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# TYPE-CERTIFICATE DATA SHEET

NO. EASA.A.378

**for**  
TB Series

**Type Certificate Holder**  
**DAHER AEROSPACE**

23 route de TOURS  
41400 SAINT JULIEN DE CHEDON  
FRANCE

For models: TB 10  
TB 9  
TB 20  
TB 21  
TB 200



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## TABLE OF CONTENTS

<b>SECTION A: MODEL TB 10</b>	<b>9</b>
A.I. GENERAL	9
1. <i>Type/ Model/ Variant</i>	9
2. <i>Airworthiness Category</i>	9
3. <i>Manufacturer</i>	9
4. <i>EASA Type Certification Application Date</i>	9
5. <i>State of Design Authority</i>	9
6. <i>State of Design Authority Type Certificate Date</i>	9
7. <i>EASA Type Certification Date</i>	9
8. <i>Other information</i>	9
A.II. EASA CERTIFICATION BASIS	9
1. <i>Reference Date for determining the applicable requirements</i>	9
2. <i>Airworthiness Requirements</i>	9
3. <i>Special Conditions</i>	9
4. <i>Exemptions</i>	9
5. <i>(Reserved) Deviations</i>	9
6. <i>Equivalent Safety Findings</i>	10
7. <i>Environmental Protection</i>	10
A.III. TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS	10
1. <i>Type Design Definition</i>	10
2. <i>Description</i>	10
3. <i>Equipment</i>	10
4. <i>Dimensions</i>	10
5. <i>Engine</i>	10
6. <i>Load factors (Limit at maximum permissible weight)</i>	10
7. <i>Propeller</i>	11
8. <i>Fluids</i>	11
9. <i>Fluid capacities</i>	11
10. <i>Air Speeds</i>	12
11. <i>Flight Envelope</i>	12
12. <i>Approved Operations Capability</i>	12
13. <i>Maximum Masses</i>	12
14. <i>Centre of Gravity Range</i>	13
15. <i>Datum</i>	13
16. <i>Control surface deflections</i>	13
17. <i>Levelling Means</i>	13
18. <i>Minimum Flight Crew</i>	13
19. <i>Maximum Passenger Seating Capacity</i>	14
20. <i>Baggage/ Cargo Compartments</i>	14
21. <i>Wheels and Tyres</i>	14
22. <i>Special equipment</i>	14
A.IV. OPERATING AND SERVICE INSTRUCTIONS	14
1. <i>Flight Manual</i>	14
2. <i>Maintenance Manual</i>	15
3. <i>Structural Repair Manual</i>	15
4. <i>Weight and Balance Manual</i>	15
5. <i>Illustrated Parts Catalogue</i>	15
6. <i>Service Information and Service Bulletins</i>	15



## TABLE OF CONTENTS

A.V.	NOTES	15
<b>SECTION B:</b>	<b>MODEL TB 9</b>	<b>16</b>
B.I.	GENERAL	16
1.	<i>Type/ Model/ Variant</i>	16
2.	<i>Airworthiness Category</i>	16
3.	<i>Manufacturer</i>	16
4.	<i>EASA Type Certification Application Date</i>	16
5.	<i>State of Design Authority</i>	16
6.	<i>State of Design Authority Type Certificate Date</i>	16
7.	<i>EASA Type Certification Date</i>	16
8.	<i>Other information</i>	16
B.II.	EASA CERTIFICATION BASIS	16
1.	<i>Reference Date for determining the applicable requirements</i>	16
2.	<i>Airworthiness Requirements</i>	16
3.	<i>Special Conditions</i>	16
4.	<i>Exemptions</i>	16
5.	<i>(Reserved) Deviations</i>	17
6.	<i>Equivalent Safety Findings</i>	17
7.	<i>Environmental Protection</i>	17
B.III.	TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS	17
1.	<i>Type Design Definition</i>	17
2.	<i>Description</i>	17
3.	<i>Equipment</i>	17
4.	<i>Dimensions</i>	17
5.	<i>Engine</i>	17
6.	<i>Load factors (Limit at maximum permissible weight)</i>	18
7.	<i>Propeller</i>	18
8.	<i>Fluids</i>	19
9.	<i>Fluid capacities</i>	19
10.	<i>Air Speeds (True airspeed)</i>	20
11.	<i>Flight Envelope</i>	20
12.	<i>Approved Operations Capability</i>	20
13.	<i>Maximum Masses</i>	20
14.	<i>Centre of Gravity Range</i>	21
16.	<i>Control surface deflections</i>	21
17.	<i>Levelling Means</i>	21
18.	<i>Minimum Flight Crew</i>	21
19.	<i>Maximum Passenger Seating Capacity</i>	22
20.	<i>Baggage/ Cargo Compartments</i>	22
21.	<i>Wheels and Tyres</i>	22
22.	<i>Wheel fairings</i>	22
23.	<i>Special equipment</i>	22
B.IV.	OPERATING AND SERVICE INSTRUCTIONS	23
1.	<i>Flight Manual</i>	23
2.	<i>Maintenance Manual</i>	23
3.	<i>Structural Repair Manual</i>	23
4.	<i>Weight and Balance Manual</i>	23
5.	<i>Illustrated Parts Catalogue</i>	23



## TABLE OF CONTENTS

6.	<i>Service Information and Service Bulletins</i>	23
B.V.	NOTES	23
<b>SECTION C:</b>	<b>MODEL TB 20</b>	<b>26</b>
C.I.	GENERAL	26
1.	<i>Type/ Model/ Variant</i>	26
2.	<i>Airworthiness Category</i>	26
3.	<i>Manufacturer</i>	26
4.	<i>EASA Type Certification Application Date</i>	26
5.	<i>State of Design Authority</i>	26
6.	<i>State of Design Authority Type Certificate Date</i>	26
7.	<i>EASA Type Certification Date</i>	26
8.	<i>Other information</i>	26
C.II.	EASA CERTIFICATION BASIS	26
1.	<i>Reference Date for determining the applicable requirements</i>	26
2.	<i>Airworthiness Requirements</i>	26
3.	<i>Special Conditions</i>	26
4.	<i>Exemptions</i>	26
5.	<i>(Reserved) Deviations</i>	26
6.	<i>Equivalent Safety Findings</i>	27
7.	<i>Environmental Protection</i>	27
C.III.	TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS	27
1.	<i>Type Design Definition</i>	27
2.	<i>Description</i>	27
3.	<i>Equipment</i>	27
4.	<i>Dimensions</i>	27
5.	<i>Engine</i>	27
6.	<i>Load factors (Limit at maximum permissible weight)</i>	28
7.	<i>Propeller</i>	28
8.	<i>Fluids</i>	28
9.	<i>Fluid capacities</i>	29
10.	<i>Air Speeds (Indicated Airspeed unless otherwise specified)</i>	29
11.	<i>Flight Envelope</i>	30
12.	<i>Approved Operations Capability</i>	30
13.	<i>Maximum Masses</i>	30
14.	<i>Centre of Gravity Range</i>	31
15.	<i>Datum</i>	31
16.	<i>Control surface deflections</i>	31
17.	<i>Levelling Means</i>	32
18.	<i>Minimum Flight Crew</i>	32
19.	<i>Maximum Passenger Seating Capacity</i>	32
20.	<i>Baggage/ Cargo Compartments</i>	32
21.	<i>Wheels and Tyres</i>	33
22.	<i>Special equipment</i>	33
C.IV.	OPERATING AND SERVICE INSTRUCTIONS	33
1.	<i>Flight Manual</i>	33
2.	<i>Maintenance Manual</i>	33
3.	<i>Structural Repair Manual</i>	33
4.	<i>Weight and Balance Manual</i>	33



## TABLE OF CONTENTS

5.	<i>Illustrated Parts Catalogue</i>	33
6.	<i>Service Information and Service Bulletins</i>	33
C.V.	NOTES	34
<b>SECTION D:</b>	<b>MODEL TB 21</b>	<b>35</b>
D.I.	GENERAL	35
1.	<i>Type/ Model/ Variant</i>	35
2.	<i>Airworthiness Category</i>	35
3.	<i>Manufacturer</i>	35
4.	<i>EASA Type Certification Application Date</i>	35
5.	<i>State of Design Authority</i>	35
6.	<i>State of Design Authority Type Certificate Date</i>	35
7.	<i>EASA Type Certification Date</i>	35
8.	<i>Other information</i>	35
D.II.	EASA CERTIFICATION BASIS	35
1.	<i>Reference Date for determining the applicable requirements</i>	35
2.	<i>Airworthiness Requirements</i>	35
3.	<i>Special Conditions</i>	35
4.	<i>Exemptions</i>	35
5.	<i>(Reserved) Deviations</i>	35
6.	<i>Equivalent Safety Findings</i>	36
7.	<i>Environmental Protection</i>	36
D.III.	TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS	36
1.	<i>Type Design Definition</i>	36
2.	<i>Description</i>	36
3.	<i>Equipment</i>	36
4.	<i>Dimensions</i>	36
5.	<i>Engine</i>	36
6.	<i>Load factors (Limit at maximum permissible weight)</i>	37
7.	<i>Propeller</i>	37
8.	<i>Fluids</i>	37
9.	<i>Fluid capacities</i>	38
10.	<i>Air Speeds (Indicated Airspeed unless otherwise specified)</i>	38
11.	<i>Flight Envelope</i>	39
12.	<i>Approved Operations Capability</i>	39
13.	<i>Maximum Masses</i>	39
14.	<i>Centre of Gravity Range:</i>	39
15.	<i>Datum</i>	39
16.	<i>Control surface deflections</i>	39
17.	<i>Levelling Means</i>	40
18.	<i>Minimum Flight Crew</i>	40
19.	<i>Maximum Passenger Seating Capacity</i>	40
20.	<i>Baggage / Cargo Compartments</i>	40
21.	<i>Wheels and Tyres</i>	40
22.	<i>Special equipment</i>	40
D.IV.	OPERATING AND SERVICE INSTRUCTIONS	41
1.	<i>Aircraft Flight Manual (AFM):</i>	41
2.	<i>Maintenance Manual</i>	41
3.	<i>Structural Repair Manual</i>	41



