**DEPARTMENT OF TRANSPORTATION**
**FEDERAL AVIATION ADMINISTRATION**

H4SW
Revision 38
BELL
212
412
412EP
412CF
January 07, 2022

# TYPE CERTIFICATE DATA SHEET NO. H4SW

This data sheet which is part of Type Certificate No. H4SW prescribes conditions and limitations under which the product for which the type certificate was issued, meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Bell Textron Inc.
P. O. Box 482
Fort Worth, Texas 76101

Type Certificate Holder Record: Renamed from "Bell Helicopter Textron Inc." to "Bell Textron Inc." on July 1, 2019.

**I - Model 212 (Transport Helicopter-Category B), Approved 30 October 1970-(Transport Category A), Approved 30 June 1971. See Note 7.**

Engines — Pratt and Whitney Canada Corp. (Formerly Pratt & Whitney Canada, Inc., Pratt & Whitney Aircraft of Canada Ltd. and United Aircraft of Canada, Ltd.) Model PT6T-3 or PT6T-3B Twin Power Section Turboshaft (Ref. Note 5 on Type Certificate Data Sheet No. E22EA).

Fuel — Avjet type fuels conforming to ASTM D1655, Type A, A-1; or ASTM D6615, Type B; or MIL-DTL-5624, Grade JP-4 (NATO F-40) or JP-5 (NATO F-44); or MIL-DTL-83133, Grade JP-8 (NATO F-34).

| | Torque Per engine lb-ft (%) | Power Turbine Speed - rpm (%) Maximum | Power Turbine Speed - rpm (%) Minimum | Gas Generator Speed - rpm (%) | Gas Temperature °C |
|---|---|---|---|---|---|
| **Engine Operating Limits for Model 212 with PT6T-3 Engines** | | | | | |
| Normal Operation | | | | | |
| Takeoff (5 minutes) | 515 (1) (2) (100) | 33,000 (3) (100) | 32,000 (97) | 38,100 (100) | 810 |
| Maximum Continuous | 450 (1) (87.5) | 33,000 (3) (100) | 32,000 (97) | 38,100 (100) | 765 |
| One Engine Inoperative (Emergency): | | | | | |
| 30 Minutes | 738 (4) (71.8) | 33,000 (3) (100) | 32,000 (97) | 38,100 (100) | 810 |
| Continuous | 657 (4) (63.9) | 33,000 (3) (100) | 32,000 (97) | 38,100 (100) | 765 |
| **Engine Operating Limits for Model 212 with PT6T-3B Engines** | | | | | |
| Normal Operation: Takeoff (5 minutes) | 515 (1) (2) (100) | 33,000 (3) (100) | 32,000 (97) | 38,400(5) (100.8) | 810 |
| Maximum Continuous | 450 (1) (87.5) | 33,000 (3) (100) | 32,000 (97) | 38,400(5) (100.8) | 765 |

| | Torque Per engine lb-ft (%) | Power Turbine Speed - rpm (%) Maximum | Minimum | Gas Generator Speed - rpm (%) | Gas Temperature °C |
|---|---|---|---|---|---|
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 815 (4) (79.4) | 33,000 (3) (100) | 32,000 (97) | 39,000(6) (102.4) | 850 |
| 30 Minutes | 815 (4) (79.4) | 33,000 (3) (100) | 32,000 (97) | 38,400(5) (100.8) | 822 |
| Continuous | 657 (4) (63.9) | 33,000 (3) (100) | 32,000 (97) | 38,400(5) (100.8) | 765 |

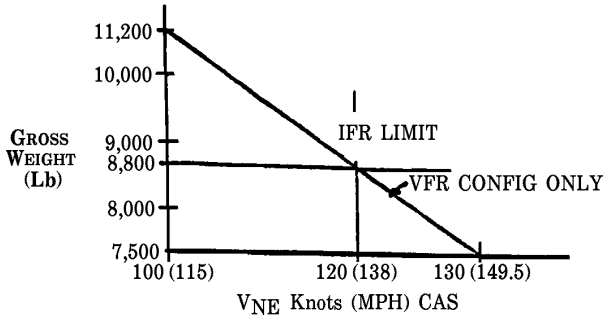
(1) On transmission torque scale.
(2) See Note 26.
(3) 100% (33,000 rpm) corresponds to 6600 rpm engine output shaft speed.
(4) On engine torque scale.
(5) 38,800 rpm (101.8%) with Gage P/N 212-075-037-113.
(6) 39,400 rpm (103.4%) with Gage P/N 212-075-037-113.

Rotor limits

Power Off
Maximum 339 rpm
(Tach reading 104.5%)
Minimum 294 rpm
(Tach reading 91%)

Power On
Maximum 324 rpm
(Tach reading 100%)
Minimum 314 rpm
(Tach reading 97%)

Airspeed limits




Decrease VNE 3 knots (3.5 mph) per 1,000 feet (above 3,000 feet Hd)

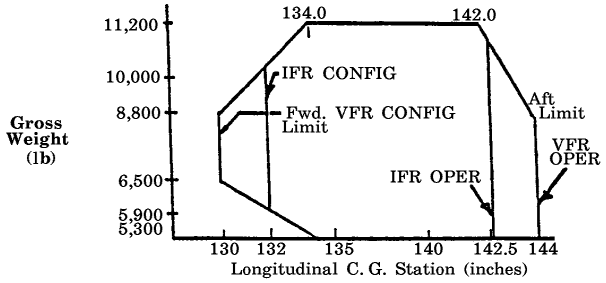
C.G. range

(a) Longitudinal C.G. limits

VFR Configuration
(+134.0) to (+142.0) at 11,200 lb
(+130.0) to (+144.0) at 8,800 lb
(+130.0) to (+144.0) at 6,500 lb
(+134.0) to (+144.0) at 5,300 lb

IFR Configuration
(+134.0) to (+142.0) at 11,200 lb
(+132.0) to (+143.0) at 10,000 lb
(+132.0) to (+144.0) at 8,800 lb
(+132.0) to (+144.0) at 5,900 lb
(+134.0) to (+144.0) at 5,300 lb
Above limits for VFR operation; aft limit (+142.5) for IFR operation

Straight line variation between points given. See figure below:




(b) Lateral C.G. limits - Category B and VFR Configuration
4.7 in. left of centerline
6.5 in. right of centerline

Category A and IFR Configuration
+3.5 in. left and right of centerline

Empty weight C.G. range — See Chapter 8, Model 212 Maintenance Manual.

Maximum weight — 11,200 lb. See Note 4 for external cargo limitations. See Flight Manual Supplement dated 30 June 1971 for Category A limitations

Minimum crew — 1 (pilot) Category B and Category A; 2 (pilot and copilot) for vertical takeoff and landing operations. See Notes 11 and 12 for IFR operations.

Maximum passengers — 14 (Not limited by emergency exit requirements)

Maximum baggage — 400 lb (See Flight Manual for loading schedule)

Fuel capacity — 219.6 U.S. gal. (+153.3) total. (See Note 17)
216.8 U.S. gal. usable. (See Note 17)
4 U.S. gal. unusable. (See Note 1 for requirement to include unusable (including trapped) fuel weight in certificated empty weight)

Oil capacity — Sys. Capacity 1.6 gal. (+182.9) each power section (.75 gal. usable).
(Total capacity 3.2 gal. (+182.9)). See Note 1 for requirement to include undrainable oil weight in certificated empty weight.

Rotor blade and control movements — For rigging information refer to the Model 212 Maintenance Manual.

Serial numbers eligible — 30501 thru 30999 except 30604 thru 30610, 30754 and 30890; 31101 thru 31311, except 31163; 32101 thru 32199; 35001thru 35108 (See Note 20).

**II - Model 412 (Transport Helicopter - Category B), Approved January 9, 1981. (Transport Helicopter - Category A), Approved August 31, 1983.**

Engines — Pratt & Whitney Canada, Corp. Model PT6T-3B Twin Power Section Turboshaft (Ref. Note 5 on Type Certificate Data Sheet No. E22EA) or Pratt and Whitney Canada, Corp. PT6T-3BE (See Note 24) or Pratt and Whitney Canada, Corp. PT6T-3D (See Notes 27 and 29) or Pratt & Whitney Canada, Corp. PT6T-3BF (See Note 41) or Pratt & Whitney Canada Corp. PT6T-3BG (See Note 42).

Fuel — Avjet type fuels conforming to ASTM D1655, Type A, A-1; or ASTM D6615, Type B; or MIL-DTL-5624, Grade JP-4 (NATO F-40) or JP-5 (NATO F-44); or MIL-DTL-83133, Grade JP-8 (NATO F-34).

Engine Operating Limits for Model 412 (S/N 33001 thru 33107) with PT6T-3B Engines

| | Torque per engine lb-ft (%) | Power Turbine Speed - rpm (%) Maximum | Minimum | Gas Generator Speed - rpm (%) | Gas Temperature °C |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 537 [1] (100) | 33,000 [2] (100) | 32,000 (97) | 38,400[5] (100.8) | 810 |
| Maximum Continuous | 450 [1] (84) | 33,000 [2] [3] (100) | 32,000 (97) | 38,400[5] (100.8) | 765 |
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 815 [4] (76) | 33,000 [2] (100) | 32,000 (97) | 39,000[6] (102.4) | 850 |
| 30 Minutes | 815 [4] (76) | 33,000 [2] (100) | 32,000 (97) | 38,400[5] (100.8) | 822 |
| Continuous | 657 [4] (61) | 33,000 [2] (100) | 32,000 (97) | 38,400[5] (100.8) | 765 |

Engine Operating Limits for Model 412 (S/N 33001 thru 33107) with PT6T-3BF Engines (See Note 41)

| | Torque per engine lb-ft (%) | Power Turbine Speed - rpm (%) Maximum | Minimum | Gas Generator Speed - rpm (%) | Gas Temperature °C |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 537 [1] (100) | 33,000 [2] (100) | 32,000 (97) | - | 810 |
| Maximum Continuous | 450 [1] (84) | 33,000 [2] [3] (100) | 32,000 (97) | 38,800 (101.8) | 765 |
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 815 [4] (76) | 33,000 [2] (100) | 32,000 (97) | - | - |
| 30 Minutes | 815 [4] (76) | 33,000 [2] (100) | 32,000 (97) | 39,400 (103.4) | 850 |
| Continuous | 657 [4] (61) | 33,000 [2] (100) | 32,000 (97) | 38,800 (101.8) | 810 |

Engine Operating Limits for Model 412 (S/N 33108 thru 33213, 36001 thru 36019) with PT6T-3B Engines (See Note 19)
(The 412SP is a Model designation used for marketing purposes only)

| | Torque per engine lb-ft (%) | Power Turbine Speed - rpm (%) Maximum | Minimum | Gas Generator Speed - rpm (%) | Gas Temperature °C |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 557 [1] (100) | 33,000 [2] (100) | 32,000 (97) | 38,400 [5] (100.8) | 810 |
| Maximum Continuous | 450 [1] (81) | 33,000 [2] [3] (100) | 32,000 (97) | 38,400 [5] (100.8) | 765 |
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 815 [4] (73.2) | 33,000 [2] (100) | 32,000 (97) | 39,000 [6] (102.4) | 850 |
| 30 Minutes | 815 [4] (73.2) | 33,000 [2] (100) | 32,000 (97) | 38,400 [5] (100.8) | 822 |
| Continuous | 657 [4] (58.9) | 33,000 [2] (100) | 32,000 (97) | 38,400 [5] (100.8) | 765 |

