

Engine Limits. (Cont'd)

- Exhaust Gas Temperature (T4)	
Takeoff	706°C
Max. Continuous	732°C
Transient	843°C
Starting Max.*	899°C

* Time Limit 12 seconds above 799°C

Transmission Limits.

	<u>TORQUE</u>	<u>SHP.</u>	<u>KW.</u>
Maximum takeoff power (5 mn)	101%	531	396
Maximum continuous	101%	531	396

Helicopter Limits.

Maximum takeoff (5 mn)	101%	531	396
Maximum continuous	96%	505	377

Maximum Weight.

4300 lb. (see NOTE 6)

II. Model AS-350D "ASTAR" (Normal Category) Helicopter, approved July 6, 1978.

Same as Model AS-350C except for more powerful LTS 101 600A2 engine.

Engine.

1. Lycoming LTS 101-600A-2

- Normal Fuels: Kerosene; MIL-T-5624 (JP5); ASTM D1655 Jet A and A1
- Wide Cut: MIL-T-5624 (JP4); ASTM D1655 Jet B
- Emergency Fuel:
- Automotive Diesel Fuel: ASTM D975 (N° 2D) of lighter.
- Synthetic oil (5 Cst) MIL.L.23699
- Synthetic oil (3 Cst) MIL.L.7808

Mixing of these oils is not permitted.

Engine Limits.

- Power Ratings (Sea Level , ISA)

Takeoff (5 min.)	615 shp.
Max. Continuous	590 shp.
- Gas Generator Speeds

Takeoff (5 mn)	49,638 rpm
Max. Continuous	49,159 rpm
Transient	50,548 rpm
- Exhaust Gas Temperature (T4)

Takeoff	771°C
Max. Continuous	760°C
Transient Max. *	843°C
Starting Max. *	899°C

* Time limit 12 seconds above 818°C

Transmission Limits.

	<u>TORQUE</u>	<u>SHP</u>	<u>KW</u>
Maximum takeoff power (5 min)	101%	531	396
Maximum Continuous	101%	531	396

Helicopter Limits.

- Torque : Same as transmission limits
- Other Limits : Same as engine limits except for:

Max. continuous gas generator speed 48,930 r.p.m. (102.2%)
 Max. continuous gas temperature 744°C

Maximum Weight.

4300 lb (See NOTE 6).

III. Model AS-350D1 "ASTAR" (Normal Category) Helicopter, approved August 4, 1978.

Same as Model AS 350D except for maximum weight.

Maximum Weight. 4000 lb (See NOTE 5)

IV. Model AS-350B "ECUREUIL" (Normal Category) Helicopter, approved November 9, 1978.

Engine. 1 TURBOMECA Arriel 1B

Fuel. - Normal Fuels: Kerosene; MIL-T-83133; ASTM D1655 Jet A1, Jet A
 - Wide Cut (JP4), MIL-T-5624; ASTM D1655 Jet B
 High flash point (JP 5); MIL-T-5624
 - Emergency Fuel See NOTE

Oil. - Synthetic oil (5 Cst) MIL.L.23699
 - Synthetic oil (3 Cst) MIL.L.7808
 - Synthetic oil (3 Cst)
 - Synthetic oil (3.9 Cst) Aeroshell Turbine Oil 390
 Mixing of these oils is not permitted.

Engine Limits. - Power Ratings (Sea Level, ISA)
 Takeoff (5 min) 641 shp.
 Max. Continuous 590 shp.
 - Gas Generator Speeds (Sea Level), ISA
 Takeoff 51,800 rpm (100%)
 Max. Continuous 50,750 rpm (98%)
 Transient 54,400 rpm (105%)
 - Engine Gear Box Limitations
 Max. torque stabilized 109% (100% corresponds to 641 shp at 6,000 rpm
 power shaft speed)
 - Exhaust Gas Temperature (T4)
 Takeoff 810°C
 Max. Continuous 775°C
 Starting max. 840°C

<u>Transmission Limits.</u>		<u>TORQUE</u>	<u>SHP</u>	<u>KW</u>
	Maximum takeoff power (5 min)	83%	531	396
	Maximum continuous	83%	531	396

<u>Helicopter Limits.</u>	Maximum takeoff (5 min)	83%	531	396
	Maximum continuous	83%	531	396

Maximum Weight. 4300 lb (see NOTE 6)

V. Model AS 350B1 "ECUREUIL" (Normal Category) Helicopter, approved February 13, 1987.

Similar to AS 350B except Turbomeca Arriel 1D engine, main and tail rotors as AS 355F1, maximum weight, other changes.

Engine. 1 TURBOMECA ARRIEL 1D.

Fuel. Refer to Flight Manual AS 350B1 for approved and additive specification.

Oil. Refer to Flight Manual AS 350B1 for approved and additive specification.

Engine Limits.

- Power Ratings (Sea Level, ISA)
 - Takeoff (5 min) 684 shp.
 - Max. Continuous 603 shp.
- Gas Generator Speeds (Sea Level, ISA)
 - Takeoff 52,215 (100.8%)
 - Max. Continuous 50,764 (98%)
 - Transient 54,650 (105.5%)
- Engine Gear Box Limitations
 - Max. torque stabilized 109.2% (100% corresponds to 641 shp at 6000 rpm power shaft speed)
- Exhaust Gas Temperature (T4)
 - Takeoff 845°C
 - Max. Continuous 795°C
 - Starting Max. 865°C

Helicopter Limits.

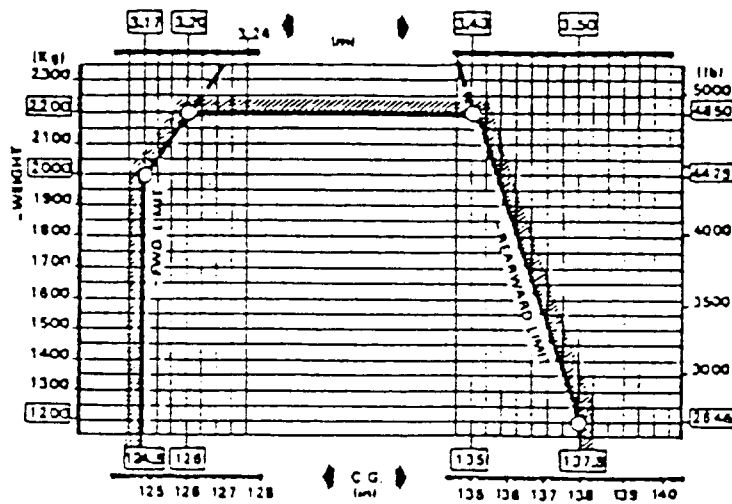
	<u>TORQUE</u>	<u>KW</u>
Maximum torque = IAS 40 knots or higher	94%	450
IAS below 40 knots	100%	478

Maximum Weight.

4850 lb (See NOTE 6)

C.G. Range.

Longitudinal



Lateral

Right 5.51 in
Left 7.08 in

Rotor Speeds.

In autorotation

Maximum 430 rpm
Minimum 320 rpm

In power-on flight

390 + 4 rpm
- 5 rpm

Rotor Low Speed Warning.

Aural at 360 rpm.

Airspeed Limits.

Never exceed speed V_{NE} power on:
155 Kt at Zero pressure altitude

Never exceed speed V_{NE} power-off:
125 Kt at Zero pressure altitude

See Rotorcraft Flight Manual for decrease of these values with altitude and temperature.

VI. Model AS 350B2 "ECUREUIL" (Normal Category) Helicopter, approved June 8, 1990.

Similar as to AS350B1 except Turbomeca ARRIEL 1D1 engine, maximum weight, other changes.

Engine.

1 TURBOMECA ARRIEL 1D1

Fuel.

Refer to Flight Manual AS 350B2 for approved and additive specification.

Oil.

Refer to Flight Manual AS 350B2 for approved and additive specification.

Engine Limits.

