

Airworthiness Directive Schedule

Helicopters

Bell 412 Series

27 August 2020

- Notes:**
1. This AD schedule is applicable to Bell 412 and 412EP helicopters manufactured under FAA Type Certificate No. H4SW.
 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/BELL412/1	Airworthiness Directive Compliance at Initial Airworthiness Certificate Issue.....	3
DCA/BELL412/2	Main Rotor Yoke - Inspection.....	3
DCA/BELL412/3	Tailboom Attachment Cap Angle - Inspection.....	4
DCA/BELL412/4	Main Rotor Actuator Locking Washer – Inspection.....	4
DCA/BELL412/5	Tail Rotor Yoke – Inspection.....	5
DCA/BELL412/6	Tail Rotor Bellcrank Retention Nuts - Replacement	6
DCA/BELL412/7	Cancelled – DCA/BELL412/10 refers	6
DCA/BELL412/8	Floatation System Nitrogen Bottles – Inspection	6
DCA/BELL412/9	Cancelled – DCA/BELL412/14 refers	6
DCA/BELL412/10	Tail Rotor Blades – Inspection	7
DCA/BELL412/11	Cancelled – FAA AD 2013-15-02 refers	7
DCA/BELL412/12	Cancelled – FAA AD 2013-20-18 refers	7
DCA/BELL412/13	Landing Gear Forward Cross Tubes – Inspection	8
DCA/BELL412/14A	Tail Rotor Blades – Inspection	8
DCA/BELL412/15	Cancelled – FAA AD 2020-12-10 refers	9
DCA/BELL412/16	Emergency Float Kit – Inspection	9
DCA/BELL412/17A	Cross Tubes – Life Limitation	9
DCA/BELL412/18	Aft Cross Tube Assembly – Life Limitation	9
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 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.		
2012-22-06	Landing Gear Forward Crosstubes – Inspection	10
2012-22-11	Collective Lever – Inspection	10
2013-01-04	Crosstubes – Inspection	10
2013-05-14	Swashplate Outer Ring Assembly – Life Limitation	10
2013-15-02	Tail Rotor Blade Assembly – Inspection	10
2013-16-16	Dart Aerospace Ltd. Crosstubes – Life Limitation.....	10
2013-20-18	Main Rotor Yoke - Inspection.....	10
2014-0189	Cancelled – EASA AD 2014-0244 refers	10
EASA AD 2014-0244	Emergency Flotation System (EFS) – AFM Supplement.....	10
2015-04-04	Cancelled – FAA AD 2020-02-11 refers	10
2017-15-02	Cancelled – FAA AD 2018-17-01 refers	10
2018-17-01	Cancelled – FAA AD 2019-09-02 refers	10

2018-16-14	Emergency Flotation System – Inspection.....	10
EASA AD 2014-0118R1	Engine to Transmission Driveshaft Line Nuts – Inspection.....	11
2019-09-02	Oil and Fuel Check Valves – Inspection	11
2020-02-11	Static Inverter – Inspection	11
2020-12-10	Tail Rotor Blades – Inspection.....	11
* 2020-16-10	Shoulder Harness Seat Belt – Inspection	11

DCA/BELL412/1 Airworthiness Directive Compliance at Initial Airworthiness Certificate Issue

Applicability: Model 412 series

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

FAA Airworthiness Directives:
 82-26-51 R1 - Main rotor yoke
 85-07-01 - Main rotor pitch horn
 86-16-11 - Tail rotor hub
 89-08-05 - Trans internal sump oil filter
 90-03-09 - T/R trunnion bearing housing
 92-09-05 - Combining gearbox
 92-13-10 - Tail rotor bearing
 93-02-07 - Vertical fin spar cap
 93-17-12 - Spider fatigue
 94-18-09 - Lower planetary spider
 97-07-06 - Swashplate support assembly
 97-11-04 - RIN component history card

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

Compliance: Before issue of New Zealand Certificate of Airworthiness. Repetitive inspections to be accomplished at intervals not exceeding the times specified in the FAA Airworthiness Directives.

Effective Date: 26 October 2000

DCA/BELL412/2 Main Rotor Yoke - Inspection

Applicability: Model 412 or 412EP S/N 33001 through 33213, 34001 through 34036, and 36001 through 36204, and model 412CF S/N 46400 through 46499, with main rotor yoke assembly P/N 412-010-101-123 or -127 installed.