Engine Operating Limits for Model 412 (S/N 33108 thru 33213, 36001 thru 36019) with PT6T-3BF Engines (See Notes 19 and 41)
(The 412SP is a Model designation used for marketing purposes only)

| | Torque per engine lb-ft (%) | Power Turbine Speed - rpm (%) Maximum | Minimum | Gas Generator Speed - rpm (%) | Gas Temperature °C |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 557 [1] (100) | 33,000 [2] (100) | 32,000 (97) | - | 810 |
| Maximum Continuous | 450 [1] (81) | 33,000 [2] [3] (100) | 32,000 (97) | 38,800 (101.8) | 765 |
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 815 [4] (73.2) | 33,000 [2] (100) | 32,000 (97) | - | - |
| 30 Minutes | 815 [4] (73.2) | 33,000 [2] (100) | 32,000 (97) | 39,400 (103.4) | 850 |
| Continuous | 657 [4] (58.9) | 33,000 [2] (100) | 32,000 (97) | 38,800 (101.8) | 810 |

Engine Operating Limits for Model 412 (S/N 36020 thru 36086) with PT6T-3BE Engines (See Note 24)
(The 412HP is a Model designation used for marketing purposes only)

| | Torque lb-ft (%) | Power Turbine Speed - rpm (%) Maximum | Minimum | Gas Generator Speed - rpm (%) | Gas Temperature °C |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 22,208 [7] (100) | 33,000 [2] (100) | 32,000 (97) | 38,400 [5] (100.8) | 810 |
| Maximum Continuous | 17,993 [7] (81) | 33,000 [2] [3] (100) | 32,000 (97) | 38,400 [5] (100.8) | 765 |
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 815 [4] (73.2) | 33,000 [2] (100) | 32,000 (97) | 39,000 [6] (102.4) | 850 |
| 30 Minutes | 815 [4] (73.2) | 33,000 [2] (100) | 32,000 (97) | 38,400 [5] (100.8) | 822 |
| Continuous | 657 [4] (58.9) | 33,000 [2] (100) | 32,000 (97) | 38,400 [5] (100.8) | 765 |

Engine Operating Limits for Model 412 (S/N 36020 thru 36086) with PT6T-3BG Engines (See Notes 24 and 42)
(The 412HP is a Model designation used for marketing purposes only)

| | Torque lb-ft (%) | Power Turbine Speed - rpm (%) Maximum | Minimum | Gas Generator Speed - rpm (%) | Gas Temperature °C |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 22,208 [7] (100) | 33,000 [2] (100) | 32,000 (97) | - | 810 |
| Maximum Continuous | 17,993 [7] (81) | 33,000 [2] [3] (100) | 32,000 (97) | 38,800 (101.8) | 765 |
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 815 [4] (73.2) | 33,000 [2] (100) | 32,000 (97) | - | - |
| 30 Minutes | 815 [4] (73.2) | 33,000 [2] (100) | 32,000 (97) | 39,400 (103.4) | 850 |
| Continuous | 657 [4] (58.9) | 33,000 [2] (100) | 32,000 (97) | 38,800 (101.8) | 810 |

Engine Operating Limits for Model 412 (S/N 36020 thru 36086) with PT6T-3D Engines (See Notes 27, 29 and 30)
(The 412HP is a Model designation used for Marketing purposes only)

| | Torque lb-ft (%) | Power Turbine Speed - rpm (%) Maximum | Minimum | Gas Generator Speed - rpm (%) | Gas Temperature °C |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 22,208 [7] (100) | 33,000 [2] (100) | 32,000 (97) | 39,300 (103.2) | 810 |
| Maximum Continuous | 17,993 [7] (81) | 33,000 [2] [3] (100) | 32,000 (97) | 39,300 (103.2) | 810 |
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 902 [4] (81) | 33,000 [2] (100) | 32,000 (97) | 41,600 (109.2) | 940 |
| Continuous | 815 [4] (73.2) | 33,000 [2] (100) | 32,000 (97) | 39,500 (103.7) | 820 |

Engine Operating Limits for Model 412 with PT6T-3DE Engines (See Note 36)

| | Torque lb-ft (%) | Power Turbine Speed - rpm (%) Maximum | Minimum | Gas Generator Speed - rpm (%) | Gas Temperature °C |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 22,208 [7] (100) | 33,000 [2] (100) | 32,000 (97) | 39,300 (103.2) | 810 |
| Maximum Continuous | 17,993 [7] (81) | 33,000 [2] [3] (100) | 32,000 (97) | 39,300 (103.2) | 810 |
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 902 [4] (81) | 33,000 [2] (100) | 32,000 (97) | 41,600 (109.2) | 940 |
| 30 Minutes | 859 [4] (77) | 33,000 [2] (100) | 32,000 (97) | 40,250 (105.7) | 855 |

Engine Operating Limits for Model 412 (S/N 36020 thru 36086) with PT6T-3DF Engines (See Note 37)

| | Torque lb-ft (%) | Power Turbine Speed - rpm (%) Maximum | Minimum | Gas Generator Speed - rpm (%) | Gas Temperature °C |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 22,208 (7) (100) | 33,000 (2) (100) | 32,000 (97) | 39,300 (103.2) | 810 |
| Maximum Continuous | 17,993 (7) (81) | 33,000 (2)(3) (100) | 32,000 (97) | 39,300 (103.2) | 810 |
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 902 (4) (81) | 33,000 (2) (100) | 32,000 (97) | 41,600 (109.2) | 940 |
| 30 Minutes | 859 (4) (77) | 33,000 (2) (100) | 32,000 (97) | 40,700 (106.8) | 885 |

(1) On transmission torque scale.
(2) 100% (33,000 rpm) corresponds to 6600 rpm engine output shaft speed.
(3) 104.5% from 0 to 30% engine torque decreasing linearly to 100% at Continuous Engine Torque.
(4) On engine torque scale.
(5) 38,800 rpm (101.8%) with Gage P/N 212-075-037-113.
(6) 39,400 rpm (103.4%) with Gage P/N 212-075-037-113.
(7) On mast torque scale.

Rotor limits

Power Off
Maximum 339 rpm
(Tach reading 104.5%)
Minimum 294 rpm
(Tach reading 91%) G.W. more than 8,000 lb
Minimum 259 rpm
(Tach reading 80%) G.W. less than 8,000 lb

Power On
Maximum continuous 324 rpm
(Tach reading 100%)
Maximum 339 rpm
(Tach reading 104.5%)
(For 0 to 30% transmission torque)
Minimum 314 rpm
(Tach reading 97%; see respective BHT-412-FM-1, -2 or -3 flight manual for selection of rotor speed to flight conditions)

Airspeed limits

See Placard P/N 412-075-215 ($V_{NE}$ varies with altitude and temperature)
(Max. $V_{NE}$ 140 KIAS).

C.G. range for 412
Serial number effectivity -
33001 thru 33107
(See Note 19)

(a) Longitudinal C.G. limits
(+134.6) to (+141.6) at 11,600 lb
(+130.0) to (+144.0) at 8,800 lb
(+130.0) to (+144.0) at 6,500 lb
(+130.4) to (+144.0) at 6,400 lb min. wt.
Straight line variation between points given. See figure in Section 1, Model 412 Rotorcraft Flight Manual (BHT-412-FM-1).

(b) Lateral C.G. limits
+ 4.5 in. left and right of aircraft centerline.

C.G. range for 412
Serial number effectivity -
33108 thru 33213
36001 thru 36086

(a) Longitudinal C.G. limits
(135.1) to (141.4) at 11900 lb
(130.0) to (144.0) at 8800 lb
(130.0) to (144.0) at 6500 lb
(130.4) to (144.0) at 6400 lb min. wt.
Straight line variation between points given. See figure in Section 1, Model 412 Rotorcraft Flight Manual (BHT-412-FM-2, -3)

(b) Lateral C.G. limits
+ 4.5 in. left and right of aircraft centerline.

| | |
|---|---|
| Empty weight C.G. range | When possible, the empty C.G. shall be adjusted to the range given in Chapter 8, Model 412 Maintenance Manual. For helicopter configurations where this is not possible, complete computation of critical fore and aft C.G. position must be determined for each loading to ensure that the entire flight is conducted within the limits of the Gross Weight Center of Gravity chart in the Limitations section of the Flight Manual. |
| Maximum weight | 11,600 lb for 412 (S/N 33001 thru 33107) (See Note 19); 11,900 lb for 412 (S/N 33108 thru 33213 and 36001 thru 36086). |
| Minimum crew | 1 (pilot) Category B and Category A. See Note 14 for IFR operations. |
| Maximum passengers | 14 (Not limited by emergency exit requirements).<br>9 (with passenger seats re-arranged to create a nine or less passenger seat configuration - see Note 53). |
| Maximum baggage | 400 lb (See Flight Manual for loading schedule) |

| Fuel capacity | 412<br>S/N 33001-33107: | 412<br>S/N 33108 thru 33213<br>36001 thru 36086 |
|---|---|---|
| | 214.2 U.S. gal. (+152.8) total | 337.5 U.S. gal. (+151.5) total |
| | 211.4 U.S. gal. usable | 330.5 U.S. gal. usable |
| | 2.8 U.S. gal. unusable | 7.0 U.S. gal. unusable |

See Note 1 for requirement to include unusable (including trapped) fuel weight in certificated empty weight. For additional fuel capacities see Note 18.

| | |
|---|---|
| Oil capacity | Sys. Capacity 1.6 gal. (+182.9) each power section (.75 gal. usable). (Total capacity 3.2 gal. (+182.9)). See Note 1 for requirement to include undrainable oil weight in certificated empty weight. |
| Rotor blade and control movements | For rigging information, refer to the Model 412 Maintenance Manual. |
| Serial numbers eligible | 33001 thru 33213 except 33079, 33130, 33139 thru 33149; 33161 thru 33167; and 36001 thru 36086 (See Note 20). Serial Numbers 34001 thru 34999 (See Note 34) are not eligible for FAA Certificate of Airworthiness. |

**III - Model 412EP (Transport Helicopter - Category B), Approved June 23, 1994. (Transport Helicopter - Category A), Approved October 5, 1994**.

**Data pertinent to Model 412EP Helicopters Serial Numbers 36087 thru 36999**

Engines — Pratt & Whitney Canada, Corp. Model PT6T-3D or PT6T - 3DE or PT6T-3DF Twin Power Section Turboshaft (Ref. Note 5 on Type Certificate Data Sheet No. E22EA).