- Power Ratings (Sea Level, ISA)
 - Takeoff (5 min) 712 shp.
 - Max. Continuous 625 shp.
- Gas Generator Speeds (Sea Level, ISA)
 - Takeoff 52,784 (101.9%)
 - Max. Continuous 50,764 (98%)
 - Transient 54,650 (105.5%)
- Engine Gear Box Limitations
 - Max. torque stabilized 109.2% (100% corresponds to 641 shp at 6000 rpm power shaft speed)
- Exhaust Gas Temperature (T4)
 - Takeoff 845°C
 - Max. Continuous 795°C
 - Starting Max. 865°C

Helicopter Limits.

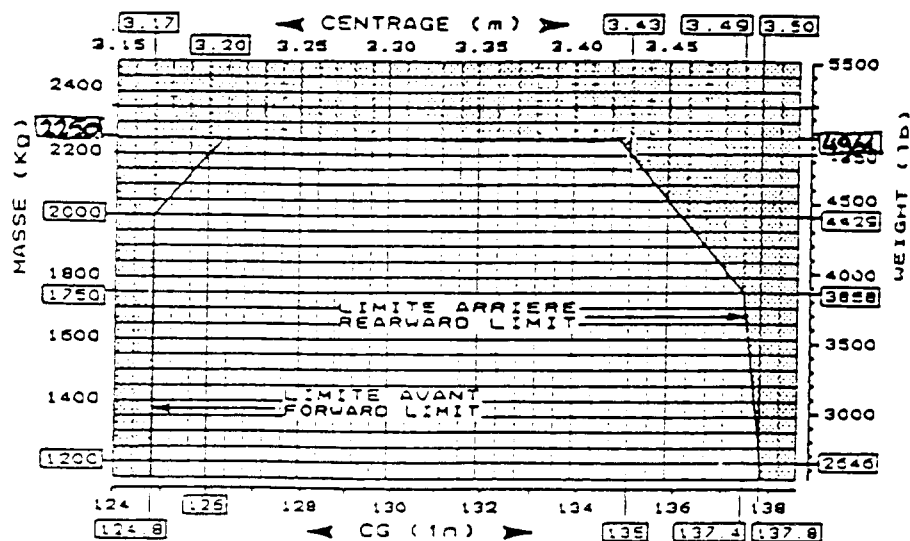
	<u>TORQUE</u>	<u>SHP</u>
Maximum torque = IAS 40 knots or higher	94%	
IAS below 40 knots	100%	641

Maximum Weight.

4961 lb (See NOTE 6)

C.G. Range.

Longitudinal



Lateral
 Right 5.51 in
 Left 7.08 in

Rotor Speeds.
In autorotation
 Maximum 430 rpm
 Minimum 320 rpm

In Power-on flight 390 + 4 rpm
 - 5 rpm

Rotor Speed Warning. Aural at 360 rpm and 410 rpm

Airspeed Limits. Never exceed speed V_{NE} power on:
 155 Kt at zero pressure altitude

Never exceed speed V_{NE} power off:
 125 Kt at zero pressure altitude
 See Rotorcraft Flight Manual for decrease of these values with altitude and temperature.

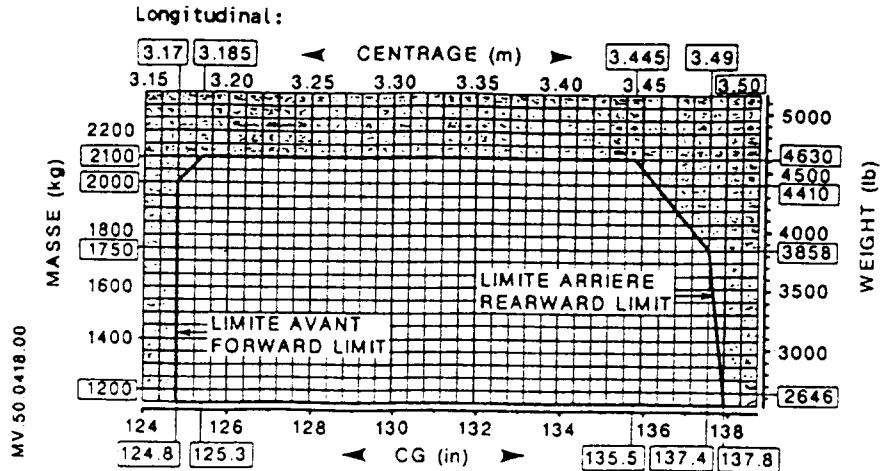
VII. Model AS 350BA "ECUREUIL" (Normal Category) Helicopter, approved March 11, 1992.
 Same as Model AS 350B except for 355 type main rotor blades.

Other Changes.

<u>Helicopter Limits</u>	V_i (I.A.S.)	Torque	Kw	RPM
Maximum torque limit	<40 Kt	88%		
Maximum continuous torque	>40 Kt	83%	396	386
Reference		100%	478	386

Maximum Weight. 4630 lb (See NOTE 6).

C.G. Range. Longitudinal



Lateral:
 Right Limit: 5.51 in.
 Left Limit: 7.08 in.

Rotor Speeds. The same as 350B1.

<u>Rotor Low Speed Warning.</u>	The same as AS350B1.	
<u>Airspeed Limits.</u>	The same as AS350B1. See Rotorcraft Flight Manual for decrease of the values with altitude and temperature.	
<u>Versions 350B, C, D and D1 Common Particulars</u>		
<u>Rotor Speeds.</u>	<u>In Autorotation</u>	
	Maximum	424 rpm
	Minimum	320 rpm
	<u>In power-on Flight</u>	385 + 1 rpm - 5 rpm
<u>Rotor Low-Speed Warning.</u>	Aural at -	335 rpm (See NOTE 8)
<u>Airspeed Limits.</u>	Never-exceed-speed: 147 kt from S.L. to 1000 feet, then decreasing with altitude 3.5 kt for each 1000 feet density altitude above 1000 feet. For operations below -30°C ambient temperature, decrease above V _{NE} schedule by 10 kts.	
<u>C.G. Range.</u>	<u>Fwd Limit</u>	<u>Aft Limit</u>
	<u>Longitudinal</u>	
	124.8 in.	139.7 in. to 2,865 lb. 135.0 in. to 4,190 lb. Linear variation between points shown. 135.0 in. from 4,190 lb. to 4,300 lb.
	<u>Lateral</u>	
	Right 3.14 in.	
	Left 5.90 in.	

VIII. Model AS 350B3 "ECUREUIL" (Normal Category) Helicopter, approved May 7, 1998.

Similar as to AS350B2 except Turbomeca ARRIEL 2B, 2B1, or 2D engine with FADEC

<u>Engine.</u>	1TURBOMECA ARRIEL 2B, 1 TURBOMECA ARRIEL 2B1, or 1 TURBOMECA ARRIEL 2D.	
<u>Fuel.</u>	Refer to Flight Manuals AS 350B3 for approved and additive specification.	
<u>Oil.</u>	Refer to Flight Manuals AS 350B3 for approved and additive specification.	
<u>Engine Limits (Arriel 2B or 2B1).</u>	- Power Ratings (Sea Level, ISA)	
	Takeoff (5 min)	747 shp.
	Max.Continuous	728 shp.
	- Gas Generator Speeds (Sea Level, ISA)	
	Takeoff	52,756 (101.2%)
	Max. Continuous	50,672 (97.2%)
	- Engine Gear Box Limitations	
	Refer to Engine TCDS E00054EN	
	- Exhaust Gas Temperature (T4)	
	Takeoff	915°C
	Max. Continuous	849°C
	Starting Max.	865°C
<u>Engine Limits (Arriel2D)</u>	- Power Ratings (Sea Level, ISA)	
	Takeoff (5 min)	747 shp.
	Max. Continuous	728 shp.

