Airworthiness Directive Schedule

Aeroplanes

Cessna 120

28 April 2022

Notes

1. This AD schedule is applicable to Cessna 120 aircraft manufactured under Federal Aviation Administration (FAA) Type Certificate No. A-768.
2. The Federal Aviation Administration (FAA) is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for these helicopters. State of Design ADs can be obtained directly from the FAA website at: http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/MainFrame?OpenFrameSet
3. The date above indicates the amendment date of this schedule.
4. New or amended ADs are shown with an asterisk *

Contents

DCA/CESS120/1A Airworthiness Directive Compliance....2
DCA/CESS120/2 Forward Doorposts – Inspection and Replacement....2
DCA/CESS120/3 Rudder Control Cable Horns – Inspection and Modification....3
DCA/CESS120/4 Elevator Spar Web – Inspection and Modification....3
DCA/CESS120/5 Aileron Support Ribs – Inspection and Rework....4
DCA/CESS120/6 Beech R003-201 Propeller Blades – Inspection and Replacement....4
DCA/CESS120/7 Fuselage Bulkhead – Inspection and Modification....5
DCA/CESS120/8 Horizontal Stabilizer Bolts – Inspection and Rework....5
DCA/CESS120/9 Welded Exhaust Mufflers – Inspection and Replacement....6
DCA/CESS120/10 Wing Drag Wire System – Inspection and Modification....6
DCA/CESS120/11 Met-Co-Aire Tricycle Landing Gear – Inspection and Rework....7
DCA/CESS120/12 Cabin Heat System – Inspection and Repair....7
The State of Design ADs listed below are available directly from the National Airworthiness Authority (NAA) websites. Links to NAA websites are available on the CAA website at https://www.aviation.govt.nz/aircraft/airworthiness/airworthiness-directives/links-to-state-of-design-airworthiness-directives/ 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....9
* 2022-08-03 Seat Belt Bracket – Inspection....9

DCA/CESS120/1A Airworthiness Directive Compliance

Applicability: Model 120 aircraft, all S/N.

Note 1: FAA AD 1978-08-03 removed from the AD requirement and FAA AD 79-08-03 added.

Requirement: Compliance with the following FAA Airworthiness Directives (as applicable) is required:

1946-44-01	Rudder Stop Bolts
1946-44-02	Safety Belt Bracket
1946-44-03	Windshield Retraining Channel
1946-44-04	Carburettor Hot Air Ducts
1946-44-05	Engine Mounting Bolts
1947-06-10	Aileron Carry-through Bar
1947-26-02	Wing Leading Edge
1947-43-01	Primer Line Relocation
1947-43-02	Fuel Selector Valve Handle
1947-43-03	Seaplane Spreader Struts
1948-05-04	Operator Limitations Placard
1950-31-01	Fin Spar Reinforcement
1951-21-01	Rudder Rib Flanges
* 79-08-03	Electrical System
2004-19-01	Pilot/Co-pilot Shoulder Harness

Note 2: Each part of this AD (each individual FAA AD) shall be certified in the aircraft log book separately.

Compliance: Before issue of a New Zealand Certificate of Airworthiness, or at the next ARA inspection after the effective date of this AD whichever is the sooner, unless previously accomplished.

Effective Date: DCA/CESS120/1 - 30 April 2009
DCA/CESS120/1A - 26 November 2015

DCA/CESS120/2 Forward Doorposts – Inspection and Replacement

Applicability: Model 120 aircraft, S/N 8001 though to 8799.

Requirement: To prevent failure of the forward doorposts due to possible cracks accomplish the following:

Inspect the forward doorposts for cracks, paying particular attention to the flange section leading from the post to the instrument panel at the base of the windshield and inspect the top of the post below the rivet cluster.

Remove the inside fairing attached to the post all the way to the floor to permit a thorough inspection.

Cracks in the post flange which are not more than 3/4 inch in length may be repaired by stop-drilling. If longer cracks are found in the flange, or if any cracks are found in the doorpost structure, replace the doorpost with the later post type Cessna P/N 0411867-2 and 0411867-3 per the installation instructions supplied by Cessna.

Note: Cessna Service Letter No. 20 dated 8 October 1946 pertains to the subject of this AD.

(FAA AD 1947-06-11 refers)

Compliance: Within the next 100 hours TIS unless previously accomplished and thereafter at intervals not to exceed 100 hours TIS until the later door post type are fitted.

