

	ARRIEL 1C	ARRIEL 1C1	ARRIEL 1C2	ARRIEL 1S
2-1/2 minute OEI	700 (522)	721 (538)	763 (569)	751 (560)
30-minute OEI	686 (512)	705 (526)	738 (550)	730 (544)
Continuous OEI	---	---	---	730 (544)
Takeoff	659 (492)	705 (526)	738 (550)	701 (523)
Maximum continuous	586 (437)	586 (437)	632 (471)	701 (523)
	ARRIEL 1S1	ARRIEL 1K1	ARRIEL 1E	ARRIEL 1E2
2-1/2 minute OEI	802 (598)	772 (575)	626 (467)	708 (528)
30-minute OEI	788 (588)	738 (550)	626 (467)	708 (528)
Continuous	788 (588)	--	626 (467)	708 (528)
Takeoff	725 (541)	738 (550)	626 (467)	708 (528)
Maximum continuous	725 (541)	632 (541)	626 (467)	692 (516)

FUEL SEE NOTE 15
 FUEL CONTROL TURBOMECA
 OIL SEE NOTE 14

PRINCIPAL DIMENSIONS

		PRINCIPAL DIMENSIONS / INCHES						
	ARRIEL 1	ARRIEL 1A	ARRIEL 1A1	ARRIEL 1A2				
Length	44.2	--	--	--				
Width	16.2	--	--	--				
Height	23.5	--	--	24.0				
	ARRIEL 1B	ARRIEL 1B2	ARRIEL 1D	ARRIEL 1D1				
Length	47.7	--	49.4	47.3				
Width	17.3	--	19.0	18.3				
Height	23.5	24.0	--	24.1				
	ARRIEL 1C	ARRIEL 1C1	ARRIEL 1C2	ARRIEL 1S	ARRIEL 1S1	ARRIEL 1K1	ARRIEL 1E, 1E2	
Length	45.9	--	--	60.3	--	45.9	46.7	
Width	16.2	18.3	--	19.3	--	19.5	19.5	
Height	24.0	--	--	30.9	--	24.3	27.4	

CENTER OF GRAVITY WEIGHT

REFER TO INSTALLATION MANUAL

		WEIGHT / DRY / MAXIMUM / POUNDS						
		Refer to engine manual for definition of dry weight						
	ARRIEL 1	ARRIEL 1A	ARRIEL 1A1	ARRIEL 1A2				
	245	--	--	257				
	ARRIEL 1B	ARRIEL 1B2	ARRIEL 1D	ARRIEL 1D1				
	253	265	272	269				
	ARRIEL 1C	ARRIEL 1C1	ARRIEL 1C2	ARRIEL 1S	ARRIEL 1S1	ARRIEL 1K1	ARRIEL 1E, 1E2	
	257	262	--	280	286	271	276	

DRIVE SHAFT TYPE IGNITION

REFER TO INSTALLATION MANUAL
 Low tension, high energy system, including:
 2 high energy generators
 2 injectors
 2 ignitors

STARTING

Starting unit with electrovalve. Drain valve. (See NOTE 7)

CERTIFICATION BASIS

FAR Sections 21.29 and 33 effective February 1, 1965, and Amendments 33-1 through 33-5.

Arriel 1S and 1S1 are additionally certified to FAR Section 33, Paragraphs 33.17(b), 33.67(a)(b) and 33.71(a)(b).

The aviation authority for France, the Direction Generale de L'Aviation Civile (DGAC), originally type certificated this engine. The FAA validated this product under U.S. Type Certificate Number E19EU. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of France.

MODEL	APPLICATION DATE	TYPE CERTIFICATE ISSUED / AMENDED	TYPE CERTIFICATE CANCELED
ARRIEL 1		08/22/78	
ARRIEL 1A	12/05/74	06/30/77	
ARRIEL 1B	12/05/74	06/30/77	
ARRIEL 1A1	05/30/79	06/26/79	
ARRIEL 1A2	05/30/79	12/28/79	
ARRIEL 1B2	05/30/79	12/28/79	
ARRIEL 1C	01/30/81	06/08/81	
ARRIEL 1C1	10/22/81	07/20/82	
ARRIEL 1D	06/11/85	05/28/86	
ARRIEL 1S	10/07/85	01/29/88	
ARRIEL 1D1	02/22/89	06/01/90	
ARRIEL 1C2	02/22/89	06/01/89	
ARRIEL 1S1	04/07/89	12/19/90	
ARRIEL 1K1	09/13/91	05/06/92	
ARRIEL 1E	08/23/91	06/26/92	
ARRIEL 1E2	04/02/93	07/26/94	

PRODUCTION BASIS

ARRIEL 1B, 1S, 1S1: Production Certificate Number 5SW. Produced by Turbomeca Engine Corporation in the United States under license agreement from Turbomeca S.A., France.