Fuel — Avjet type fuels conforming to:
U.S.A. specifications ASTM D1655, Type A, A-1; or ASTM D6615, Type B; or MIL-DTL-5624, Grade JP-4 (NATO F-40) or JP-5 (NATO F-44); or MIL-DTL-83133, Grade JP-8 (NATO F-34).
People's Republic of China specification GB 6537-2006, Grade No. 3 Jet Fuel

Engine Operating Limits for Model 412EP with PT6T-3D Engines

| | Torque lb-ft (%) | Power Turbine Speed - rpm (%) Maximum | Minimum | Gas Generator Speed - rpm (%) | Gas Temperature °C |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 22,208 (1) (100) | 33,000 (2) (100) | 32,000 (97) | 39,300 (103.2) | 810 |
| Maximum Continuous | 17,993 (1) (81) | 33,000 (2) (3) (100) | 32,000 (97) | 39,300 (103.2) | 810 |
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 902 (4) (81) | 33,000 (2) (100) | 32,000 (97) | 41,600 (109.2) | 940 |
| Continuous | 815 (4) (73.2) | 33,000 (2) (100) | 32,000 (97) | 39,500 (103.7) | 820 |

Engine Operating Limits for Model 412 EP (S/N 36072, 36082, 36119, 36122, 36123, 36126, 36127, and 36133) with PT6T-3DE Engines (See Note 36)

| | | | | | |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 22,208 (1) (100) | 33,000 (2) (100) | 32,000 (97) | 39,300 (103.2) | 810 |
| Maximum Continuous | 17,993 (1) (81) | 33,000 (2)(3) (100) | 32,000 (97) | 39,300 (103.2) | 810 |
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 902 (4) (81) | 33,000 (2) (100) | 32,000 (97) | 41,600 (109.2) | 940 |
| 30 Minutes | 859 (4) (77) | 33,000 (2) (100) | 32,000 (97) | 40,250 (105.7) | 885 |

Engine Operating Limits for Model 412EP with PT6T-3DF Engines (See Note 37)

| | | | | | |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 22,208 (1) (100) | 33,000 (2) (100) | 32,000 (97) | 39,300 (103.2) | 810 |
| Maximum Continuous | 17,993 (1) (81) | 33,000 (2)(3) (100) | 32,000 (97) | 39,300 (103.2) | 810 |
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 902 (4) (81) | 33,000 (2) (100) | 32,000 (97) | 41,600 (109.2) | 940 |
| 30 Minutes | 859 (4) (77) | 33,000 (2) (100) | 32,000 (97) | 40,700 (106.8) | 885 |

(1) On mast torque scale.

(2) 100% (33,000 rpm) corresponds to 6600 rpm engine output shaft speed.
(3) 104.5% from 0 to 30% engine torque decreasing linearly to 100% at Continuous Engine Torque.
(4) On engine torque scale.

| | | |
|---|---|---|
| Rotor limits | Power Off<br>Maximum 339 rpm<br>(Tach reading 104.5%)<br>Minimum 294 rpm<br>(Tach reading 91%) G.W. more than 8,000 lb<br>Minimum 259 rpm<br>(Tach reading 80%) G.W. less than 8,000 lb | Power On<br>Maximum continuous 324 rpm<br>(Tach reading 100%)<br>Maximum 339 rpm<br>(Tach reading 104.5%)<br>(For 0 to 30% transmission torque)<br>Minimum 314 rpm<br>(Tach reading 97%; see BHT-412-FM-4 for rotor speed selection to flight conditions) |

Airspeed limits

See Placard P/N 412-075-215 ($V_{NE}$ varies with altitude and temperature)
(Max. $V_{NE}$ 140 KIAS).

C.G. range

(a) Longitudinal C.G. limits
(135.1) to (141.4) at 11900 lb
(130.0) to (144.0) at 8800 lb
(130.0) to (144.0) at 6500 lb
(130.4) to (144.0) at 6400 lb min. wt.
Straight line variation between points given. See figure in Section 1, Model 412EP Rotorcraft Flight Manual (BHT-412-FM-4)
(b) Lateral C.G. limits
+ 4.5 in. left and right of aircraft centerline.

Empty weight C.G. range

When possible, the empty C.G. shall be adjusted to the range given in Chapter 8, Model 412/412EP Maintenance Manual. For helicopter configurations where this is not possible, complete computation of critical fore and aft C.G. position must be determined for each loading to ensure that the entire flight is conducted within the limits of the Gross Weight Center of Gravity chart in the Limitations section of the Flight Manual.

Maximum weight

11,900 lb

Minimum crew

1 (pilot) Category B and Category A. See Note 14 for IFR operations.

Maximum passengers

14 (Not limited by emergency exit requirements).
9 (with passenger seats re-arranged to create a nine or less passenger seat configuration - see Note 53).

Maximum baggage

400 lb (See Flight Manual for loading schedule)

Fuel capacity

337.5 U.S. gal. (+151.5) total
330.5 U.S. gal. usable
7.0 U.S. gal. unusable
See Note 1 for requirement to include unusable (including trapped) fuel weight in certificated empty weight. For additional fuel capacities see Note 18.

Oil capacity

Sys. Capacity 1.6 gal. (+182.9) each power section (.75 gal. usable). (Total capacity 3.2 gal. (+182.9)). See Note 1 for requirement to include undrainable oil weight in certificated empty weight.

Rotor blade and control movements

For rigging information, refer to the Model 412/412EP Maintenance Manual.

Serial numbers eligible

36087 thru 36999 (See Notes 20 and 43). Serial Numbers 33501 thru 33508 are not eligible for FAA Certificate of Airworthiness. (See Note 34)

**Data Pertinent to Model 412EP Helicopter Serial Numbers 37002 thru 37999**
(Improved Model 412EP, designated as 412EPI for marketing purposes, see Note 46)

The following data, limitations, and conditions apply to areas of the helicopter which are changed:

Engines — Pratt & Whitney Canada, Corp. Model PT6T-9 Twin Power Section Turboshaft (Ref. Note 12 on engine Type Certificate Data Sheet No. E22EA).

Engine Operating Limits for Model 412EP Helicopter S/N 37002 thru 37999 with PT6T-9 Engines

| | Torque lb-ft (%) | Power Turbine Speed – rpm (%) 100% = 33,000 Maximum | Minimum | Gas Generator Speed – rpm (%) 100% = 38,100 | Gas Temperature °C |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 22,208 (1) (100) | 34,155(2) (103.5) | 32,010 (97) | 38,850 (102) | 825 |
| Maximum Continuous | 17,993 (1) (81) | 34,155(2) (103.5) | 32,010 (97) | 38,100 (100) | 785 |
| One Engine Inoperative (Emergency): | | | | | |
| 30 Seconds | 1010 (3) (90.7) | 34,155(2) (103.5) | 32,010 (97) | 41,200 (108.1) | 960 |
| 2 Minutes | 915 (3) (82.1) | 34,155(2) (103.5) | 32,010 (97) | 40,160 (105.4) | 905 |
| Continuous | 875 (3) (78.5) | 34,155(2) (103.5) | 32,010 (97) | 39,500 (103.7) | 860 |

(1) On mast torque scale.
(2) 100% (33,000 rpm) corresponds to 6,600 rpm engine output shaft speed.
(3) On engine torque scale.

Rotor limits

| Power Off | Power On |
|---|---|
| Maximum 339 rpm (Tach reading 104.5%) | Maximum continuous 324 rpm (Tach reading 100%) |
| Minimum 294 rpm (Tach reading 91%) G.W. more than 8,000 lb | Maximum 335 rpm (Tach reading 103.5%) |
| Minimum 259 rpm (Tach reading 80%) G.W. less than 8,000 lb | Minimum 314 rpm (Tach reading 97%; see BHT-412-FM-5 for rotor speed selection to flight conditions) |

Oil capacity — Each engine power section tank (on accessory gearbox) has 1.6 gal. capacity, 0.75 gal. usable, and 0.5 gal. expansion space available. Reduction gearbox tank has 1.25 gal. capacity. See Note 1 for requirement to include undrainable oil weight in certificated empty weight.

Serial numbers eligible — 37002 thru 37999 (see Note 20)

Data, limitations, and conditions for areas of the helicopter not impacted by changes, listed in Note 46, are the same as that specified herein for helicopter serial numbers 36087 thru 36999 and remain applicable.

**Data Pertinent to Model 412EP Helicopters Serial Numbers 36248 thru 36999 and 37002 thru 37999 with Increased Gross Weight (IGW) Kit 412-706-140 installed (see Note 50).**

Rotor limits

| Power Off | Power On |
|---|---|
| Maximum 339 rpm (Tach reading 104.5%) | Maximum continuous 324 rpm (Tach reading 100%) |
| Minimum 294 rpm | Maximum 335 rpm |

(Tach reading 91%) G.W. more than 8,000 lb (Tach reading 103.5%)
Minimum 259 rpm Minimum 314 rpm
(Tach reading 80%) G.W. less than 8,000 lb (Tach reading 97%; see BHT-412-FMS-74.5 for rotor speed selection to flight conditions)

C.G. range

(a) Longitudinal C.G. limits
(135.6) to (141.1) at 12200 lb
(130.0) to (144.0) at 8800 lb
(130.0) to (144.0) at 6500 lb
(130.4) to (144.0) at 6400 lb min. wt.

Straight line variation between points given.

(b) Lateral C.G. limits
+ 4.5 in. left and right of aircraft centerline.

Maximum weight 12,200 lb

**Data Pertinent to Model 412EP Helicopter Serial Numbers 38001 thru 38999 and 39101 thru 39999**
(Improved Model 412EP, designated as 412EPX for marketing purposes, see Note 51)

The following data, limitations, and conditions apply to areas of the helicopter which are changed:

Engines Pratt & Whitney Canada, Corp. Model PT6T-9 Twin Power Section Turboshaft (Ref. Note 12 on engine Type Certificate Data Sheet No. E22EA).