- Gas Generator Speeds (Sea Level, ISA)
 - Takeoff 52,579 (100.9%)
 - Max. Continuous 51,067 (97.2%)
- Engine Gear Box Limitations
- Exhaust Gas Temperature (T4)
 - Takeoff 949°C
 - Max. Continuous 905°C
 - Starting Max. 840°C

Note : The indicated limits are engine limits when installed in the AS350B3. Refer to Engine TCDS for the Engine limits

Helicopter Limits (Arriel2B engine mounted pre-mod. AMS 072803 and 072808). TORQUE
Maximum torque = IAS 40 knots or higher 84%
IAS below 40 knots 100%

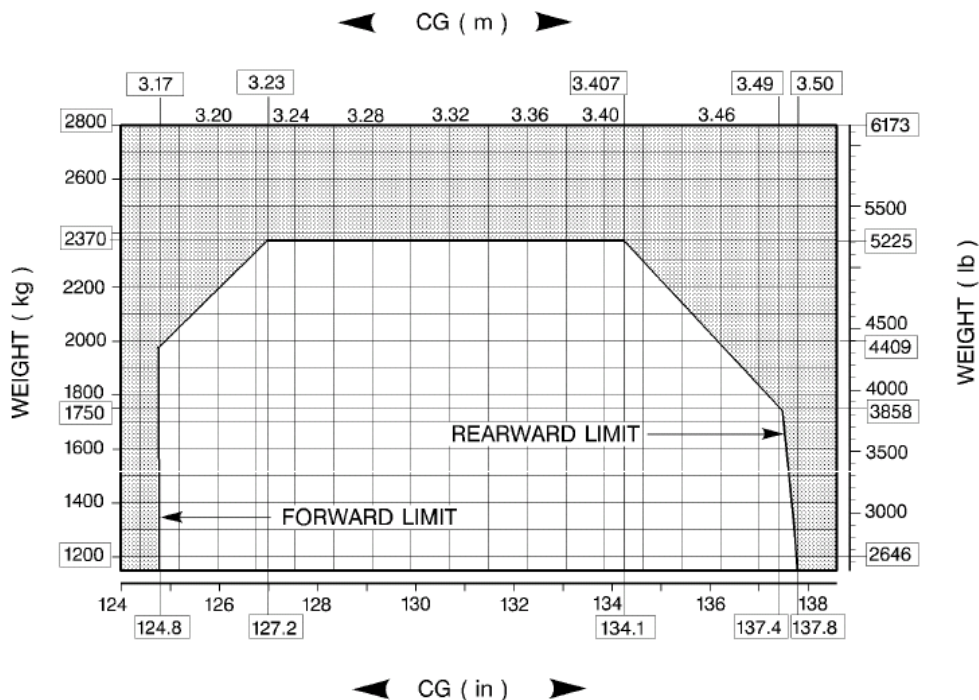
Helicopter Limits (Arriel2B engine mounted and post-mod. AMS 072803 and 072808) TORQUE
Maximum torque = IAS 40 knots or higher 92.7%
IAS below 40 knots 100%

Helicopter Limits (Arriel2B1 engine mounted) TORQUE
Maximum torque = IAS 40 knots or higher 92.7%
IAS below 40 knots 100%

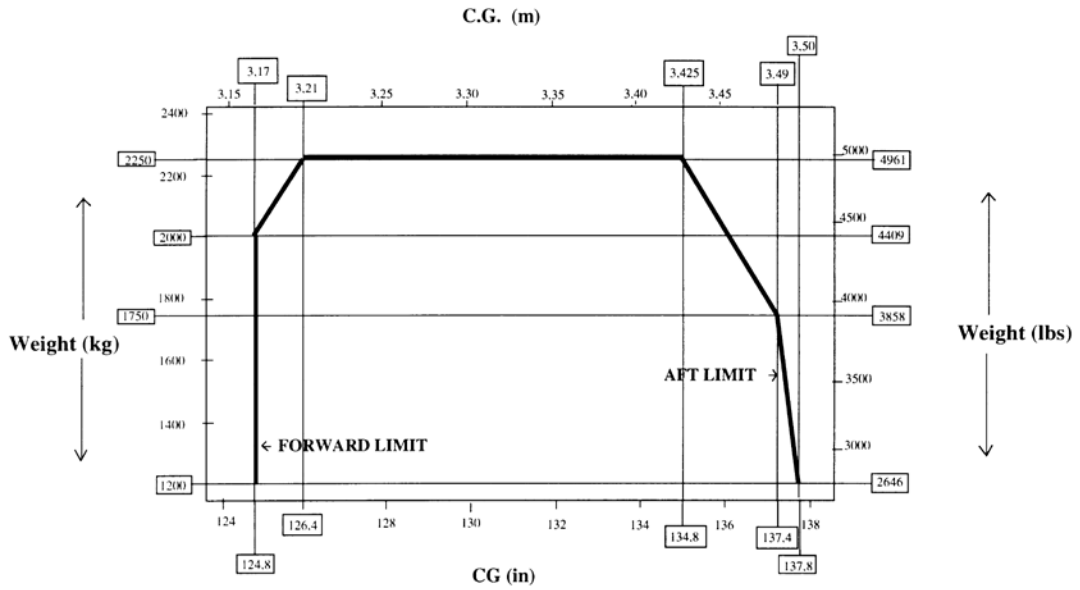
Helicopter Limits (Arriel2D engine mounted). TORQUE
Maximum torque = IAS 40 knots or higher 92.7%
IAS below 40 knots 100%

Maximum Weight. 4960 lb (See NOTE 6).
5220 lb for a/c incorporating mod. OP-3369.

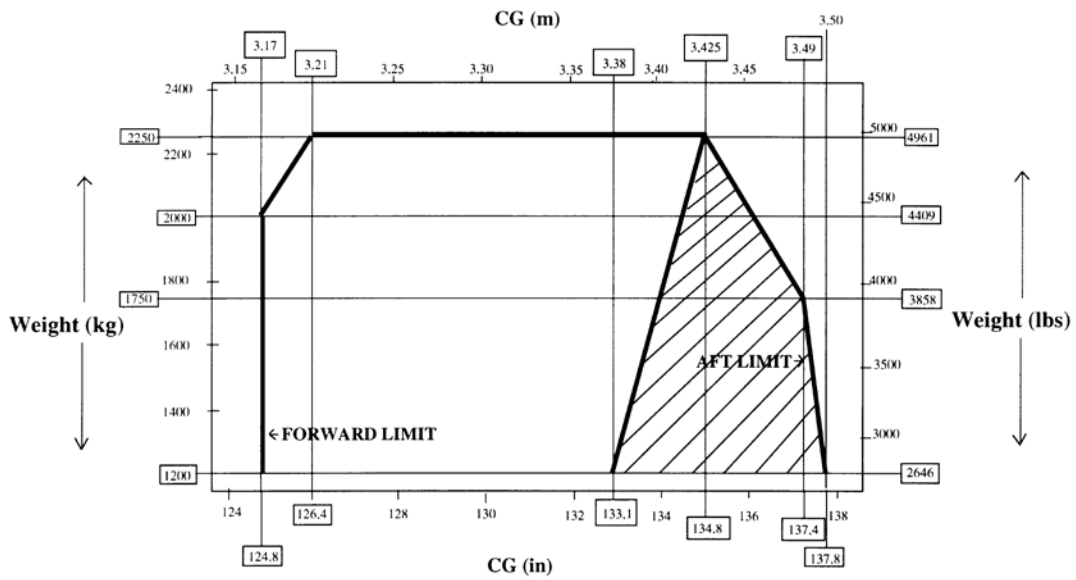
C.G. Range. Longitudinal: AS350 B3 ARRIEL 2B1 a/c incorporating mod. OP-3369:



