Civil Aviation Authority
United Kingdom

TYPE-CERTIFICATE DATA SHEET

UK.TC.A.00048

for

TBM700

Type Certificate Holder

DAHER AEROSPACE

7 avenue de l'UNION

94390 ORLY AEROGARE CEDEX

FRANCE

Model(s):	TBM700 A TBM700 B TBM700 C1 TBM700 C2 TBM700 N
Issue:	1
Date of issue:	17 November 2022

TABLE OF CONTENTS

Section 1 General (All Models)

I. General

This Type-Certificate Data Sheet (TCDS) is the concise definition of the type-certificated product accepted and or approved by the CAA in the UK for the affected types and models.

This TCDS includes:

1. Details of the type design that affect the TCDS that have been approved or accepted by the CAA in the UK from 01 January 2021.
2. Details of the type design that affected the TCDS and were approved or accepted by EASA before 01 January 2021, and were incorporated into EASA TCDS EASA.A.010 at Issue 15 dated 28 July 2020 and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

II. Notes for all TBM700 variants up to S/N 999

1. Modification MOD70-0275-00 “Multi-Mission aircraft”

It is a modification applicable to s/n 1-999, except s/n 687. TBM700 airplanes must be equipped with Modification MOD70-010-24 (Increase of on board generators capacitors).

For airplanes with optional modification MOD70-0275-00 “Multi-Mission aircraft” installed:

- Pilot’s Operating Handbook Supplement 53 at revision 0 or later approved revision must be utilised.
- TBM Maintenance Manual Supplement S01 with revision 0 of June 2010, EASA approved on 6 July 2010, or following revisions (including Airworthiness Limitations) must be utilised

Section 2 TBM700 A, Basic TBM700 Type Design

I. General

1. Type / Variant or Model

a) Type: TBM700
b) Model: N/A
c) Variant A

2. Airworthiness Category

FAR-23 Normal Category

3. Manufacturer

COMPAGNIE DAHER

4. State of Design Authority

DGAC

5. State of Design Type Certification Application Date

31 October 1986

6. State of Design Authority Type Certificate Date

31 January 1990

7. State of Design Type Certificate Number

EASA.A.010 (replaced DGAC-France Type Certificate No.181)

8. UK CAA Type Validation Date

31 January 1990

9. Other Information

Eligible S/N:1 to 125, plus 127 to 128, 130 to 136, 138 to 142, 146 and 147

II. Certification Basis

1. Reference Date for determining the applicable requirements

31 October 1986

2. Airworthiness Requirements

FAR-23, Amendment 34, dated 01 January 1988.
FAR-23, Amendment 36, dated 14 September 1988 for Sections 23.783, 23.807 and 23.811.

3. Special Conditions

None.

4. Exemptions

None.

5. Deviations

None.

6. Equivalent Safety Findings

None.

7. Requirements Elected to Comply

None.

8. Environmental Protection Standards

Noise:

ICAO Annex 16 Volume I, 2nd Edition, Amendment 3, Chapter 10
(see TCDSN UK.TC.A.00048 for details)

FAR 36, Amendment 17, Appendix G

9. Operational Suitability Requirements

MMEL: JAR-MMEL/MEL Amendment 1 dated 1 August 2005

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

List of main drawings: T700 N°65/90 Ed.1 and up.

2. Description

Single-turbo-propeller engine, six to seven seats, low-wing airplane, aluminium and steel construction.

3. Equipment

Equipment list: See POH Sec 6.5.

4. Dimensions

Span:	12.680 m	(41.6 ft)
Length:	10.645 m	(34.9 ft)
Height:	4.355 m	(14.3 ft)
Wing Area:	18.00 m²	(193.7 ft²)

5. Engine

5.1 Model

Turbo generator Pratt & Whitney type PT6A-64

5.2 Type Certificate

CAA Type Certificate UK.TC.E.00035

5.3 Limitations

Gas generator rotation speed: 39,000 RPM (104.1%)
Propeller rotation speed: 2,000 RPM
Maximum take-off and continuous power: 700 shp
For power-plant limitations refer to POH, Section 2.3

6. Load Factors

Flaps up:	-1.5 ≤ n ≤ + 3.8 g
Flaps down:	-0 ≤ n ≤ + 2.0 g

7. Propeller

7.1 Model

Hartzell Propeller Inc. Type HC-E4N-3/E9083 S(K)

7.2 Type Certificate

FAA Type Certificate P10NE dated 2 August 2002
EASA.IM.P.133 dated 31 January 2000

7.3 Number of Blades

4

7.4 Diameter

Maximum Diameter:	2,311 mm / 91 in
Minimum Diameter:	2,286 mm / 90 in

7.5 Direction of Rotation

Propeller rotates Clockwise in view of flight direction

7.6 Pitch

Low Pitch:	21°
Feather:	86°
Reverse:	-11°

8. Fluids

8.1 Fuel

Jet A, Jet A1, Jet B, JP4, JP5, JP8, anti-ice additive according to the specification.MIL-I-27686 in the following proportions :
- Minimum content: 0.06% by volume
- Maximum content: 0.15% by volume

8.2 Oil

Refer to POH, Section 2.3.