ARRIEL 1B, 1S and 1S1: Engine modules, and parts thereof, produced by Turbomeca S.A., France, conforming to this type certificate are fully interchangeable with ARRIEL 1B, 1S and 1S1 engine modules, and parts thereof, produced under Production Certificate Number 5SW.

Engines manufactured under Production Certificate Number 5SW shall have the suffix "TEC" added to the engine serial number and shall be included in the required identification data as specified by FAR Section 45.

IMPORT REQUIREMENTS

To be considered eligible for installation on U.S. registered aircraft, each new engine to be exported to the United States with the DGAC or EASA airworthiness approval shall have a Joint Aviation Authorities (JAA) or EASA Form 1, Authorized Release Certificate. The JAA or EASA Form 1 should state that the engine conforms to the type design approved under the U.S. Type Certificate E19EU, is in a condition for safe operation and has undergone a final operational check.

Additional guidance is contained in FAA Advisory Circular 21-23, Airworthiness Certification of Civil Aircraft, Engines, Propellers and Related Products Imported into the United States.

NOTES

NOTE 1.

**PERMISSIBLE ENGINE SPEEDS / RPM
MAXIMUM GAS GENERATOR SPEED**

	ARRIEL 1	ARRIEL 1A	ARRIEL 1A1	ARRIEL 1A2				
2-1/2 minute OEI rating	52,700	--	52,900	--				
30-minute OEI rating	52,000	--	52,250	52,250				
Takeoff rating	52,000	--	--	--				
Maximum continuous rating	50,750	--	--	--				
Transient (5 second limit)								
Transient (20 second limit)	54,650	--	--	--				
---	---	---	---	---				
	ARRIEL 1B	ARRIEL 1B2	ARRIEL 1D	ARRIEL 1D1				
2-1/2 minute OEI rating	---	---	---	---				
30-minute OEI rating	---	---	---	---				
Takeoff rating	52,000	52,000	52,422	52,330				
Maximum continuous rating	50,750	--	50,764	50,760				
Transient (5 second limit)	54,650	--	50,650	55,690				
Transient (20 second limit)	---	---	---	---				
	ARRIEL 1C	ARRIEL 1C1	ARRIEL 1C2	ARRIEL 1S	ARRIEL 1S1	ARRIEL 1K1	ARRIEL 1E	ARRIEL 1E2
2-1/2 minute OEI rating	53,200	--	53,560	53,517	--	53,540	52,888	53,509
30-minute OEI rating	52,300	52,060	52,840	52,637	53,257	52,836	52,629	52,835
Continuous OEI	---	---	---	52,637	53,257	--	--	--
Takeoff rating	51,800	52,060	52,840	52,110	--	52,836	52,111	52,835
Maximum continuous rating	50,500	50,250	50,870	52,110/ 52,631	--	52,868	51,800	51,955
Transient (5 second limit)								
Transient (20 second limit)	54,650	--	55,685	54,900	54,900	54,649	---	---
---	---	---	55,685*	54,900*	54,900*	--	55,685	55,685
For variation of these limits with outside air temperature (OAT), refer to Operation Manual or Installation Manual. For required action if limits are exceeded, refer to Operation Manual or Maintenance Manual. 100% = 51,800 rpm: Arriel 1/1A/1A1/1A2/1B/1B2/1C/1C1/1C2/1D/1D1/1K1/1E/1E2 100% = 52,110 rpm: Arriel 1S/1S1								

*For one engine inoperative (OEI)

NOTE 1 (continued)