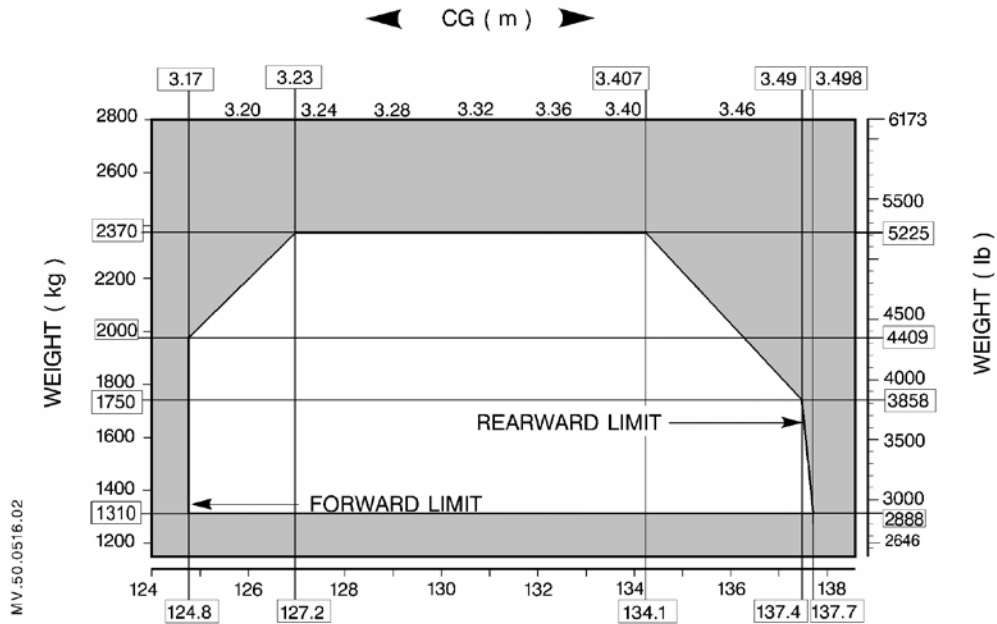
Longitudinal: AS350 B3 ARRIEL 2B (before modifications AMS 072803 and 072808) and for AS 350 B3 ARRIEL 2B1:



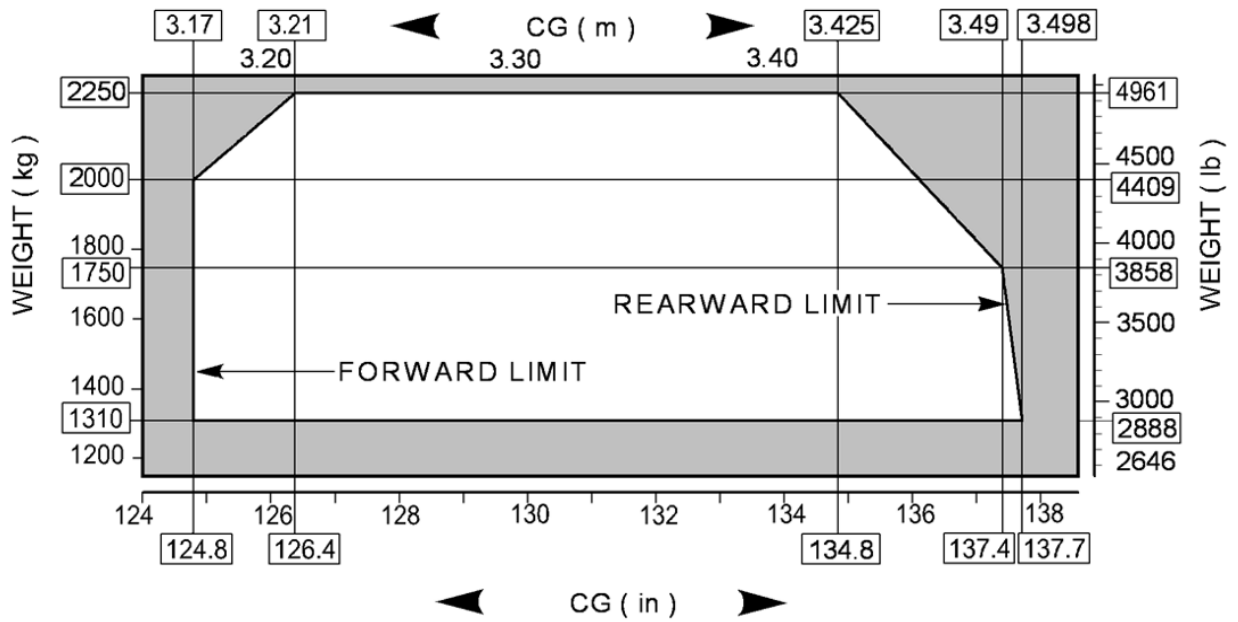
Longitudinal: AS350 B3 ARRIEL 2B (after modifications AMS 072803 and 072808):



Longitudinal: AS350 B3 ARRIEL 2D a/c incorporating mod. OP-3369:



CG (in)
Longitudinal: AS350 B3 ARRIEL 2D:



- Lateral
- L.H. limit: 0.18 m (7.08 in) up to 2250 kg and 0.08 m (3.15 in) from 2250 up to 2370 kg for a/c incorporating mod. OP-3369
 - R.H. limit: 0.14 m (5.51 in) up to 2250 kg and 0.08 m (3.15 in) from 2250 up to 2370 kg for a/c incorporating mod. OP-3369

Rotor Speeds.

In autorotation

Maximum 430 rpm
Minimum 320 rpm

In Power-on flight: With Arriel 2B 390 + 4 rpm

	- 5 rpm
With Arriel 2B1	390 +15 rpm -15 rpm
With Arriel 2D	390 +15 rpm -15 rpm

Rotor Speed Warning. Aural at 360 rpm and 410 rpm

Airspeed Limits. Never exceed speed V_{NE} power on:
155 Kt at zero pressure altitude

Never exceed speed V_{NE} power off:
125 Kt at zero pressure altitude
See Rotorcraft Flight Manual for decrease of these values with altitude and temperature.

Serial Numbers. S/N 2968 and S/N's 3063 and subsequent
S/N 4201 and up for a/c incorporating mod. OP-3369 (2370 kg weight extension)
S/N 4767 and up for a/c incorporating mod. OP-4305 (without or with mod. OP-3369)

IX. Model EC 130 B4 (Normal Category) Helicopter, approved December 21, 2000.

Similar as to AS350B3 except a gross weight increase to 2400 kg, enlarged fuselage structure utilizing some standard EC 120B components, and an EC 135 type fenestron anti-torque system.

Engine 1 TURBOMECA ARRIEL 2B1

Fuel Refer to Flight Manual EC 130B4 for approved fuels and additive specification.

Oil Refer to Flight Manual EC 130B4 for approved oils and additive specification.

Engine Limits

- Power Ratings (Sea Level, ISA)

Takeoff (5 min)	747 shp.
Max. Continuous	728 shp.

- Gas Generator Speeds (Sea Level, ISA)

Takeoff	101.1%
Max. Continuous	97.1%
Maximum transient	102.3%

(note 100%= 52110 RPM)

- Engine Gear Box Limitations
Refer to Engine TCDS E00054EN

- Exhaust Gas Temperature (T4)

Takeoff (5 min.)	915°C
Max. Continuous	849°C
Starting transient (10 sec)	865°C
Continuous starting	750°C

Transmission Limits

Maximum takeoff torque – 100%
Maximum continuous torque – 92.7%
Maximum Transient (5 second) – 104%