8.3 Coolant

N/A

9. Fluid Capacities

9.1 Fuel

Two structural wing tanks:
Total capacity: 1,100 liters / 290.6 gal
Total usable capacity: 1,066 liters / 281.6 gal
Unusable quantity: 34 liters / 9 gal

9.2 Oil

Maximum: 12 liters / 12.7 qt
Minimum: 5.7 liters / 6 qt

9.3 Coolant System Capacity

None.

10. Airspeed Limits

V_{MO}	(Maximum operating speed)	270 KCAS
V_A	(Manoeuvring speed)	160 KCAS
V_{FE}	(Maximum flaps extended speed)	
	Landing configuration	120 KCAS
	Take off configuration	180 KCAS
V_{LO}	(Maximum landing gear operating speed)	
	Retraction	130 KCAS
	Extension	180 KCAS
V_{LE}	(Maximum landing gear extended speed)	180 KCAS

11. Flight Envelope

Airplane not equipped with OPT70-01-026	30,000 ft
Airplane equipped with OPT70-01-026	31,000 ft

12. Approved Operational Capability

Day & night VFR and day & night IFR operations when appropriate equipment is

installed and operating correctly.
Refer to approved POH, Section 2.6

13. Maximum Certified Masses

Take-Off	2,984 kg (6,579 lbs)
Landing	2,835 kg (6,250 lbs)
Ramp	3,000 kg (6,614 lbs)

14. Centre of Gravity Range

From	To	Weight
4,604 mm (181.3 in) 14% of MAC	4,951 mm (194.9 in) 37 % of MAC	2,000 kg (4,409 lbs) or less
4,664 mm (183.6 in) 18% of MAC	4,951 mm (194.9 in) 37% of MAC	2,835 kg (6,250 lbs) or less
4,694 mm (184.8 in) 20% of MAC	4,936 mm (194.3 in) 36% of MAC	2,984 kg (6,579 lbs) or less

Straight line between points given
MAC: Mean Aerodynamic Chord

15. Datum

3,000 mm (118.11 in.) ahead of front firewall face

16. Control surface deflections

Pitch Control

Elevator (Angles references: stabilator chord)	Nose-up attitude: Nose-down attitude:	30º ± 1.5º 10º ± 1º
Stabilator tab (elevator at 0º)	Nose-up attitude: Nose-down attitude:	15º ± 1º 20º ± 1º

Roll Control

Ailerons (Reference: wing chord)	up down	15º ± 1º 20º ± 1º
Spoiler (Reference: wing upper surface)	up down	58º + 2º / - 3° 20.5º + 1º /- 5°
Tab	up down	14º ± 1º 14º ± 1º

Yaw Control

Rudder (Reference: fin chord)	left turn right turn	26º ± 1º 35º ± 1.5º
Rudder tab (Reference: rudder chord)	left turn right turn	13.5° ± 1° 9.5° ± 1°

17. Levelling Means

Cabin floor mounting rails.

18. Minimum Flight Crew

One Pilot

19. Maximum Passenger Seating Capacity

a. Standard version: 5

b. 7 places accommodation (optional modification OPT70-25-002): 6

20. Baggage/ Cargo Compartment:

Front baggage (not pressurized) 50 kg (110 lbs) at 3,250 mm (128.0 in)

a. Airplanes from S/N 1 to 23, 25, 28, 33 and 35, except airplanes equipped as a retrofit with modification MOD70-019-25 “improved upholstery”:

Rear baggage (in cabin) 100 kg (220 lbs) at 7,560 mm (297.6 in)

b. Airplanes S/N 24, 26, 27, 29 to 32, 34, 36 to 9999, plus airplanes equipped as a retrofit with modification MOD70-019-25 “improved upholstery”:

Rear baggage (in cabin) 100 kg (220 lbs) at 7,695 mm (303 in)

21. Wheels and Tyres

Nose Landing Gear Tyre:	5.00 x 5-6 PR
Main Landing Gear Tyre:	18 x 5.5-8 PR
Wheelbase:	2,910 mm (115 in)
Track:	3,880 mm (153 in)

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

DGAC/EASA approved Pilot Operating Handbook (POH):

- For TBM700 A variant, Pilot's Operating Handbook:P/N DMAFM00EE0EN at revision 0 or later approved revision must be utilised.
- For TBM700 A (from Serial number 14) and TBM700 B variants equipped with MOD70-0276-00 and MOD70-0158-28B (Fuel gauging amplifier), the Pilot's Operating Handbook P/N DMAFM00EE1EN edition 1 at revision 0 or later approved revision is required.
    - For airplanes with optional modification MOD70-0226-00 "Synthetic Vision System in GARMIN Integrated Flight Deck"(SVS) installed, Pilot's Operating Handbook Supplement 50 P/N DMNFM50EE0EN at revision 0 or laterapproved revision must be utilised.

2. Maintenance Manual

For TBM700 A variant, TBM700 Maintenance Manual (P/N DMAMMPXEE0) at revision 31 of November 2005, or following revisions (including Airworthiness Limitations) must be utilised.

