



Title	Issue	Date
Type Certificate Data Sheet № ФАВТ-EC175	01	November, 15 2016

This Data Sheet, which is the integral part of Type Certificate No CT348-175 dated February 06, 2015 and major changes approval. Data sheet prescribes conditions and limitations under which the product for which Type Certificate and Supplement to Type Certificate were issued meet the requirements of Certification Basis.

## Model EC175 B

<b>Type Certificate Holder</b>	<b>AIRBUS HELICOPTERS</b> Aéroport International Marseille-Provence 13 725 Marignane Cedex - France
<b>Manufacturer</b>	<b>AIRBUS HELICOPTERS</b> Aéroport International Marseille-Provence 13 725 Marignane Cedex - France
<b>Aircraft Description</b>	Single-rotor helicopter with twin turbo-shaft engines and a retractable wheel landing gear
<b>Category</b>	Transport, <b>A</b> and <b>B</b>
<b>Applicability</b>	EC175 B helicopter is approved for VFR and IFR flights, for over land and over water flights, for people transportation
<b>Type Certificate Data</b>	Type Certificate No CT348-175 dated February 06, 2015 Issued IAC-AR
<b>Type Design</b>	Defined in the document «№TNM000A3502E99 EC175B – Type design definition for FATA configuration», issue B.
<b>Certification Basis</b>	<p>Certification Basis CB175B.29 approved by IAC-AR on 21.01.2015</p> <p>Certification Basis CB175B.29 includes:</p> <ul style="list-style-type: none"> <li>– Aviation Regulation, Part 29, Issue 2 dated 2003;</li> <li>– Aviation Regulation, Part 36, Issue 2;</li> <li>– Aviation Regulation, Part 34 dated 2003;</li> <li>– CRI A-01 dated October, 28 2016;</li> <li>– Special Technical Conditions:</li> </ul> <p>The list of certification basis requirements for which Equivalent Safety Findings are established: 29.571; 29.601; 29.603; 29.605; 29.807(c)(d)(2)(3); 29.811(d); 29.813(c); 29.815; 29.855(d); 29.865; 29.1203(d); 29.1303(g)(2)(3)(5); 29.1305; 29.1309; 29.1351(d)(2); 29.1435; 29.1545; 29.1549.</p>
<b>Noise</b>	<p>Helicopter is compliant with:</p> <ul style="list-style-type: none"> <li>– Requirements of Sections A, O, H of Aviation Regulation, Part 36, «Aircraft Noise Certification»</li> <li>– Requirements of Annex 16 ICAO, Volume 1, Chapter 8 «Environment protection»</li> </ul>

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Measurement check points	Achieved Noise Levels (EPNdB)	Required Noise Levels Due to AP-36 (EPNdB)	Required Noise Levels Due to Annex 16 ICAO, Volume 1, Chapter 8 (EPNdB)
Take-off	89,8	98,8	95,8
Flyover	91,0	97,8	93,8
Approach	95,1	99,8	98,8

### Engines

Two Pratt&Whitney Canada PT6C-67E,  
Type Certificate №CT296-AMД  
Supplement to Type Certificate №CT296-AMД/Д01 dated 08.08.2013

### Fuel

See flight manual for the approved fuel grades.

### Oil

For engine	Synthetic 3 cSt Oils (limited usage); Average synthetic 5 cSt
For transmission gearbox	NATO O-155; MINERAL OIL 8 cSt

### Maximum power transmitted by the main gearbox

2277 h.p./1675 kW

### Engines limits

#### AEO:

Limits	Engines power h.p/(kW)	Max. gas generator revolution (N1)	TOT	Torque
Max. transition (20 sec)	-	105,4%	820°C	Allowed only to V <sub>y</sub> 2 x 110%
Max. Take-off (5 min)	1300/969	104,6%	815°C	Allowed only to V <sub>y</sub> 2 x 100%
Max. Continuous	1208/900	102,7%	775°C	2 x 93,2%
Max. continuous (30 min, 50 min totally/within flight)	1300/969	104,6%	815°C	100%

#### OEI:

Limits	Engines power h.p/(kW)	Max. gas generator revolution (N1)	TOT	Torque
Excess	-	-	-	165,7%
OEI high (30 c)	1991/1485	111%	915°C	153,4%
OEI low (2 мин)	1771/1321	108%	865°C	136,4%
OEI continuous (unlimited)	1547/1154	105,4%	820°C	119,3%

#### Note:

For other engines limits refer to TCDS №CT296-AMД/Д01 as well as to documentation reflected in it, which define the approved Type design.