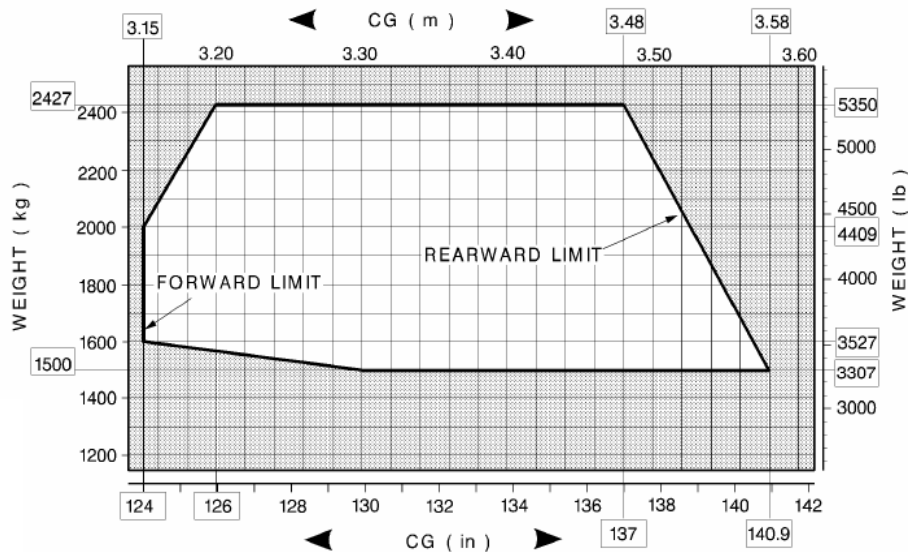
(100% based on 536 Kw at 6000 engine RPM and 386 main rotor RPM)

Maximum Weight 2427 Kg (5350 lbs)

Minimum Crew 1 pilot

<u>Maximum Passengers</u>	6 (2 in front, four in rear) Option 7 passengers (3 in front, four in rear)
<u>Maximum Baggage</u>	Right Baggage Compartment : 287 lb. (max distribution 62.5 lb/sq ft) Left Baggage Compartment : 342 lb. (max distribution 62.5 lb/sq ft) Rear Baggage Compartment : 176 lb. (max distribution 30 lb/sq ft) Main Cabin (on rear floor) : 1091 lb. (max distribution 62.5 lb/sq ft) (on LH fwd floor): 893 lb. (max distribution 62.5 lb/sq ft)
<u>Fuel Capacity</u>	Total : 142.7 U.S. Gallons Usable : 142.3 U.S. Gallons
<u>Oil Capacity</u>	Engine Tank Max. 1.64 U.S. Gallons MGB Max. 1.93 U.S. Gallons (includes filter) TGB Max. 0.13 U.S. Gallons
<u>Rotor Blades and Control Movements</u>	For rigging information, refer to the EC 130B4 Maintenance Manual.

C.G. Range Longitudinal



Longitudinal CG Chart

Lateral
Right 0.10 m
Left 0.10 m

Datum Longitudinal - 3.4 m (133.8 in) forward of main rotor head
Lateral - Symmetrical plane of the aircraft

Leveling Means Mechanical floor

Rotor Speeds
In autorotation
Maximum 430 rpm
Minimum 320 rpm

In Power-on flight
375 to 405 RPM

<u>Rotor Speed Warning</u>	Aural at 360 rpm and 410 rpm
<u>Airspeed Limits</u>	Never exceed speed V_{NE} power on: 155 Kt at sea level Never exceed speed V_{NE} power off: 125 Kt at sea level See Rotorcraft Flight Manual for decrease of these values with altitude and temperature.
<u>Maximum Altitude</u>	23,000 feet pressure altitude
<u>Serial Numbers</u>	S/N's 3358 and subsequent

X. Model EC 130 T2 (Normal Category) Helicopter, approved July 30, 2012.

Similar as to EC130 B4 except a gross weight increase to 2500 kg and a more powerful engine.

<u>Engine</u>	1 TURBOMECA ARRIEL 2D																												
<u>Fuel</u>	Refer to Flight Manual EC 130T2 for approved fuels and additive specification.																												
<u>Oil</u>	Refer to Flight Manual EC 130T2 for approved oils and additive specification.																												
<u>Engine Limits</u>	<ul style="list-style-type: none"> - Power Ratings (Sea Level, ISA) <table> <tr> <td>Takeoff (5 min)</td> <td>802 shp.</td> </tr> <tr> <td>30 minute Power rating</td> <td>802 shp</td> </tr> <tr> <td>Max. Continuous</td> <td>802 shp.</td> </tr> </table> - Gas Generator Speeds (Sea Level, ISA) <table> <tr> <td>Takeoff</td> <td>101.9%</td> <td>(53086 rpm)</td> </tr> <tr> <td>30 minute Power rating</td> <td>101.9%</td> <td>(53086 rpm)</td> </tr> <tr> <td>Max. Continuous</td> <td>99.9%</td> <td>(52050 rpm)</td> </tr> <tr> <td>Maximum transient</td> <td>103.0%</td> <td>(53658 rpm)</td> </tr> </table> <p style="margin-left: 40px;">(note 100%= 52110 RPM)</p> - Engine Gear Box Limitations Refer to Engine TCDS E00054EN - Exhaust Gas Temperature (T4) <table> <tr> <td>Takeoff (5 min.)</td> <td>949°C</td> </tr> <tr> <td>30 minute Power rating</td> <td>949°C</td> </tr> <tr> <td>Max. Continuous</td> <td>905°C</td> </tr> <tr> <td>Starting transient (20 sec)</td> <td>840°C</td> </tr> <tr> <td>Continuous starting</td> <td>750°C</td> </tr> </table> 	Takeoff (5 min)	802 shp.	30 minute Power rating	802 shp	Max. Continuous	802 shp.	Takeoff	101.9%	(53086 rpm)	30 minute Power rating	101.9%	(53086 rpm)	Max. Continuous	99.9%	(52050 rpm)	Maximum transient	103.0%	(53658 rpm)	Takeoff (5 min.)	949°C	30 minute Power rating	949°C	Max. Continuous	905°C	Starting transient (20 sec)	840°C	Continuous starting	750°C
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Max. Continuous	905°C																												
Starting transient (20 sec)	840°C																												
Continuous starting	750°C																												

Transmission Limits

Maximum takeoff torque –	100%
30 minute Power rating -	100%
Maximum continuous torque –	81.3%
Maximum Transient (5 second) –	104%

(100% based on 598 Kw at 6000 engine RPM and 386 main rotor RPM)

Maximum Weight 2500 Kg (5512 lbs)

Minimum Crew 1 pilot

Maximum Passengers 6 (2 in front, four in rear)
 Option 7 passengers (3 in front, four in rear)

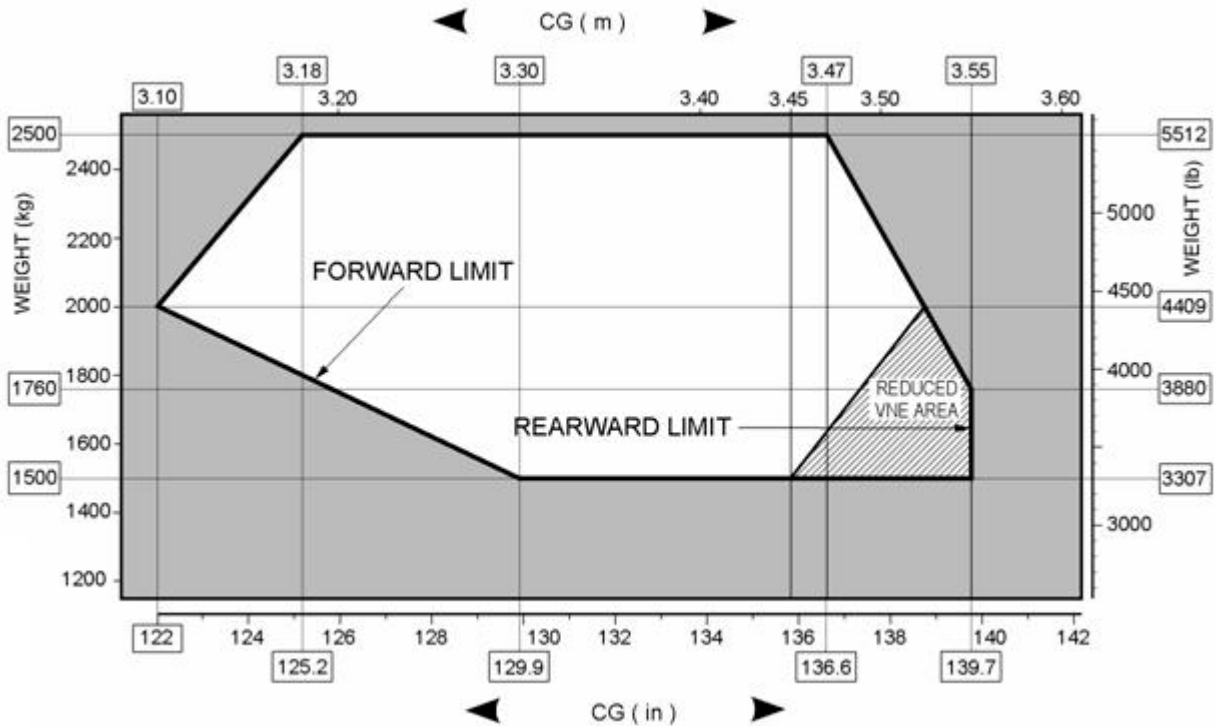
Maximum Baggage. Right Baggage Compartment : 287 lb. (max distribution 62.5 lb/sq ft)
 Left Baggage Compartment : 342 lb. (max distribution 62.5 lb/sq ft)
 Rear Baggage Compartment : 176 lb. (max distribution 30 lb/sq ft)
 Main Cabin (on rear floor) : 1091 lb. (max distribution 62.5 lb/sq ft)
 (on LH fwd floor): 893 lb. (max distribution 62.5 lb/sq ft)

