DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

H8EU
Revision 3
AEROSPATIALE
SA-360C
"Dauphin"

February 15, 2007

TYPE CERTIFICATE DATA SHEET NO. H8EU

This data sheet which is a part of Type Certificate No. H8EU 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 EUROCOPTER FRANCE
Aeroport International Marseille Provence
13725 - Marignane - Cedex
France

I. Model SA-360C "Dauphin" (Transport Helicopter, Category B), approved March 31, 1976.

Engine 1 Turbomeca Astazou XVIIIA

Fuel Authorized without restrictions

Type of Fuel	NATO Symbol	SPECIFICATIONS (To be used at the latest amendment and dash- number)			Anti-Icing Additive
		U.S.A.	U.K.	FRANCE	
Kerosene 50 JP1 (AVTUR FS.11)	F34	-	D.ENG.RD. 2453	AIR 3405	Incorporated
	F35	ASTM JET A1	D.ENG.RD. 2494		Not incorporated
Kerosene	-	ASTM JET A	-	-	Not incorporated
Aviation Fuel JP4 (AVTAG FS.11)	F40	-	D.ENG.RD. 2454	AIR 3407	Incorporated
Aviation Fuel JP4 (AVTAG)	F45	MIL T 5624 (JP4)	D.ENG.RD. 2486		Not incorporated
Aviation Fuel	-	ASTM JET B	-	-	Not incorporated
High Flash Point JP5 (AVCAT)	F42	-	-	AIR 3404	AIR 3404 Incorporated
					F42 Not incorporated
	F44	MIL T 5642 JP5	D.ENG.RD. 2498	-	Not incorporated
	F12	MIL G 5572 Grade 80/87	-	AIR 3401 Grade 80/87	Within any one period between overhauls of the engine, the use of aviation gasoline is limited to 25 hours maximum. Add 2% of lubricating oil if possible. Maximum T.O.W. reduced by 10%.
	F18	MIL G 5572 Grade 100/130	D.ENG.RD. 2485	AIR 3401 100/130	
	F22	Mil G 5572 Grade 115/145	-	AIR 3401 115/145	
Automotive gasoline	F46	Mil G 3056	DEF.2401	DCEA/ 2DMT80	

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Fuel (cont'd) Authorized without restrictions

Type of Fuel	NATO Symbol	SPECIFICATIONS (To be used at the latest amendment and dash number)			REMARKS
		U.S.A.	U.K.	FRANCE	
Automotive diesel oil	F51	VVF 800 DF2	TS 10.003	DCEA/21 C	Not to be used at OAT below - 5°C
	-	VVF 800 DF1	-	-	Not to be used at OAT below -15°C
Artic diesel oil	F56	VVF 800 DFA	-	-	Not to be used at OAT below -20°C
Fuel oil "0"	F75	MIL F 16884	DEF 2402	7120STM 47/0 DIESO	Not to be used at OAT below -5°C
Fuel oil "20"	F76	-	DEF 2402	7120 STM 47/20 DIESO	Not to be used at OAT below 0°C
Parafin (illuminating oil)	F58	VVK 211	DEF 2403	DCEA/11 C	Not to be used at OAT below -15°C

Fuel Additives

1. Anti-icing additives (with or without glycerine)
   For operation at OAT below +5°C, one of the following anti-icing additives must be added to fuels not incorporating anti-icing additive.
   AIR 3652
   MIL.I.27686
   D.ENG.RD 2451
   NATO S748
   Philips PFA 55 MB
   (Concentration between 0.035% min and 0.15% max by volume).
2. Anti-static additives
   SHELL ASA 3
   (Concentration 0.0001% by volume).

Oil Engine

Oil Grade	NATO	SPECIFICATIONS (To be used at the latest amendment and dash number)		
		U.S.A.	U.K.	FRANCE
Synthetic (light)	0.148	MIL-L-7808		AIR 3513
3 cst	0.150			AIR 3514
Synthetic (medium) 5 cst	0.156	MIL-L-23699		
Synthetic (heavy)	0.149		D.ENG.RD. 2487	AIR 3517
7.5 cst	0.159			

Light and medium synthetic oils recommended for use.
Heavy synthetic oil must be considered as an alternative oil.
(Upon specific request of operator, AIR 3515 mineral oil may be approved for use as a transitory measure with applicable limitations).