**PERMISSIBLE ENGINE SPEEDS (continued) / RPM
MAXIMUM POWER SHAFT SPEED
POWER SHAFT SPEEDS**

	ARRIEL 1	ARRIEL 1A	ARRIEL 1A1	ARRIEL 1A2				
Maximum stabilized	6,780	--	--	--				
Maximum transient (5 sec)	7,200	--	--	--				
Minimum transient (5 sec)	5,140	--	--	--				
	ARRIEL 1B	ARRIEL 1B2	ARRIEL 1D	ARRIEL 1D1				
Maximum stabilized	6,780	--	6,480	--				
Maximum transient (5 sec)	7,200	--	--	--				
Minimum transient (5 sec)	5,140	--	--	--				
	ARRIEL 1C	ARRIEL 1C1	ARRIEL 1C2	ARRIEL 1S	ARRIEL 1S1	ARRIEL 1K1	ARRIEL 1E	ARRIEL 1E2
Maximum stabilized	6,480	--	--	6,542	6,542	6,480	--	--
Maximum transient (5 sec)	7,200	--	--	--	--	7,200	--	--
Minimum transient (5 sec)	5,140	--	--	---	---	5,140	--	--
If limits are exceeded, refer to Operation Manual or Maintenance Manual 100% = 5,976 rpm: Arriel 1/1A/1A1/1A2/1B/1B2/1C/1C1/1C2/1D/1D1 100% = 6,057 rpm: Arriel 1S 100% = 6,409 rpm: Arriel 1S1 100% = 6,000 rpm: Arriel 1E, 1E2								

NOTE 2.

MAXIMUM PERMISSIBLE TEMPERATURE

A. EXHAUST GAS (t4⁰c)

Measured with 3 thermocouples on gas generator turbine diffuser

	ARRIEL 1	ARRIEL 1A	ARRIEL 1A1	ARRIEL 1A2				
2-1/2 minute OEI rating	840	--	--	--				
30-minute OEI rating	810	--	--	--				
Takeoff rating	810	--	--	--				
Maximum continuous rating	775	--	--	--				
Starting								
Transient (20 sec. limit)	840	--	--	--				
---	---	---	---	---				
	ARRIEL 1B	ARRIEL 1B2	ARRIEL 1D	ARRIEL 1D1				
2-1/2 minute OEI rating	---	---	865	--				
30-minute OEI rating	---	---	845	--				
Takeoff rating	810	--	845	--				
Maximum continuous rating	775	--	795	--				
Starting								
Transient (20 sec. limit)	840	--	865	--				
---	---	---	---	---				

NOTE 2. (continued)

MAXIMUM PERMISSIBLE TEMPERATURE

A. EXHAUST GAS (t4⁰c)

Measured with 3 thermocouples on gas generator turbine diffuser

	ARRIEL 1C	ARRIEL 1C1	ARRIEL 1C2	ARRIEL 1S	ARRIEL 1S1	ARRIEL 1K1	ARRIEL 1E, 1E2
2-1/2 minute OEI rating	860	865	885	--	--	--	--
30-minute OEI rating	835	845	--	--	868	845	--
Continuous OEI	---	---	---	845	868	845	--
Takeoff rating	835	845	--	--	--	--	--
Maximum continuous rating	785	775	--	845*	845	775	845*
Starting	860	865	--	--	--	865***	--
Transient (20 sec. limit)	---	---	920**	920**	920**	920**	--

If limits are exceeded, refer to Operation Manual or Maintenance Manual for required action.
 * For two engine operation or one engine inoperative.
 ** For one engine inoperative.
 *** 5 second limit.

NOTE 2 (continued)

B. OIL / DEGREES CENTIGRADE / MEASURED AT ENGINE INLET
ARRIEL 1 / 1A / 1A1 / 1A2 / 1B / 1B2
Maximum operating temperature: 110
Minimum for starting: Between -55 and -40, according to oil and fuel specifications. Refer to Operation Manual.
Minimum for power application: Between -10 and 0, according to oil specifications. Refer to Operation Manual.

MAXIMUM PERMISSIBLE TEMPERATURE (continued)
A. EXHAUST GAS (t4⁰c)
Measured with 3 thermocouples on gas generator turbine diffuser
ARRIEL 1C / 1C1 / 1C2 / 1D / 1D1 / 1K1
Maximum operating temperature: 115
Minimum for starting: Between -55 and -40, according to oil and fuel specifications. Refer to Operation Manual.
Minimum for power application: Between -10 and 0, according to oil specifications. Refer to Operation Manual.