Requirement: To prevent a fatigue failure of a yoke, loss of a main rotor blade, and subsequent loss of control of the helicopter, accomplish the following:-

Inspect and measure each yoke per paragraphs 1 through 6, of BHTI ASB 412-98-93, or BHTI ASB 412CF-98-5 as applicable. If any measurement for a yoke is less than 0.478-inch thickness, add 500 hours to the TIS indicated on the component history card or equivalent record.

(FAA AD 99-23-23 refers)

Compliance: Required within 10 hours TIS for a yoke with 4,500 or more hours TIS or required within 90 days for a yoke with less than 4,500 hours TIS but prior to the accumulation of 4,500 hours TIS, unless accomplished previously.

Effective Date: 26 October 2000

DCA/BELL412/3 Tailboom Attachment Cap Angle - Inspection

Applicability: Model 412, 412EP, and 412CF with upper left-hand cap angle P/N 212-030-191-001 installed.

Requirement: To prevent failure of a cap angle, loss of the tailboom, and subsequent loss of control of the helicopter, inspect the cap angle and adjacent structure for a crack in the area shown in figure 1. Use a 10-power or higher magnifying glass. If a crack is found in the cap angle, replace it with an airworthy cap angle before further flight. Repair any crack found in the adjacent structure before further flight.

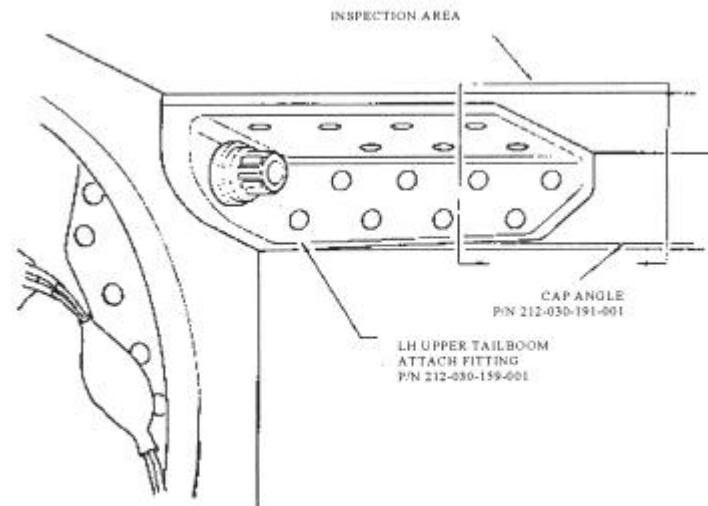


Figure 1 Fuselage tailboom attachment inspection

Note: BHTI ASB 412-00-100 pertains to the subject of this AD. (FAA AD 2000-18-09 refers)

Compliance: Within 25 hours TIS and thereafter at intervals not to exceed 100 hours TIS.

Effective Date: 26 October 2000

DCA/BELL412/4 Main Rotor Actuator Locking Washer – Inspection

Applicability: Model 412, 412CF, 412EP and helicopters fitted with a main rotor actuator, P/N 41000470, S/N with an "HR" prefix up to and including 10010.

Note: P/N 41000470 is the P/N assigned by HR Textron; BHTI has assigned P/N 212-076-005 to this part when fitted with a support mount.

Requirement: To prevent an actuator piston from unthreading from its rod end, loss of control of the main rotor, and subsequent loss of control of the helicopter, accomplish the following:-

1. Inspect the tab on the NAS513-6 locking washer on each actuator for any twisting or damage per HR Textron ASB 41105950-67A-01. Replace any twisted or damaged locking washer with an airworthy NAS1193K6C locking device before further flight.
2. Replace the NAS513-6 locking washer on each actuator with an airworthy NAS1193K6C locking device. Installation of an airworthy NAS1193K6C locking device on each of the three actuators constitutes terminating action for the requirements of this AD. (FAA AD 2001-08-04 refers)

Compliance: 1. Within next 25 hours TIS.
2. Within next 100 hours TIS or at the next actuator overhaul, whichever occurs first.