For TBM700 A and TBM700 B variants from s/n 14 to 243, except s/n 205 and 240, equipped with MOD70-276-00 and MOD70-0158-28B, TBM700 Maintenance Manual (P/N DMAMMPXEE0) at revision 31 of November 2005 and TBM700 Maintenance Manual Supplement S02 (P/N DMAMMS02PEE0) at revision 0 of October 2010, or following revisions (including Airworthiness Limitations) must be utilised.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.010 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List (MMEL)

TBM700 A, B, C, N Master Minimum Equipment List (MMEL) at Revision 04 approved on 20 July 2020 or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.

VI. Notes

1. Modification MOD70-276-00 "G1000 Integrated Flight Deck –Retrofit program":

   It is a modification applicable to s/n 14 to 243, except to s/n 205 and 240. Airplanes to be retrofitted within the above range of serial numbers must install also Modification MOD70-158-28B (Fuel gauging amplifier).

2. Modification MOD70-0226-00 "Synthetic Vision System in GARMIN Integrated Flight Deck"(SVS):

   It is a modification applicable to s/n 14 to 243, except s/n 205 and 240, that is to say for TBM700 A and B airplanes equipped with Modification MOD70-0276-00.

3. Refer to Section 1 for general data.

Section 3 TBM700 B

I. General

1. Type / Variant or Model

d) Type: TBM700
e) Model: N/A
f) Variant B

2. Airworthiness Category

FAR-23 Normal Category

3. Manufacturer

COMPAGNIE DAHER

4. State of Design Authority

DGAC

5. State of Design Type Certification Application Date

16 June 1998

6. State of Design Authority Type Certificate Date

13 November 1998

7. State of Design Type Certificate Number

EASA.A.010 (replaced DGAC-France Type Certificate No.181)

8. UK CAA Type Validation Date

13 November 1998

9. Other Information

Eligible S/N: 126, 129, 137, plus 143 to 145, 148 to 204, 206 to 239 and 241 to 243

II. Certification Basis

1. Reference Date for determining the applicable requirements

31 October 1986

2. Airworthiness Requirements

FAR-23, Amendment 34, dated 01 January 1988.
FAR-23, Amendment 36, dated 14 September 1988 for Sections 23.783, 23.807 and 23.811.

3. Special Conditions

None.

4. Exemptions

None.

5. Deviations

None.

6. Equivalent Safety Findings

None.

7. Requirements Elected to Comply

None.

8. Environmental Protection Standards

Noise:

ICAO Annex 16 Volume I, 2nd Edition, Amendment 3, Chapter 10
(see TCDSN UK.TC.A.00048 for details)

FAR 36, Amendment 17, Appendix G

9. Operational Suitability Requirements

MMEL: JAR-MMEL/MEL Amendment 1 dated 1 August 2005

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

List of main drawings: T700 N°65/90 Ed.1 and up.

2. Description

Single-turbo-propeller engine, six to seven seats, low-wing airplane, aluminium and steel construction.

3. Equipment

Equipment list: See POH Sec 6.5.

4. Dimensions

Span:	12.680 m	(41.6 ft)
Length:	10.645 m	(34.9 ft)
Height:	4.355 m	(14.3 ft)
Wing Area:	18.00 m²	(193.7 ft²)

5. Engine

5.1 Model

Turbo generator Pratt & Whitney type PT6A-64

5.2 Type Certificate

CAA Type Certificate UK.TC.E.00035

5.3 Limitations

Gas generator rotation speed: 39,000 RPM (104.1%)
Propeller rotation speed: 2,000 RPM
Maximum take-off and continuous power: 700 shp
For power-plant limitations refer to POH, Section 2.3

6. Load Factors

Flaps up:	$-1.5 \leq n \leq +3.8$ g
Flaps down:	$-0 \leq n \leq +2.0$ g

7. Propeller

7.1 Model

Hartzell Propeller Inc. Type HC-E4N-3/E9083 S(K)

7.2 Type Certificate

FAA Type Certificate P10NE dated 2 August 2002
EASA.IM.P.133 dated 31 January 2000

7.3 Number of Blades

4

7.4 Diameter

Maximum Diameter:	2,311 mm / 91 in
Minimum Diameter:	2,286 mm / 90 in

7.5 Direction of Rotation

Propeller rotates Clockwise in view of flight direction

7.6 Pitch

Low Pitch:	21°
Feather:	86°
Reverse:	-11°

8. Fluids

8.1 Fuel

Jet A, Jet A1, Jet B, JP4, JP5, JP8, anti-ice additive according to the specification.MIL-I-27686 in the following proportions :
- Minimum content: 0.06% by volume
- Maximum content: 0.15% by volume

8.2 Oil

Refer to POH, Section 2.3.

8.3 Coolant

N/A

9. Fluid Capacities

9.1 Fuel

Two structural wing tanks:
Total capacity: 1,100 liters / 290.6 gal
Total usable capacity: 1,066 liters / 281.6 gal
Unusable quantity: 34 liters / 9 gal

9.2 Oil

Maximum: 12 liters / 12.7 qt
Minimum: 5.7 liters / 6 qt

9.3 Coolant System Capacity

None.