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## Rotor Speed Limits

<b>Power on:</b>		
	Maximum	298,5 RPM (107%)
	Minimum Continuous	265,2 RPM (95%)
	Minimum transient with AEO and with OEI	231,7 RPM (83%)
<b>Power off:</b>		
	Maximum transient (20 sec)	326,7 RPM (117%)
	Maximum continuous	307,1 RPM (110%)
	Minimum continuous	244,3 RPM (87,5%)
	Minimum transient	231,7 RPM (83%)

**Note:**

100% is 279,0 RPM

**Maximum Take-off weight** 7500 kg

## Air speeds limits

<b>Vne Power on:</b>		
from -1 500 ft (-457 m) to +3000 ft (914 m) barometrical altitude		175 knots (324 km/h)
higher than +3 000 ft (914 m) barometrical altitude		175 knots – 4 knots/1000 feet (324 km/h – 7,4 km/h/304 m)
<b>Vne Power off:</b>		Vne power on – 40 knots (- 74 km/h)

**C.G.** See approval RFM and approval RFM Supplements

**Maximum Baggage Loads** 300 kg

**Maximum Load on cargo  
compartment floor** 160 kg/m<sup>2</sup>

**Minimum flight crew** 1 pilot (on right seat) during VFR flights.  
2 pilots during IFR flights.

**Maximum number of  
passengers seats in passenger  
cabin** 16

**Fuel quantity** Basic configuration maximum capacity: 2,616 liters;  
Unusable quantity: 17,7 liters.

**Maximum Operating Altitude** **For Take-Off and Landing:**  
Category A and B:  
from -1 500 ft (457 m) to + 13 000 ft (3962 m)  
barometrical altitude

**For Flight:**  
from – 1 500 ft (457 m) to + 15 000 ft (4572 m)  
barometrical altitude

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### Ambient temperature limits

– 40 °C to + 40 °C [OAT] limited to outside air temperature + 50 °C

### Fuel temperature limits

Minimum fuel temperature for starting engines – not less – 30 °C.

### Approval major changes

Approval major change	Type design change description	Aircraft model	CRD
№ ФАВТ-EC175-ОГИ-1	EC175B - Helionix "Fit For Purpose" SW version [V3.2] for AMCs and MFDs	EC175B	CRDM460A0708E99_B
№ ФАВТ-EC175-ОГИ-2	EC175B – Reinforcement of the LH and RH entablatures at main frame 5	EC175B	CRDM534A0705E99_A
№ ФАВТ-EC175-ОГИ-3	EC175B - Design improvement of the LAGB fan gear assy	EC175B	CRD630A0711E99_A
№ ФАВТ-EC175-ОГИ-4	EC175B - Design improvement of the MGB dynamic seals tightness	EC175B	CRD630A0708E99_A
№ ФАВТ-EC175-ОГИ-5	EC175B - improvement of the TGB output cover oil tightness	EC175B	CRD650A0707E99_B
№ ФАВТ-EC175-ОГИ-6	EC175B – Improvement of the geometry of the slot of the MGB flexible coupling shaft	EC175B	CRD630A0710E99_B
№ ФАВТ-EC175-ОГИ-7	EC175B - Improvement of the mountability of the MGB flexible shafts and free wheel shafts	EC175B	CRD630A0709E99_B
№ ФАВТ-EC175-ОГИ-8	Single hoist external to H/C, removable parts	EC175B	CRBM259A0703E99_B
№ ФАВТ-EC175-ОГИ-9	Structural common removable parts for hoist installation	EC175B	CRBM259A0702E99_A
№ ФАВТ-EC175-ОГИ-10	EC175B – Cold weather conditions Procedures and limitations for domain extension of EC175B for flights in cold weather conditions down to – 40 degC	EC175B	CRDM000A0733E99_A
№ ФАВТ-EC175-ОГИ-11	Post TC actions closure for EIS To address Post TC but prior to EIS outstanding actions as per EC175B CAIs n. 00-02 and 03-18; amendment of inaccuracies from original TC documentation; main rotor blades life limit extension; TS-1/RT (Russian fuel)	EC175B	CRDM000A0734E99_B
№ ФАВТ-EC175-ОГИ-12	EC175B - New Horizontal Stabilizer Fitting Installation	EC175B	CRDM530A0729E99_A
№ ФАВТ-EC175-ОГИ-13	EC175B – Improvement of NLG installation and SLL revision	EC175B	CRDM320A0710E99_B
№ ФАВТ-EC175-ОГИ-14	EC175B - Improvement of AMC reconfiguration logic after a bird strike	EC175B	CRDM880A0714E99_A
№ ФАВТ-EC175-ОГИ-15	EC175B – Improvement of Hi-Spec MLG Installation and OTL revision	EC175B	CRDM320A0708E99_B
№ ФАВТ-EC175-ОГИ-16	EC175B - Impact of Tail Rotor Fitting Loads Rear Assemblies	EC175B	CRDM600A0707E99_A
№ ФАВТ-EC175-ОГИ-17	EC175B – Installation of Cargo Sling Mechanical Fixed Parts	EC175B	CRDM259A8706E99_2
№ ФАВТ-EC175-ОГИ-18	EC175B - MRH damper self-lubricated rod ends	EC175B	CRDM620A0704E99_A
№ ФАВТ-EC175-ОГИ-19	EC175B - Modification of NLG Shock Absorber and Trailing Arm	EC175B	CRDM320A0713E99_B
№ ФАВТ-EC175-ОГИ-20	EC175B - Modification of the TDL ball bearing support assy to increase the ball bearing axial clearance	EC175B	CRDM650A0712E99_A
№ ФАВТ-EC175-ОГИ-21	EC175B - Extension of the aft limits of the longitudinal Centre-of-Gravity flight envelope up to 7.60 [m]	EC175B	CRDM000A0742E99_C
№ ФАВТ-EC175-ОГИ-22	EC175B - Airworthiness Limitation Section (ALS) update	EC175B	CRDM000A0743E99_B
№ ФАВТ-EC175-ОГИ-23	EC175B - New Sliding Collar P/N M652E1410203	EC175B	CRDM652A0702E99_A