## TABLE OF CONTENTS

4.	<i>Weight and Balance Manual</i>	41
5.	<i>Illustrated Parts Catalogue</i>	41
6.	<i>Service Information and Service Bulletins</i>	41
D.V.	NOTES	41
<b>SECTION E MODEL TB 200</b>		<b>42</b>
E.I.	GENERAL	42
1.	<i>Type/ Model/ Variant</i>	42
E.II.	EASA CERTIFICATION BASIS	42
1.	<i>Reference Date for determining the applicable requirements</i>	42
2.	<i>Airworthiness Requirements</i>	42
3.	<i>Special Conditions</i>	42
4.	<i>EASA Exemptions</i>	42
5.	<i>Equivalent Safety Findings</i>	42
6.	<i>Environmental Protection</i>	42
E.III.	TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS	42
1.	<i>Type Design Definition</i>	42
2.	<i>Description</i>	42
3.	<i>Equipment</i>	42
4.	<i>Dimensions:</i>	43
5.	<i>Engines:</i>	43
6.	<i>Load factors (Limit at maximum permissible weight)</i>	43
7.	<i>Propeller</i>	43
8.	<i>Fluids:</i>	44
9.	<i>Fluid capacities:</i>	44
10.	<i>Air Speeds (True Airspeed):</i>	44
11.	<i>Flight Envelope</i>	44
12.	<i>Approved Operations Capability</i>	44
13.	<i>Maximum Masses</i>	45
14.	<i>Centre of Gravity Range:</i>	45
15.	<i>Datum</i>	45
16.	<i>Control surface deflections</i>	45
17.	<i>Levelling Means</i>	46
18.	<i>Minimum Flight Crew</i>	46
19.	<i>Maximum Passenger Seating Capacity</i>	46
20.	<i>Baggage / Cargo Compartments</i>	46
21.	<i>Wheels and Tyres</i>	46
22.	<i>Special equipment</i>	46
E.IV.	OPERATING AND SERVICE INSTRUCTIONS	46
1.	<i>Aircraft Flight Manual (AFM):</i>	46
2.	<i>Maintenance Manual</i>	46
3.	<i>Structural Repair Manual</i>	47
4.	<i>Weight and Balance Manual</i>	47
5.	<i>Illustrated Parts Catalogue</i>	47
6.	<i>Service Information and Service Bulletins</i>	47
E.V.	NOTES	47
<b>SECTION F GENERAL NOTES</b>		<b>48</b>
F.I.	OPERATING LIMITATIONS	48



## TABLE OF CONTENTS

F.II.	GENERAL	48
<b>SECTION ADMINISTRATIVE</b>		<b>49</b>
I.	ACRONYMS & ABBREVIATIONS	49
II.	TYPE CERTIFICATE HOLDER RECORD	49
III.	CHANGE RECORD	49





## SECTION A: MODEL TB 10

### A.I. General

<b>1. Type/ Model/ Variant</b>	
1.1 Type	TB
1.2 Model	TB 10
<b>2. Airworthiness Category</b>	
a)	FAR 23 Normal Category
b)	FAR 23 Utility Category
<b>3. Manufacturer</b>	COMPAGNIE DAHER FRANCE
<b>4. EASA Type Certification Application Date</b>	Product accepted in EU prior 28 sept 2003
<b>5. State of Design Authority</b>	DGAC
<b>6. State of Design Authority Type Certificate Date</b>	April 26, 1979
<b>7. EASA Type Certification Date</b>	11 June 2010
<b>8. Other information</b>	The EASA Type Certificate replaces DGAC-France Type Certificate No.165

### A.II. EASA Certification Basis

<b>1. Reference Date for determining the applicable requirements</b>	November 1975
<b>2. Airworthiness Requirements</b>	FAR-23, Amendments 1 to 16 dated February 14, 1975
<b>3. Special Conditions</b>	None

#### 4. Exemptions

- a) Derogation granted by DGAC for FAR 23-177-a-2:  
Existence of a slight roll instability in aircraft configuration corresponding to go-around at landing.  
Substantiation: Taking into account the attention brought by a pilot to aileron control in such a flight phase, the derogation has been granted.
- b) Derogation granted by DGAC for FAR 23-1401-f:  
LABINAL 37-72-11 anti-collision light intensity with red glass optic lens is inferior to that required by regulation.

#### 5. (Reserved) Deviations



<b>6. Equivalent Safety Findings</b>	None
<b>7. Environmental Protection</b>	French Decree dated April 15, 1977 * ICAO, Chapter X, Appendix 6, Annex 16 * (* See Note 1 a)

### **A.III. Technical Characteristics and Operational Limitations**

<b>1. Type Design Definition</b>	List of main drawings BE/ED No. 73/79 Edit 2 and up Type Design Definition BE/EG No. 66/79 Issue 8 and up
<b>2. Description</b>	Single engine, four/five-seated cantilever low wing airplane, all-metal construction, fixed tricycle landing gear, conventional tail
<b>3. Equipment</b>	Equipment list, AFM, Section 6 and Section 9 (See Note 6)

#### **4. Dimensions**

Span	9.89 m (32 ft 5.2 in)
Length	7.75 m (25 ft 5.1 in)
Height	3.02 m (9 ft 10.9 in)
Wing Area	11.9 m <sup>2</sup> (128.09 sqft)

#### **5. Engine**

5.1. Model	1 Textron Lycoming O-360-A1AD Carburettor MARVEL SCHEBLER MA 4-5
5.2 Type Certificate	FAA TCDS E-286 rev 20 and later revision
5.3 Limitations	Max. take-off and continuous power*: 2700 RPM (135 kW) Max. Cylinder Head Temperature: 260°C (500°F) (* See Note 2)
Oil:	Normal pressure: From 4.2 to 6.2 bars (61 to 90 psi) Minimum pressure: 1.7 bar (115 psi) Max. Temperature: 118°C (244°F)
Fuel:	Min. fuel pressure: 0.035 bar (0.51 psi)

#### **6. Load factors (Limit at maximum permissible weight)**

##### 6.1 Normal Category

Flaps retracted:	$n = + 3.8 - 1.5$
Flaps extended:	$n = + 2 - 0$



## 6.2 Utility Category

Flaps retracted:  $n = + 4.4 - 1.8$   
Flaps extended:  $n = + 2 - 0$

## 7. Propeller

7.1 Model	1 HARTZELL HC-C2YK-1BF/F 7666 A-2
7.2 Type Certificate	FAA TCDS P-920 rev30 and later revision
7.3 Number of blades	2
7.4 Diameter Maximum diameter: Minimum diameter:	1.88 m (74 inches) 1.83 m (72 inches)
7.5 Setting at 0.762 m (30 inches)	Low pitch setting: 13.5° High pitch setting: 31°
7.6 Governor	HARTZELL Type F4-4A or F4-26 or F4-4AZ or F4-18 (See Note 3)
7.7 Sense of Rotation	Propeller rotates Clockwise in view of flight direction

## 8. Fluids

8.1 Fuel	100 minimum aviation grade gasoline or AVGAS 100 LL
8.2 Oil	Oils conforming to spec. SAE J1899 / MIL-L-6082 / MIL-L-22851 For more details see AFM, Section 1
8.3 Coolant	N/A

## 9. Fluid capacities

9.1 Fuel	Two structural wing Tanks: Total: 210 liters (55.4 US Gal) [2 x 105 l (27.7 US Gal)] Usable: 204 liters (53.8 US Gal) [2 x 102 l (26.9 US Gal)] Unusable: 6 liters (1.6 US Gal)
9.2 Oil	(Engine built-in tank) Maximum: 7.6 liters (8 qts) [at – 0.605 m (- 23.8 inches)] Usable: 5.5 liters (5.8 qts) [at – 0.605m (-23.8 inches)] Minimum: 3.8 liters (4 qts)
9.3 Coolant system capacity	N/A



## 10. Air Speeds

V <sub>D</sub> (Design Diving Speed):	345 km/h (186 KTAS)
V <sub>NE</sub> (Never exceed speed):	306 km/h (165 KTAS)
V <sub>C</sub> (Design Cruising Speed):	238 km/h (128 KTAS)
V <sub>NO</sub> (Maximum structural cruising speed):	238 km/h (128 KTAS)
V <sub>A</sub> (Design Manoeuvring Speed):	227 km/h (122 KTAS)
V <sub>FE</sub> (Flap Extended Speed):	176 km/h (95 KTAS)

<b>11. Flight Envelope</b>	Refer to Aircraft Flight Manual
<b>12. Approved Operations Capability</b>	Day VFR Day & Night IFR: see AFM, Section 9 Night VFR: optional equipment: see AFM, Section 9 Flight into known icing conditions is prohibited

## 13. Maximum Masses

13.1 Normal Category	
a) Up to aircraft S/N 822, except S/N 804, 807, 808 and 816 to 819	
Take-off:	1150 kg (2535 lbs)
Landing:	1092 kg (2407 lbs)
b) (b) From aircraft S/N 823, plus S/N 804, 807, 808 and 816 to 819	
Take-off:	1150 kg (2535 lbs)
Landing:	1150 kg (2535 lbs)
13.2 Utility Category	
Take-off and landing:	1070 kg (2359 lbs)
13.3 Fuel	
Maximum fuel weight:	147 kg (324 lbs) at 1.075 m (42.3 inches) (without unusable fuel)
13.4 Empty weight	
	(see Note 5)



#### 14. Centre of Gravity Range

14.1 Normal Category Forward limit	1.144 m (45 inches)* aft of datum at 1150 kg (2535 lbs)
	1.083 m (42.6 inches)* aft of datum at 1150 kg (2535 lbs)
	1.010 m (39.8 inches) aft of datum at 1070 kg (2359 lbs)
	0.949 m (37.3 inches) aft of datum at 970 kg (2138 lbs) or less
	Straight line variation between points given.
	(* ) See Note 7
14.2 Utility Category Forward limit	1.035 m (40.7 inches) aft of datum at 1070 kg (2359 lbs)
	0.974 m (38.3 inches) aft of datum at 1020 kg (2249 lbs)
	0.949 m (37.3 inches) aft of datum at 970 kg (2138 lbs) or less
	Straight line variation between points given.
14.3 Rear limit:	1.205 m (47.4 inches) aft of datum at all weights and for both categories

<b>15. Datum</b>	Front face of firewall
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#### 16. Control surface deflections

a) Stabilizer (angles reference: fuselage upper spar)	
- nose-up attitude	- 17° ± 1°
- nose-down attitude	+ 2° ± 1°
b) Stabilizer tab (Angles reference: stabilizer chord)	
With stabilizer in full nose-up attitude	
- nose-up attitude tab stop	- 2.5° ± 0.5°
- nose-down attitude tab stop	- 17° ± 1.5°
c) Ailerons (Angles reference: wing chord)	
- upward	15° ± 1.5°
- downward	15° ± 1.5°
d) Rudder (angles reference: fin chord)	
- left and right	25° ± 2°
e) Flaps (Angles reference: wing chord)	
- full flaps	25.5° - 1° + 0.5°

<b>17. Levelling Means</b>	Upper fuselage spar
<b>18. Minimum Flight Crew</b>	1 (Pilot) at station 1.165 m (45.9 inches)



<b>19. Maximum Passenger Seating Capacity</b>	4
	one seat at R.H. station 1.165 m (45.9 inches) two or three seats according to commercial arrangement at station 2.095 m (82.5 inches) (see Note 4)