ARRIEL 1S / 1S1 / 1E / 1E2
Maximum operating temperature: Refer to Installation Manual
Minimum for starting: Refer to Installation Manual
Minimum for power application: Refer to Installation Manual

C. FUEL / DEGREES CENTRIGRADE / MEASURED AT ENGINE INLET
ALL MODELS
Maximum operating temperature: 50
Minimum for starting: Between -55 and -40, according to oil and fuel specifications. Refer to Operation Manual or Installation Manual

NOTE 3

POWER TURBINE UNIT TORQUE LIMITS / PERCENT

	ARRIEL 1	ARRIEL 1A	ARRIEL 1A1	ARRIEL 1A2				
Maximum stabilized	109.2	--	--	--				
Maximum, 2-1/2 minutes OEI	109.2	--	--	--				
Transient, 20 seconds	115.4	--	--	--				
	ARRIEL 1B	ARRIEL 1B2	ARRIEL 1D	ARRIEL 1D1				
Maximum stabilized	109.2	--	--	--				
Maximum, 2-1/2 minutes OEI	109.2	--	--	--				
Transient, 20 seconds	115.4	--	120.0	--				
	ARRIEL 1C	ARRIEL 1C1	ARRIEL 1C2	ARRIEL 1S	ARRIEL 1S1	ARRIEL 1K1	ARRIEL 1E	ARRIEL 1E2
Maximum stabilized	109.2	111.1	--	104.6	103.7	111.8	114	--
Maximum, 2-1/2 minutes OEI	115.4	--	--	115	126.7	115.4	125	--
Transient, 20 seconds	129.7	--	--	155.0	148.3	127.4	140.3	--
FOR 1 / 1A / 1A1 / 1A2 / 1B / 1B2 / 1C / 1C1 / 1C2 / 1D / 1D1 / 1K1								
100 percent corresponds to 76 mdaN								
FOR 1S:								
100 percent corresponds to 76.4 mdaN								
FOR 1S1:								
100 percent corresponds to 89.16 mdaN								
FOR 1E / 1E2:								
100 percent corresponds to 70.25 mdaN								

NOTE 4.

FUEL AND OIL PRESSURE LIMITS (PSIG)
A. Fuel / Refer to Operation Manual or Installation Manual
B. Oil / Measured at engine pump outlet, after filter
ARRIEL 1/ 1A / 1A1 / 1A2 / 1B / 1B2
Maximum 130 If limit is exceeded, refer to Operation Manual or Maintenance Manual
Minimum: At Ng between 70 percent and 85 percent: 27.6 at Ng more than 85 percent: 40.6
ARRIEL 1C / 1C1 / 1C2 / 1D / 1D1 / 1S / 1S1 / 1K1 / 1E / 1E2
Maximum: 72.5 If limit is exceeded, refer to Operation Manual or Maintenance Manual
Minimum: At Ng between 70 percent and 85 percent: 18.9 At Ng more than 85 percent: 26.1

NOTE 5. MAXIMUM PERMISSIBLE P2 AIR BLEED FROM CENTRIFUGAL COMPRESSOR PLENUM

Maximum air mass flow: 0.22 lb/sec
 Power loss due to air bleed: Refer to Operation Manual or Performance Booklet

NOTE 6. AIR INTAKE REQUIREMENTS

The ARRIEL engines have not been tested to evaluate the affects of foreign object ingestion. Foreign object ingestion characteristics of airframe air inlet and engine combination are to be evaluated prior to approval of the engine installation.

The ARRIEL engines do not have anti-icing provisions and have not been tested to evaluate the effects of icing conditions. Anti-icing characteristics of airframe, air inlet, and engine combination are to be evaluated prior to approval of the engine installation.

The ARRIEL 1S and 1S1 engines meet the requirements of FAR 33.68(a)(b) when installed with Sikorsky S76A helicopter air intake Part Number 76302-07 001.

