0121 Nose Landing Gear Actuator – Inspection

Applicability: DA 42 and DA 42 NG aeroplanes, all S/N, and
DA 42 M and DA 42 M-NG aeroplanes, all S/N.

Effective Date: 18 June 2013

2016-0156R1 Cancelled – EASA AD 2017-0090 refers

Effective Date: 31 May 2017

2017-0074 Flap Control System / Bellcrank Assembly – Inspection

Applicability: DA 42, DA 42 M, DA 42 M-NG and DA 42 NG aeroplanes,
S/N 42.004 through to 42.427 inclusive,
S/N 42.AC001 through to 42.AC151 inclusive,
S/N 42.M001 through to 42.M026 inclusive,
S/N 42.N001 through to 42.N067 inclusive,
S/N 42.N100 through to 42.N129 inclusive,
S/N 42.NC001 through to 42.NC008 inclusive, and
S/N 42.MN001 through to 42.MN033 inclusive.

Effective Date: 12 May 2017

2017-0090 Cancelled – EASA AD 2017-0120 refers

Effective Date: 27 July 2017

2017-0120 Cancelled – EASA AD 2017-0254 refers

Effective Date: 25 January 2018

2017-0254 Exhaust Pipes – Inspection

Applicability: Model DA 42 and DA 42 M aircraft, S/N 42.004 through to 42.427 inclusive, 42.AC001 through to 42.AC151 inclusive, 42.M001 through to 42.M027 inclusive, if fitted with TAE 125-02-99 engines (modification MÄM 42-198 or Optional Service Bulletin (OSB) 42-046) or TAE 125-02-114 engines (modification OÄM 42-252 or OSB 42-107).

Effective Date: 25 January 2018

*** 2019-0066 NLG Leg Assembly – Inspection**

Applicability: Model DA 42 and DA 42 M aircraft, all S/N.

Model DA 42 NG and DA 42 M-NG aircraft, all S/N that have been converted from a DA 42 and DA 42 M aircraft with the embodiment of Optional Service Bulletin (OSB) 42-068, or OSB 42-081, as applicable.

Effective Date: 18 April 2019