10. Airspeed Limits

V_{MO}	(Maximum operating speed)	270 KCAS
V_A	(Manoeuvring speed)	160 KCAS
V_{FE}	(Maximum flaps extended speed)	
	Landing configuration	120 KCAS
	Take off configuration	180 KCAS
V_{LO}	(Maximum landing gear operating speed)	
	Retraction	130 KCAS
	Extension	180 KCAS
V_{LE}	(Maximum landing gear extended speed)	180 KCAS

11. Flight Envelope

Airplane not equipped with OPT70-01-026	30,000 ft
Airplane equipped with OPT70-01-026	31,000 ft

12. Approved Operational Capability

Day & night VFR and day & night IFR operations when appropriate equipment is installed and operating correctly.
Refer to approved POH, Section 2.6

13. Maximum Certified Masses

Take-Off	2,984 kg (6,579 lbs)
Landing	2,835 kg (6,250 lbs)
Ramp	3,000 kg (6,614 lbs)

14. Centre of Gravity Range

From	To	Weight
4,604 mm (181.3 in) 14% of MAC	4,951 mm (194.9 in) 37 % of MAC	2,000 kg (4,409 lbs) or less
4,664 mm (183.6 in) 18% of MAC	4,951 mm (194.9 in) 37% of MAC	2,835 kg (6,250 lbs) or less
4,694 mm (184.8 in) 20% of MAC	4,936 mm (194.3 in) 36% of MAC	2,984 kg (6,579 lbs) or less

Straight line between points given
MAC: Mean Aerodynamic Chord

15. Datum

3000 mm (118.11 in.) ahead of front firewall face

16. Control surface deflections

Pitch Control

Elevator (Angles references: stabilator chord)	Nose-up attitude: Nose-down attitude:	30º ± 1.5º 10º ± 1º
Stabilator tab (elevator at 0º)	Nose-up attitude: Nose-down attitude:	15º ± 1º 20º ± 1º

Roll Control

Ailerons (Reference: wing chord)	up down	15º ± 1º 20º ± 1º
Spoiler (Reference: wing upper surface)	up down	58º + 2º / - 3° 20.5º + 1º /- 5°
Tab	up down	14º ± 1º 14º ± 1º

Yaw Control

Rudder (Reference: fin chord)	left turn right turn	26º ± 1º 35º ± 1.5º
Rudder tab (Reference: rudder chord)	left turn right turn	13.5° ± 1° 9.5° ± 1°

17. Levelling Means

Cabin floor mounting rails.

18. Minimum Flight Crew

One Pilot

19. Maximum Passenger Seating Capacity

a. Standard version: 5

b. 7 places accommodation (optional modification OPT70-25-002): 6

20. Baggage/ Cargo Compartment

Front baggage (not pressurized) 50 kg (110 lbs) at 3,250 mm (128.0 in)

a. Airplanes from S/N 1 to 23, 25, 28, 33 and 35, except airplanes equipped as a retrofit with modification MOD70-019-25 “improved upholstery”:

Rear baggage (in cabin) 100 kg (220 lbs) at 7,560 mm (297.6 in)

b. Airplanes S/N 24, 26, 27, 29 to 32, 34, 36 to 9999, plus airplanes equipped as a retrofit with modification MOD70-019-25 “improved upholstery”:

Rear baggage (in cabin) 100 kg (220 lbs) at 7,695 mm (303 in)

21. Wheels and Tyres

Nose Landing Gear Tyre:	5.00 x 5-6 PR
Main Landing Gear Tyre:	18 x 5.5-8 PR
Wheelbase:	2,910 mm (115 in)
Track:	3,880 mm (153 in)

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

DGAC/EASA approved Pilot Operating Handbook (POH):

- For TBM700 B variant, Pilot's Operating Handbook P/N DMAFM00EE0EN at revision 0 or later approved revision must be utilised.
  - For airplanes with optional modification OPT70-25-027 "Cargo Transportation Capability" installed, Pilot's Operating Handbook Supplement 30 P/N DMBFM30EE0EN at revision 2 or later approved revision must be utilised.
- For TBM700 A (from Serial number 14) and TBM700 B variants equipped with MOD70-0276-00 and MOD70-0158-28B (Fuel gauging amplifier), the Pilot's Operating Handbook P/N DMAFM00EE1EN edition 1 at revision 0 or later approved revision is required.
  - For airplanes with optional modification MOD70-0226-00 "Synthetic Vision System in GARMIN Integrated Flight Deck" (SVS) installed, Pilot's Operating Handbook Supplement 50 P/N DMNFM50EE0EN at revision 0 or later approved revision must be utilised.

2. Maintenance Manual

For TBM700 B variant, TBM700 Maintenance Manual (P/N DMAMMPXEE0) at revision 31 of November 2005, or following revisions (including Airworthiness Limitations) must be utilised.

For TBM700 A and TBM700 B variants from s/n 14 to 243, except s/n 205 and 240, equipped with MOD70-276-00 and MOD70-0158-28B, TBM700 Maintenance Manual (P/N DMAMMPXEE0) at revision 31 of November 2005 and TBM700 Maintenance Manual Supplement S02 (P/N DMAMMS02PEE0) at revision 0 of October 2010, or following revisions (including Airworthiness Limitations) must be utilised.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.010 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List (MMEL)

TBM700 A, B, C, N Master Minimum Equipment List (MMEL) at Revision 04 approved on 20 July 2020 or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.

VI. Notes

1. Modification MOD70-276-00 "G1000 Integrated Flight Deck –Retrofit program":

   It is a modification applicable to s/n 14 to 243, except to s/n 205 and 240. Airplanes to be retrofitted within the above range of serial numbers must install also Modification MOD70-158-28B (Fuel gauging amplifier).