Effective Date: 25 January 2001

DCA/BELL412/5 Tail Rotor Yoke – Inspection

Applicability: Model 412, 412CF, and 412EP helicopters fitted with tail rotor yoke assembly, P/N 212-011-702-all dash numbers.

Requirement: To prevent static and dynamic overload damage to the tail rotor yoke that could result in loss of the tail rotor and subsequent loss of control of the helicopter, accomplish the following:-

1. Before further flight, review the historical records of the yoke assembly for any static or dynamic overload damage that could have imposed a bending load on the yoke. The damage may not have required replacing the yoke assembly; for example, an incident in which a damaged tail rotor blade was replaced due to a blade strike. If the records indicate that overload damage may have occurred, replace the yoke with an airworthy yoke.

2. Before further flight, unless the requirements of paragraph 3. of this AD have been accomplished previously:

a) Install a Never Exceed Velocity (Vne) red line at 120 KIAS on the pilot and copilot airspeed indicators using red tape or paint and a slippage indicator on the instrument case and glass.

b) Install a placard made of material that is not easily erased, disfigured, or obscured on the instrument panel in clear view of the pilot and copilot:

"Observe temporary Maximum Never Exceed (Vne) airspeed red line (marked at 120 knots indicated airspeed (KIAS)). Vne is 20 KIAS less than the value presented on the airspeed limitation placard for each ambient condition."

c) Insert the applicable BHT 412 Temporary Revision, dated August 16, 1996, into the Model 412 Rotorcraft Flight Manual (RFM) or the applicable section of Agusta AB412 Temporary Revision No. 2, dated April 17, 1997, into the Model AB412 RFM.

3. Within 180 calendar days:

a) Remove yoke assembly, P/N 212-011-702-all dash numbers, and replace it with an airworthy yoke assembly, P/N 212-011-702-all dash numbers, with zero hours TIS, or an airworthy yoke (regardless of TIS) that has passed a one-time x-ray diffraction inspection per BHT ASB 412-96-89, Revision A; BHT ASB 412CF-96-01; or Agusta Technical Bulletin 412-65, whichever is applicable.

b) Install an airworthy tail rotor flapping stop, P/N 212-011-713-103.

c) After the requirements of paragraphs 3. a) and 3. b) of this AD are accomplished, remove the 120 KIAS redline from the pilot and copilot airspeed indicators; remove the Vne airspeed restriction placard; and remove the BHT 412 Temporary Revision, dated August 16, 1996; BHT ASB 412CF-96-01, dated September 3, 1996; or Agusta AB412 Temporary Revision No. 2, as applicable, from the RFM.

4. After accomplishing the requirements of paragraph 3. of this AD, at intervals not to exceed 25 hours TIS, inspect the yoke assembly and tail rotor flapping stop (stop) per Part III, Recurring 25-Hour Special Inspection and Conditional Inspection Requirement, of BHT ASB 412-96-89, Revision A; BHT ASB 412CF-96-01; or Agusta Technical Bulletin 412-65, as applicable. Replace any unairworthy yoke assembly or stop with an airworthy yoke assembly or stop before further flight. (FAA AD 2001-09-11 refers)

Compliance: Compliance is required at the times specified within the requirement of this airworthiness directive.

Effective Date: 31 May 2001

DCA/BELL412/6 Tail Rotor Bellcrank Retention Nuts - Replacement

- Applicability:** Model 412 series
- Requirement:** To prevent failure of the tail rotor counterweight bellcrank retention nut and loss of control of the helicopter, replace the two existing retention nuts P/N 212-010-709-001 or 212-011-705-001 with nuts P/N MS14145L6 or MS17826-6 per Bell ASB 412-00-102 Revision A.
(FAA AD 2001-13-01 refers)
- Compliance:** Within 100 hours TIS or by 25 Oct 2001 whichever is the sooner.
- Effective Date:** 26 July 2001

DCA/BELL412/7 Cancelled – DCA/BELL412/10 refers

- Effective Date:** 29 November 2007

DCA/BELL412/8 Flootation System Nitrogen Bottles – Inspection

- Applicability:** Model 412 and 412EP helicopters embodied with Aeronautical Accessories, Inc. (AAI), Supplemental Type Certificate (STC) SH2820SO, or fitted with AAI Parts Manufacturer Approval (PMA) reservoir assembly P/N 212-372-050, or fitted with adapter P/N 212-371-002.
- Requirement:** To prevent rupture of an adapter and uncontrolled jetting of pressurized gas from the nitrogen bottle, and possible injury to occupants, vent the nitrogen from the reservoir assembly, per the Accomplishment Instructions, Part II - Flootation System Discharging in AAI Alert Service Bulletin ASB No. AA-05005, revision A or later FAA approved revision.