Engine Operating Limits for Model 412EP Helicopter S/N 38001 thru 38999, and 39101 thru 39999 with PT6T-9 Engines

| | Torque lb-ft (%) | Power Turbine Speed – rpm (%) 100% = 33,000 Maximum | Minimum | Gas Generator Speed – rpm (%) 100% = 38,100 | Gas Temperature °C |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) with airspeed up to 60 KIAS | 24,639 (1) (111) | 34,155(2) (103.5) | 32,010 (97) | 38,850 (102) | 825 |
| Takeoff (5 minutes) with airspeed above 60 KIAS | 22,208 (1) (100) | 34,155(2) (103.5) | 32,010 (97) | 38,850 (102) | 825 |
| Maximum Continuous with airspeed below 60 KIAS | 22,208 (1) (100) | 34,155(2) (103.5) | 32,010 (97) | 38,100 (100) | 785 |
| Maximum Continuous with airspeed above 60 KIAS | 17,993 (1) (81) | 34,155(2) (103.5) | 32,010 (97) | 38,100 (100) | 785 |
| One Engine Inoperative (Emergency): | | | | | |
| 30 Seconds | 1010 (3) (90.7) | 34,155(2) (103.5) | 32,010 (97) | 41,200 (108.1) | 960 |
| 2 Minutes | 915 (3) (82.1) | 34,155(2) (103.5) | 32,010 (97) | 40,160 (105.4) | 905 |
| Continuous | 875 (3) (78.5) | 34,155(2) (103.5) | 32,010 (97) | 39,500 (103.7) | 860 |

(1) On mast torque scale.
(2) 100% (33,000 rpm) corresponds to 6,600 rpm engine output shaft speed.
(3) On engine torque scale.

| Rotor limits | Power Off | Power On |
|---|---|---|
| | Maximum 339 rpm (Tach reading 104.5%) | Maximum continuous 324 rpm (Tach reading 100%) |
| | Minimum 294 rpm (Tach reading 91%) G.W. more than 8,000 lb | Maximum 335 rpm (Tach reading 103.5%) |
| | Minimum 259 rpm (Tach reading 80%) G.W. less than 8,000 lb | Minimum 314 rpm (Tach reading 97%; see BHT-412-FM-6 for rotor speed selection to flight conditions) |

Oil capacity — Each engine power section tank (on accessory gearbox) has 1.6 gal. capacity, 0.75 gal. usable, and 0.5 gal. expansion space available. Reduction gearbox tank has 1.25 gal. capacity. See Note 1 for requirement to include undrainable oil weight in certificated empty weight.

C.G. range — (a) Longitudinal C.G. limits
(136.9) to (140.5) at 13000 lb
(135.6) to (141.1) at 12200 lb
(130.0) to (144.0) at 8800 lb
(130.0) to (144.0) at 6500 lb
(130.4) to (144.0) at 6400 lb min. wt.

Straight line variation between points given.

(b) Lateral C.G. limits
+ 4.5 in. left and right of aircraft centerline.

Maximum weight — 12,200 lb – internal cargo
13,000 lb – external cargo (Class B rotorcraft-load combination)

Serial numbers eligible — 38001 thru 38999 and 39101 thru 39999 (see Note 20)

Data, limitations, and conditions for areas of the helicopter not impacted by changes, listed in Note 51, are the same as that specified herein for helicopter serial numbers 36087 thru 36999 and remain applicable.

**IV - Model 412CF (Transport Helicopter - Category B), Approved March 2, 1995. (Transport Helicopter - Category A), Approved March 2, 1995. See Note 33.**

Engines — Pratt & Whitney Canada, Corp. Model PT6T-3D Twin Power Section Turboshaft (Ref. Note 5 on Type Certificate Data Sheet No. E22EA).

Fuel — Avjet type fuels conforming to ASTM D1655, Type A, A-1; or ASTM D6615, Type B; or MIL-DTL-5624, Grade JP-4 (NATO F-40) or JP-5 (NATO F-44); or MIL-DTL-83133, Grade JP-8 (NATO F-34).

Engine Operating Limits for Model 412CF with PT6T-3D Engines

| | Torque lb-ft (%) | Power Turbine Speed - rpm (%) Maximum | Power Turbine Speed - rpm (%) Minimum | Gas Generator Speed - rpm (%) | Gas Temperature °C |
|---|---|---|---|---|---|
| Normal Operation: | | | | | |
| Takeoff (5 minutes) | 22,208 (1) (100) | 33,000 (2) (100) | 32,000 (97) | 39,300 (103.2) | 810 |

| | | | | | |
|---|---|---|---|---|---|
| Maximum Continuous | 17,993 (1)<br>(81) | 33,000 (2) (3)<br>(100) | 32,000<br>(97) | 39,300<br>(103.2) | 810 |
| One Engine Inoperative (Emergency): | | | | | |
| 2-1/2 Minutes | 902 (4)<br>(81) | 33,000 (2)<br>(100) | 32,000<br>(97) | 41,600<br>(109.2) | 940 |
| Continuous | 815 (4)<br>(73.2) | 33,000 (2)<br>(100) | 32,000<br>(97) | 39,500<br>(103.7) | 820 |

(1) On mast torque scale.
(2) 100% (33,000 rpm) corresponds to 6,600 rpm engine output shaft speed.
(3) 104.5% from 0 to 30% engine torque decreasing linearly to 100% at Continuous Engine Torque.
(4) On engine torque scale.

Rotor limits

| Power Off | Power On |
|---|---|
| Maximum 339 rpm<br>(Tach reading 104.5%) | Maximum continuous 324 rpm<br>(Tach reading 100%) |
| Minimum 294 rpm<br>(Tach reading 91%) G.W. more than 8,000 lb | Maximum 339 rpm<br>(Tach reading 104.5%)<br>(For 0 to 30% transmission torque) |
| Minimum 259 rpm<br>(Tach reading 80%) G.W. less than 8,000 lb | Minimum 314 rpm<br>(Tach reading 97% see BHT-412CF-FM-01 for rotor speed selection to flight conditions) |

Airspeed limits

See Placard P/N 412-075-215 ($V_{NE}$ varies with altitude and temperature) (Max. $V_{NE}$ 140 KIAS).

C.G. range

(a) Longitudinal C.G. limits
(135.1) to (141.4) at 11900 lb
(130.0) to (144.0) at 8800 lb
(130.0) to (144.0) at 6500 lb
(130.4) to (144.0) at 6400 lb min. wt.

Straight line variation between points given. See figure in Section 1, Model 412CF Rotorcraft Flight Manual (BHT-412CF-FM-01).

(b) Lateral C.G. limits
+ 4.5 in. left and right of aircraft centerline.

Empty weight C.G. range

When possible, the empty C.G. shall be adjusted to the range given in Chapter 8, Model 412CF Maintenance Manual (C-12-146-000/MF-001). For helicopter configurations where this is not possible, complete computation of critical fore and aft C.G. position must be determined for each loading to ensure that the entire flight is conducted within the limits of the Gross Weight Center of Gravity chart in the Limitations section of the Model 412CF Flight Manual (BHT-412CF-FM-01).

Maximum weight

11,900 lb

Minimum crew

1 (pilot) Category B and Category A. See Flight Manual for mission systems a additional crew.

Maximum passengers

14 (Not limited by emergency exit requirements)

Maximum baggage

400 lb (See Flight Manual for loading schedule)

Fuel capacity

326.5 U.S. gal. (+150.2) total
317.3 U.S. gal. usable
9.2 U.S. gal. unusable

See Note 1 for requirement to include unusable (including trapped) fuel weight in certificated empty weight. For additional fuel capacities see Note 18.

Oil capacity

Sys. Capacity 1.6 gal. (+182.9) each power section (.75 gal. usable). (Total capacity 3.2 gal. (+182.9)). See Note 1 for requirement to include undrainable oil weight in certificated empty weight.

Rotor blade and control movements

For rigging information, refer to the Model 412CF Maintenance Manual (C-12-146-000/MF-001).

Serial numbers eligible

46400 thru 46499 (See Note 20).

**Data Pertinent to All Models**

Datum

Station 0 (datum is located 20 inches aft of the most forward point of the fuselage cabin nose section).

Leveling means

Plumb line from top of left main door frame.

Certification basis

Model 212

14 CFR Part 29 dated February 1, 1965, Amdt 29-1 and 29-2, except where superseded by the following regulations at amendment level later than 29-2.
14 CFR Part 29.473, 29.501, 29.771, 29.903(c), 29.1323, 29.1505(b) Amdt 29-3

Special Condition No. 29-12-SW-1, and "Guidelines For Helicopter Certification Using Vertical Takeoff Techniques From Ground Level and Elevated Heliports" vertical takeoff criteria transmitted to Bell by FAA SW-210 letter dated 3 February 1971, and IFR Instrument requirements for Bell Model 212 helicopters transmitted by SW-210 (SW-216 letter dated 1 July 1970).

Equivalent Safety Finding for 14 CFR Part 29.501(e) One-skid landing loads in the level attitude (reference FAA letter to Bell Helicopter Textron, Inc. dated September 20, 1995).

No Exemptions

Ditching: 14 CFR Part 29.801 of Amend 29-12 including 14 CFR Part 29.1411, 29.1415

Model 412

14 CFR Part 29 dated February 1, 1965, Amdt 29-1 and 29-2, except where superseded by the following regulations at amendment level later than 29-2:
14 CFR Part 29.473, 29.501, 29.663, 29.771, 29.903(c), 29.1323, 29.1505(b) Amdt 29-3

Special Condition No. 29-12-SW-1 Amdt 1, and "Guidelines For Helicopter Certification Using Vertical Takeoff Techniques From Ground Level and Elevated Heliports" vertical takeoff criteria transmitted to Bell by FAA SW-210 letter dated 3 February 1971, and "Airworthiness Criteria for Helicopter Instrument Flight" dated Dec. 15, 1978.

Equivalent Safety Finding for 14 CFR Part 29.501(e) One-skid landing loads in the level attitude (reference FAA letter to Bell Helicopter Textron, Inc. dated September 20, 1995).

Exemption No. 3100 against 14 CFR Part 29.1323(c).
Exemption No. 5985 against 14 CFR Part 29.1303(g)(1).

Ditching: 14 CFR Part 29.801 of Amend 29-12 including 14 CFR Part 29.1411, 29.1415. Complied with Category A engine isolation requirements.

Noise standards: 14 CFR Part 36, Subpart H dated February 5, 1988, Amdt 36-14.

For Cat. A operations conducted in accordance with BHT-412-FMS-62.3 (see Note 40) compliance has been also shown with 29.53, 29.55, 29.60, 29.61, 29.64, 29.79 at Amdt 29-39 and 29.59, 29.62, 29.67(a), 29.77, 29.81, 29.85, 29.1587(a) at Amdt 29-44

Model 412EP (S/N 36087 thru 36999)

14 CFR Part 29 dated February 1, 1965, Amdt 29-1 and 29-2.
For changes specific to 412EP S/N 36087 thru 36999 the certification basis is superseded by the following regulations at amendment levels later than 29-2.

| | |
|---|---|
| 14 CFR Part 29.473, 29.501, 29.663, 29.771, 29.903(c), 29.1323, 29.1505(b) | Amdt 29-3 |
| 14 CFR Part 29.1457 | Amdt 29-6 |
| 14 CFR Part 29.939(c), 29.1322 | Amdt 29-12 |
| 14 CFR Part 29.1335, 29.1351 | Amdt 29-14 |
| 14 CFR Part 29.1353, 29.1581 | Amdt 29-15 |
| 14 CFR Part 29.1413 | Amdt 29-16 |
| 14 CFR Part 29.1545 | Amdt 29-17 |
| 14 CFR Part 29 Appendix A a29.1, a29.2, a29.3 | Amdt 29-20 |
| 14 CFR Part 29.1321 | Amdt 29-21 |
| 14 CFR Part 29.151, 29.161, 29.181, 29.672, 29.1303, 29.1309, 29.1325, 29.1329, 29.1331, 29.1333, 29.1355, 29.1357, 29.1555 | Amdt 29-24 |
| 14 CFR Part 29.1459 | Amdt 29-25 |
| 14 CFR Part 29.1549 | Amdt 29-26 |
| 14CFR Part 29 Appendix A a29.4 | Amdt 29-27 |
| 14 CFR Part 29 Appendix B VIII | Amdt 29-31 |
| 14 CFR Part 29.2 | Amdt 29-32 |
| 14 CFR Part 29.53, 29.55, 29.60, 29.61, 29.64, 29.79 | Amdt 29-39 |
| 14 CFR Part 29.59, 29.62, 29.67(a), 29.77, 29.81, 29.85, 29.1587(a) | Amdt 29-44 |

Special Condition No. 29-12-SW-1 Amdt 1.
Special Condition No. 29-ASW-5 for SAR equipped helicopters.