## 20. Baggage/ Cargo Compartments

20.1 Behind Rear Bench	
a) Up to aircraft S/N 399, plus S/N 413	
Area 1: maximum weight:	30 kg (66.14 lbs) at 2.465 m (97 inches)
Area 2: maximum weight:	10 kg (22 lbs) at 2.965 m (117 inches)
b) From aircraft S/N 400, except S/N 413	
Maximum weight:	65 kg (143 lbs) at 2.600 m (102 inches)
20.2 Cargo version (without rear bench)	
Maximum weight:	260 kg (573 lbs) at 1.900 m (74.8 inches)

## 21. Wheels and Tyres

Nose Wheel Size:	5.00-5
Nose Wheel Tyre Size:	5.00-5 6PR
Main landing gear track:	2.33 m (7 ft 7.7 in)
	or
	2.30 m (7 ft 6.5 in) (see Note 8)
Main Wheel Size:	6.00-6
Main Wheel Tyre Size:	6.00-6 6PR

<b>22. Special equipment</b>	Stall warning device Option No. A887 "Low noise exhaust" [see Note 1 b)]
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## A.IV. Operating and Service Instructions

### 1. Flight Manual

- Up to aircraft S/N 730: AFM Edition 0 must be at Revision 2 or later revision
- From aircraft S/N 731 to 822, except S/N 804, 807, 808 and S/N 816 to 819: AFM Edition 1 must be at Revision 2 or later revision
- From aircraft S/N 823 to 947, plus S/N 804, 807, 808 and S/N 816 to 819: AFM Edition 2 must be at Revision 2 or later revision
- From aircraft S/N 948: AFM Edition 3 must be at Revision 7 or later revision



e) From aircraft S/N 948 equipped with option D852: AFM Edition 3B (LBA approved German version) must be at Revision 0 or later revision (see Section 6, VI.2 - Note 1)

## 2. Maintenance Manual

Aircraft Maintenance Manual (AMM) must be at Revision 19 or later revision (incl. Chapter 4 Airworthiness Limitations), plus temporary revisions pending the next updated version.

## 3. Structural Repair Manual

N/A

## 4. Weight and Balance Manual

N/A

## 5. Illustrated Parts Catalogue

Illustrated Parts Catalogue (IPC) must be at Revision 17 or later revision.

## 6. Service Information and Service Bulletins

Refer to our website

## A.V. Notes

1. Approved Noise Levels in accordance with:
  - a) for TB10 aircraft at a maximum takeoff weight of 1150 kg (2535 lbs) and a maximum continuous power of 2700 RPM:

French Decree dated April 15, 1977	71.5 d B (A) for a limit of 75.3 d B (A),
ICAO, Chapter X, Appendix 6, Annex 16	81.0 d B (A) for a limit of 85.2 d B (A).
  - b) for TB10 aircraft equipped with optional equipment A887 "Low noise exhaust" – see AFM, Section 9, Supplement 28 - at a maximum takeoff weight of 1150 kg (2535 lbs) and a maximum continuous power of 2700 RPM:

ICAO, Chapter X, Appendix 6, Annex 16	77.9 d B (A) for a limit of 85.2 d B (A).
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2. For TB10 aircraft equipped with option D852 "Noise reduction for Germany: label Blue Angel"

- Takeoff	2700 RPM (135 kW)
- Max continuous	2450 RPM
3. Avoid continuous operation when RPM between 2000 and 2250.
4. Maximum weight of the 3 rear passengers: 206 kg (454 lbs).
5. The empty weight must include unusable fuel weight of 4.3 kg (9.48 lbs) at 1.075 m (42.3 inches) and oil full quantity [7.2 kg (15.9 lbs) at – 0.605 m (- 23.8 inches)].
6. All optional equipment requiring an AFM Supplement are contained in AFM, Section 9.
7. Forward limit:

1.144 m (45 inches) up to S/N 947
1.083 m (42.6 inches) from S/N 948
8. TB10 aircraft equipped with modification MOD.118 or MOD.120 (Trailing arm main landing gear).
9. Smokers authorized (ashtrays on board)



## SECTION B: MODEL TB 9

### B.I. General

<b>1. Type/ Model/ Variant</b>	
1.1 Type	TB
1.2 Model	TB 9
<b>2. Airworthiness Category</b>	
a)	FAR 23 Normal Category
b)	FAR 23 Utility Category
<b>3. Manufacturer</b>	COMPAGNIE DAHER FRANCE
<b>4. EASA Type Certification Application Date</b>	Product accepted in EU prior 28 sept 2003
<b>5. State of Design Authority</b>	DGAC
<b>6. State of Design Authority Type Certificate Date</b>	September 27, 1979
<b>7. EASA Type Certification Date</b>	11 June 2010
<b>8. Other information</b>	The EASA Type Certificate replaces DGAC-France Type Certificate No.165

### B.II. EASA Certification Basis

<b>1. Reference Date for determining the applicable requirements</b>	June 1979
<b>2. Airworthiness Requirements</b>	FAR-23, Amendments 1 to 16 dated February 14, 1975
<b>3. Special Conditions</b>	None

### 4. Exemptions

- a) Derogation granted by DGAC for FAR 23-177-a-2:  
Existence of a slight roll instability in aircraft configuration corresponding to go-around at landing.  
Substantiation: Taking into account the attention brought by a pilot to aileron control in such a flight phase, the derogation has been granted.
- b) Derogation granted by DGAC for FAR 23-1401-f:  
LABINAL 37-72-11 anti-collision light intensity with red glass optic lens is inferior to that required by regulation.





## 5. (Reserved) Deviations

<b>6. Equivalent Safety Findings</b>	None
<b>7. Environmental Protection</b>	French Decree dated April 15, 1977 * French Decree dated February 19, 1987 * Swiss Edict, Appendice, Chapter 241b dated May 25, 1990* ICAO, Chapter X, Appendix 6, Annex 16 * FAR PART 36 Appendix G * (* ) See Note 1

## B.III. Technical Characteristics and Operational Limitations

<b>1. Type Design Definition</b>	List of main drawings BE/ED No. 307/79 Edit 0 and up Type Design Definition BE/EG No. 136/79 Issue 5 and up
<b>2. Description</b>	Single engine, four/five-seated cantilever low wing airplane, all-metal construction, fixed tricycle landing gear, conventional tail
<b>3. Equipment</b>	Equipment list, AFM, Section 6 and Section 9 (See Note 5)

## 4. Dimensions

Span	9.89 m (32 ft 5.2 in)
Length	7.72 m (25 ft 40 in)
Height	3.02 m (9 ft 10.9 in)
Wing Area	11.9 m <sup>2</sup> (128.09 sqft)

## 5. Engine

5.1. Model  or	1 Textron Lycoming O-320-D2A (constant speed propeller) 1 Textron Lycoming O-320-D1A (variable pitch propeller) [See Note 1e]
5.2 Type Certificate	FAA TCDS E-274 rev20 and later revision
5.3 Limitations	Max. take-off and continuous power*: 2700 RPM (120 kW) Max. Cylinder Head Temperature: 260°C (500°F) (* ) See Note 2



Oil:	Normal pressure: From 4.2 to 6.2 bars (61 to 90 psi) Minimum pressure: 1.7 bar (115 psi) Max. Temperature: 118°C (244°F)
Fuel:	Min. fuel pressure: 0.035 bar (0.51 psi)

## 6. Load factors (Limit at maximum permissible weight)

### 6.1 Normal Category

Flaps retracted:	n = + 3.8 - 1.5
Flaps extended:	n = + 2 - 0

### 6.2 Utility Category

Flaps retracted:	n = + 4.4 - 1.8
Flaps extended:	n = + 2 - 0

## 7. Propeller

7.1 Up to aircraft S/N 878, except S/N 765:	
a) Model	1 SENSENICH 74DM6 S8 061
b) Type Certificate	FAA TCDS P886 rev18 and later revision
c) Number of blades	2
d) Diameter	Maximum: 1.88 m (74 inches) Minimum: 1.83 m (72 inches)
e) Rating during ground run, full throttle, at sea level:	Minimum: 2200 RPM Maximum: 2400 RPM
f) Setting of propeller blades:	N/A
g) Governor	N/A
OR	
a)bis Model	1 HARTZELL HC-C2YL-1BF/F 7663 A-4 (optional equipment 0575)* (* ) see Note 1 e)
b)bis Type Certificate	FAA TCDS P920 rev30 and later revision
c)bis Number of blades	2
d)bis Diameter	Maximum: 1.83 m (72 inches) Minimum: 1.78 m (70 inches)
e)bis Rating during ground run, full throttle, at sea level:	N/A
f)bis Setting of propeller blades at 0.686 m (27 inches):	Low pitch setting: 11° High pitch setting: 26°06'
g)bis Governor:	HARTZELL Type F4-27



7.2 From aircraft S/N 879, plus S/N 765 (modification No. 72):	
a) Model	1 SENSENICH 74DM6 S8 054
b) Type Certificate	FAA TCDS P886 rev18 and later revision
c) Number of blades	2
d) Diameter	Maximum: 1.88 m (74 inches) Minimum: 1.83 m (72 inches)
e) Rating during ground run, full throttle, at sea level:	Minimum: 2200 RPM Maximum: 2400 RPM
f) Setting of propeller blades:	N/A
g) Governor	N/A
7.3 From aircraft S/N 1851 and as a retrofit from S/N 948, plus S/N 828 and 849 (modification No. 139) – see Note 1 f):	
a) Model	1 SENSENICH 74DM6 S8 058
b) Type Certificate	FAA TCDS P886 rev18 and later revision
c) Number of blades	2
d) Diameter	Maximum: 1.88 m (74 inches) Minimum: 1.83 m (72 inches)
e) Rating during ground run, full throttle, at sea level:	Minimum: 2300 RPM Maximum: 2500 RPM
f) Setting of propeller blades:	N/A
g) Governor:	N/A

## 8. Fluids

8.1 Fuel	100 minimum aviation grade gasoline or AVGAS 100 LL
8.2 Oil	Oils conforming to spec. SAE J1899 / MIL-L-6082 / MIL-L-22851 For more details see AFM, Section 1
8.3 Coolant	N/A

## 9. Fluid capacities

9.1 Fuel	Two structural wing Tanks: Total: 158 liters (41.7 US Gal) [2 x 79 l (20.9 US Gal)] Usable: 152 liters (40.2 US Gal) [2 x 76 l (20.1 US Gal)] Unusable: 6 liters (1.6 US Gal)
Or	