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№ ФАВТ-ЕС175-ОГИ-24	EC175B - New MRH spherical bearing screw P/N M622A5500502	EC175B	CRDM622A0705E99_B
№ ФАВТ-ЕС175-ОГИ-25	EC175B - Hi Spec MLG Shock Absorber Improvement (MP424)	EC175B	CRBM320A0753E99_2
№ ФАВТ-ЕС175-ОГИ-26	EC175B - Implementation on UTAS hoist 42325-16-6 of population 2 slip clutch P/N 44314-398 "without credit"	EC175B	CRDM259A7715E99_B
№ ФАВТ-ЕС175-ОГИ-27	EC175B - ASU Card P/N M314A10A3002	EC175B	CRDM310A0703E99_A
№ ФАВТ-ЕС175-ОГИ-28	EC175B Flight Domain extension – Hot weather & High Altitude	EC175B	CRDM000A0749E99_C
№ ФАВТ-ЕС175-ОГИ-29	EC175B - Navigation Step 2 - RNP approaches	EC175B	CRDM346A3704E99_C
№ ФАВТ-ЕС175-ОГИ-30	EC175B - TCAS II / AFCS Coupling	EC175B	CRDM344A5701E99_C
№ ФАВТ-ЕС175-ОГИ-31	EC175B - Helionix Step 2 and Step 2R	EC175B	CRDM460A0711E99_C CRDM460A0715E99_A CRDM220A0717E99_C
№ ФАВТ-ЕС175-ОГИ-32	EC175 B - Tail Rotor Blade Service Life Limit (SLL) extension - 1st step	EC175B	CRDM641A0704E99_B
№ ФАВТ-ЕС175-ОГИ-33	EC175 - Airworthiness Limitation Section revision - Hi-Spec MLG Shock Absorber SLL	EC175B	CRDM000A0750E99_A
№ ФАВТ-ЕС175-ОГИ-34	EC175 B - New Aircraft Piloting Inertial Reference System (APIRS)	EC175B	CRDM342A0703E99_A
№ ФАВТ-ЕС175-ОГИ-35	EC175 B - ADS-B Out Extended Squitter & EHS installation	EC175B	CRDM641A0704E99_B
№ ФАВТ-ЕС175-ОГИ-36	EC175 B - Standard Main Landing Gears	EC175B	CRDM320A0752E99_A
№ ФАВТ-ЕС175-ОГИ-37	Domain extension – EC175 Snowing Conditions	EC175B	CRDM006A0702E99_B
№ ФАВТ-ЕС175-ОГИ-38	EC175 MOD – HELIONIX Step 2 Plus with or without SAR Modes	EC175B	CRDM460A0718E99_C
№ ФАВТ-ЕС175-ОГИ-39	EC175 Engine Air Inlet Shield and Plenum Kit	EC175B	CRDM720A0752E99_C
№ ФАВТ-ЕС175-ОГИ-40	EC175 VIP – P267 – Cabin Hinged Doors Installation	EC175B	CRDM520A0705E99_B
№ ФАВТ-ЕС175-ОГИ-41	EC175 VIP – Internal Arrangements	EC175B	CRDM000A0745E99_A
№ ФАВТ-ЕС175-ОГИ-42	Hoist Man and Rescuer Equipment Common Removable Parts	EC175B	CRBM259A0704E99_B

### **Additional Conditions, Limitations and Information**

1. Flights in icing conditions are prohibited.
2. Regular commercial transportations without FDR installed are prohibited.
3. Flights in forecasted snowfall and blowing snow conditions are prohibited without Winter Kit for Engine Air Intakes. Operation with installed Winter Kit for Engine Air Intakes according to RFM supplement SUP.080.
4. Cargo, baggage and hand-luggage transportation inside of a passenger cabin is prohibited.
5. Other operational limitations are listed in the operational documentation.

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*Original in Russian is signed by  
Mikhail Bulanov  
Deputy Director General*