Remove the valve assembly and air line from the adapter and inspect the counter bore depth (dimension D) as shown in Figure 1 of ASB AA-05005. If dimension D does not exceed 0.860 inches, recharge the floatation system by following the Accomplishment Instructions, Part III - Flootation System Charging referring to Figures 2 and 3 of ASB AA-05005.

If dimension D exceeds 0.860 inches, per Figure 1 of ASB AA-05005, replace the reservoir assembly and the adapter, prior to further flight.
(FAA AD 2005-20-38 refers)
- Compliance:** Within the next 24 hours TIS, or before the next emergency floatation supply bottle nitrogen charging, whichever occurs first, unless already accomplished.
- Effective Date:** 22 December 2005

DCA/BELL412/9 Cancelled – DCA/BELL412/14 refers

- Effective Date:** 15 December 2010

DCA/BELL412/10 Tail Rotor Blades – Inspection

Applicability: Model 412, 412CF and 412EP aircraft fitted with tail rotor blade P/N 212-010-750-009 through to -129, all S/N except S/N with a "A" or "AFS" prefix and S/N 11926, 13351, 13367, 13393, 13400, 13402, 13515, 13540, 13568, 13595 through to 13602 and 13619 onwards.

Note 1: This AD contains the same requirements as superseded DCA/BELL412/7. The applicability of this AD expanded to include additional P/N and S/N blades. Modified blades are to be re-identified by adding "FM" after the P/N and the tail rotor must be dynamic balanced.

Requirement: To prevent loss of the forward tip weight retention block (tip block) or the aft tip closure (tip closure) which could result in loss of a blade and loss of aircraft control, accomplish the following:

1. Inspect the tip block and tip closure for voids per Bell Helicopter Textron, Inc. Alert Service Bulletins (ASB) 412-00-106, revision D.

Replace any blade which has a void in excess of that allowed by the Aircraft Component Repair and Overhaul Manual limitations.

2. Inspect the tip block attachment countersink screws (four locations) to determine if the head of each countersunk screw is flush with the surface of the abrasion strip.

If any of these screws are set below the surface of the abrasion strip or are covered with filler material, install shear pins per the instructions in part A of ASB 412-00-106.

Note 2: For the location of the four countersunk screws refer to figure 1 in ASB 412-00-106.

3. Install the aft tip closure rivets and re-identify the modified blade by adding an "FM" after the P/N of the blade. Dynamically balance the tail rotor assembly per the instructions in part B of ASB 412-00-106.
(FAA AD 2007-22-02 refers)

Compliance: 1. 2. & 3. Within the next 100 hours TIS, unless previously accomplished.

Effective Date: 29 November 2007

DCA/BELL412/11 Cancelled – FAA AD 2013-15-02 refers

Effective Date: 14 August 2013

DCA/BELL412/12 Cancelled – FAA AD 2013-20-18 refers

Effective Date: 29 November 2013

DCA/BELL412/13 Landing Gear Forward Cross Tubes – Inspection

- Applicability:** Model 412, 412EP and 412CF aircraft, and Agusta S.p.A. model AB412 and AB412EP aircraft, and Fitted with Aeronautical Accessories, Inc. (AAI) Low Skid Landing Gear Forward Cross Tube P/N 212-320-103 with a S/N prefix of "AA" and a S/N 574 through to 628.
- Note 1:** Cross tube P/N 212-320-103 is also part of AAI Low Skid Gear Assembly Kits P/N 412-320-500 and 412-320-502.
- Requirement:** To prevent failure of a cross tube and subsequent collapse of the landing gear, replace affected cross tubes with an airworthy part per AAI Alert SB No. AA-10012 dated 5 March 2010.
- Note 2:** AAI Alert SB No. AA-10012 references the AAI Instructions for Continued Airworthiness AA-01136 which contains instructions to replace the cross tubes. A copy of ASB No. AA-10012 dated 5 March 2010 can be obtained from techsupport@aero-access.com (FAA AD 2010-10-16 refers)
- Compliance:** Within the next 25 hours TIS.
- Effective Date:** 18 June 2010