Equivalent Safety Finding for 14 CFR Part 29.501(e) One-skid landing loads in the level attitude (reference FAA letter to Bell Helicopter Textron, Inc. dated September 20, 1995).

Exemption No. 3100 against 14 CFR Part 29.1323(c).
Exemption No. 5985 against 14 CFR Part 29.1303(g)(1).

Ditching: 14 CFR Part 29.801 of Amend 29-12 including 14 CFR Part 29.1411, 29.1415.

Complied with Category A engine isolation requirements.

Noise standards: 14 CFR Part 36, Subpart H dated February 5, 1988, Amdt 36-14.

If BHT Kit 412-706-089-101, Crash Attenuating Crew Seats, is installed then compliance has also been shown to 14 CFR Part 29.307 of Amend 29-4; 29.603 of Amend 29-12; 29.613 of Amend 29-17; 29.561(b) and 29.785 of Amend 29-29; and 29.562 of Amend 29-41.

Model 412EP (S/N 37002 thru 37999)

14 CFR Part 29 dated February 1, 1965, Amdt 29-1 and 29-2.
For changes specific to 412EP S/N 37002 thru 37999 (see Note 46) the certification basis is superseded by the following regulations at amendment levels later than 29-2.

| | |
|---|---|
| 14 CFR Part 29.473, 29.501, 29.663, 29.771, 29.773(a), 29.901, 29.903(c)(1)(2), 29.1191(a)(c)(d)(e)(f), 29.1323, 29.1505(b) | Amdt 29-3 |
| 14 CFR Part 29.1457 | Amdt 29-6 |
| 14 CFR Part 29.1397 | Amdt 29-7 |
| 14 CFR Part 29.1387 | Amdt 29-9 |
| 14 CFR Part 29.1401 | Amdt 29-11 |
| 14 CFR Part 29.63, 29.939, 29.1165, 29.1322 | Amdt 29-12 |
| 14 CFR Part 29.1145 | Amdt 29-13 |
| 14 CFR Part 29.1335, 29.1351 | Amdt 29-14 |
| 14 CFR Part 29.29, 29.33(a)(1), 29.1353, 29.1501, 29.1527, 29.1581 | Amdt 29-15 |
| 14 CFR Part 29.1413 | Amdt 29-16 |
| 14 CFR Part 29.1091(a)(b), 29.1545 | Amdt 29-17 |
| 14 CFR Part 29.571, 29.1529, 14 CFR Part 29 Appendix A a29.1, a29.2, a29.3 | Amdt 29-20 |
| 14 CFR Part 29.1321, 14 CFR Part 29 Appendix B I, III, IV, V, VI, VII, IX (a)(b) | Amdt 29-21 |
| 14 CFR Part 29.853(a)(2)(c) | Amdt 29-23 |
| 14 CFR Part 29.21, 29.45(a)(b)(c)(e)(f), 29.151, 29.161, 29.181, 29.672, 29.771(a)(b)(c), 29.1303, 29.1309, 29.1325, 29.1329, 29.1331, 29.1333, 29.1355, 29.1357, 29.1517, 29.1555, 29.1559, 29.1583, 29.1585 | Amdt 29-24 |
| 14 CFR Part 29.1459 | Amdt 29-25 |
| 14 CFR Part 29.1011(d), 29.1041, 29.1043, 29.1045, 29.1047, 29.1141(a)(b)(c)(d)(f)(2), 29.1337(a)(b)(1)(2)(c)(d)(e), 29.1557(c)(2) | Amdt 29-26 |
| 14CFR Part 29 Appendix A a29.4 | Amdt 29-27 |
| 14 CFR Part 29.337(a), 29.613(d) | Amdt 29-30 |
| 14 CFR Part 29.783(e), 29.903(a)(b)(c)(3)(d)(e) | Amdt 29-31 |
| 14 CFR Part 29.2 | Amdt 29-32 |
| 14CFR Part 29.1143(a)(b)(c)(e)(f), 29.1549 | Amdt 29-34 |
| 14 CFR Part 29.952(a)(1)(2)(3)(5)(6), 29.952(c), 29.952(c)(3), 29.952(f), 29.963(b), 29.973(a), 29.973(a)(3) | Amdt 29-35* |
| 14 CFR Part 29.49(a)(b)(c), 29.51, 29.53, 29.55, 29.60, 29.61, 29.64, 29.65(a), 29.75, 29.79, 29.83(a)(b), 29.87(a) | Amdt 29-39 |
| 14 CFR Part 29.1305(a)(3)(4)(6-19)(21-23)(25)(26)(b)(c), 29.1309(a)(b)(2)(c)(d)(e)(f)(g)(h), 14 CFR Part 29 Appendix B VIII (a)(b)(3)(4)(5)(6)(c) | Amdt 29-40 |
| 14 CFR Part 29.1521(a)(b)(1)(3)(4)(5)(6)(7)(ii)(c)(4)(d)(e)(f)(g)(h)(i)(j) | Amdt 29-41 |
| 14 CFR Part 29.1329(f), 29.1351(a)(b)(3)(4)(6)(d), 29.1359 | Amdt 29-42 |
| 14 CFR Part 29.975(a), 29.975(a)(7) | Amdt 29-42* |
| 14 CFR Part 29.865(c)(6) | Amdt 29-43 |
| 14 CFR Part 29.59, 29.62, 29.67, 29.77, 29.81, 29.85, 29.1323(a)(b)(c)(d)(e) | Amdt 29-44 |
| 14 CFR Part 29.1317(a)(b)(c), 14 CFR Part 29 Appendix E | Amdt 29-49 |
| 14 CFR Part 29.1587 | Amdt 29-51 |

* Applicable to fuel system components that meet the 49 USC §44737 (see Note 54).

Special Condition No. 29-12-SW-1 Amdt 1.

Equivalent Safety Finding for 14 CFR Part 29.501(e) One-skid landing loads in the level attitude (reference FAA letter to Bell Helicopter Textron, Inc. dated September 20, 1995).

Equivalent Safety Finding for 14 CFR Part 29.1305(a)(11-16) and 29.1549(a)(b)(c)(e) for the Power Situation Indicator (documented in ELOS Memo No. ST0025RC-RD/P-1) dated 1/16/13.

Equivalent Safety Finding for 14 CFR Part 29.1545(b)(2) for Airspeed Indicator (documented in ELOS Memo No. ST0025RC-RD/F-2) dated 9/27/12.

Equivalent Safety Finding for 14 CFR Part 29.1333(a) and 14 CFR Part 29 Appendix B VIII(b)(5)(i) and (ii) for Electronically Integrated Flight Instrument Systems (documented in ELOS Memo No. ST0025RC-RD/S-2) dated 1/25/13.

Equivalent Safety Finding for 14 CFR Part 29.1555(c)(1) for the Useable Fuel Capacity Marking (documented in ELOS Memo No. ST0025RC-RD/P-2) dated 12/18/12.

Ditching: 14 CFR Part 29.801 of Amend 29-12 including 14 CFR Part 29.1411, 29.1415.

Complied with Category A engine isolation requirements.

Noise standards: 14 CFR Part 36, Subpart H dated February 5, 1988, Amdt 36-14.

If BHT Kit 412-706-089-101, Crash Attenuating Crew Seats, is installed then compliance has also been shown to 14 CFR Part 29.307 at Amdt 29-4; 29.603 at Amdt 29-12; 29.613 at Amdt 29-17; 29.561(b), 29.785 at Amdt 29-29, 29.562 at Amdt 29-41.

If BHT Kit 412-706-140, Increased Gross Weight, is installed then compliance has also been shown to 14CFR Part 29.25(a)(1)(3)(4) at Amdt 29-51.

Model 412EP (S/N 38001 thru 38999, and 39101 thru 39999)

14 CFR Part 29 dated February 1, 1965, Amdt 29-1 and 29-2.
For changes specific to 412EP S/N 38001 thru 38999 and 39101 thru 39999 (see Note 51) the certification basis is superseded by the following regulations at amendment levels later than 29-2.

| | |
|---|---|
| 14 CFR Part 29.473, 29.501, 29.663, 29.771, 29.773(a), 29.901, 29.903(c)(1)(2), 29.1191(a)(c)(d)(e)(f), 29.1323, 29.1505(a)(2)(ii)(b) | Amdt 29-3 |
| 14 CFR Part 29.607 | Amdt 29-5 |
| 14 CFR Part 29.1457 | Amdt 29-6 |
| 14 CFR Part 29.1397 | Amdt 29-7 |
| 14 CFR Part 29.1387 | Amdt 29-9 |
| 14 CFR Part 29.1401 | Amdt 29-11 |
| 14 CFR Part 29.63, 29.939, 29.1165, 29.1322 | Amdt 29-12 |
| 14 CFR Part 29.1145 | Amdt 29-13 |
| 14 CFR Part 29.1335, 29.1351 | Amdt 29-14 |
| 14 CFR Part 29.29, 29.33(a)(1), 29.1353, 29.1501, 29.1527, 29.1581 | Amdt 29-15 |
| 14 CFR Part 29.1413 | Amdt 29-16 |
| 14 CFR Part 29.1091(a)(b), 29.1545 | Amdt 29-17 |
| 14 CFR Part 29.571, 29.1529, 14 CFR Part 29 Appendix A a29.1, a29.2, a29.3 | Amdt 29-20 |
| 14 CFR Part 29.1321, 14 CFR Part 29 Appendix B I, III, IV, V, VI, VII, IX (a)(b) | Amdt 29-21 |
| 14 CFR Part 29.853(a)(2)(c) | Amdt 29-23 |
| 14 CFR Part 29.21, 29.45(a)(b)(c)(e)(f), 29.151, 29.161, 29.181, 29.672, 29.771(a)(b)(c), 29.1303, 29.1309, 29.1325, 29.1329, 29.1331, 29.1333, 29.1355, 29.1357, 29.1517, 29.1555, 29.1559, 29.1583, 29.1585 | Amdt 29-24 |
| 14 CFR Part 29.1459 | Amdt 29-25 |
| 14 CFR Part 29.927, 29.1011(d), 29.1041, 29.1043, 29.1045, 29.1047, 29.1141(a)(b)(c)(d)(e)(f)(2), 29.1337(a)(b)(1)(2)(c)(d)(e), 29.1557(c)(2) | Amdt 29-26 |
| 14CFR Part 29 Appendix A a29.4 | Amdt 29-27 |
| 14 CFR Part 29.571(a)(a)(1)(ii)(b)(b)(3) | Amdt 29-28* |
| 14 CFR Part 29.337(a), 29.613(d)(e) | Amdt 29-30 |
| 14 CFR Part 29.783(e), 29.903(a)(b)(c)(3)(d)(e) | Amdt 29-31 |
| 14 CFR Part 29.2 | Amdt 29-32 |
| 14CFR Part 29.1143(a)(b)(c)(e)(f), 29.1549 | Amdt 29-34 |
| 14 CFR Part 29.952(a)(1)(2)(3)(5)(6), 29.952(c), 29.952(c)(3), 29.952(f), 29.963(b), 29.973(a), 29.973(a)(3) | Amdt 29-35 |