Fuel (optional equipment 558):	Two structural wing Tanks: Total: 210 liters (55.4 US Gal) [2 x 105 l (27.7 US Gal)] Usable: 204 liters (53.8 US Gal) [2 x 102 l (26.9 US Gal)] Unusable: 6 liters (1.6 US Gal)
9.2 Oil	(Engine built-in tank) Maximum: 7.6 liters (8 qts) [at – 0.605 m (- 23.8 inches)] Usable: 5.5 liters (5.8 qts) [at – 0.605m (-23.8 inches)] Minimum: 3.8 liters (4 qts)

### 10. Air Speeds (True airspeed)

V <sub>D</sub> (Design Diving Speed):	340 km/h (184 KTAS)
V <sub>NE</sub> (Never exceed speed):	306 km/h (165 KTAS)
V <sub>C</sub> (Design Cruising Speed):	238 km/h (128 KTAS)
V <sub>NO</sub> (Maximum structural cruising speed):	238 km/h (128 KTAS)
V <sub>A</sub> (Design Manoeuvring Speed):	227 km/h (122 KTAS)
V <sub>FE</sub> (Flap Extended Speed):	176 km/h (95 KTAS)

<b>11. Flight Envelope</b>	Refer to Aircraft Flight Manual
<b>12. Approved Operations Capability</b>	Day VFR Day & Night IFR: optional equipment: see AFM, Section 9 Night VFR: optional equipment: see AFM, Section 9 Flight into known icing conditions is prohibited

### 13. Maximum Masses

13.1 In Normal and Utility Categories: or	1060 kg (2337 lbs) 955 kg (2105 lbs) (See Note 6)
13.2 Fuel	
Maximum fuel weight:	109 kg (240 lbs) at 1.075 m (42.3 inches) (without unusable fuel)
or with option 558	147 kg (324 lbs) at 1.075 m (42.3 inches) (without unusable fuel)
13.4 Empty weight	(see Note 4)



#### 14. Centre of Gravity Range

14.1 Forward limit	1.050 m (41.3 inches) aft of datum at 1060 kg (2337 lbs) 0.974 m (38.3 inches) aft of datum at 970 kg (2138 lbs) or less Straight line variation between points given.
14.2 Rear limit:	1.205 m (47.4 inches) aft of datum at all weights and for both categories

<b>15. Datum</b>	Front face of firewall
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#### 16. Control surface deflections

a) Stabilizer (angles reference: fuselage upper spar)	
- nose-up attitude	- 17° ± 1°
- nose-down attitude	+ 2° ± 1°
b) Stabilizer tab (Angles reference: stabilizer chord)	
With stabilizer in full nose-up attitude	
- nose-up attitude tab stop	- 2.5° ± 0.5°
- nose-down attitude tab stop	- 17° ± 1.5°
c) Ailerons (Angles reference: wing chord)	
- upward	15° ± 1.5°
- downward	15° ± 1.5°
d) Rudder (angles reference: fin chord)	
- left and right	25° ± 2°
e) Flaps (Angles reference: wing chord)	
- Aircraft up to S/N 878, except S/N 765:	
- full flaps	32° - 1° + 0.5°
- Aircraft from S/N 879, plus S/N 765:	
- full flaps	25.5° - 1° + 0.5°

<b>17. Levelling Means</b>	Upper fuselage spar
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<b>18. Minimum Flight Crew</b>	1 (Pilot) at station 1.155 m (45.5 inches)
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<b>19. Maximum Passenger Seating Capacity</b>	4
- Front station:	one seat at R.H. station 1.155 m (45.5 inches)
- Rear seating:	<u>Normal loading:</u> two seats at station 2.035 m (80.1 inches)
	<u>Exceptional loading:</u> three seats at station 2.035 m (80.1 inches) (see Notes 3 and 6)

## 20. Baggage/ Cargo Compartments

20.1 Behind Rear Bench	
a) Up to aircraft S/N 399, plus S/N 413	
Maximum weight:	40 kg (88 lbs) at 2.600 m (102 inches)
b) From aircraft S/N 400, except S/N 413	
Maximum weight:	65 kg (143 lbs) at 2.600 m (102 inches)
20.2 Cargo version (without rear bench)	
Maximum weight:	200 kg (441 lbs) at 2.000 m (78.7 inches) (see Note 6)

## 21. Wheels and Tyres

Nose Wheel Size:	5.00-5
Nose Wheel Tyre Size:	5.00-5 6PR
Main landing gear track:	2.33 m (7 ft 7.7 in)
or	2.30 m (7 ft 6.5 in) (see Note 7)
Main Wheel Size:	6.00-6
Main Wheel Tyre Size:	15 x 6.00-6 4PR

## 22. Wheel fairings

Wheel fairing equipment for the 3 landing gears are mandatory with propellers:

- SENSENICH 74 DM6 S8 061
- HARTZELL HC-C2YL-1BF/F 7663 A-4
- SENSENICH 74 DM6 S8 058.

<b>23. Special equipment</b>	Stall warning device Option No. A890 "Low noise exhaust" [see Note 1 d)]
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## **B.IV. Operating and Service Instructions**

### **1. Flight Manual**

- a) Up to aircraft S/N 730: AFM Edition 0 Revision 1 and following revisions [see Note 1 a)]
- b) From aircraft S/N 731 to 878, except S/N 765: AFM Edition 1 must be at Revision 1 or later revision [see Note 1 a)]
- c) From aircraft S/N 879 to 947, plus S/N 765: AFM Edition 2 must be at Revision 1 or later revision [see Note 1 a)]
- d) From aircraft S/N 948, aircraft not equipped with option D840 or D856 (nor equipped with option D851): AFM Edition 3 must be at Revision 2 or later revision [see Note 1 a)]
- e) From aircraft S/N 948 equipped with option D840: AFM Edition 3A (DGAC approved French and German versions and LBA approved German version) must be at Revision 4 or later revision [see Notes 1 b) and 2)]
- f) From aircraft S/N 948 equipped with option D851: AFM Edition 3B (LBA approved German version) must be at Revision 0 or later revision (see Note 2 and Section 6, VI.2 - Note 1)
- g) From aircraft S/N 948 equipped with option D856: AFM Edition 3C (DGAC approved French and German versions) must be at Revision 0 or later revision [see Notes 1 c) and 6)]
- h) From aircraft S/N 948 equipped with modification No. 139: AFM Edition 4 (DGAC approved French and English versions) must be at Revision 1 or later revision [see Note 1 f)]

### **2. Maintenance Manual**

Aircraft Maintenance Manual (AMM) must be at Revision 19 or later revision (incl. Chapter 4 Airworthiness Limitations), plus temporary revisions pending the next updated version.

### **3. Structural Repair Manual**

N/A

### **4. Weight and Balance Manual**

N/A

### **5. Illustrated Parts Catalogue**

Illustrated Parts Catalogue (IPC) must be at Revision 17 or later revision.

### **6. Service Information and Service Bulletins**

Refer to our website

## **B.V. Notes**

### **1. Approved Noise Levels in accordance with:**

- a) for TB9 aircraft at a maximum takeoff weight of 1060 kg (2337 lbs) and a maximum continuous power of 2700 RPM:

French Decrees dated April 15, 1977 and February 19, 1987:

	72.5 d B (A) for a limit of 74.1 d B (A).
Propellers:	SENENICH 74 DM6 S8 061
	SENENICH 74 DM6 S8 054



- b) for TB9 aircraft equipped with optional equipment D840 (From S/N 948) at a maximum takeoff weight of 1060 kg (2337 lbs) and a maximum continuous power of 2600 RPM:  
French Decree dated February 19, 1987                      68.8 d B (A) for a limit of 74.1 d B (A).  
NOTE: These values are also valid for TB9 aircraft from S/N 897 to 947, plus S/N 765 equipped with optional equipment D840 and are given in the AFM Supplement 19 (DGAC approved French and German versions).
- c) for TB9 aircraft equipped with optional equipment D856 (From S/N 948) at a maximum takeoff weight of 955 kg (2105 lbs) and a maximum continuous power of 2700 RPM:  
ICAO, Chapter X, Appendix 6, Annex 16                      74.9 d B (A) for a limit of 82.6 d B (A).  
NOTE: The associated AFM is also valid for Swiss registered TB9 aircraft with the following values referring to the Swiss Edict dated May 25, 1990, Appendice, Chapter 241b:                      71.9 d B (A)
- d) for TB9 aircraft equipped with optional equipment A890 "Low noise exhaust" – see AFM, Section 9, Supplement 27 - at a maximum takeoff weight of 1060 kg (2337 lbs) and a maximum continuous power of 2645 RPM:  
ICAO, Chapter X, Appendix 6, Annex 16                      78.5 d B (A) for a limit of 84.0 d B (A).
- e) for TB9 aircraft equipped with optional equipment 0575 "HARTZELL Constant Speed Propeller" – see AFM, Section 9, Supplement 6 - at a maximum continuous power of 2700 RPM:  
French Decree dated April 15, 1977                      70.8 d B (A) for a limit of 74.1 d B (A).  
Propeller:                      HARTZELL HC-C2YL-1BF/F 7663 A-4
- f) for TB9 aircraft equipped with modification No. 139 (trade name TB9 "SPRINT") at a maximum continuous power of 2700 RPM:  
ICAO, Chapter X, Appendix 6, Annex 16                      78.9 d B (A) for a limit of 84.0 d B (A),  
FAR PART 36 Appendix G                      75.8 d B (A) for a limit of 79.1 d B (A).  
Propeller:                      SENSENICH 74 DM6 S8 058
2. For TB9 aircraft equipped with option D840 "Noise special limitations" [AFM Paragraph B.IV 1. e)]  
- Takeoff and max. continuous                      2600 RPM (116 kW)  
For TB9 aircraft equipped with option D851 "Noise reduction for Germany: label Blue Angel"  
[AFM Paragraph B.IV 1. f)]  
- Takeoff                      2600 RPM (116 kW)  
- Max. continuous                      2550 RPM
3. Maximum weight of the 3 rear passengers: 175 kg (386 lbs).
4. The empty weight must include unusable fuel weight of 4.3 kg (9.48 lbs) at 1.075 m (42.3 inches) and oil full quantity [7.2 kg (15.9 lbs) at – 0.605 m (- 23.8 inches)].
5. All optional equipment requiring an AFM Supplement are contained in AFM, Section 9
6. For TB9 aircraft equipped with option D856 "Noise special limitations" [AFM Paragraph B.IV g)]  
- Max. weight                      955 kg (2105 lbs)  
- Maximum Rear Passenger Seating Capacity: 2 seats at 2.035 m (80.1 inches) with a maximum weight of:  
Normal category:                      120 kg (265 lbs)  
Utility category:                      100 kg (220 lbs)





- Cargo version (without rear bench):

Max. weight 120 kg (265 lbs) at station 2.000 m (78.7 inches)

7. TB9 aircraft equipped with modification MOD.119 or MOD.121 (Trailing arm main landing gear).
8. Smokers authorized (ashtrays on board).