DCA/BELL412/14A Tail Rotor Blades – Inspection

- Applicability:** Model 412, 412CF and 412EP aircraft fitted with tail rotor blades with a P/N and S/N listed in the following table:

Part Number	Serial Number
204-011-702-015	AFS-12703, AFS-12893, AFS-23525 and AFS-23573
204-011-702-121	A-22020
212-010-750-105	A-11923
212-010-750-105FM	A-10090, A-10836, A-11207, A-11332, A-10857, A-11617, A-11828, A-12043 and A-12091
212-010-750-113	A-14953, A15090 and CS-12702
212-010-750-113FM	A-12240, A-12296, A-12640, A-12670, A-12789, A-13033, A-13096, A-13134, A-13199, A-13264, A-13366, A-12286, A-12398, A-13088, A-13106 and A-13539
212-010-750-133	A15602

- Note 1:** There is no change to the requirements of this AD. Aircraft already in compliance with DCA/BELL412/14 are not affected by this AD. This AD revised to correct the ASB document number applicable to model 412CF aircraft.
- Requirement:** To prevent the loss of tail rotor blade balance weights during flight which can result in loss of aircraft control, review the aircraft records or inspect the aircraft and determine if an affected tail rotor blade is fitted to the aircraft. If an affected blade is found fitted, replace the blade with a P/N and S/N tail rotor blade which is not affected by this AD.
- Note 2:** Bell Helicopter Textron ASB No. 412CF-07-30 for model 412CF helicopters and ASB No. 412-07-123 for model 412 and 412EP helicopters, both at revision B and dated 22 November 2010 pertains to the subject of this AD. (FAA AD 2010-26-52 refers)
- Compliance:** Before further flight unless previously accomplished.
- Effective Date:** DCA/BELL412/14 - 15 December 2010
DCA/BELL412/14A - 8 December 2011

DCA/BELL412/15 Cancelled – FAA AD 2020-12-10 refers**Effective Date:** 16 July 2020**DCA/BELL412/16 Emergency Float Kit – Inspection****Applicability:** Model 412, 412CF, 412EP, AB412 and AB412EP aircraft fitted with Apical emergency float kit P/N 614.7601, S/N all through to 045 (embodied under FAA STC SR01779LA).**Requirement:** To prevent an unsafe condition accomplish the inspections and corrective actions specified in FAA AD 2011-25-01.
(FAA AD 2011-25-01 refers)**Compliance:** By 26 July 2012**Effective Date:** 26 January 2012**DCA/BELL412/17A Cross Tubes – Life Limitation****Applicability:** Model 412, 412EP and 412CF helicopters fitted with Dart Aerospace Ltd. high gear aft cross tube P/N D412-664-203 approved under Transport Canada STC SH01-9.

Affected cross tubes are also known to be approved under FAA STC SR01298NY and EASA STC IM.R.S.01304.

Note 1: DCA/BELL412/17A revised to clarify the AD applicability with no change to the AD requirement.**Requirement:** To prevent failure of high gear aft cross tubes P/N D412-664-203 accomplish the actions specified in Transport Canada AD CF-2012-14R1.**Note 2:** A copy of Transport Canada AD CF-2012-14R1 can be obtained from the Transport Canada AD website at <http://wwwapps3.tc.gc.ca/Saf-Sec-Sur/2/cawis-swimn/awd-iv-cs1401.asp?rand>
(Transport Canada AD CF-2012-14R1 refers)**Compliance:** By 30 June 2012 unless previously accomplished.**Effective Date:** DCA/BELL412/17 - 26 April 2012
DCA/BELL412/17A - 31 May 2012**DCA/BELL412/18 Aft Cross Tube Assembly – Life Limitation****Applicability:** Model AB412 and AB412EP helicopter, and

Model 412, 412CF and 412EP helicopters,

Fitted with High Landing Gear Aft Cross Tube Assembly (aft cross tube) P/N 412-321-104 and P/N 412-321-304.