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| 14 CFR Part 29.49(a)(b)(c), 29.51, 29.53, 29.55, 29.60, 29.61, 29.64, 29.65(a), 29.75, 29.79, 29.83, 29.87(a) | Amdt 29-39 |
| 14 CFR Part 29.1305(a)(3)(4)(6-19)(21-23)(25)(26)(b)(c), 29.1309(a)(b)(2)(c)(d)(e)(f)(g)(h), 14 CFR Part 29 Appendix B VIII (a)(b)(1)(3)(4)(5)(6)(c) | Amdt 29-40 |
| 14 CFR Part 29.1521(a)(b)(1)(3)(4)(5)(6)(7)(ii)(c)(4)(d)(e)(f)(g)(h)(i)(j) | Amdt 29-41 |
| 14 CFR Part 29.923(a)(b)(1)(c)(d)(e)(f)(g)(h)(i)(j)(k)(2)(k)(3)(m)(o)(p), 29.975(a), 29.975(a)(7) 29.1329(f), 29.1351(a)(b)(3)(4)(6)(d), 29.1359 | Amdt 29-42 |
| 14 CFR Part 29.865(a)(b)(3)(i)(c)(6)(d)(e) | Amdt 29-43 |
| 14 CFR Part 29.59, 29.62, 29.67, 29.77, 29.81, 29.85, 29.1323(a)(b)(c)(d)(e) | Amdt 29-44 |
| 14 CFR Part 29.397(b)(2) | Amdt 29-47 |
| 14 CFR Part 29.1317, 14 CFR Part 29 Appendix E | Amdt 29-49 |
| 14 CFR Part 29.25(a)(1)(3)(4) (c)(1)(3)(4)(5), 29.1587 | Amdt 29-51 |

* Applicable only to modified main rotor gearbox gears.

Special Condition No. 29-12-SW-1 Amdt 1.

Equivalent Safety Finding for 14 CFR Part 29.501(e) One-skid landing loads in the level attitude (reference FAA letter to Bell Helicopter Textron, Inc. dated September 20, 1995).

Equivalent Safety Finding for 14 CFR Part 29.1305(a)(11-16) and 29.1549(a)(b)(c)(e) for the Power Situation Indicator (documented in ELOS Memo No. ST0025RC-RD/P-1) dated 1/16/13.

Equivalent Safety Finding for 14 CFR Part 29.1545(b)(2) for Airspeed Indicator (documented in ELOS Memo No. ST0025RC-RD/F-2) dated 9/27/12.

Equivalent Safety Finding for 14 CFR Part 29.1333(a) and 14 CFR Part 29 Appendix B VIII(b)(5)(i) and (ii) for Electronically Integrated Flight Instrument Systems (documented in ELOS Memo No. ST0025RC-RD/S-2) dated 1/25/13.

Equivalent Safety Finding for 14 CFR Part 29.1555(c)(1) for the Useable Fuel Capacity Marking (documented in ELOS Memo No. ST0025RC-RD/P-2) dated 12/18/12.

Ditching: 14 CFR Part 29.801 at Amdt 29-12 including 14 CFR Part 29.1411, 29.1415.

Complied with Category A engine isolation requirements.

Noise standards: 14 CFR Part 36, Subpart H dated February 5, 1988, Amend 36-14.

If BHT Kit 412-706-089-101, Crash Attenuating Crew Seats, is installed then compliance has also been shown to 14 CFR Part 29.307 at Amdt 29-4; 29.603 at Amdt 29-12; 29.613 at Amdt 29-17; 29.561(b), 29.785 at Amdt 29-29, 29.562 at Amdt 29-41.

If Crew Seat Kit P/N 412-706-099-101/-103 is installed, then compliance is also shown to 29.1307(a) at Amdt 29-12; 29.603, 29.605(a), 29.613(a)(b) at Amdt 29-17; 29.307(a), 29.803(a)(b), 29.805(a)(b) at Amdt 29-30; 29.561 (a) (b) at Amdt 29-38; 29.562(a) (b) (c) at Amdt 29-41; 29.625, 29.785(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) at Amdt 29-42; 29.773(a) at Amdt 29-57.

Model 412CF

14 CFR Part 29 dated February 1, 1965, Amdt 29-1 and 29-2.
For changes specific to 412CF the certification basis is superseded by the following regulations at amendment levels later than 29-2.

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| 14 CFR Part 29.473, 29.663, 29.771, 29.903(c), 29.1323, 29.1505(b) | Amdt 29-3 |
| 14 CFR Part 29.1457 | Amdt 29-6 |
| 14 CFR Part 29.1397 | Amdt 29-7 |
| 14 CFR Part 29.1387 | Amdt 29-9 |
| 14 CFR Part 29.1401 | Amdt 29-11 |

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| 14 CFR Part 29.939(c), 29.1322 | Amdt 29-12 |
| 14 CFR Part 29.1335, 29.1351 | Amdt 29-14 |
| 14 CFR Part 29.1353, 29.1581 | Amdt 29-15 |
| 14 CFR Part 29.1413 | Amdt 29-16 |
| 14 CFR Part 29.1545 | Amdt 29-17 |
| 14 CFR Part 29.1321 | Amdt 29-21 |
| 14 CFR Part 29.151, 29.161, 29.672, 29.1303, 29.1309, 29.1325, 29.1329, 29.1331, 29.1333, 29.1355, 29.1357, 29.1555, 29.1559 | Amdt 29-24 |
| 14 CFR Part 29.1459 | Amdt 29-25 |
| 14 CFR Part 29.1549 | Amdt 29-26 |
| 14 CFR Part 29.501 | Amdt 29-30 |
| 14 CFR Part 29 Appendix B | Amdt 29-31 |
| 14 CFR Part 29.2 | Amdt 29-32 |

Special Condition No. 29-12-SW, Amdt 1.

Equivalent Safety Finding for 14 CFR Part 29.501(e) One-skid landing loads in the level attitude (reference FAA letter to Bell Helicopter Textron, Inc. dated September 20, 1995).
Exemption No. 3100 against 14 CFR Part 29.1323(c).
Exemption No. 5985 against 14 CFR Part 29.1303(g)(1).

Ditching: 14 CFR Part 29.801 of Amend 29-12 including 14 CFR Part 29.1411, 29.1415.

Complied with Category A engine isolation requirements.

Noise standards: 14 CFR Part 36, Subpart H dated February 5, 1988, Amdt 36-14.

Type Certificate H4SW issued 30 October 1970.
Date of application for Type Certificate 17 January 1968.

Production basis

Production Certificate No. 100. See Note 20.

Equipment
(See Notes 4, 7, 11, 12, 14, 15, 16, 21, 24, 26, 27, 29, 30, 31, 32, 45, 49, 50)

The basic required equipment as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the helicopter for certification. In addition, the following items of equipment are required with each helicopter as specified:

(1) FAA approved Bell Model 212 Rotorcraft Flight Manual BHT-212VFR-FM-1 Reissue dated 14 August 1995 or later FAA approved revision. Replaces previously published Model 212 VFR Rotorcraft Flight Manuals BHT-212-FM-1, BHT-212-FM-2, and BHT-212-FM-3 for VFR configuration of S/N 30504 thru 31311, and 35001thru 35108.

(2) FAA approved Bell Model 212 Flight Manual Supplement BHT-212-FMS-7 for Category A Operations dated 30 June 1971, reissued 18 August 1972, or later FAA approved revision. See Note 7.

(3) FAA approved Bell Model 212 Flight Manual Supplement BHT-212-FMS-23 for PT6T-3B engine has been incorporated in the basic flight manuals - Items (13) and 14). See Note 35.

(4) FAA approved Bell Model 412 Flight Manual, BHT-412-FM-1, dated January 9, 1981, or later FAA approved revision for Transport Category B (S/N 33001-33107).

(5) Model 412. Airspeed indicator P/N 412-075-009-105.

(6) FAA approved Bell Model 412 Flight Manual, BHT-412-FM-1, Revision 2, dated March 20, 1981, or later FAA approved revision for IFR operations (SN 33001-33107). FAA approved Bell Model 212 Flight Manual BHT-212-FM-4 for S/N 30504 thru 30596 or BHT-212-FM-5 for S/N 30597 thru 31311 and S/N 35001thru 35108 for IFR operations.

(7) When 412 part number passenger seats are used, they must include their seat belt and shoulder harness.

(8) FAA approved Bell Model 412 Flight Manual Supplement for Category A operations (BHT-412-FMS-10).

(9) FAA approved Bell Model 412 Flight Manual, BHT-412-FM-2, dated November 17, 1983, or later FAA approved revision for Transport Category B or A, VFR or IFR operation (S/N 33108 thru 33213 and 36001 thru 36019).

(10) FAA approved Bell Model 412 Flight Manual, BHT-412-FM-3, dated February 5, 1991, or later FAA approved revision for Transport Category B or A, VFR or IFR operation (S/N 36020 thru 36086).

(11) FAA approved Bell Model 412EP Flight Manual, BHT-412-FM-4, dated June 23, 1994, or later FAA approved revision for Transport Category B or A, VFR or IFR operation (S/N 36087 thru 36999).

(12) FAA approved Bell Model 412CF Rotorcraft Flight Manual, BHT-412CF-FM-01 dated March 2, 1995, or later FAA approved revision for Transport Category B or A, VFR or IFR operation (S/N 46400 thru 46499).

(13) Deleted by Revision 29, December 8, 2014.

(14) FAA approved Bell Model 212 Rotorcraft Flight Manual BHT-212IFR-FM-1 Reissue dated 14 August 1995 or later FAA approved revision. Replaces previously published Model 212 IFR Rotorcraft Flight Manuals BHT-212-FM-4 and BHT-212-FM-5 for IFR configuration of S/N 30504 thru 31311, and S/N 35001thru 35108. See Note 12.

(15) FAA approved Bell Model 412EP Rotorcraft Flight Manual, BHT-412-FM-5, dated 10 October, 2014, or later FAA approved revision for Transport Category B or A, VFR or IFR operation (S/N 37002 thru 37999).