## SECTION C: MODEL TB 20

### C.I. General

<b>1. Type/ Model/ Variant</b>	
1.1 Type	TB
1.2 Model	TB 20
<b>2. Airworthiness Category</b>	FAR 23 Normal Category
<b>3. Manufacturer</b>	COMPAGNIE DAHER FRANCE
<b>4. EASA Type Certification Application Date</b>	Product accepted in EU prior 28 sept 2003
<b>5. State of Design Authority</b>	DGAC
<b>6. State of Design Authority Type Certificate Date</b>	December 18, 1981
<b>7. EASA Type Certification Date</b>	11 June 2010
<b>8. Other information</b>	The EASA Type Certificate replaces DGAC-France Type Certificate No.165

### C.II. EASA Certification Basis

<b>1. Reference Date for determining the applicable requirements</b>	June 1980
<b>2. Airworthiness Requirements</b>	FAR-23, Amendments 1 to 16 dated February 14, 1975
<b>3. Special Conditions</b>	FAR-23 Amendment 21, Section 23.1581 The landing gear being held up by hydraulic pressure only, requirements 23-143 and 23-729 are modified as follows: - Airspeed 1.6 VSI is replaced by VNO in 23.729 (a) - Condition 23-143 concerning landing gear extension is checked up to VNO.
<b>4. Exemptions</b>	None

### 5. (Reserved) Deviations



<b>6. Equivalent Safety Findings</b>	None
<b>7. Environmental Protection</b>	French Decree dated April 3rd, 1980 * Swiss Edict, Appendice, Chapter 241b dated May 25, 1990* ICAO, Chapter X, Appendix 6, Annex 16 * FAR PART 36, Appendix G * (* ) See Note 1

### **C.III. Technical Characteristics and Operational Limitations**

<b>1. Type Design Definition</b>	Main drawings BE/ED No. 269/81 dated 12/16/1981 and up Type Design Definition BE/EG No. 203/80 Issue 1 and up
<b>2. Description</b>	Single engine, four/five-seated cantilever low wing airplane, all-metal construction, retractable tricycle landing gear, conventional tail
<b>3. Equipment</b>	Equipment list, AFM, Section 6 and Section 9 (See Note 6)

#### **4. Dimensions**

Span	9.85 m (32 ft 3.8 in)
Length	7.75 m (25 ft 5.1 in)
Height	2.85 m (9 ft 4.2 in)
Wing Area	11.9 m <sup>2</sup> (128.09 sqft)

#### **5. Engine**

5.1. Model or	1 Textron Lycoming IO-540-C4 D5D 1 Textron Lycoming IO-540-C4 B5D (option A865) * (* ) See Note 7
5.2 Type Certificate	FAA TCDS IE4 rev20 and later revision
5.3 Limitations	Max. take-off and continuous power*: 2575 RPM (184 kW) Max. Cylinder Head Temperature: 260°C (500°F) (* ) See Notes 1 d) and 2
Oil:	Normal pressure: From 4.1 to 6.2 bars (59.5 to 90 psi) Minimum pressure: 1.7 bar (115 psi) Max. Temperature: 118°C (244°F)
Fuel:	Min. fuel pressure: 0.1 psi (7 hPa)



## 6. Load factors (Limit at maximum permissible weight)

Flaps retracted:  $n = + 3.8 - 1.5$   
Flaps extended:  $n = + 2 - 0$

## 7. Propeller

7.1 Two-blade propeller	
a) Model	1 HARTZELL HC-C2YK-1BF/F 8477 – 4
b) Type Certificate	FAA TCDS P-920 rev30 and later revision
c) Number of blades	2
d) Diameter	Maximum: 2.03 m (80 inches) Minimum: 1.98 m (78 inches)
e) Setting at 0.762 m (30 inches):	Low pitch setting: 15° High pitch setting: 31°
f) Governor	WOODWARD Type E 210681 or M 210681 or C 210761 or F 210761
g) Sense of Rotation	Propeller rotates Clockwise in view of flight direction
7.2 Three-blade propeller (option OP10 61001) [See Notes 1 e) and 3]	
a) Model or	1 HARTZELL HC-C3YR-1RF/F 7693 F 1 HARTZELL HC-C3YR-1RF/F 7693 FB
b) Type Certificate	FAA TCDS P25EA Rev22 and later revision
c) Number of blades	3
d) Diameter	Maximum: 1.98 m (78 inches) Minimum: 1.93 m (76 inches)
e) Setting at 0.762 m (30 inches):	Low pitch setting: 13° High pitch setting: 31°
f) Governor:	WOODWARD Type E 210681 or M 210681 or C 210761 or F 210761
g) Sense of Rotation	Propeller rotates Clockwise in view of flight direction

## 8. Fluids

8.1 Fuel	100 minimum aviation grade gasoline or AVGAS 100 LL
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8.2 Oil	Oils conforming to spec. MIL-L-6082 / MIL-L-22851 For more details see AFM, Section 1
8.3 Coolant	N/A

## 9. Fluid capacities

9.1 Fuel	Two structural wing Tanks: Total: 336 liters (88.8 US Gal) [2 x 168 l (44.4 US Gal)] Usable: 326 liters (86.2 US Gal) [2 x 163 l (43 US Gal)] Unusable: 10 liters (2.6 US Gal)
9.2 Oil	(Engine built-in tank) Maximum: 11.3 liters (12 qts) [at – 0.600 m (- 23.6 inches)] Usable: 8.9 liters (9.4 qts) [at – 0.600 m (-23.6 inches)] Minimum: 5.7 liters (6 qts)
9.3 Coolant system capacity	N/A

## 10. Air Speeds (Indicated Airspeed unless otherwise specified)

10.1 Up to S/N 587 not equipped with modification No. 50 - Maximum takeoff and landing weight: 1335 kg (2943 lbs):	
V <sub>D</sub> (Design Diving Speed):	390 km/h (211 KCAS) (conventional speed)
V <sub>NE</sub> (Never exceed speed):	350 km/h (189 KIAS)
V <sub>C</sub> (Design Cruising Speed):	280 km/h (151 KCAS) (conventional speed)
V <sub>NO</sub> (Maximum structural cruising speed):	280 km/h (151 KIAS)
V <sub>A</sub> (Design Manoeuvring Speed):	235 km/h (127 KIAS)
V <sub>FE</sub> (Flap Extended Speed):	185 km/h (100 KIAS)
V <sub>LE</sub> (Maximum Landing Gear Extended Speed):	260 km/h (140 KIAS)
V <sub>LO</sub> (Maximum Landing Gear Operating Speed):	240 km/h (130 KIAS)
10.2 From S/N 588, as well as aircraft equipped with modification No. 50, up to S/N 878, except S/N 823 thru S/N 849 - Maximum takeoff weight: 1400 kg (3086 lbs) - Maximum landing weight: 1335 kg (2943 lbs):	
V <sub>D</sub> (Design Diving Speed):	390 km/h (211 KCAS) (conventional speed)
V <sub>NE</sub> (Never exceed speed):	347 km/h (187 KIAS)
V <sub>C</sub> (Design Cruising Speed):	280 km/h (151 KIAS) (conventional speed)



V <sub>NO</sub> (Maximum structural cruising speed):	278 km/h (150 KCAS)
V <sub>A</sub> (Design Manoeuvring Speed):	240 km/h (130 KIAS)
V <sub>FE</sub> (Flap Extended Speed):	191 km/h (103 KIAS)
V <sub>LE</sub> (Maximum Landing Gear Extended Speed):	258 km/h (139 KIAS)
V <sub>LO</sub> (Maximum Landing Gear Operating Speed):	239 km/h (129 KIAS)
10.3 From S/N 879, plus S/N 823 thru S/N 849 - Maximum takeoff and landing weight: 1400 kg (3086 lbs):	
V <sub>D</sub> (Design Diving Speed):	390 km/h (211 KCAS) (conventional speed)
V <sub>NE</sub> (Never exceed speed):	347 km/h (187 KIAS)
V <sub>C</sub> (Design Cruising Speed):	280 km/h (151 KIAS) (conventional speed)
V <sub>NO</sub> (Maximum structural cruising speed):	278 km/h (150 KCAS)
V <sub>A</sub> (Design Manoeuvring Speed):	240 km/h (130 KIAS)
V <sub>FE</sub> (Flap Extended Speed):	
takeoff position	240 km/h (130 KIAS)
landing position	191 km/h (103 KIAS)
V <sub>LE</sub> (Maximum Landing Gear Extended Speed):	258 km/h (139 KIAS)
V <sub>LO</sub> (Maximum Landing Gear Operating Speed):	239 km/h (129 KIAS)

<b>11. Flight Envelope</b>	Refer to Aircraft Flight Manual
<b>12. Approved Operations Capability</b>	Day and Night VFR: see AFM, Section 9 Day & Night IFR: see AFM, Section 9 Flight into known icing conditions is prohibited

### 13. Maximum Masses

13.1 Aircraft not equipped with modification No. 50:	
Takeoff and landing:	1335 kg (2943 lbs)
13.2 From S/N 588, as well as aircraft equipped with modification No. 50, up to S/N 878, except S/N 823 thru S/N 849:	
Take-off:	1400 kg (3086 lbs)
Landing:	1335 kg (2943 lbs)
13.3 From S/N 879, plus S/N 823 thru S/N 849:	
Takeoff and landing:	1400 kg (3086 lbs)



13.4 Fuel	
Maximum fuel weight:	235 kg (518 lbs) at 1.085 m (42.7 inches) (without unusable fuel)

13.4 Empty weight	(see Note 5)
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**14. Centre of Gravity Range**

14.1 Up to S/N 587 not equipped with modification No. 50 - Maximum takeoff and landing weight: 1335 kg (2943 lbs):	
Forward limit:	1.080 m (42.6 inches) aft of datum at 1335 kg (2943 lbs) 0.961 m (38 inches) aft of datum at 1200 kg (2646 lbs) 0.937 m (37 inches) aft of datum at 900 kg (1984 lbs) or less Straight line variation between points given.
14.2 Aircraft equipped with modification No. 50 from S/N 1 thru 587 included:	
Forward limit:	1.080 m (42.6 inches) aft of datum from 1335 kg (2943 lbs) to 1400 kg (3086 lbs) 0.961 m (38 inches) aft of datum at 1200 kg (2646 lbs) 0.937 m (37 inches) aft of datum at 900 kg (1984 lbs) or less Straight line variation between points given.
14.3 From S/N 588 included:	
Forward limit:	1.071 m (42 inches) aft of datum at 1400 kg (3086 lbs) 0.949 m (37 inches) aft of datum at 1250 kg (2756 lbs) 0.913 m (36 inches) aft of datum at 1000 kg (2205 lbs) or less Straight line variation between points given.
14.4 Rear limit:	1.205 m (47 inches) aft of datum at all weights