Effective Date: 30 April 2009

DCA/CESS120/3 Rudder Control Cable Horns – Inspection and Modification

Applicability: Model 120 aircraft, S/N 8001 though to 12349.

Requirement: To prevent failure of the rudder control cable horns due to possible bending caused by excessive foot pressure with park brake application or release which could result in reduction of rudder travel, accomplish the following:

Remove the forward part of the tunnel fairing on the cockpit floor and inspect the control cable horns on the rudder bar for signs of bending.

If bent parts are found which can be straightened without introducing cracks, reinforced the rudder bar horns by fitting Cessna P/N 0411303 or an approved equivalent repair.

If parts are found cracked, replaced with Cessna P/N 0310168 made of 0.080-inch steel.

Note: Cessna SL No. 43 dated 7 July 1947 pertains to the subject of this AD.

(FAA AD 1947-43-04 refers)

Compliance: Within the next 100 hours TIS unless previously accomplished and thereafter at intervals not to exceed 100 hours TIS until the rudder control cable horns are reinforced.

Effective Date: 30 April 2009

DCA/CESS120/4 Elevator Spar Web – Inspection and Modification

Applicability: Model 120 aircraft, S/N 8001 though to 13780.

Requirement: To prevent failure of the elevator spar web due to possible cracks which could start either at the rivets or at an edge of the fitting and progress around the fitting which could result in the elevator breaking loose, accomplish the following:

Inspect the elevator spar web at the hinges for fatigue cracks.

If the cracks found are less than 1/2 inch in length, fit a reinforcing channel Cessna P/N 0434151 at the outboard hinge, or fit P/N 0434152 at the inboard hinge. Fit the channel on the aft side of the spar with the flanges riveted between the spar flanges and the skin with two AN 455AD3 rivets per flange. Four AN 442AD4 rivets should be used to attach each fitting to the spar web and the reinforcing channel.

If any cracks longer than 1/2 inch are found, replace the spar and fit the reinforcing channels.

Note: Cessna Service Letter No. 46 dated 31 July 1947 pertains to the subject of this AD.

(FAA AD 1947-43-05 refers)

Compliance: Within the next 100 hours TIS unless previously accomplished and thereafter at intervals not to exceed 100 hours TIS until reinforcement channels are fitted to all the hinge fittings.

Effective Date: 30 April 2009

DCA/CESS120/5 Aileron Support Ribs – Inspection and Rework

Applicability: Model 120 aircraft, S/N 8001 though to 10209.

Requirement: To prevent failure of the aileron support ribs accomplish the following:

Inspect the aileron support ribs for any indications of buckling or cracks, particularly in the narrow part of the web at the aft edge of the lightening hole and in the top flange just forward of the doubler plate.

If any damaged support ribs are found, replace with Cessna P/N 0422200-2 (left) and P/N 0422200-3 (right) which are made of 0.051-inch material and have a shorter lightening hole.

Note: Cessna Service Letter No. 46 dated 31 July 1947 pertains to the subject of this AD.

(FAA AD 1947-43-06 refers)

Compliance: Within the next 100 hours TIS unless previously accomplished and thereafter at intervals not to exceed 100 hours TIS and whenever aircraft is tied down in high winds without controls locked until Cessna P/N 0422200-2 and P/N 0422200-3 are fitted.

Effective Date: 30 April 2009

DCA/CESS120/6 Beech R003-201 Propeller Blades – Inspection and Replacement

Applicability: Model 120 aircraft fitted with a Continental C-85 series engine and Beech R003 propellers with blades P/N R003-201.

Requirement: To prevent failure of the propeller blades accomplish the following:

Remove propeller blades P/N R003-201 and visually inspect the blade retainer ferrule for cracks at the fillet joining the cylindrical outer surface of the ferrule with the retaining face of the flange. Particular caution should be exercised not to injure or contaminate the thrust bearing which must be pressed away from the flange for the inspection. Accomplish these instructions per the propeller manufacturer's assembly and service instructions for the disassembly and reassembly of the propeller.

If any cracks are found, replace both blades with blades P/N R003-225.

Note 1: Beech Aircraft Co. propeller Service Letter No. 1 pertains to the subject of this AD.

Note 2: The repetitive inspection requirement of this AD may be terminated if blades P/N R003-225 are fitted. These blades are sufficiently similar to R003-201 blades to be considered aerodynamically interchangeable in the same diameter without a flight test.

(FAA AD 1947-43-08 refers)

Compliance: By 30 May 2009 and thereafter at intervals not to exceed 25 hours TIS until blades P/N R003-225 are fitted.