(16) FAA approved Bell Model 412EP Rotorcraft Flight Manual, BHT-412-FM-6, dated 28 June 2018, or later FAA approved revision for Transport Category B or A, VFR or IFR operation (S/N 38001 thru 38999 and S/N 39101 thru 39999).

**NOTES**

NOTE 1. A current weight and balance report, including list of equipment included in the certificated empty weight and loading instructions when necessary, must be provided for each helicopter at the time of original certification. This is in accordance with 14 CFR 29.25, 29.27, 29.29, and 29.31.

The Model 212 certificated empty weight and corresponding C.G. locations must include undrainable oil of 7.1 lb (+230.7) and unusable fuel of 28.3 lb (+142.8). For aircraft with kit 412-704-001 installed, the unusable fuel is 28.3 lb (+142.8).

The Model 412, 412EP, and 412CF certificated empty weight and corresponding C.G. location must include undrainable oil of 7.1 lb (+230.7). For aircraft S/N 33001 thru 33107 (412) unusable fuel of 28.3 lb (+142.8). For aircraft S/N 33108 thru 33213 (412), 36001 thru 36086 (412), and 36087 thru 36999 (412EP), and 37002 thru 37999 (412EP), and 38001 thru 38999, and 39101 thru 39999 (412EP) the unusable (including trapped) fuel is 47.6 lb (+128.0). For aircraft 46400 thru 46499 (412CF), the unusable (including trapped) fuel is 62.4 lb (+123.4).

When possible, the empty weight/C.G. shall be adjusted to the range given in Chapter 8, 212 Maintenance Manual, and 412/412EP and 412CF Maintenance Manuals. For helicopter configurations where this is not possible, complete computations of critical fore and aft C.G. positions must be determined for each loading to ensure that the entire flight is conducted within the limits of the G.W./C.G. chart in the Limitations section of the Flight Manual.

NOTE 2. All placards required by either the FAA approved Rotorcraft Flight Manual, the Flight Manual Supplements, the applicable operating rules, or the Certification Basis must be installed in the helicopter. This is in accordance with 14 CFR 29.1541 through 29.1559.
The following placards must be displayed in front of and in clear view of the pilot.

(a) Model 212: "This helicopter must be operated in compliance with the operating limitations specified in the FAA Approved Rotorcraft Flight Manual."

(b) Model 412, Model 412CF and Model 412EP (S/N 36087 thru 36999): “This helicopter must be operated in compliance with the operating limitations specified in the FAA Approved Rotorcraft Flight Manual.”

(c) Model 412EP (S/N 37002 thru 37999, and S/N 38001 through 38999, and S/N 39101 thru 39999): “This rotorcraft is approved for Day / Night VFR/IFR, Non-icing operation”

All placards required in the FAA approved Flight Manual must be installed in the appropriate locations. Placards and markings with their appropriate locations are also presented in Chapter 11 of the maintenance manual.

NOTE 3. For Model 212, 412, 412EP, and 412CF the retirement times of certain parts and inspection requirements are listed in the FAA approved Airworthiness Limitations, Chapter 4, of the Model 212, 412/412EP and 412CF Maintenance Manuals. Refer to Chapter 1 of the Maintenance Manual for a list of publications essential to the proper maintenance of the rotorcraft.

NOTE 4. Model 212 helicopters equipped with the external cargo suspension installation completed in accordance with Bell Drawing 212-706-103 meet the structural and design requirements of the certification basis when operated to 11,200 pounds gross weight in accordance with the limits of FAA Approved Model 212 Flight Manual Supplement, BHT-212-FMS-3, dated 29 October 1970, reissued 14 August 1995, or later FAA approved revision, for 11,200 pounds gross weight. The life limitations and inspection requirements referred in Note 3 are not changed.

NOTE 5. A partition must not be installed between the passenger and crew compartments that will obstruct the pilot’s view of the passenger large sliding doors and hinged panels. Interior linings must not be installed that obstruct the view of the crew/passenger (forward) door latch engagements with the fuselage.

NOTE 6. For 212 S/N 30504 through 30553 the inspection of the engine exhaust ducts and ejectors must be conducted in accordance with Bell Service Letter No. 212-4 dated October 1970, or later FAA approved revision.

NOTE 7. Only Model 212 Category B helicopters equipped with skid landing gear are eligible for Category A when modified by incorporating modifications of Bell Service Instruction No. 212-17 (212-706-029 Altimeter Kit) and installing the Dual Control Kit P/N 212-706-005-3 or 204-706-034-5 and the Copilot's Instrument Kit P/N 212-706-104-1 or 212-706-110-1.

NOTE 8. Deleted by Revision 5, May 15, 1975.

NOTE 9. Deleted by Revision 20, August 20, 1993.

NOTE 10. Bulkheads, fences, or partitions must not be installed between the passenger and crew compartments when the helicopter is equipped with Litter Kit No. 205-706-047.

NOTE 11. Model 212 S/N 30503 incorporating IFR Modification No. 212-961-041 is eligible for IFR operations when operated in accordance with the limitations of FAA Approved Flight Manual Supplement for IFR Operations dated December 15, 1972, or later FAA approved revision. Minimum crew 2 (pilot and copilot) for IFR instrument operations.

NOTE 12. S/N 30504 thru 30596 incorporating IFR Kit No. 212-706-106, S/N 30597 thru 30603 and 30611 thru 30679 incorporating IFR Kit No. 212-706-041, S/N 30680 thru 30849 incorporating IFR Kit No. 212-706-109, and S/N 30850 thru 31311 incorporating IFR Kit No. 212-706-112, are eligible for IFR operations when operated in accordance with the limitations of the FAA Approved Flight Manual BHT-212IFR-FM-1 dated 14 August 1995, or later FAA approved revision. Minimum crew 2 (pilot and copilot) for IFR instrument conditions. Installation of IFR Fin Kit No. 212-706-114 is not required for IFR operations of the Model 212.

NOTE 13. Compliance with Bell Service Bulletin No. 212-9 must be assured prior to issuing a U.S. Airworthiness Certificate for Bell Model 212 helicopters, S/N 30519, 30522, 30523, and 30524.

NOTE 14. Model 412 and 412EP helicopters incorporating IFR modification No. 412-705-006 are eligible for IFR operations when operated in accordance with the limitations of FAA Approved Flight Manual Revision 2 dated March 20, 1981, or later FAA approved revision, or later FAA approved Flight Manual. Minimum crew one (pilot) for IFR operations.

NOTE 15. Model 412 and 412EP helicopters equipped with the external cargo suspension kit installed in accordance with Bell Drawing 212-706-103 meet the certification basis when operated in accordance with FAA Approved Flight Manual Supplement BHT-412-FMS-9, or FAA approved Flight Manual BHT-412CF-FM-01 for Model 412CF helicopters.

NOTE 16. Model 412 and 412EP helicopters equipped with the internal hoist kit installed in accordance with Bell Drawing 214-706-003 or 412-899-223 meet the certification basis when operated in accordance with FAA Approved Flight Manual Supplement BHT-412-FMS-7 or BHT-412-FMS-26.

NOTE 17. Crashworthy fuel cell kit 412-704-001 is approved for installation in the Model 212. When this kit is installed in lieu of the standard cells, the fuel capacity becomes 214 U.S. gallons and the usable becomes 211 U.S. gallons.

NOTE 18. Model 412 series helicopters equipped with Auxiliary Fuel Kit 412-706-007 have fuel capacities (including basic system) as follows:

412 (S/N 33108 thru 33213, 36001 thru 36086), 412EP
With Left or Right Auxiliary Tank:
419.1 U.S. gal. (+150.9) Total
412.1 U.S. gal. Usable
7 U.S. gal. Unusable
(See Note 1)

With Both Left and Right Auxiliary Tanks:
500.8 U.S. gal. (+150.6) Total
493.8 U.S. gal. Usable
7 U. S. gal. Unusable
(See Note 1)

412 (S/N 33001 thru 33107):
With Left or Right Auxiliary Tank:
295.8 U.S. gal. (+157.7) Total
293 U.S. gal. Usable
2.8 U.S. gal. Unusable
(See Note 1)

With Both Left and Right Auxiliary Tanks:
377.5 U.S. gal. (+151.2) Total
374.7 U.S. gal. Usable
2.8 U.S. gal. Unusable
(See Note 1)

412CF
With Left or Right Auxiliary Tank:
408.2 U.S. gal (+149.9) Total
399.0 U.S. gal. Usable
9.2 U.S. gal. Unusable
(See Note 1)

With Both Left and Right Auxiliary Tanks:
489.9 U.S. gal. (+149.7) Total
480.7 U.S. gal. Usable
9.2 U.S. gal. Unusable
(See Note 1)

NOTE 19. For Model 412 S/Ns 33001 thru 33107 complying with BHT Technical Bulletin 412-84-44 and operated in accordance with FAA Approved Flight Manual Supplement BHT-412-FMS-19.1, the transmission torque and maximum gross weight / C.G. limits are as shown for the 412 (S/N 33108 thru 33213).

NOTE 20. Model 212 S/N 35001thru 35108 and Model 412 series S/N 36001 thru 36292, and 46400 thru 46499 (See Note 33) are manufactured by Bell Helicopter Textron, a Division of Textron Canada Limited, under the Transport Canada Manufacturing Approval No. 1-86. Model 412EP S/N 36293 thru 36999, and S/N 37002 thru 37999, and S/N 39101 thru 39999 are manufactured by Bell Textron Canada Limited, under the Transport Canada Manufacturing Approval No. 1-86 according to the approved "FAA-TCCA Management Plan for Bell Helicopter Civil Aeronautical Products".

Import Requirements:

Refer to the applicable bilateral agreement to verify eligibility for import based on the scope of the agreement, to identify any required statements on the export certificate of airworthiness (or equivalent document), and for procedures for coordinating exceptions to conformity statements on these documents. Refer to FAA Order 8130.2, Airworthiness Certification of Aircraft, provisions for Import Aircraft, for requirements for issuance of an airworthiness certificate.

NOTE 21. Deleted by Revision 23, May 20, 1998.

NOTE 22. Deleted by Revision 20, August 20, 1993.

NOTE 23. Model 412 S/N 36020 thru 36086 having Model PT6T-3BE engines installed meet certification basis when operated in accordance with FAA Approved Flight Manual BHT-412-FM-3.

NOTE 24. Aircraft Model 412 S/N 33108 thru 33213 and S/N 36001 thru 36019 are eligible for improved hover operation when modified in accordance with BHTI Mod Drawing. 412-570-001-103 and operated in accordance with FAA Approved Flight Manual Supplement BHT-412-FMS-34.2.

NOTE 25. Deleted by Revision 21, June 23, 1994.

NOTE 26. Model 212 helicopter equipped with Increased Takeoff Horsepower Kit No. 212-704-153 and operated in accordance with FAA Approved Flight Manual Supplement BHT-212-FMS-29 are approved for operation with a takeoff (5 minutes) transmission torque of 104.3% (537 lb-ft) per engine.