<b>15. Datum</b>	Front face of firewall
------------------	------------------------

**16. Control surface deflections**

a) Stabilizer (angles reference: fuselage upper spar)	
- nose-up attitude	- 16° ± 1°
- nose-down attitude	+ 3° ± 1°



<b>b) Stabilizer tab (Angles reference: stabilizer chord)</b>	
With stabilizer in full nose-up attitude	
1 – Aircraft not equipped with modification No. 50	
- nose-up attitude tab stop	- 2.5° ± 0.5°
- nose-down attitude tab stop	- 17.5° ± 1.5°
2 – From aircraft S/N 588, plus those equipped with modification No. 50	
- nose-up attitude tab stop	0° ± 0.5°
- nose-down attitude tab stop	- 15° ± 1.5°
<b>c) Ailerons (Angles reference: wing chord)</b>	
- upward	15° ± 1.5°
- downward	15° ± 1.5°
<b>d) Rudder (angles reference: fin chord)</b>	
- left and right	25° ± 2°
<b>e) Rudder trim (angles reference: control surface chord)</b>	
- turn to the left	- 10° ± 2°
- turn to the right	+ 25° ± 2°
<b>e) Flaps (Angles reference: wing chord)</b>	
- full flaps	40° - 1° + 0.5°

<b>17. Levelling Means</b>	Upper fuselage spar
<b>18. Minimum Flight Crew</b>	1 (Pilot) at station 1.155 m (45 inches)
<b>19. Maximum Passenger Seating Capacity</b>	4 one seat at R.H. station 1.155 m (45 inches) two or three seats according to commercial arrangement at station 2.035 m (80 inches) (see Note 4)

## 20. Baggage/ Cargo Compartments

### 20.1 Behind Rear Bench

- a) Up to aircraft S/N 399, plus S/N 413

Maximum weight: 50 kg (110 lbs) at 2.600 m (102 inches)

- b) From aircraft S/N 400, except S/N 413

Maximum weight: 65 kg (143 lbs) at 2.600 m (102 inches)

### 20.2 Cargo version (without rear bench)

Maximum weight: 260 kg (573 lbs) at 1.900 m (74.8 inches)





## 21. Wheels and Tyres

Nose Wheel Size:	5.00-5
Nose Wheel Tyre Size:	5.00-5 6PR
Main landing gear track:	2.17 m (85 inches)
Main Wheel Size:	6.00-6
Main Wheel Tyre Size:	15 x 6.00-6 6PR

## 22. Special equipment

- Stall warning device
- Option No. A888 "Low noise exhaust" [see Note 1 d)]

## C.IV. Operating and Service Instructions

### 1. Flight Manual

- From S/N 1 to S/N 587 if aircraft not equipped with kit No. 9118: AFM Edition 3 must be at Revision 0 or later revision [see Note 1 a)]
- From S/N 588 to S/N 730 and from S/N 1 to S/N 587 if aircraft equipped with kit No. 9118: AFM Edition 4 must be at Revision 0 or later revision [see Note 1 b)]
- From S/N 731 to S/N 878, except from S/N 823 to S/N 849: AFM Edition 0 must be at Revision 2 or later revision [see Note 1 b)]
- From S/N 879 to S/N 947, except S/N 888: AFM Edition 1 must be at Revision 1 or later revision [see Note 1 b)].
- From S/N 948, plus from S/N 823 to S/N 849 and S/N 888: AFM Edition 2 must be at Revision 11 or later revision [see Note 1 c)].

### 2. Maintenance Manual

Aircraft Maintenance Manual (AMM) must be at Revision 19 or later revision (incl. Chapter 4 Airworthiness Limitations), plus temporary revisions pending the next updated version.

### 3. Structural Repair Manual

N/A

### 4. Weight and Balance Manual

N/A

### 5. Illustrated Parts Catalogue

Illustrated Parts Catalogue (IPC) must be at Revision 17 or later revision.

### 6. Service Information and Service Bulletins

Refer to our website



## **C.V. Notes**

1. Approved Noise Levels in accordance with:
  - a) for TB20 aircraft at a maximum takeoff weight of 1335 kg (2943 lbs) and a maximum continuous power of 2575 RPM:  
French Decree dated April 3rd, 1980                      72.9 d B (A) for a limit of 77.8 d B (A)
  - b) for TB20 aircraft at a maximum takeoff weight of 1400 kg (3086 lbs) and a maximum continuous power of 2575 RPM:  
French Decree dated April 3rd, 1980                      74 d B (A) for a limit of 78.7 d B (A)  
ICAO, Chapter X, Appendix 6, Annex 16                      83.6 d B (A) for a limit of 88 d B (A).
  - c) for TB20 aircraft equipped with optional equipment A888 "Low noise exhaust" – see AFM, Section 9, Supplement 29 - at a maximum takeoff weight of 1400 kg (3086 lbs) and a maximum continuous power of 2575 RPM:  
ICAO, Chapter X, Appendix 6, Annex 16                      83.5 d B (A) for a limit of 88 d B (A).
  - d) for TB20 aircraft equipped with optional equipment OPT10 77001A "Réduction de bruit (2500 tr/mn)" – see AFM, Section 9, Supplement 42 - at a maximum takeoff weight of 1400 kg (3086 lbs) and a maximum continuous power of 2500 RPM:  
ICAO, Chapter X, Appendix 6, Annex 16                      82.8 d B (A) for a limit of 88 d B (A).  
  
NOTE: The Supplement 42 is also valid for Swiss registered TB20 aircraft with the following values referring to the Swiss Edict dated May 25, 1990, Appendice, Chapter 241b: 79.8 d B (A) for a limit of 80.3 d B (A).
  - e) for TB20 aircraft equipped with optional equipment OPT10 61001 "Three-blade Propeller" – see AFM, Section 9, Supplement 45 - at a maximum takeoff weight of 1400 kg (3086 lbs) and a maximum continuous power of 2575 RPM:  
ICAO, Chapter X, Appendix 6, Annex 16                      82.5 d B (A) for a limit of 88 d B (A),  
FAR PART 36, Appendix G    78.6 d B (A) for a limit of 83.7 d B (A).
2. For TB20 aircraft equipped with option OPT10 77001A "Réduction de bruit (2500 tr/mn)":  
- Takeoff and max continuous    2500 RPM (174 kW)
3. For TB20 aircraft equipped with option OPT10 61001 "Three-blade Propeller", a new propeller cone is installed [Model A-2295-3(P)] – see AFM, Section 9, Supplement 45.
4. Maximum weight of the 3 rear passengers: 231 kg (509 lbs).
5. The empty weight must include unusable fuel weight of 7.2 kg (15.9 lbs) at 1.085 m (42.7 inches) and oil full quantity [11.3 kg (24.9 lbs) at – 0.600 m (- 23.6 inches)].
6. All optional equipment requiring an AFM Supplement are contained in AFM, Section 9
7. This engine can only be installed on 28 VDC TB20 aircraft that is to say from S/N 948, plus S/N 823 to S/N 849 and S/N 888.
8. Smokers authorized (ashtrays on board).



## SECTION D: MODEL TB 21

### D.I. General

<b>1. Type/ Model/ Variant</b>	
1.1 Type	TB
1.2 Model	TB 21
<b>2. Airworthiness Category</b>	FAR 23 Normal Category
<b>3. Manufacturer</b>	COMPAGNIE DAHER FRANCE
<b>4. EASA Type Certification Application Date</b>	Product accepted in EU prior 28 sept 2003
<b>5. State of Design Authority</b>	DGAC
<b>6. State of Design Authority Type Certificate Date</b>	May 23, 1985
<b>7. EASA Type Certification Date</b>	11 June 2010
<b>8. Other information</b>	The EASA Type Certificate replaces DGAC-France Type Certificate No.165

### D.II. EASA Certification Basis

<b>1. Reference Date for determining the applicable requirements</b>	December 1983
<b>2. Airworthiness Requirements</b>	FAR-23, Amendments 1 to 16 dated February 14, 1975
<b>3. Special Conditions</b>	FAR-23 Amendment 21, Section 23.1581 The landing gear being held up by hydraulic pressure only, requirements 23-143 and 23-729 are modified as follows: - Airspeed 1.6 VSI is replaced by VNO in 23.729 (a) - Condition 23-143 concerning landing gear extension is checked up to VNO.
<b>4. Exemptions</b>	None

### 5. (Reserved) Deviations



<b>6. Equivalent Safety Findings</b>	None
<b>7. Environmental Protection</b>	French Decree dated April 3rd, 1980 * ICAO, Chapter X, Appendix 6, Annex 16 * FAR PART 36, Appendix G * (* ) See Note 1

### **D.III. Technical Characteristics and Operational Limitations**

<b>1. Type Design Definition</b>	Main drawings ED No. 184/85 Ed. 1 and up Type Design Definition EG No. 329/84 Ed.2 and up Model Description Note EG No. 101/85 Ed.6 and up
<b>2. Description</b>	Single engine (turbocharged), four/five-seated cantilever low wing airplane, all-metal construction, retractable tricycle landing gear, conventional tail
<b>3. Equipment</b>	Equipment list, AFM, Section 6 and Section 9 (See Note 5)

#### **4. Dimensions**

Span	9.85 m (32 ft 3.8 in)
Length	7.75 m (25 ft 5.1 in)
Height	2.85 m (9 ft 4.2 in)
Wing Area	11.9 m <sup>2</sup> (128.09 sqft)

#### **5. Engine**

5.1. Model	1 Textron Lycoming TIO-540-AB1AD
5.2 Type Certificate	FAA TCDS E14EA rev21 and later revision
5.3 Limitations	Max. take-off and continuous power*: 2575 RPM (184 kW) Max. Cylinder Head Temperature: 260°C (500°F)
Oil:	Normal pressure: From 3.8 to 6.55 bars (55 to 95 psi) Minimum pressure: 1.7 bar (115 psi) Max. Temperature: 118°C (244°F)
Fuel:	Min. fuel pressure: 0.1 psi (7 hPa) Max Manifold Pressure: 1290 mbar (38 in.Hg) Max exhaust gas temperature (T.I.T): 1650°F (899°C)