NOTE 7. ACCESSORY DRIVE PROVISIONS

ARRIEL 1/1A/1A1/1A2/1B/1B2	Direction* of Rotation	Nominal RPM	Maximum Steady State Power HP	Maximum Torque at Overload (in-lb)	Maximum Static Overhung Moment Allowable for Accessories (in-lb)
ACCESSORY / DRIVE					
Gas generator spool, compressor and turbine	CCW **	$N_g = 51,800$ (100%)	---	---	---
Starter-generator / DC generator	CW	$N_g \times .2147 = 11,126$	10.0	370.0	222.00
Tachometer transmitter / gas generator	CCW	$N_g \times .1621 = 8,401$	0.2	4.5	8.85
Oil pump unit / internal	CW	$N_g \times .0910 = 4,716$	2.0	122.0	---
Fuel control unit / gas generator	CCW	$N_g \times .0910 = 4,716$	1.0	42.6	---
Free turbine (power turbine) spool	CW**	$N_{tL} = 41,586$	---	---	---
Alternator / AC current generator	CCW	$N_{tL} \times .29293 = 12,182$	18.0	300.0	133.00
Tachometer transmitter / free turbine	CCW	$N_{tL} \times .10138 = 4,216$	0.2	4.5	8.85
Fuel control unit / internal / free turbine			---	---	---
Main output shaft drive	CW	$N_{tL} \times .10138 = 4,216$	---	14,600	354.00
	CW**	$N_{tL} \times 14428 = 6,000$	682	1,150	177.00
			54		
* REFERENCE FACING ENGINE ACCESSORY PAD					
** REFERENCE AFT LOOKING FORWARD					
CW = CLOCKWISE / CCW: COUNTER CLOCKWISE					

NOTE 7. (continued)

ACCESSORY DRIVE PROVISIONS

ACCESSORY / DRIVE	Direction* of Rotation	Nominal RPM	Maximum Steady State Power HP	Maximum Torque at Overload (in-lb)	Maximum Static Overhung Moment Allowable for Accessories (in-lb)
Gas generator spool, compressor and turbine	CCW **	$N_g = 51,800$ (100%)	---	---	---
Starter-generator / DC generator	CW	$N_g \times .2147 = 11,126$	10.0	370.0	222.00
Tachometer transmitter / gas generator	CCW	$N_g \times .1621 = 8,401$	0.2	4.5	8.85
Oil pump unit / internal	CW	$N_g \times .0910 = 4,716$	2.0	122.0	---
Fuel control unit / gas generator	CCW	$N_g \times .0910 = 4,716$	1.0	42.6	---
Free turbine (power turbine) spool	CW**	$N_g L = 41,586$	---	---	---
Alternator / AC current generator	CCW#	$N_t L \times .29293 = 12,182$	18.0	300.0	133.00
Tachometer transmitter / free turbine	CCW	$N_t L \times .10138 = 4,216$	0.2	4.5	8.85
Fuel control unit / internal / free turbine	CCW	$N_t L \times .10138 = 4,216$	---	---	---
Main output shaft drive	CW	$N_t L \times .10138 = 4,216$	---	---	---
	CW**	$N_t L \times 1.4428 = 6,000$	682	14,600	354.00
* REFERENCE FACING ENGINE ACCESSORY PAD					
** REFERENCE AFT LOOKING FORWARD					
# NOT INCLUDED WITH BASIC ENGINE					
CW = CLOCKWISE / CCW: COUNTER CLOCKWISE					

ACCESSORY / DRIVE	Direction* of Rotation	Nominal RPM	Maximum Steady State Power HP	Maximum Torque at Overload (in-lb)	Maximum Static Overhung Moment Allowable for Accessories (in-lb)
Gas generator spool, compressor and turbine	CCW **	$N_g = 51,800$ (100%)	---	---	---
Starter-generator / DC generator	CW	$N_g \times .2147 = 11,188$	10.0	442.0	222.00
Tachometer transmitter / gas generator	CW	$N_g \times .2147 = 11,188$	0.2	4.5	8.85
Oil pump unit / internal	CW	$N_g \times .0910 = 4,742$	2.0	122.0	---
Fuel control unit / gas generator	CCW	$N_g \times .0910 = 4,742$	1.0	42.6	---
Free turbine (power turbine) spool	CW**	$N_g L = 41,981$ ***	---	---	---
Alternator / AC current generator	CCW#	$N_t L \times .29293 = 12,297$	6.7	88.0	133.00
Tachometer transmitter / free turbine	CCW	$N_t L \times .29293 = 12,297$	0.2	4.5	8.85
Fuel control unit / internal / free turbine	CCW	$N_t L \times .29293 = 12,297$	0.2	4.5	8.85
Main output shaft drive	CW	$N_t L \times .10138 = 4,256$	---	---	---
	CW**	$N_t L \times 1.4428 = 6,057$	682	10,480	---
* REFERENCE FACING ENGINE ACCESSORY PAD					
** REFERENCE AFT LOOKING FORWARD					
*** CORRESPONDS TO 100% FOR 1S AND 94.5% FOR 1S1					
# NOT INCLUDED WITH BASIC ENGINE					
CW = CLOCKWISE / CCW: COUNTER CLOCKWISE					

NOTE 8.