2. Modification MOD70-0226-00 "SyntheticVision System in GARMIN Integrated Flight Deck"(SVS):

   It is a modification applicable to s/n 14 to 243, except s/n 205 and 240, that is to say for TBM700 A and B airplanes equipped with Modification MOD70-0276-00.

3. Refer to Section 1 for general data.

Section 4 TBM700 C1

I. General

1. Type / Variant or Model

a) Type: TBM700
b) Model: N/A
c) Variant C1

2. Airworthiness Category

FAR-23 Normal Category

3. Manufacturer

COMPAGNIE DAHER

4. State of Design Authority

DGAC

5. State of Design Type Certification Application Date

24 September 2002

6. State of Design Authority Type Certificate Date

03 December 2002

7. State of Design Type Certificate Number

EASA.A.010 (replaced DGAC-France Type Certificate No.181)

8. UK CAA Type Validation Date

03 December 2002

9. Other Information

Eligible S/N: 205, 240, plus 244 to 268 and 270 to 345

II. Certification Basis

1. Reference Date for determining the applicable requirements

31 October 1986

2. Airworthiness Requirements

FAR-23, Amendment 34, dated 01 January 1988.
FAR-23, Amendment 36, dated 14 September 1988 for Sections 23.783, 23.807 and 23.811.

3. Special Conditions

None.

4. Exemptions

None.

5. Deviations

None.

6. Equivalent Safety Findings

None.

7. Requirements Elected to Comply

None.

8. Environmental Protection Standards

Noise:

ICAO Annex 16 Volume I, 2nd Edition, Amendment 3, Chapter 10
(see TCDSN UK.TC.A.00048 for details)

FAR 36, Amendment 17, Appendix G

9. Operational Suitability Requirements

MMEL: JAR-MMEL/MEL Amendment 1 dated 1 August 2005

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

List of main drawings: T700 N°65/90 Ed.1 and up.

2. Description

Single-turbo-propeller engine, six to seven seats, low-wing airplane, aluminium and steel construction.

Modification MOD70-140-00 “Evolution TBM700 B to TBM700 C1” defines TM700 C1 variant and integrates various modifications such as rear unpressurised cargo compartment, reinforced structure, new air conditioning system…

3. Equipment

Equipment list: See POH Sec 6.5.

4. Dimensions

Span:	12.680 m	(41.6 ft)
Length:	10.645 m	(34.9 ft)
Height:	4.355 m	(14.3 ft)
Wing Area:	18.00 m²	(193.7 ft²)

5. Engine

5.1 Model

Turbo generator Pratt & Whitney type PT6A-64

5.2 Type Certificate

CAA Type Certificate UK.TC.E.00035

5.3 Limitations

Gas generator rotation speed: 39,000 RPM (104.1%)
Propeller rotation speed: 2,000 RPM
Maximum take-off and continuous power: 700 shp
For power-plant limitations refer to POH, Section 2.3

6. Load Factors

Flaps up:	-1.5 ≤ n ≤ + 3.8 g
Flaps down:	-0 ≤ n ≤ + 2.0 g

7. Propeller

7.1 Model

Hartzell Propeller Inc. Type HC-E4N-3/E9083 S(K)

7.2 Type Certificate

FAA Type Certificate P10NE dated 2 August 2002
EASA.IM.P.133 dated 31 January 2000

7.3 Number of Blades

4

7.4 Diameter

Maximum Diameter:	2,311 mm / 91 in
Minimum Diameter:	2,286 mm / 90 in

7.5 Direction of Rotation

Propeller rotates Clockwise in view of flight direction

7.6 Pitch

Low Pitch: 21°
Feather: 86°
Reverse: -11°

8. Fluids

8.1 Fuel

Jet A, Jet A1, Jet B, JP4, JP5, JP8, anti-ice additive according to the specification.MIL-I-27686 in the following proportions :
- Minimum content: 0.06% by volume
- Maximum content: 0.15% by volume

8.2 Oil

Refer to POH, Section 2.3.

8.3 Coolant

N/A

9. Fluid Capacities

9.1 Fuel

Two structural wing tanks:
Total capacity: 1,100 liters / 290.6 gal
Total usable capacity: 1,066 liters / 281.6 gal
Unusable quantity: 34 liters / 9 gal

9.2 Oil

Maximum: 12 liters / 12.7 qt
Minimum: 5.7 liters / 6 qt

9.3 Coolant System Capacity

None.