**6. Load factors (Limit at maximum permissible weight)**

Flaps retracted: n = + 3.8 - 1.5  
Flaps extended: n = + 2 - 0

**7. Propeller**

7.1 Two-blade propeller	
a) Model	1 HARTZELL HC-C2YK-1BF/F 8477 – 4
b) Type Certificate	FAA TCDS P-920 rev30 and later revision
c) Number of blades	2
d) Diameter	Maximum: 2.03 m (80 inches) Minimum: 1.98 m (78 inches)
e) Setting at 0.762 m (30 inches):	Low pitch setting: 15° High pitch setting: 31°
f) Governor	WOODWARD Type E 210681 or M 210681 or C 210761 or F 210761
g) Sense of Rotation	Propeller rotates Clockwise in view of flight direction
7.2 Three-blade propeller (option OP10 61001) [See Notes 1 b) and 2]	
a) Model or	1 HARTZELL HC-C3YR-1RF/F 7693 F 1 HARTZELL HC-C3YR-1RF/F 7693 FB
b) Type Certificate	FAA TCDS P25EA Rev22 and later revision
c) Number of blades	3
d) Diameter	Maximum: 1.98 m (78 inches) Minimum: 1.93 m (76 inches)
e) Setting at 0.762 m (30 inches):	Low pitch setting: 13° High pitch setting: 31°
f) Governor:	WOODWARD Type E 210681 or M 210681 or C 210761 or F 210761
g) Sense of Rotation	Propeller rotates Clockwise in view of flight direction

**8. Fluids**

8.1 Fuel	100 minimum aviation grade gasoline or AVGAS 100 LL
8.2 Oil	Oils conforming to spec. MIL-L-6082 / MIL-L-22851 For more details see AFM, Section 1



8.3 Coolant	N/A
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## 9. Fluid capacities

9.1 Fuel	Two structural wing Tanks: Total: 336 liters (88.8 US Gal) [2 x 168 l (44.4 US Gal)] Usable: 326 liters (86.2 US Gal) [2 x 163 l (43 US Gal)] Unusable: 10 liters (2.6 US Gal)
9.2 Oil	(Engine built-in tank) Maximum: 11.3 liters (12 qts) [at – 0.600 m (- 23.6 inches)] Usable: 8.9 liters (9.4 qts) [at – 0.600 m (-23.6 inches)] Minimum: 5.7 liters (6 qts)
9.3 Coolant system capacity	N/A

## 10. Air Speeds (Indicated Airspeed unless otherwise specified)

10.1 Up to S/N 878:	
V <sub>D</sub> (Design Diving Speed):	390 km/h (211 KCAS) (conventional speed)
V <sub>NE</sub> (Never exceed speed):	347 km/h (187 KIAS)
V <sub>C</sub> (Design Cruising Speed):	280 km/h (151 KCAS) (conventional speed)
V <sub>NO</sub> (Maximum structural cruising speed):	278 km/h (150 KIAS)
V <sub>A</sub> (Design Manoeuvring Speed):	240 km/h (130 KIAS)
V <sub>FE</sub> (Flap Extended Speed):	191 km/h (103 KIAS)
V <sub>LE</sub> (Maximum Landing Gear Extended Speed):	258 km/h (139 KIAS)
V <sub>LO</sub> (Maximum Landing Gear Operating Speed):	239 km/h (129 KIAS)
10.2 From S/N 879:	
V <sub>D</sub> (Design Diving Speed):	390 km/h (211 KCAS) (conventional speed)
V <sub>NE</sub> (Never exceed speed):	347 km/h (187 KIAS)
V <sub>C</sub> (Design Cruising Speed):	280 km/h (151 KIAS) (conventional speed)
V <sub>NO</sub> (Maximum structural cruising speed):	278 km/h (150 KCAS)
V <sub>A</sub> (Design Manoeuvring Speed):	240 km/h (130 KIAS)
V <sub>FE</sub> (Flap Extended Speed):	
takeoff position	240 km/h (130 KIAS)
landing position	191 km/h (103 KIAS)



V <sub>LE</sub> (Maximum Landing Gear Extended Speed):	258 km/h (139 KIAS)
V <sub>LO</sub> (Maximum Landing Gear Operating Speed):	239 km/h (129 KIAS)

<b>11. Flight Envelope</b>	Refer to Aircraft Flight Manual
<b>12. Approved Operations Capability</b>	Day and Night VFR: see AFM, Section 9 Day & Night IFR: see AFM, Section 9 Flight into known icing conditions is prohibited

### 13. Maximum Masses

13.1 Up to S/N 878 included:	
Take-off:	1400 kg (3086 lbs)
Landing:	1335 kg (2943 lbs)
13.2 From S/N 879:	
Takeoff and landing:	1400 kg (3086 lbs)
13.3 Fuel	
Maximum fuel weight:	235 kg (518 lbs) at 1.085 m (42.7 inches) (without unusable fuel)
13.4 Empty weight	(see Note 4)

### 14. Centre of Gravity Range:

Forward limit:	1.071 m (42 inches) aft of datum at 1400 kg (3086 lbs) 0.949 m (37 inches) aft of datum at 1250 kg (2756 lbs) 0.913 m (36 inches) aft of datum at 1000 kg (2205 lbs) or less Straight line variation between points given.
Rear limit:	1.205 m (47 inches) aft of datum at all weights

<b>15. Datum</b>	Front face of firewall
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### 16. Control surface deflections

a) Stabilizer (angles reference: fuselage upper spar)	
- nose-up attitude	- 16° ± 1°
- nose-down attitude	+ 3° ± 1°
b) Stabilizer tab (Angles reference: stabilizer chord)	
With stabilizer in full nose-up attitude	
- nose-up attitude tab stop	0° ± 0.5°



- nose-down attitude tab stop	- 15° ± 1.5°
c) Ailerons (Angles reference: wing chord)	
- upward	15° ± 1.5°
- downward	15° ± 1.5°
d) Rudder (angles reference: fin chord)	
- left and right	25° ± 2°
e) Rudder trim (angles reference: control surface chord)	
- turn to the left	- 10° ± 2°
- turn to the right	+ 25° ± 2°
e) Flaps (Angles reference: wing chord)	
- full flaps	40° - 1° + 0.5°

<b>17. Levelling Means</b>	Upper fuselage spar
<b>18. Minimum Flight Crew</b>	1 (Pilot) at station 1.155 m (45 inches)
<b>19. Maximum Passenger Seating Capacity</b>	4 one seat at R.H. station 1.155 m (45 inches) two or three seats according to commercial arrangement at station 2.035 m (80 inches) (see Note 3)

## 20. Baggage / Cargo Compartments

### 20.1 Behind Rear Bench

Maximum weight: 65 kg (143 lbs) at 2.600 m (102 inches)

### 20.2 Cargo version (without rear bench)

Maximum weight: 260 kg (573 lbs) at 1.900 m (74.8 inches)

## 21. Wheels and Tyres

Nose Wheel Size: 5.00-5  
Nose Wheel Tyre Size: 5.00-5 6PR  
Main landing gear track: 2.17 m (85 inches)  
Main Wheel Size: 6.00-6  
Main Wheel Tyre Size: 15 x 6.00-6 6PR

## 22. Special equipment

Stall warning device





## **D.IV. Operating and Service Instructions**

### **1. Aircraft Flight Manual (AFM):**

- a) From S/N 1 to S/N 730: AFM Edition 3 must be at Revision 0 or later revision
- b) From S/N 731 to S/N 878: AFM Edition 0 must be at Revision 2 or later revision
- c) From S/N 879 to S/N 947: AFM Edition 1 must be at Revision 1 or later revision
- d) From S/N 948: AFM Edition 2 must be at Revision 6 or later revision

### **2. Maintenance Manual**

Aircraft Maintenance Manual (AMM) must be at Revision 19 or later revision (incl. Chapter 4 Airworthiness Limitations), plus temporary revisions pending the next updated version.

### **3. Structural Repair Manual**

N/A

### **4. Weight and Balance Manual**

N/A

### **5. Illustrated Parts Catalogue**

Illustrated Parts Catalogue (IPC) must be at Revision 17 or later revision.

### **6. Service Information and Service Bulletins**

Refer to our website

## **D.V. Notes**

1. Approved Noise Levels in accordance with:
  - a) for TB21 aircraft at a maximum takeoff weight of 1400 kg (3086 lbs) and a maximum continuous power of 2575 RPM:  
French Decree dated April 3rd, 1980                      76.1 d B (A) for a limit of 78.7 d B (A)
  - b) for TB21 aircraft equipped with optional equipment OPT10 61001 "Three-blade Propeller" – see AFM, Section 9, Supplement 45 - at a maximum takeoff weight of 1400 kg (3086 lbs) and a maximum continuous power of 2575 RPM:  
ICAO, Chapter X, Appendix 6, Annex 16              81.8 d B (A) for a limit of 88 d B (A),  
FAR PART 36, Appendix G                              78.0 d B (A) for a limit of 83.7 d B (A).
2. For TB21 aircraft equipped with option OPT10 61001 "Three-blade Propeller", a new propeller cone is installed [Model A-2295-3(P)] – see AFM, Section 9, Supplement 45.
3. Maximum weight of the 3 rear passengers: 231 kg (509 lbs).
4. The empty weight must include unusable fuel weight of 7.2 kg (15.9 lbs) at 1.085 m (42.7 inches) and oil full quantity [11.3 kg (24.9 lbs) at – 0.600 m (- 23.6 inches)].
5. All optional equipment requiring an AFM Supplement are contained in AFM, Section 9
6. Smokers authorized (ashtrays on board).



## SECTION E MODEL TB 200

### E.I. General

<b>1. Type/ Model/ Variant</b>	
1.1 Type	TB
1.2 Model	TB 200
<b>2. Airworthiness Category</b>	FAR 23 Normal Category
<b>3. Manufacturer</b>	COMPAGNIE DAHER FRANCE
<b>4. EASA Type Certification Application Date</b>	Product accepted in EU prior 28 sept 2003
<b>5. State of Design Authority</b>	DGAC
<b>6. State of Design Authority Type Certificate Date</b>	October 30, 1991
<b>7. EASA Type Certification Date</b>	11 June 2010
<b>8. Other information</b>	The EASA Type Certificate replaces DGAC-France Type Certificate No.165

### E.II. EASA Certification Basis

<b>1. Reference Date for determining the applicable requirements</b>	February 1991
<b>2. Airworthiness Requirements</b>	FAR-23, Amendments 1 to 16 dated February 14, 1975
<b>3. Special Conditions</b>	None
<b>4. EASA Exemptions</b>	None
<b>5. Equivalent Safety Findings</b>	None
<b>6. Environmental Protection</b>	ICAO, Chapter X, Appendix 6, Annex 16 * (* ) See Note 1

### E.III. Technical Characteristics and Operational Limitations

<b>1. Type Design Definition</b>	Main drawings BE No. 417/91 Ed.1 and up Model Description Note NAV No. 20/91 Ed.1 and up
<b>2. Description</b>	Single engine, four/five-seated cantilever low wing airplane, all-metal construction, retractable tricycle landing gear, conventional tail
<b>3. Equipment</b>	Equipment list, AFM, Section 6 and Section 9 (See Note 6)