ENGINE RATINGS

Engine ratings are based on calibrated test rig with performance under the following conditions:

Static, sea level standard conditions (59°F, 29.92' Hg)

No airbleed, no accessory power extraction

6,000 rpm output shaft drive speed

Heating value of fuel = 18,556 BTU/lb

The ratings given above are minimum final test performance of production and overhaul engines in accordance with engine acceptance test specification No. 0.292.00.940.0.

Use the exhaust pip specified below with calibrated test bed air intake No. 6.202.81.719.0:

Exhaust pipe No. 0.292.80.721.0 or No. 0.292.80.738.0

Exhaust pipe No. 0.292.80.753.0

Exhaust pipe No. 0.292.80.818.0

Exhaust pipe No. 0.292.80.721.0

Exhaust pipe No. 0.292.80.885.0

ARRIEL 1/1B/1B2:
ARRIEL 1A/1A1/1A2/1C:
ARRIEL 1C1/1C2/1D1/1K1:
ARRIEL 1D:
ARRIEL 1S/1S1/1E/1E2
NOTE 9.

FUEL SUPPLY REQUIREMENTS

Fuel supplied to the engine inlet must be filtered to 18 microns absolute efficiency per MIL-F-5504 except for ARRIEL 1S and 1S1 which has a fuel filter supplied with the engine.

Fuel icing inhibitor additive is required when operating in ambient temperatures below 0°C (32°F), except for ARRIEL 1S, 1S1, 1E, and 1E2 where fuel icing inhibitor additive is required when operating in ambient temperatures below -10°C (14°F).

NOTE 10.

OIL SYSTEM: Refer to Operation Manual or Installation Manual.

NOTE 11.

ENGINE MONITORING TRANSMITTERS: Refer to Operation Manual or Installation Manual.

NOTE 12.

ELECTRICAL EQUIPMENT: Refer to Operation Manual or Installation Manual.

NOTE 13.

ENGINE FIRE DETECTOR

Six fire detectors are provided on the engine (except for ARRIEL 1S and 1S1 which has no fire detectors installed on the engine and ARRIEL 1E, 1E2 fitted with 1 fire detector).

NOTE 14.

Refer to Operation Manual or Installation Manual for approved oil specifications.

NOTE 15.

Refer to Operation Manual or Installation Manual for approved fuel and additive specification.

NOTE 16.

Life-limited components are listed in DGAC-approved Chapter 5 of the engine Maintenance Manual.

NOTE 17.

MANUALS REQUIRED BY FAR 33.5

	ARRIEL 1/1A/1A1	ARRIEL 1A2/1B2	ARRIEL 1C/1C1/1C2/1D/1D1	ARRIEL 1S/1S1	ARRIEL 1K1
Performance Manual No.		--	X 292 B0 001 9	X 292 F9 900 9	X 292 D8 002 1
Installation Manual No.	292 00 931	--	292 02 933 2	X 292 F9 001 2	292 D8 001 1
Operation Manual No.	292 00 936	--	292 02 935	Not applicable	---
Maintenance Manual No.	292 01 931	--	292 01 939	X 292 F9 300 2	292 D8 300 2
Overhaul Manual No.	292 01 935	292 00 935-1	292 00 935-2	X 292 87 5022 See NOTE 19	---
	ARRIEL 1E/1E2				
Performance Manual No.	X 292 G9 9009				
Installation Manual No.	X 292 G9 002				
Operation Manual No.	N/A				
Maintenance Manual No.	X 292 G9 3002				
Overhaul Manual No.	See NOTE 19				

NOTE 18.

The ARRIEL 1A may be converted to ARRIEL 1A1 by incorporating Turbomeca Service Bulletin No. 71-292-0018.

NOTE 19.

Overhaul of ARRIEL 1S1, 1E and 1E2 engines is not authorized unless the appropriate overhaul manual is available; otherwise, rebuilt engines utilizing new engine tolerances may be provided by the manufacturer.

NOTE 20.

SERVICE INFORMATION:

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 Direction Generale de L'Aviation Civile (DGAC). Any such documents including those approved under a delegated authority, are accepted by the FAA and are considered FAA approved.

- Service bulletins,
- Structural repair manuals,
- Vendor manuals,
- Aircraft flight manuals, and
- Overhaul and maintenance manuals.

These approvals pertain to the type design only.

--- END---