10. Airspeed Limits

V_{MO}	(Maximum operating speed)	270 KCAS
V_A	(Manoeuvring speed)	160 KCAS
V_{FE}	(Maximum flaps extended speed)	
	Landing configuration	120 KCAS
	Take off configuration	180 KCAS
V_{LO}	(Maximum landing gear operating speed)	
	Retraction	130 KCAS
	Extension	180 KCAS
V_{LE}	(Maximum landing gear extended speed)	180 KCAS

11. Flight Envelope

31,000 ft

12. Approved Operational Capability

Day & night VFR and day & night IFR operations when appropriate equipment is installed and operating correctly.
Refer to approved POH, Section 2.6

13. Maximum Certified Masses

Take-Off	2,984 kg (6,579 lbs)
Landing	2,835 kg (6,250 lbs)
Ramp	3,000 kg (6,614 lbs)

14. Centre of Gravity Range

From	To	Weight
4,604 mm (181.3 in) 14% of MAC	4,951 mm (194.9 in) 37 % of MAC	2,000 kg (4,409 lbs) or less
4,664 mm (183.6 in) 18% of MAC	4,951 mm (194.9 in) 37% of MAC	2,835 kg (6,250 lbs) or less
4,694 mm (184.8 in) 20% of MAC	4,936 mm (194.3 in) 36% of MAC	2,984 kg (6,579 lbs) or less

Straight line between points given
MAC: Mean Aerodynamic Chord

15. Datum

3,000 mm (118.11 in.) ahead of front firewall face

16. Control surface deflections

Pitch Control

Elevator (Angles references: stabilator chord)	Nose-up attitude: Nose-down attitude:	30º ± 1.5º 10º ± 1º
Stabilator tab (elevator at 0º)	Nose-up attitude: Nose-down attitude:	15º ± 1º 20º ± 1º

Roll Control

Ailerons (Reference: wing chord)	up down	15º ± 1º 20º ± 1º
Spoiler (Reference: wing upper surface)	up down	58º + 2º / - 3° 20.5º + 1º /- 5°
Tab	up down	14º ± 1º 14º ± 1º

Yaw Control

Rudder (Reference: fin chord)	left turn right turn	26º ± 1º 35º ± 1.5º
Rudder tab (Reference: rudder chord)	left turn right turn	13.5° ± 1° 9.5° ± 1°

17. Levelling Means

Cabin floor mounting rails.

18. Minimum Flight Crew

One Pilot

19. Maximum Passenger Seating Capacity

5

20. Baggage/ Cargo Compartment

Rear baggage (in cabin)	100 kg (220 lbs)	at 7,695 mm (303 in)
Rear compartment	35 kg (77 lbs)	at 8,366 mm (329.4 in)

21. Wheels and Tyres

Nose Landing Gear Tyre:	5.00 x 5-6 PR
Main Landing Gear Tyre:	18 x 5.5-8 PR: Airplane not equipped with optional modification OPT70-01-029 “Provision for TBM700 C2” 18 x 5.5-10 PR: TBM700 C2 and N variants and airplane equipped with optional modification OPT70-01-029 “Provision for TBM700 C2”
Wheelbase:	2,910 mm (115 in)
Track:	3,880 mm (153 in)

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

DGAC/EASA approved Pilot Operating Handbook (POH):

- For TBM700 C1 variant, the Pilot’s Operating Handbook P/N DMCFM00EE0EN at revision 2 or later approved revision is required.
  - For airplanes with optional modification OPT70-25-027 “Cargo Transportation Capability” installed, Pilot’s Operating Handbook Supplement 30 P/N DMAFM30EE0EN at revision 2 or later approved revision must be utilised.

2. Maintenance Manual

For TBM700 C variant, TBM700 Maintenance Manual (P/N DMAMMPXEE0) at revision 31 of November 2005, or following revisions (including Airworthiness Limitations) must be utilised.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.010 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List (MMEL)

TBM700 A, B, C, N Master Minimum Equipment List (MMEL) at Revision 04 approved on 20 July 2020 or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.

VI. Notes

1. Refer to Section 1 for general data.

Section 5 TBM700 C2

I. General

1. Type / Variant or Model

a) Type: TBM700
b) Model: N/A
c) Variant C2

2. Airworthiness Category

FAR-23 Normal Category

3. Manufacturer

COMPAGNIE DAHER

4. State of Design Authority

EASA

5. State of Design Type Certification Application Date

05 January 2004

6. State of Design Type Certificate Date

14 July 2004

7. State of Design Type Certificate number

EASA.A.010 (replaced DGAC-France Type Certificate No.181)

8. UK CAA Type Validation Date

14 July 2004

9. Other Information

Eligible S/N: 205, 240, plus 244 to 268 and 270 to 345

II. Certification Basis

1. Reference Date for determining the applicable requirements

05 January 2004

2. Airworthiness Requirements

As defined in CRI A-1, Issue 2:

FAR-23, Amendment 34, dated 01 January 1988

FAR-23, Amendment 36, dated 14 September 1988
Sections 23.783, 23.807 and 23.811

FAR-23, Amendment 44, dated 18 August 1993
Sections 23.49, 23.561, 23.562 and 23.785

3. Special Conditions

CRI B-1, Stalling speed exceeding 61 kts

4. Exemptions

None.

5. Deviations

None.

6. Equivalent Safety Findings

None.

7. Requirements Elected to Comply

None.

8. Environmental Protection Standards

Noise:

ICAO Annex 16 Volume I, 3rd Edition, Amendment 7, Chapter 10
(see TCDSN UK.TC.A.00048 for details)

FAR 36, Amendment 22, Appendix G

Prevention of intentional fuel venting:

FAR 34, Amendment 3

9. Operational Suitability Requirements

MMEL: JAR-MMEL/MEL Amendment 1 dated 1 August 2005

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

List of main drawings: T700 N°65/90 Ed.1 and up.

2. Description

Single-turbo-propeller engine, six to seven seats, low-wing airplane, aluminium and steel construction.