Effective Date: 30 April 2009

DCA/CESS120/7 Fuselage Bulkhead – Inspection and Modification

Applicability: Model 120 aircraft, S/N all though 14289.

Requirement: To prevent failure of the fuselage bulkhead accomplish the following:

Inspect the lower right-hand corner of the cutout in the fuselage rear bulkhead for cracks which usually extend down to the rivet holes at the nearest anchor nut.

If any cracks are found, fit a new type bulkhead with a reinforcement channel per Cessna Drawing No. 0412169.

Note: Cessna Service Letter No. 46 dated 31 July 1947 pertains to the subject of this AD.

(FAA AD 1947-50-02 refers)

Compliance: Within the next 100 hours TIS unless previously accomplished and thereafter at intervals not to exceed 100 hours TIS until the fuselage rear bulkhead (tail post) has been reinforced.

Effective Date: 30 April 2009

DCA/CESS120/8 Horizontal Stabilizer Bolts – Inspection and Rework

Applicability: Model 120 aircraft, S/N 8001 through to 14329.

Requirement: To prevent failure of the horizontal stabilizer bolts accomplish the following:

Inspect the two bolts attaching the horizontal stabilizer to the fin post for tightness and proper length. If no bolt threads extend beyond the fiber lock rings of the anchor nuts, or if the bolts show any indication of looseness when checked for tightness, replace the bolts on aircraft S/N 10091 and up with AN 4-5A bolts, and on earlier S/N aircraft replace with AN 3-5A bolts.

When checking the bolts for tightness use caution to avoid stripping the threads in the anchor nut. If the new bolts do not tighten up to at least 3 inch- pounds torque in the anchor nut, replace the bolts with (drilled head) bolts AN 4-H5A or AN 3-H5A and wire lock the bolts to each other. Check the clearance of the elevator horn and horn bolts with respect to the cutouts in the fin spar and increase the clearance to a minimum of 1/8 inch wherever necessary.

Note: Cessna Service Letter No. 52 pertains to the subject of this AD.

(FAA AD 1948-07-01 refers)

Compliance: At the next annual inspection unless previously accomplished and thereafter at every annual inspection.

Effective Date: 30 April 2009

DCA/CESS120/9 Welded Exhaust Mufflers – Inspection and Replacement

Applicability: All model 120 aircraft fitted with Cessna welded exhaust muffler assemblies.

Note 1: This AD is applicable to aircraft fitted with exhaust muffler assemblies that are fabricated by welding exhaust stacks to the muffler.

Requirement: To prevent failure of the exhaust muffler, accomplish the following:

Remove the carburettor air heater muff and cabin heater muff and inspect the muffler assemblies for cracks paying particular attention to the areas of the mufflers and stacks where the exhaust stacks and tailpipe are welded to the muffler assembly.

Repair or replace defective mufflers before further flight.

(FAA AD 1948-25-02 refers)

Compliance: Within the next 25 hours TIS unless previously accomplished and thereafter at intervals not to exceed 25 hours TIS.

Note 2: The present placard calling for inspection of the mufflers every 100 hours TIS should be revised to require this inspection every 25 hours TIS..

Effective Date: 30 April 2009

DCA/CESS120/10 Wing Drag Wire System – Inspection and Modification

Applicability: Model 120 aircraft, all S/N.

Requirement: To prevent failure of the wing drag wires accomplish the following:

Inspect the wing drag wire system for loose or broken drag wires and inspect the ribs for damage.

Inspection openings should be fitted aft of the rear spar just inboard of rib 5 and just outboard of rib 10 if not already embodied. Rerig loose drag wires and replace broken wires. Repair or replace buckled drag ribs. If the no. 6 drag wires in the outer wing panel are found broken replace with no. 8 drag wires.

If the intermediate rib flanges at the spar cutouts is found cracked, reinforce the wing by fitting Cessna P/N 10004-58.

If the intermediate rib flanges at the spar cutouts are found buckled the wing is still serviceable. However, it is strongly recommended to reinforce the wing by fitting Cessna P/N 10004-58.

Note: Cessna Service Letters 27 and 39 pertains to the subject of this AD.

(FAA AD 1948-25-03 refers)

Compliance: Within the next 100 hours TIS unless previously accomplished and thereafter at intervals not to exceed 100 hours TIS.