#### 4. Dimensions:

Span	9.89 m (32 ft 5.2 in)
Length	7.75 m (25 ft 5.1 in)
Height	3.02 m (9 ft 10.9 in)
Wing Area	11.9 m <sup>2</sup> (128.09 sqft)

#### 5. Engines:

5.1. Model	1 Textron Lycoming IO-360-A1B6
5.2 Type Certificate	FAA TCDS 1E10 rev23 and later revision
5.3 Limitations	Max. take-off and continuous power*: 2700 RPM (149 kW) (engine rated at 200 HP) Max. Cylinder Head Temperature: 260°C (500°F) (* ) See Notes 2 and 3
Oil:	Normal pressure: From 3.8 to 6.6 bars (55 to 95.7 psi) Minimum pressure: 1.7 bar (115 psi) Max. Temperature: 118°C (244°F)
Fuel:	Min. fuel pressure: - 2 psi (- 0.14 bar)

#### 6. Load factors (Limit at maximum permissible weight)

Flaps retracted:	n = + 3.8	- 1.5
Flaps extended:	n = + 2	- 0

#### 7. Propeller

7.1 Model	1 HARTZELL HC-C2YK-1BF/F 7666 A-2
7.2 Type Certificate	FAA TCDS P-920 rev30 and later revision
7.3 Number of blades	2
7.4 Diameter	
Maximum diameter:	1.88 m (74 inches)
Minimum diameter:	1.83 m (72 inches)
7.5 Setting at 0.762 m (30 inches)	Low pitch setting: 13.5° High pitch setting: 31°
7.6 Governor	WOODWARD Type A210776
7.7 Sense of Rotation	Propeller rotates Clockwise in view of flight direction



**8. Fluids:**

8.1 Fuel	100 minimum aviation grade gasoline or AVGAS 100 LL
8.2 Oil	Oils conforming to spec. MIL-L-6082 / MIL-L-22851 For more details see AFM, Section 1
8.3 Coolant	N/A

**9. Fluid capacities:**

9.1 Fuel	Two structural wing Tanks: Total: 210 liters (55.4 US Gal) [2 x 105 l (27.7 US Gal)] Usable: 204 liters (53.8 US Gal) [2 x 102 l (26.9 US Gal)] Unusable: 6 liters (1.6 US Gal)
9.2 Oil	(Engine built-in tank) Maximum: 7.6 liters (8 qts) [at – 0.605 m (- 23.8 inches)] Usable: 5.5 liters (5.8 qts) [at – 0.605m (-23.8 inches)] Minimum: 3.8 liters (4 qts)
9.3 Coolant system capacity	N/A

**10. Air Speeds (True Airspeed):**

$V_D$ (Design Diving Speed):	345 km/h (186 KTAS)
$V_{NE}$ (Never exceed speed):	306 km/h (165 KTAS)
$V_C$ (Design Cruising Speed):	238 km/h (128 KTAS)
$V_{NO}$ (Maximum structural cruising speed):	238 km/h (128 KTAS)
$V_A$ (Design Manoeuvring Speed):	227 km/h (122 KTAS)
$V_{FE}$ (Flap Extended Speed):	176 km/h (95 KTAS)

<b>11. Flight Envelope</b>	Refer to Aircraft Flight Manual
<b>12. Approved Operations Capability</b>	Day VFR Day & Night IFR: see AFM, Section 9 Night VFR: optional equipment: see AFM, Section 9 Flight into known icing conditions is prohibited



### 13. Maximum Masses

13.1 Weight:	
Take-off:	1150 kg (2535 lbs)
Landing:	1150 kg (2535 lbs)
13.2 Fuel	
Maximum fuel weight:	147 kg (324 lbs) at 1.075 m (42.3 inches) (without unusable fuel)
13.4 Empty weight	(see Note 5)

### 14. Centre of Gravity Range:

Forward limit:	1.083 m (42.6 inches) aft of datum at 1150 kg (2535 lbs) 1.010 m (39.8 inches) aft of datum at 1070 kg (2359 lbs) 0.949 m (37 inches) aft of datum at 970 kg (2138 lbs) or less Straight line variation between points given.
Rear limit:	1.205 m (47 inches) aft of datum at all weights

15. Datum	Front face of firewall
-----------	------------------------

### 16. Control surface deflections

a) Stabilizer (angles reference: fuselage upper spar)	
- nose-up attitude	- 17° ± 1°
- nose-down attitude	+ 2° ± 1°
b) Stabilizer tab (Angles reference: stabilizer chord)	
With stabilizer in full nose-up attitude	
- nose-up attitude tab stop	- 2.5° ± 0.5°
- nose-down attitude tab stop	- 17° ± 1.5°
c) Ailerons (Angles reference: wing chord)	
- upward	15° ± 1.5°
- downward	15° ± 1.5°
d) Rudder (angles reference: fin chord)	
- left and right	25° ± 2°
e) Flaps (Angles reference: wing chord)	
- full flaps	25.5° - 1° + 0.5°



<b>17. Levelling Means</b>	Upper fuselage spar
<b>18. Minimum Flight Crew</b>	1 (Pilot) at station 1.165 m (45.9 inches)
<b>19. Maximum Passenger Seating Capacity</b>	4 one seat at R.H. station 1.165 m (45.9 inches) two or three seats according to commercial arrangement at station 2.095 m (82.5 inches) (see Note 4)

## 20. Baggage / Cargo Compartments

### 20.1 Behind Rear Bench

Maximum weight: 65 kg (143 lbs) at 2.600 m (102 inches)

### 20.2 Cargo version (without rear bench)

Maximum weight: 260 kg (573 lbs) at 1.900 m (74.8 inches)

## 21. Wheels and Tyres

Nose Wheel Size: 5.00-5

Nose Wheel Tyre Size: 5.00-5 6PR

Main landing gear track: 2.33 m (7 ft 7.7 in)  
or 2.30 m (7 ft 6.5 in) (see Note 7)

Main Wheel Size: 6.00-6

Main Wheel Tyre Size: 6.00-6 6PR

## 22. Special equipment

Stall warning device

## E.IV. Operating and Service Instructions

### 1. Aircraft Flight Manual (AFM):

- From S/N 1: AFM Edition 0 must be at Revision 6 or later revision [see Note 1 a)]
- From aircraft S/N 1 equipped with option D849: AFM Edition 0 (LBA approved German version) must be at Revision 4 or later revision (see Section 6, Note 1)
- From aircraft S/N 1 equipped with option D853: AFM Edition 0A (LBA approved German version) must be at Revision 0 or later revision (see Section 6, VI.2 - Note 1)

### 2. Maintenance Manual

Aircraft Maintenance Manual (AMM) must be at Revision 19 or later revision (incl. Chapter 4 Airworthiness Limitations), plus temporary revisions pending the next updated version.



### 3. Structural Repair Manual

N/A

### 4. Weight and Balance Manual

N/A

### 5. Illustrated Parts Catalogue

Illustrated Parts Catalogue (IPC) must be at Revision 17 or later revision.

### 6. Service Information and Service Bulletins

Refer to our website

## E.V. Notes

1. Approved Noise Levels in accordance with:  
for TB200 aircraft at a maximum takeoff weight of 1150 kg (2535 lbs) and a maximum continuous power of 2700 RPM:  
ICAO, Chapter X, Appendix 6, Annex 16                      80.6 d B (A) for a limit of 85.2 d B (A).
2. For TB200 aircraft equipped with option D849 "Special noise limitation":
  - Takeoff    2700 RPM (149 kW) (engine rated at 200 HP)
  - Max continuous    2600 RPM (144 kW)
3. For TB200 aircraft equipped with option D853 "Noise reduction for Germany : label Blue Angel":
  - Takeoff    2700 RPM (149 kW) (engine rated at 200 HP)
  - Max continuous    2500 RPM
4. Maximum weight of the 3 rear passengers: 206 kg (454 lbs).
5. The empty weight must include unusable fuel weight of 4.3 kg (9.48 lbs) at 1.075 m (42.3 inches) and oil full quantity [7.2 kg (15.9 lbs) at – 0.605 m (- 23.8 inches)].
6. All optional equipment requiring an AFM Supplement are contained in AFM, Section 9.
7. TB200 aircraft equipped with modification MOD.118 or MOD.120 (Trailing arm main landing gear).
8. Smokers authorized (ashtrays on board).



## **SECTION F    GENERAL NOTES**

### **F.I.    Operating limitations**

1. TB airplanes are certified in the Normal category (and Utility category for TB10 and TB9). In all cases spins are prohibited.
2. The limitations of use, indicated limit airspeeds marked on airspeed indicator, loading instructions, instruction and limitation plates are given in the approved Flight Manual.
3. TB airplanes are approved for day and night operations in the following conditions when the appropriate equipments, instruments required by the airworthiness and operational regulations are approved, installed and operative:
  - instrument and visual flight,
  - flight into icing conditions prohibited,
  - flight into icing conditions only with option n° 687 for TB20 and TB21.

### **F.II.    General**

1. No noise limitations are mentioned in the TB LBA approved German versions AFM, as well as Supplements to AFM. Refer to rules in force in the German Federal Republic.





## SECTION ADMINISTRATIVE

### I. Acronyms & Abbreviations

AFM :	Aircraft Flight Manual
DGAC:	Direction Générale de l'Aviation Civile
EASA :	European Aviation Safety Agency
ICAO:	International Civil Aviation Organization
RPM:	Revolution per minute (engine speed)
TCDS:	Type Certificate Data Sheet
kW:	Kilowatt

### II. Type Certificate Holder Record

1979 to 2000:	Société de Construction d'Avions de Tourisme et d'Affaire "S.O.C.A.T.A." - Groupe AEROSPATIALE Boîte Postale n° 930 65009 TARBES FRANCE
2000 to 2009:	EADS SOCATA 65921 TARBES Cedex 9 FRANCE
2009 to 2018:	SOCATA 65921 TARBES Cedex 9 FRANCE
Since 2018 :	DAHER AEROSPACE 23 route de TOURS 41400 SAINT JULIEN DE CHEDON FRANCE

### III. Change Record

Issue	Date	Changes	TC Issue No. & Date
Issue 01	11/06/2010	Transfer from the DGAC TCDS issue 20 dated October 2001 to the EASA TCDS form	Initial Issue, 11/06/2010



<b>Issue</b>	<b>Date</b>	<b>Changes</b>	<b>TC Issue No. &amp; Date</b>
Issue 02	14/06/2010	Correction of DGAC certification date for models TB9, TB20, TB21 and TB200	
Issue 03	06/10/2010	Correction of propeller type for TB10 from HARTZELL HC-C2YK-1BF/F 7663 A-4 to 1 HARTZELL HC-C2YL-1BF/F 7663 A-4	
Issue 04	15/03/2019	Update according to the new EASA template of 2017. Change of the name of the TC holder: SOCATA becomes DAHER AEROSPACE.	

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