Modification MOD70-139-00 “Increased of TBM700 maximum take-offweight” defines TBM700 C2 variant and allows an extended MTOW compared to TBM700 C1 variant:

The retrofit is possible only for airplanes already equipped with Modification MOD70-140-00.

3. Equipment

Equipment list: See POH Sec 6.5.

4. Dimensions

Span:	12.680 m	(41.6 ft)
Length:	10.645 m	(34.9 ft)
Height:	4.355 m	(14.3 ft)
Wing Area:	18.00 m²	(193.7 ft²)

5. Engine

5.1 Model

Turbo generator Pratt & Whitney type PT6A-64

5.2 Type Certificate

CAA Type Certificate UK.TC.E.00035

5.3 Limitations

Gas generator rotation speed: 39,000 RPM (104.1%)
Propeller rotation speed: 2,000 RPM
Maximum take-off and continuous power: 700 shp
For power-plant limitations refer to POH, Section 2.3

6. Load Factors

Flaps up:	-1.5 ≤ n ≤ + 3.8 g
Flaps down:	-0 ≤ n ≤ + 2.0 g

7. Propeller

7.1 Model

Hartzell Propeller Inc. Type HC-E4N-3/E9083 S(K)

7.2 Type Certificate

FAA Type Certificate P10NE dated 2 August 2002
EASA.IM.P.133 dated 31 January 2000

7.3 Number of Blades

4

7.4 Diameter

Maximum Diameter:	2,311 mm / 91 in
Minimum Diameter:	2,286 mm / 90 in

7.5 Direction of Rotation

Propeller rotates Clockwise in view of flight direction

7.6 Pitch

Low Pitch: 21°
Feather: 86°
Reverse: -11°

8. Fluids

8.1 Fuel

Jet A, Jet A1, Jet B, JP4, JP5, JP8, anti-ice additive according to the specification.MIL-I-27686 in the following proportions :
- Minimum content: 0.06% by volume
- Maximum content: 0.15% by volume

8.2 Oil

Refer to POH, Section 2.3.

8.3 Coolant

N/A

9. Fluid Capacities

9.1 Fuel

Two structural wing tanks:
Total capacity: 1,100 liters / 290.6 gal
Total usable capacity: 1,066 liters / 281.6 gal
Unusable quantity: 34 liters / 9 gal

9.2 Oil

Maximum: 12 liters / 12.7 qt
Minimum: 5.7 liters / 6 qt

9.3 Coolant System Capacity

None.

10. Airspeed Limits

V_{MO}	(Maximum operating speed)	270 KCAS
V_A	(Manoeuvring speed)	160 KCAS
V_{FE}	(Maximum flaps extended speed)	
	Landing configuration	120 KCAS
	Take off configuration	180 KCAS
V_{LO}	(Maximum landing gear operating speed)	
	Retraction	130 KCAS
	Extension	180 KCAS
V_{LE}	(Maximum landing gear extended speed)	180 KCAS

11. Flight Envelope

31,000 ft

12. Approved Operational Capability

Day & night VFR and day & night IFR operations when appropriate equipment is installed and operating correctly.
Refer to approved POH, Section 2.6

13. Maximum Certified Masses

Take-Off 3,354 kg (7,394 lbs)

Landing 3,186 kg (7,024 lbs)

Ramp 3,370 kg (7,430 lbs)

14. Centre of Gravity Range

From	To	Weight up to
4,604 mm (181.3 in) 14% of MAC	4,951 mm (194.9 in) 37 % of MAC	2,000 kg (4,409 lbs)
4,664 mm (183.6 in) 18% of MAC	4,951 mm (194.9 in) 37% of MAC	2,835 kg (6,250 lbs)
4,707 mm (185.3 in) 20.85% of MAC	4,936 mm (194.3 in) 36% of MAC	2,984 kg (6,579 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,936 mm (194.3 in) 36% of MAC	3,186 kg (7,024 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,921 mm (193.74 in) 35% of MAC	3,354 kg (7,394 lbs)

Straight line between points given
MAC: Mean Aerodynamic Chord

15. Datum

3,000 mm (118.11 in.) ahead of front firewall face

16. Control surface deflections

Pitch Control

Elevator (Angles references: stabilator chord)	Nose-up attitude: Nose-down attitude:	30º ± 1.5º 10º ± 1º
Stabilator tab (elevator at 0º)	Nose-up attitude: Nose-down attitude:	15º ± 1º 20º ± 1º

Roll Control

Ailerons (Reference: wing chord)	up down	15º ± 1º 20º ± 1º
Spoiler (Reference: wing upper surface)	up down	58º + 2º / - 3° 20.5º + 1º /- 5°
Tab	up down	14º ± 1º 14º ± 1º

Yaw Control

Rudder (Reference: fin chord)	left turn right turn	26º ± 1º 35º ± 1.5º
Rudder tab (Reference: rudder chord)	left turn right turn	13.5° ± 1° 9.5° ± 1°

17. Levelling Means

Cabin floor mounting rails.