NOTE 27. a) Model 412 S/N 36020 thru 36080 having Model PT6T-3D engines installed in accordance with BHT Technical Bulletin 412-93-119 and modified with 412-706-029 Maximum Continuous Power Kit are eligible for improved hover operation when operated in accordance with FAA Approved Flight Manual Supplement BHT-412-FMS-45.3 or BHT-412-FMS-45.3 & 45.4.

b) Model 412 S/N 36081 thru 36999 modified with 412-706-029 Maximum Continuous Power Kit are eligible for improved hover operation when operated in accordance with FAA Approved Flight Manual Supplement BHT-412-FMS-45.4 or BHT-412-FMS-45.3 & 45.4.

NOTE 28. Model 212 S/N 35038 thru 35108, and Model 412 S/N 36026, Model 412EP S/N 36037 thru 36999, and Model 412CF S/N 46400 thru 46499 incorporate provisions for cockpit voice recorders and flight data recorders (Reference FAR 29.1457, 29.1459).

NOTE 29. Model 412 S/N 36020 thru 36086 having Model PT6T-3D engines installed but not modified with 412-706-029 Maximum Continuous Power Kit shall be operated in accordance with FAA Approved Flight Manual Supplement BHT-412-FMS-46.3.

NOTE 30. Model 412 (S/N 36001 thru 36086) and 412EP (S/N 36087 thru 36999) helicopters equipped with Dual Digital Automatic Flight Control System with Search and Rescue Kit installed in accordance with BHT Mod Dwg. 412-570-002 meet the certification basis when operated in accordance with FAA Approved Flight Manual Supplement BHT-412-FMS-39.3 or 39.4 respectively.

NOTE 31. Model 412EP helicopters equipped with Dual Digital Automatic Flight Control System (4-axis) Kit No. 412-705-024 and Electronic Flight Instrument System (EFIS) Kit No. 412-705-009 meet the certification basis when operated in accordance with FAA Approved Flight Manual Supplement BHT-412-FMS-38.4.

NOTE 32. Model 412EP helicopters equipped with Flight Director Kit No. 412-706-024 meet the certification basis when operated in accordance with FAA Approved Flight Manual Supplement BHT-412-FMS-37.4.

NOTE 33. Model 412CF helicopters are utility/tactical transport/rescue versions of the Model 412EP manufactured for the Canadian Military. The FAA approved Model 412CF helicopter is defined by Bell Helicopter Textron Drawing Number 412-900-004 Revision CA dated November 19, 1994, or later FAA approved revision. Prior to return to civil operations, the following must be accomplished:

(a) The maintenance, overhaul and modifications records of each aircraft must be reviewed for changes made by the military services that may affect the airworthiness of the aircraft. Modifications, changes of equipment and major repairs must be approved by the FAA. All items that are not FAA approved must be removed from the aircraft.

(b) Comply with all applicable FAA Airworthiness Directives.

(c) Each deviation from the approved type design required for civil certification must be corrected per approved data.

(d) Incorporate civil markings in accordance with markings installations 212-070-600-005/-121/-131 in lieu of military markings 412-070-600-101/-103/-105.

(e) Install FAA approved radios as part of the type design.

NOTE 34. Bell Model 412 helicopters, S/N 34001 thru 34999, and parts produced by Industri Pesawat Terbang Nusantara (IPTN), Republic of Indonesia, are not eligible for Airworthiness Certification in the United States. Helicopters S/N 33501 thru 33508 delivered to the Royal Saudi Air Force (RSAF) are not eligible for Airworthiness Certification in the United States.

NOTE 35. Model 212 prior to S/N 31125 shall incorporate all equipment specified in TB 212-81-54 prior to operation with Model PT6T-3B engines.

NOTE 36. Model 412EP S/N 36072, 36082, 36119, 36122, 36123, 36126, 36127, and 36133 having Model PT6T-3DE engines installed shall be operated in accordance with FAA approved flight manual supplement BHT-412-FMS-53.4.

NOTE 37. Model 412 and 412EP having Model PT6T-3DF engines installed shall be operated in accordance with FAA approved flight manual supplement BHT-412-FMS-56.3 or BHT-412-FMS-56.4.

NOTE 38. Model 412EP S/N 36095, 36125, 36144, 36145, 36151, 36162, 36163, 36164, and 36156 were delivered to the UK for military training. Subsequent to delivery extensive modifications were made which are not FAA approved. Prior to U.S registration these aircraft must be reconfigured to the FAA approved configuration for the Model 412EP.

NOTE 39. Model 412EP S/N's 36172, 36193, 36194, 36195, 36302, and 36303 were delivered to the Royal Thai Air Force in a FAA VFR approved configuration, Reference BHT-412-FMS-60.4. Due to Non FCC approved Radio/Avionic installations these aircraft are required to be reconfigured to an approved FAA IFR configuration prior to U.S. registration.

NOTE 40. Model 412 and 412EP helicopter having Model PT6T-3D series engines installed and performing Category A operations, shall be operated in accordance with FAA-approved flight manual supplements BHT-412-FMS 62.3 or BHT-412-FMS 62.4.

NOTE 41. Model 412 having Model PT6T-3BF engines (30 Minute OEI Rating) installed shall be operated in accordance with FAA approved flight manual supplement BHT-412-FMS-67.1 and BHT-412-FMS-67.2. This supplement shall be attached to Model 412 Flight Manual (BHT-412-FM-1, BHT-412-FM-2, or BHT-412-FMS-19.1).

NOTE 42. Model 412 having Model PT6T-3BG engines (30 Minute OEI Rating) installed shall be operated in accordance with FAA approved flight manual supplement BHT-412-FMS-68.3. This supplement shall be attached to Model 412 Flight Manual (BHT-412-FM-3, or BHT-412-FMS-34.2).

NOTE 43. Bell Model 412EP helicopters, S/N 36327, 36336, 36339, 36341 thru 36345 and parts thereof were operated as foreign military aircraft and must be conformed by Bell Textron Inc. prior to issuance of any FAA Standard Airworthiness Certificate.

NOTE 44. Deleted by Revision 29, December 8, 2014

NOTE 45. Model 412 serial numbers 33108 through 33129, 33131 through 33138, 33150 through 33160, 33168 through 33213, and 36001 thru 36019 are eligible for improved hover and climb performance when modified with the 412SP to 412HP Upgrade Kit in accordance with BHTI Drawing 412-704-052, and operated in accordance with FAA approved Flight Manual BHT-412-FM-3.

NOTE 46. Model 412EP, helicopter serial numbers 37002 through 37999, represents productionization of STC SR09600RC (Bell BasiX-Pro Glass Cockpit and Pratt&Whitney Canada PT6T-9 engine), SR09535RC-D (Installation of a Dual Tailboom Strakes and FastFin System), and incorporation into the type design of P/N 412-016-100-111 Blade Assy-Tail Rotor. It is referred as “412EPI” for marketing purposes to highlight upgraded engine and glass cockpit.

NOTE 47. Model 412EP helicopters serial numbers 37002 thru 37999 performing Category A operations shall be operated in accordance with FAA approved flight manual supplement BHT-412-FMS-62.5.

NOTE 48. Model 412EP helicopters serial numbers: 37002 thru 37999, and serial numbers 38001 thru 38999, and serial numbers 39101 thru 39999 employ electronic engine controls, commonly named Full Authority Digital Engine Controls (FADEC) that are recognized to be more susceptible to Electromagnetic Interference (EMI) than rotorcraft that have manual (non-electronic) controls. EMI may be the result of radiated or conducted interference. For this reason, modifications that add or change systems that have the potential for EMI, must either be qualified to a standard acceptable to the FAA or tested at the time of installation for interference to the FADEC. This type of testing must employ the particular FADEC diagnostic techniques and external diagnostic techniques. The test procedure must be approved.

NOTE 49. Model 412EP helicopters equipped with PT6T-9 engine and having the Extended Hover Performance Kit 412-706-120 installed shall be operated in accordance with FAA approved flight manual supplement BHT-412-FMS-80.5.

NOTE 50. Model 412EP helicopters equipped with PT6T-9 engine and having the Increased Gross Weight Kit 412-706-140 installed shall be operated in accordance with FAA-approved flight manual supplement BHT-412-FMS-74.5 and maintained airworthy in accordance with Chapter 4 of BHT-412MM-2 Rev. 24 or later FAA approved revision.

NOTE 51. Model 412EP, helicopter serial numbers 38001 thru 38999, and serial numbers 39101 thru 39999, represent the productionization of STC SR09600RC (Bell BasiX-Pro Glass Cockpit and Pratt&Whitney Canada PT6T-9 engine) and STC SR09535RC-D (Dual Tailboom Strakes and FastFin System) and incorporation into the type design of the modified lever assembly of main rotor collective control, modified tail rotor blades, modified main gearbox and mast assembly, modified main rotor hub, and upgraded displays. It is designated 412EPX for marketing purposes only.

NOTE 52. Model 412EP helicopters serial numbers 38001 thru 38999 and serial numbers 39101 thru 39999, performing Category A operations shall be operated in accordance with FAA approved flight manual supplement BHT-412-FMS-62.6.

NOTE 53. Re-arrangement of type certificate passenger seating to limit passenger seating to nine (9) or less passengers by removal of type-certificated seat(s). Category B operations with nine or less passenger seats in accordance with Rotorcraft Flight Manual Supplements:

BHT-412FMS 35.1& 35.2 for Model 412, 412SP S/N 33001 thru 36019;
BHT-412FMS 35.3 & 35.4 for Model 412HP and 412EP S/N 36020 thru 36086, and 36087 thru 36999;
BHT-412-FMS 35.5 for Model 412EP S/N 37002 thru 37999;
BHT-412-FMS 35.6 for Model 412EP S/N 38001 thru 38999 and 39101 thru 39999.

NOTE 54. To be eligible for operations in the U.S airspace, the Model 412EP S/N 37002 through 37999 manufactured after April 5, 2020 must be compliant with the crash resistant fuel system requirements of 49 USC §44737. Compliance is achieved by installation of the fuel system comprised of fuel cells P/N 412-361-705-101, 412-361-706-101, 412-361-707-101, 412-361-707-102, 412-361-708-101, 412-361-708-102, 412-361-703-101, 412-361-709-101, 412-361-710-101, 412-361-711-101, and Kit 412-704-160, Retrofit Kit - Fuel System Instl.

Model 412EP S/N 37002 through 37999 manufactured on or before April 5, 2020 will be compliant with the crash resistant fuel system requirements of 49 USC§44737 if retrofitted with fuel cells P/N 412-361-705-101, 412-361-706-101, 412-361-707-101, 412-361-707-102, 412-361-708-101, 412-361-708-102, 412-361-703-101, 412-361-709-101, 412-361-710-101, 412-361-711-101, and Kit 412-704-160, Retrofit Kit - Fuel System Instl.

NOTE 55. Model 412EP S/N 37012 was delivered to Japan for military use. Subsequent to delivery extensive modifications were made which are not FAA approved. Prior to U.S registration this aircraft must be reconfigured to the FAA approved configuration for the Model 412EP.

...End...