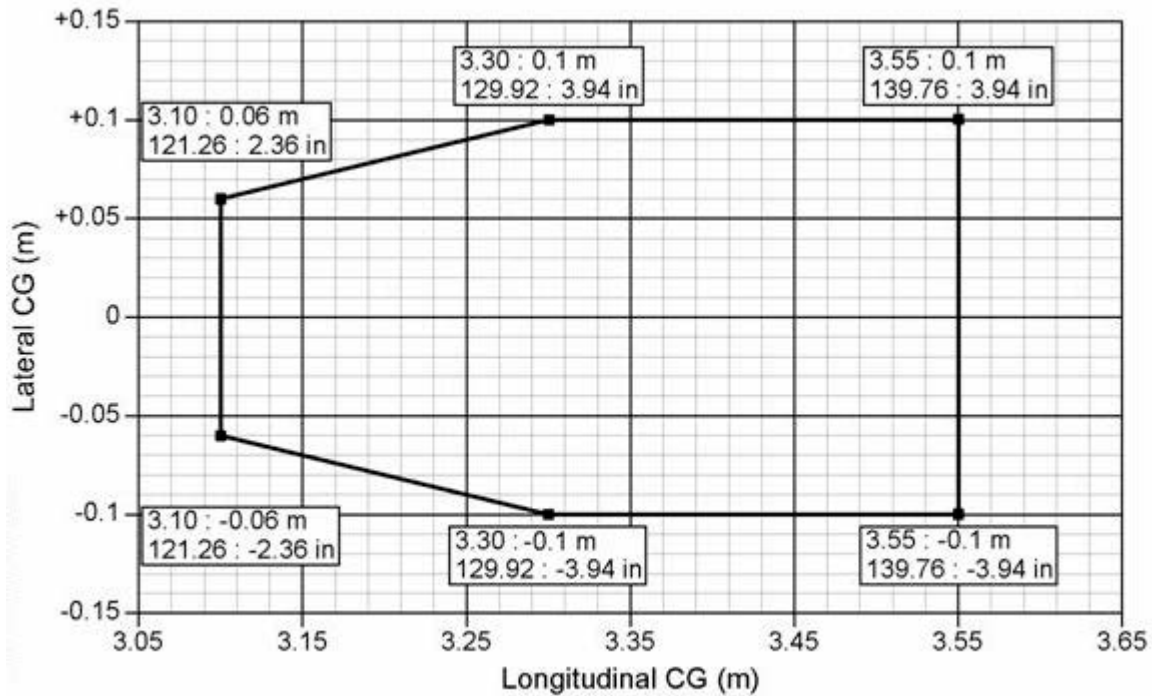
Fuel Capacity. Total : 142.7 U.S. Gallons
 Usable : 142 U.S. Gallons

Oil Capacity. Engine Tank Max.
 1.64 U.S. Gallons
 MGB Max. 1.93 U.S. Gallons (includes filter)
 TGB Max. 0.13 U.S. Gallons

Rotor Blades and Control Movements. For rigging information, refer to the EC 130T2 Maintenance Manual.

C.G. Range Longitudinal



Lateral

Datum Longitudinal - 3.4 m (133.8 in) forward of main rotor head
Lateral - Symmetrical plane of the aircraft

Leveling Means Mechanical floor

Rotor Speeds In autorotation
Maximum 430 rpm
Minimum 320 rpm

In Power-on flight
375 to 405 RPM

Rotor Speed Warning Aural at 360 rpm and 410 rpm

Airspeed Limits Never exceed speed V_{NE} power on:
155 Kt at sea level (depending on longitudinal CG position, See Rotorcraft Flight Manual)

Never exceed speed V_{NE} power off:
125 Kt at sea level
See Rotorcraft Flight Manual for decrease of these values with altitude and temperature.

Maximum Altitude 23,000 feet pressure altitude

Serial Numbers S/N's 7355 and subsequent

DATA PERTINENT TO ALL MODELS EXCEPT EC 130B4 and EC130T2

Empty Weight CG Range. None

Datum. Longitudinal : 133.8 in. forward of main rotor hub center.
Lateral : Vertical plane passing longitudinally through main rotor hub center.

<u>Leveling Means.</u>	Transmission support platform															
<u>Minimum Crew.</u>	1 pilot															
<u>Maximum Passengers.</u>	5 (1 in front, 4 in rear) Option 6 passengers (2 in front, 4 in rear)															
<u>Maximum Baggage.</u>	<table border="0"> <tr> <td>Right Baggage Compartment :</td> <td>220 lb. at 125.98 in.</td> <td>350BA included</td> </tr> <tr> <td>Left Baggage Compartment :</td> <td>264 lb. at 125.98 in.</td> <td>“</td> </tr> <tr> <td>Rear Baggage Compartment :</td> <td>176 lb. at 181.10 in.</td> <td>“</td> </tr> <tr> <td>Main Cabin (on rear :</td> <td>682 lb. at 88.58 in.</td> <td>“</td> </tr> <tr> <td style="padding-left: 20px;">(on LH fwd. :</td> <td>330 lb. at 61.02 in.</td> <td>“</td> </tr> </table>	Right Baggage Compartment :	220 lb. at 125.98 in.	350BA included	Left Baggage Compartment :	264 lb. at 125.98 in.	“	Rear Baggage Compartment :	176 lb. at 181.10 in.	“	Main Cabin (on rear :	682 lb. at 88.58 in.	“	(on LH fwd. :	330 lb. at 61.02 in.	“
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Rear Baggage Compartment :	176 lb. at 181.10 in.	“														
Main Cabin (on rear :	682 lb. at 88.58 in.	“														
(on LH fwd. :	330 lb. at 61.02 in.	“														
<u>Fuel Capacity.</u>	<p>Total : 142.7 U.S. Gallons at 136.8 in. Usable : 142.3 U.S. Gallons at 136.8 in. (post AMS 07.0289) For 350BA version AMS 07.0289 is applied. 142.1 U.S. Gallons at 136.8 in. (post mod OP-4605) (See NOTE 1 for data on unusable fuel)</p>															
<u>Oil Capacity.</u>	<p>Engine Tank Max. 1.37 U.S. Gallons at 144.76 in. for AS 350B, AS350BA and AS 350B1 1.00 U.S. Gallons at 144.76 in. for other models (See NOTE 1 for data on undrainable oil) MGB Max. 1.72 U.S. Gallons at 134.4 in. TGB Max. 0.09 U.S. Gallons at 379.5 in.</p>															
<u>Rotor Blades and Control Movements.</u>	For rigging information, refer to the appropriate AS-350 Maintenance Manual.															
<u>Production Basis:</u>	<p>Production Certificate No. 343CE. The manufacturer, (Airbus Helicopters Inc. (AHI), formerly known as American Eurocopter) is authorized to issue airworthiness certificates under 14 CFR 21.183 (a). NOTE: These models listed on the Airbus Helicopters Inc. (AHI) Production Limitation Record are being produced under Licensing Agreement between Airbus Helicopters (AH) and Airbus Helicopters Inc. (AHI), Columbus, Mississippi.</p>															
<u>Serial Numbers Eligible.</u>	<p>The French Government “Certificat de Navigabilite pour Exportation” endorsed as noted below under “Import Requirements” must be submitted for each individual aircraft for which application for FAA certification is made.</p> <p>Rotorcraft model AS350B2 S/N 3951 and subsequent, may be produced either by American Eurocopter in Columbus, Mississippi or Eurocopter France. Rotorcraft S/N 7810 and subsequent may be produced by Airbus Helicopters Inc.(AHI) in Columbus, Mississippi, or Airbus Helicopters (AH). Validate manufacturer by viewing the aircraft data plate.</p> <p>Rotorcraft model AS350B3 S/N 3995 and subsequent, may be produced either by American Eurocopter in Columbus, Mississippi or Eurocopter France. Rotorcraft S/N 7814 and subsequent may be produced by Airbus Helicopters Inc. (AHI), in Columbus, Mississippi, or Airbus Helicopter (AH). Validate manufacturer by viewing the aircraft data plate.</p>															
<u>Certification Basis.</u>	<p>14 CFR 21.29 and part 27 effective February 1, 1965 plus Amendments 27-1 through 27-10, plus FAA Special Conditions No. 27-79-EU-23, dated August 13, 1977.</p> <p>Equivalent safety, in lieu of direct compliance, found with respect 14 CFR 27.1189, Shutoff Means.</p> <p>Equivalent Safety, in lieu of direct compliance, found with respect to 14 CFR 27.923(b), Rotor drive system and control mechanism test for Model AS-350B1.</p>															