Oil Type	SPECIFICATIONS (To be used at the latest amendment and dash number)				Authorized for O.A.T. Range
	NATO	U.S.A.	U.K.	FRANCE	
Mineral	0.155	MIL-L-6086	DTD 581	AIR 3525	-30°C to +40°C
Synthetic	0.156	MIL-L-23699			-40°C to 0°C

Engine Limits	Governed speed:	43,000 ± 1500 rpm
	Maximum speed, takeoff and maximum continuous:	44,500 rpm
	Maximum transient overspeed (10 sec):	45,600 rpm
	Minimum speed for continuous operation:	41,500 rpm
	Power ratings (43,000 rpm: Sea level, ISA)	
	Maximum takeoff (5 min):	871 shp (650 kw) 100%
	Maximum continuous:	804 shp (600 kw) 92%
	Exhaust gas temperature (T4)	
	Maximum takeoff (5 min):	620°C
	Maximum continuous:	580°C
	Maximum for starting (5 sec):	* 750°C
	*If 700°C is exceeded during starting, refer to engine Maintenance Manual for required action.	
Transmission Limits	Maximum takeoff power (5 min):	871 shp (Torque: 100%)
	Maximum continuous power:	804 shp (Torque: 92%)
Helicopter Power and Torque Limits	Maximum takeoff (5 min):	871 shp (100%)
	Maximum continuous:	804 shp (92%)
Rotor Speed	In autorotation:	
	Maximum:	393 rpm
	Minimum:	320 rpm
	Minimum transient on engine failure:	245 rpm
	In power-on flight: 349 ± 12 rpm (corresponding to governed engine speed of 43,000 ± 1500 rpm)	
Rotor Low Speed Warning	Aural at: 338 rpm minimum	
Airspeed Limits	Never-exceed-speed 170 knots IAS at sea level, decreasing with altitude 3 knots per 1,000 ft. pressure altitude.	
C.G. Range	Longitudinal: + 149.6 in. to + 161.4 in.	
	Lateral: right: 4.3 in.	
	left: 4.3 in.	
Empty Weight C.G. Range	None	
Datum	157.4 in. forward of main rotor hub center.	
Leveling Means	Three plates on the left side of transmission support platform.	
Maximum Weight	6,615 lb. (3000 Kg) or 6,400 lb. (2900 Kg) when equipped with standard main rotor blade sleeves P/N 360A31.1098.	
Minimum Crew	1 pilot	
Maximum Passengers	13	
Maximum Baggage	Baggage compartment: 330 lb.	(Floor loading: 72 lb/ft 2 maximum)
	Main cabin:	(Floor loading: 125 lb/ft 2 maximum)
Fuel Capacity	169 U.S. gallons (153.1 in.) - Usable 165.7 U.S. gallons (See NOTE 1 for data on unusable fuel).	

Oil Capacity	Engine maximum 2.3 U.S. gallons at 206.3 in. MGB maximum 2.2 U.S. gallons at 160.6 in. TGB maximum 0.1 U.S. gallon at 407.9. in.
Rotor Blades and Control Movements	For rigging information, refer to the SA-360C Maintenance Manual.
Serial Nos. Eligible	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.
Certification Basis	FAR 21.29 and FAR 29 effective February 1, 1965 plus Amendments 29-1 through 29-9 and para. 29.1401(d) and (f) of Amendment 29-11, plus FAA Special Conditions No. 29-68-EU-20 dated March 30, 1976. Type Certificate No. H8EU issued March 31, 1976. Date of Application for Type Certificate: June 26, 1974. The French Direction Generale de l'Aviation Civile (DGAC) originally type certificated this rotorcraft under its type certificate TC 80. The FAA validated this product under U.S. Type Certificate Number H8EU. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of the DGAC.
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 H8EU and to be in a condition for safe operation."
Service Information	AEROSPATIALE Service Bulletins are approved by DGAC (formerly SGAC) and include a statement to that effect. Such approval may be interpreted as approved by FAA. Each of the documents listed below must state that it 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). Any such documents are accepted by the FAA and are considered FAA approved. • Service Bulletin, • Structural repair manuals, • Vendor manuals, • Aircraft flight manuals, and • Overhaul and maintenance manuals. This applies only to the acceptance of the type design data.

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the helicopter for certification. Aerospatiale Report No. 360A.04.3157 lists required and optional equipment for the helicopter, except electronics. Report No. 360A.04.3210 lists electronic communication and navigation equipment.

In addition, the following item of equipment is required:

SGAC (now DGAC)-approved Rotorcraft Flight Manual, Code B, approved December 18, 1975, including Revision No. 1, approved February 1976.
(Date 2.76).

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 certification empty weight and corresponding center of gravity location must include unusable fuel of 22.0 lb, at 137.7 in.

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.

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

Note 2.

Information essential to the proper maintenance of the helicopter is contained in the Manufacturer's SA-360C Maintenance Manual provided with each helicopter. Life-limited components and associated retirement times are presented in Chapter 5, Section CD 5.99, and must be replaced in accordance therewith.

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