Requirement: To prevent failure of the aft cross tube assembly accomplish the requirements specified in FAA AD 2012-11-13.**Note 1:** A copy of FAA AD 2012-11-13 can be obtained from the FAA AD website at http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/MainFrame?OpenFrameSet**Note 2:** Aeronautical Accessories, Inc. Instructions for Continued Airworthiness Report Number AA-01136 and BHT ASB No. 412-08-129 dated 12 May 2008 provides additional information about inspections for aft crosstube cracks.
(FAA AD 2012-11-13 refers)**Compliance:** At the compliance times specified in FAA AD 2012-11-13.**Effective Date:** 30 July 2012

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 <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.

2012-22-06 Landing Gear Forward Crosstubes – Inspection

Effective Date: 14 December 2012

2012-22-11 Collective Lever – Inspection

Effective Date: 20 December 2012

2013-01-04 Crosstubes – Inspection

Effective Date: 11 March 2013

2013-05-14 Swashplate Outer Ring Assembly – Life Limitation

Effective Date: 26 April 2013

2013-15-02 Tail Rotor Blade Assembly – Inspection

Effective Date: 14 August 2013

2013-16-16 Dart Aerospace Ltd. Crosstubes – Life Limitation

Effective Date: 17 September 2013

2013-20-18 Main Rotor Yoke - Inspection

Effective Date: 29 November 2013

2014-0189 Cancelled – EASA AD 2014-0244 refers

Effective Date: 10 November 2014

EASA AD 2014-0244 Emergency Flotation System (EFS) – AFM Supplement

Effective Date: 10 November 2014

2015-04-04 Cancelled – FAA AD 2020-02-11 refers

Effective Date: 17 March 2020

2017-15-02 Cancelled – FAA AD 2018-17-01 refers

Effective Date: 5 September 2018

2018-17-01 Cancelled – FAA AD 2019-09-02 refers

Effective Date: 4 June 2019

2018-16-14 Emergency Flotation System – Inspection

Applicability: Bell 412 and 412EP helicopters fitted with an Emergency Flotation System (EFS) tube assembly P/N 412-073-820-101 with a date of manufacture before 28 July 2016, or an unknown date of manufacture.

Effective Date: 4 October 2018

EASA AD 2014-0118R1 Engine to Transmission Driveshaft Line Nuts – Inspection

Applicability: Bell 412 and 412EP helicopters, all S/N.

Note: This AD is prompted by an occurrence reported to EASA of finding two cracked nuts P/N MS21042L4 on an AgustaWestland AB 412EP helicopter during a scheduled inspection of the engine-to-transmission driveshaft line.

Effective Date: 27 September 2018

2019-09-02 Oil and Fuel Check Valves – Inspection

Applicability: Bell 412, 412CF and 412EP helicopters fitted with an engine oil check valve P/N 209-062-520-001, or a fuel check valve P/N 209-062-607-001 manufactured by Ciracor Aerospace, marked “Circle Seal” and with a manufacturing date code of “10/11” (October 2011) through to “03/15” (March 2015), except a check valve marked “TQL” next to the manufacturing date code.

Effective Date: 4 June 2019

2020-02-11 Static Inverter – Inspection

Applicability: Bell 412 and 412EP helicopters, S/N 33001 through to 33213, 34001 through to 34036, 36001 through to 36648, 36650 through to 36657, 36660 through to 36672, 36674 through to 36680, 36685, 36687, 36689, 36691, 36693, 36695, and 37002 through to 37012 fitted with a static inverter (inverter) P/N 412-375-079-101 or 412-375-079-103 with S/N 29145 or higher.

Effective Date: 17 March 2020

2020-12-10 Tail Rotor Blades – Inspection

Applicability: Model 412, 412CF and 412EP helicopters fitted with a tail rotor (T/R) blade P/N 212-010-750 (all dash numbers), all S/N except:

- (1) S/Ns with a prefix of “BH”; or
- (2) S/Ns with a prefix of “A” and a number 17061 or larger.

Effective Date: 16 July 2020

*** 2020-16-10 Shoulder Harness Seat Belt – Inspection**

Applicability: Model 412, 412CF and 412EP helicopters fitted with a shoulder harness seat belt comfort clip (comfort clip) P/N D7LZ-6560286-A, P/N D7LZ-6560286-B, or P/N 504636-401.

Effective Date: 3 September 2020