FAA Special Condition No. 27-001-SC for FADEC HIRF and Equivalent level of Safety found with respect to 14 CFR 27.1549(b) for the Model AS350B3.

For A/C incorporating mod. OP3369 (2370 kg/5225 lb mass extension) the following 14 CFR part 27 Amendments 27-1 through 27-40, are replacing the same requirement from the certification basis above : 27 §1; §21; §25; §27; §33; §45; §51; §65; §71; §73; §75; §79; §141; §143; §173; §175; §177; §241; §301; §303; §305; §307; §309; §321; §337; §339; §341; §351; §471; §473; §501; §505; §521; §547; §549; §563(b); §571; §602; §661; §663; §695; §723; §725; §727; §737; §751; §753; §801(b)(d); §927(c); §1041; §1043; §1045; §1301; §1501; §1519; §1529; §1581; §1583; §1585; §1587; §1589.

For AS350B3 A/C incorporating mod. OP-4605 (installation of a fuel system improving crashworthiness), 14 CFR 27.561(c) at Amendment 27-32 replaces the same requirement from the certification basis above for the following elements of the fuel tank lower structure affected by this modification: cradles, longitudinal beams, X-stops and rods.

Type Certificate No. H9EU.

Date of application for Type Certificate: April 6, 1976.

EC 130B4 CERTIFICATION BASIS

14 CFR 21.29 and part 27 Amendment 27-1 through Amendment 27-32 except 14 CFR 27.952 is not adopted.

14 CFR 36 Appendix H through Amendment 20.

Special Condition 27-009-SC for HIRF.

Equivalent Level of Safety Findings

- 14 CFR 27.1549(b) Powerplant Instrument Markings
- 14 CFR 27.1027(b)(2) Main Gearbox Oil Filter Bypass

The French Direction Generale de l'Aviation Civile (DGAC) originally type certificated this rotorcraft under its type certificate TC 84. The FAA validated this product under U.S. Type Certificate Number H9EU. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of the DGAC.

EC 130T2 CERTIFICATION BASIS

Same as EC130B4 except the following:

14 CFR 27.952 at amendt 27-30.

FAR 27.1317 at amendt 42.

Special Condition 27-028-SC for Use of 30-Minute Power Rating.

Import Requirements.

The FAA can issue a U.S. airworthiness certificate based on a National Aviation Authority (NAA) Export Certificate of Airworthiness (Export C of A) signed by a representative of the French Generale de l'Aviation Civile (DGAC) on behalf of the European Community.

The Export C of A should contain the following statement: “The aircraft covered by this certificate has been examined, tested, and found to comply with the type design approved under U.S. Type Certificate Number H9EU and to be in a condition for safe operation.”

A U.S. Airworthiness Certificate may be issued on the basis of a certificate of airworthiness for export signed by a representative of the Centro Tecnico Aeroespacial (CTA), the Brazilian civil airworthiness authority which states in the English language:

“The helicopter covered by this certificate has been examined, tested, and found to conform to the Type design approved under FAA Type Certificate No. H9EU and to be in a condition for safe operation.”

Major modifications to the imported aircraft must be FAA approved. (see Notes 10 and 11).

SERVICE INFORMATION.

Service bulletins, structural repair manuals, vendor manuals, AFMs, and overhaul and maintenance manuals, which contain a statement that the document is approved by the European Aviation Safety Agency (EASA) or – for approvals made before September 28, 2003 – by the French Generale de l’Aviation Civile (DGAC), are accepted by the FAA and are considered FAA approved. These approvals pertain to the design data only.

EQUIPMENT.

The basic required equipment as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the helicopter for certification. Eurocopter France Report No. 350A.04.4320 lists required and optional equipment for the helicopter.

In addition, the following equipment is required:

DGAC-or EASA approved Rotorcraft Flight Manual identified as Code B, approved as follows:

- For Model AS-350B : Approved November 9, 1978. or later approved revisions.
- For Model AS-350C : Approved December 21, 1977, including Rev. No. 2 approved December 8, 1978. or later approved revisions.
- For Model AS-350D : Approved July 5, 1978. or later approved revisions.
- For Model AS-350D1 : Approved July 4, 1978. or later approved revisions.
- For Model AS-350B1 : Approved February 11, 1987. Rev. 0 plus Rev. 1A and 1B and specific pages marked B or later approved revisions.
- For Model AS-350B2 : Approved June 8, 1990 - Rev. 0 plus Rev. 1 plus Sup 0 Rev. 2 or later approved revisions.
- For Model AS-350BA : Approved March 11, 1992.
- For Model AS-350B3 : Approved December 24, 1997, or later approved revisions. plus rapid Revision RR 1A for aircraft equipped with Arriel 2B engine or Approved July 16, 2004 for aircraft equipped with Arriel 2B1 engine.
EASA Approved June 17, 2011 + FAA Code B Appendix for aircraft equipped with Arriel 2D engine or later approved revisions.
- For Model EC 130B4 : Approved November 29, 2000 plus ITR 1A and ITR 1B dated May 17, 2001 (B code not applicable) or later approved revisions.

For Model EC 130T2 : EASA Approved May 25, 2012 + FAA Code B Appendix or later approved revisions.

NOTES:

NOTE 1. Current weight and balance report including loading instructions and list of equipment included in the certificated empty weight, must be provided for each helicopter at the time of original certification. The certificated empty weight and corresponding center of gravity location must include unusable fuel of 20.5 lb., at 136.8 in., and undrainable oil of 1.8 lb., at 171.0 in. For Models AS350B/C/D after embodiment of modification AMS 07.0289 and for Models AS350B1 and BA, the unusable fuel is 3.1 lb. For Model AS350B3 after embodiment of modification OP-4605, the unusable fuel is 4.4 lb.

In order to obtain the most consistent weight and balance results, all helicopters should be weighed on jackpoints rather than on wheels and floats. When changes are made to the helicopter, which affect the weight and balance, refer to the Flight Manual Weight and Balance Appendix for instructions.