Effective Date: 30 April 2009

DCA/CESS120/11 Met-Co-Aire Tricycle Landing Gear – Inspection and Rework

Applicability: All model 120 aircraft fitted with Met-Co-Aire Tricycle Landing Gear (STC SA4-916).

Requirement: To prevent failure of the landing gear accomplish the following:

1. Torque the four AN 4 bolts (two on each side) to 50-70 inch-pounds. These bolts extend through the Cessna main gear wedges and the Met-Co-Aire support plate P/N RD-1001C-11.

Care should be taken to ensure the AN 365 stop nuts have not bottomed on the bolt threads. Fit metal washers under the nut or bolt heads if required.

Inspect the corners of the slots in support plate P/N RD-1001C-11 and inspect the attach plate for cracks. If any cracks are found, replace with Met-Co-Aire P/N RD-1001C-6 or an approved equivalent.

Note 1: The repetitive inspection of requirement 1 of this AD may be terminated once Met-Co-Aire P/N RD-1001C-6 or an approved equivalent is fitted.

2. Inspect the attachment of the top flanges of the bulkheads in the landing gear attachment box and perform such work as necessary to assure that all rivets which secure the box to the floor structure are correctly fitted. The description and location of the required rivets is specified in Met-Co-Aire Installation Instructions dated 28 August 1959, revised 1 January 1961.

If adapter plates Cessna P/N 0441147 are found fitted to the aircraft (which may have been used to extend the main gear wheels forward), remove the adapter plates before further flight.

Note 2: Met-Co-Aire Service Directive SD-1003 pertains to the subject of this AD.

(FAA AD 1961-25-01 refers)

Compliance: 1. Within the next 20 hours TIS unless previously accomplished and thereafter at intervals not to exceed 100 hours TIS.

2. Within the next 20 hours TIS unless previously accomplished.

Effective Date: 30 April 2009

DCA/CESS120/12 Cabin Heat System – Inspection and Repair

Applicability: Model 120 aircraft, all S/N fitted with a Lycoming engine per McKenzie Aircraft Repair, Inc. Supplemental Type Certificates Nos. SA4-95, SA4-173, SA4-376, SA4-581, SA4-629, SA4-639, SA4-640, SA4-641, SA4-642, SA4-1159, SA4-1201 and SA4-1286, and with FAA Engineering Approved Repair and Alteration Forms ACA-337 Dated March 30, 1955, and June 21, 1955.

Requirement: To prevent hazardous carbon monoxide entering the cabin due to possible failure of the exhaust stacks in the area of the cabin heat muffs when the cabin heat is selected, accomplish the following:

1. <u>If continued use of the cabin heat system is desired</u>:

Render the cabin heat system inoperative by positively securing the heat control in the "OFF" position, or

Install a placard adjacent to the cabin heat control with the following text: "DO NOT USE CABIN HEAT-CONTROL MUST REMAIN IN 'OFF' POSITION", or

Accomplish requirement 2 of this AD.

2. Remove the cabin heat muff and perform a visual inspection of the exhaust stack for cracks. Pay particular attention to the area where the muff attaching straps are welded to the stack. Replace or repair by welding all cracked stacks.

Cut off the cabin heat muff attaching straps adjacent to the welds. Discard the straps and reattach the heat muff to the stack in accordance with McKenzie Aircraft Repair, Inc. Service Bulletin No. 1 dated September 6, 1962, or an approved equivalent repair.

Render the heat control operative and remove the placard introduced by requirement 1 of this AD.

3. If use of the cabin heat system is not desired:

Remove the cabin heat muff and associated ducting and controls and close any openings in the firewall that result from the removal of the ducting and controls in accordance with a approved repair.

Note: The cabin heat system may be refitted if compliance with requirement 2 of this AD is accomplished.

(FAA AD 1962-24-03 refers)

Compliance: 1. Within the next 10 hours TIS unless previously accomplished.

2. Within the next 50 hours TIS unless previously accomplished and thereafter inspect for cracks per requirement 2 of this AD at intervals not to exceed 50 hours TIS.

3. Within the next 10 hours TIS unless previously accomplished.

Effective Date: 30 April 2009

The State of Design ADs listed below are available directly from the National Airworthiness Authority (NAA) websites. Links to NAA websites are available on the CAA website at https://www.aviation.govt.nz/aircraft/airworthiness/airworthiness-directives/links-to-state-of-design-airworthiness-directives/
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.

*** 2022-08-03 Seat Belt Bracket – Inspection**

Applicability: Cessna 120 aircraft, S/N 10070 through to 15075.

Effective Date: 17 May 2022