NOTE 2. All placards indicated in the Rotorcraft Flight Manual must be installed in the appropriate location.

NOTE 3. Information essential to the proper maintenance of the helicopter is contained in the manufacturer's AS-350 Maintenance Manual provided with each helicopter. Life-limited components and associated retirement times are presented in Chapter 5, Section CD 5.99 or MSM chapter 04, and must be replaced in accordance therewith.

NOTE 4. For compliance with applicable powerplant ice protection requirements, the helicopter must be equipped during all operations with engine air inlet conforming with Eurocopter France Dwg. No. 350A58-1607 for aircraft fitted with Turbomeca Arriel engines and with Dwg. No. 350A58-1608 for aircraft fitted with Lycoming engines.

NOTE 5. Except for difference in maximum certificated empty weight, the model AS 350D and AS 350D1 are identical to each other.

NOTE 6. A. When operating at maximum weights above, 4,190 pounds DGAC-approved Rotorcraft Flight Manuals, identified as Code B, approved as follows, are required:

- 1) for Model AS-350B: Issue 1, amendment 3, approved May 10, 1979.
- 2) for Model AS-350C: Issue 1, amendment 4, approved May 10, 1979.
- 3) for Model AS-350D: Issue 1, amendment 1, approved May 10, 1979.

B. For models AS-350B, AS-350C, AS-350D for cargo sling or cargo swing operations the maximum weight, including the external load, may be 4,630 pounds provided:

- 1) at least 330 pounds of the external load are releasable, and
- 2) the rotorcraft is operated in accordance with the appropriate Rotorcraft Flight Manual in part A of this note and,
 - a) Eurocopter France Supplement No. 2 to that DGAC-approved Manual, dated May 10, 1979 or later EASA/DGAC approved revision, for the cargo sling, or,
 - b) Eurocopter France Supplement 2A to that DGAC-approved Manual, dated May 18, 1979 or later EASA/DGAC approved revision, for the cargo swing.

C. For AS 350B1 model for cargo sling or cargo swing operations the maximum weight including the external load, may be 5,402 pounds provided:

- 1) at least 552 pounds of the external load are releasable, and
- 2) the rotorcraft is operated in accordance with the appropriate RFM and
 - a) Eurocopter France supplement 10-1 to that DGAC approved Manual, dated January 9, 1986 or later EASA/DGAC approved revision, for the cargo swing or

- b) Eurocopter France supplement 10-2 to that DGAC approved Manual, dated January 9, 1986 or later EASA/DGAC approved revision, for the cargo sling.

D. For AS 350B2 model for cargo sling or cargo swing operations the maximum weight including the external load, may be 5,512 pounds provided:

- 1) at least 551 pounds of the external load are releasable, and
- 2) the rotorcraft is operated in accordance with the appropriate RFM and
 - a) Eurocopter France supplement 11 to that DGAC-approved Manual, dated April 26, 1989 or later EASA/DGAC approved revision, for the cargo swing or,
 - b) Eurocopter France supplement 12 to that DGAC approved Manual, dated April 26, 1989 or later EASA/DGAC approved revision, for the cargo sling.

E. For AS 350BA model for cargo sling or cargo swing operations the maximum weight including the external load may be 4961 lb.

- 1) at least 331 pounds of the external load are releasable and
- 2) the rotorcraft is operated in accordance with the appropriate RFM and
 - a) Eurocopter France supplement 11 to that DGAC approved Manual, dated November 26, 1991 or later EASA/DGAC approved revision, for the cargo swing.
 - b) Eurocopter France supplement 12 to that DGAC approved Manual, dated November 26, 1991 or later EASA/DGAC approved revision, for the cargo sling.

F. For AS 350B3 model, Arriel2B mounted, for cargo sling or cargo swing operations the maximum weight including the external load may be 6173 lb.

- 1) at least 1212 pounds of the external load are releasable and
- 2) the rotorcraft is operated in accordance with the appropriate RFM and
 - a) Eurocopter France supplement 11 to that DGAC approved Manual, dated December 24, 1997 for the cargo swing or
 - b) Eurocopter France supplement 12 to that DGAC approved Manual, dated December 24, 1997 for the cargo sling.
 - c) Eurocopter France supplement 13 to that DGAC approved Manual, dated February 16, 1998 for the cargo swing.

For AS 350B3 model, Arriel2B1 mounted, for cargo sling or cargo swing operations the maximum weight including the external load may be 6173 lb.

- 1) at least 1212 pounds of the external load are releasable and
- 2) the rotorcraft is operated in accordance with the appropriate RFM and
 - a) Eurocopter France supplement 12 to that DGAC approved Manual, dated July 16, 2004 later EASA/DGAC approved revision for the cargo swing or
 - b) Eurocopter France supplement 13.1 to that DGAC approved Manual, dated July 16, 2004 or later EASA/DGAC approved revision for the cargo sling.
 - c) Eurocopter France supplement 13.2 to that DGAC approved Manual, dated Feb 15, 2005 or later EASA/DGAC approved revision for the cargo swing.

For AS 350B3 model, Arriel2D mounted, for cargo sling or cargo swing operations the maximum weight including the external load may be 6173 lb.

- 1) at least 1212 pounds of the external load are releasable and
- 2) the rotorcraft is operated in accordance with the appropriate RFM and
 - a) Eurocopter France supplement 12 to that EASA approved Manual, dated June 17, 2011 later EASA approved revision for the cargo swing or
 - b) Eurocopter France supplement 13.1 to that EASA approved Manual, dated June 17, 2011 or later EASA approved revision for the cargo sling.
 - c) Eurocopter France supplement 13.2 to that EASA approved Manual, dated June 17, 2011 or later EASA approved revision for the cargo swing.

NOTE 7.

Emergency fuels:

For AS 350B3 model, Arriel2B mounted

- A. Use of aviation gasoline MIL-G-5572, Grade 80/87; Grade 110/130 and Grade 115/145 is limited to 25 hours maximum within one overhaul period and should have 2% mineral lubricating oil added, if possible. In addition the use of Grade 115/145 is limited operations below 1500 feet pressure altitude.
- C. Use of automotive gasoline MIL-G-3056 is limited to a fuel temperature up to 25°C.

For AS 350B3 model, Arriel2B1 or Arriel2D mounted
No emergency fuel

NOTE 8. For AS 350B, the aural warning sounds when the rotor speed drops below:

335 rpm before embodiment of modification AMS 07.1891
360 rpm before embodiment of modification ASM 07.1891
For AS350BA, AMS 07.1891 is applied.

NOTE 9. The model AS350B3, EC 130B4 and EC130T2 rotorcraft employs electronic engine controls, commonly named Full authority Digital Engine Controls (FADEC) and is recognized to be more susceptible to Electromagnetic Interference (EMI) than rotorcraft that have only 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's diagnostic techniques and external diagnostic techniques. The test procedure must be FAA approved.

NOTE 10 Helibras (Brazil) has signed with Eurocopter (France) a technical cooperation agreement contract to manufacture in Brazil the AS 350 BA, AS 350 B2 and AS 350 B3 models using kits produced by Eurocopter, in conformity to the DGAC France approved Type design. Helibras helicopters are produced under the Helibras Production Certificate, assembled and tested in accordance with procedures approved under the French Type design by Eurocopter and accepted by the Centro Tecnico Aeroespacial (CTA) under the terms and conditions of the Helibras Production Certificate.

Helicopter serial numbers produced by Helibras as the manufacturer are identified in Eurocopter document number L102 001, entitled "List of serial numbers of stage 2 helicopters produced by Helibras" referenced in both the French and the Brazilian Type Certificate Data Sheets (See Import Requirements).

NOTE 11 Helicopters with a model prefix of "HB" as in "HB 350 B" are not eligible for airworthiness certification in the U.S.

NOTE 12. Effective January 1, 2014, Eurocopter France name was changed to Airbus Helicopters.

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