18. Minimum Flight Crew

One Pilot

19. Maximum Passenger Seating Capacity

5

20. Baggage/ Cargo Compartment

a. Airplanes equipped with partition net OPT70-25-026A:

Rear baggage (in cabin)	45 kg (100 lbs)	at 7,695 mm (303 in)
Rear compartment	35 kg (77 lbs)	at 8,366 mm (329.4 in)

b. Airplanes equipped with partition net OPT70-25-026B:

Rear baggage (in cabin)	100 kg (220 lbs)	at 7,695 mm (303 in)
Rear compartment	35 kg (77 lbs)	at 8,366 mm (329.4 in)

21. Wheels and Tyres

Nose Landing Gear Tyre:	5.00 x 5-6 PR
Main Landing Gear Tyre:	18 x 5.5-10 PR
Wheelbase:	2,910 mm (115 in)
Track:	3,880 mm (153 in)

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

DGAC/EASA approved Pilot Operating Handbook (POH):

- For TBM700 C2 variant, the TBM700 C1 Pilot's Operating Handbook P/N DMCFM00EE0EN at revision 2 or later revision and Pilot's Operating Handbook Supplement 41 "TBM 700C2" P/N DMCFM41EE0EN at revision 2 or later approved revision must be utilised.

2. Maintenance Manual

For TBM700 C variant, TBM700 Maintenance Manual (P/N DMAMMPXEE0) at revision 31 of November 2005, or following revisions (including Airworthiness Limitations) must be utilised.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.010 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List (MMEL)

TBM700 A, B, C, N Master Minimum Equipment List (MMEL) at Revision 04 approved on 20 July 2020 or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.

VI. Notes

1. Refer to Section 1 for general data.

Section 6 TBM700 N (Trade name “TBM 850”)

Trade name “TBM 850”

I. General

1. Type / Variant or Model

a) Type: TBM700
b) Model: N/A
c) Variant N

2. Airworthiness Category

FAR-23 Normal Category

3. Manufacturer

COMPAGNIE DAHER

4. State of Design Authority

EASA

5. State of Design Type Certification Application Date

06 July 2004

6. State of Design Type Certificate Date

28 November 2005

7. State of Design Type Certificate Number

EASA.A.010

8. UK CAA Type Validation Date

28 November 2005

9. Other Information

Eligible S/N: 346 to 433

II. Certification Basis

1. Reference Date for determining the applicable requirements

06 July 2004

2. Airworthiness Requirements

As defined in CRI A-1 (TBM700 C2), Issue 2:

FAR-23, Amendment 34, dated 01 January 1988

FAR-23, Amendment 36, dated 14 September 1988
Sections 23.783, 23.807 and 23.811

FAR-23, Amendment 44, dated 18 August 1993
Sections 23.49, 23.561, 23.562 and 23.785

3. Special Conditions

CRI B-1 (TBM700 C2), Stalling speed exceeding 61 kts

4. Exemptions

None.

5. Deviations

None.

6. Equivalent Safety Findings

None.

7. Requirements Elected to Comply

None.

8. Environmental Protection Standards

Noise:

ICAO Annex 16 Volume I, 4th Edition, Amendment 8, Chapter 10
(see TCDSN UK.TC.A.00048 for details)

FAR 36, Amendment 25, Appendix G

Prevention of intentional fuel venting:

ICAO Annex 16, Volume II, 2nd Edition, Amendment 4, Part II, Chapter 2

FAR 34, Amendment 3

9. Operational Suitability Requirements

MMEL: JAR-MMEL/MEL Amendment 1 dated 1 August 2005

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

List of main drawings: T700 N°65/90 Ed.1 and up.

2. Description

Single-turbo-propeller engine, six to seven seats, low-wing airplane, aluminium and steel construction.

Modification MOD70-0188-00 “TBM700 N – Increased of maximum cruise/climb power to 850 shp” defines TBM700 N variant.

It is a modification applicable from s/n 346. This modification allows a maximum continuous power of 850 shp for climb and cruise (flap retracted), and a maximum power of 700 shp identical to TBM700 A, B, C1 and C2 variants when flaps are extended.

3. Equipment

Equipment list: See POH Sec 6.5 and report ref. NAV No.34/90-RJ-App1.

4. Dimensions

Span:	12.680 m	(41.6 ft)
Length:	10.645 m	(34.9 ft)
Height:	4.355 m	(14.3 ft)
Wing Area:	18.00 m²	(193.7 ft²)

5. Engine

5.1 Model

Turbo generator Pratt & Whitney type PT6A-66D

5.2 Type Certificate

CAA Type Certificate UK.TC.E.00035

5.3 Limitations

Gas generator rotation speed: 39,000 RPM (104.1%)
Propeller rotation speed: 2,000 RPM
Maximum take-off and continuous power: 700 shp
Maximum continuous power: 850 shp
For power-plant limitations refer to POH, Section 2.3

6. Load Factors

Flaps up:

Weight below 6579 lbs (2984kg): $-1.5 \leq n \leq +3.8$ g

Weight above 6579 lbs (2984kg): $-1.5 \leq n \leq +3.5$ g

Flaps down: $-0 \leq n \leq +2.0$ g

7. Propeller

7.1 Model

Hartzell Propeller Inc. Type HC-E4N-3/E9083 S(K)

7.2 Type Certificate

FAA Type Certificate P10NE dated 2 August 2002
EASA.IM.P.133 dated 31 January 2000

7.3 Number of Blades

4

7.4 Diameter

Maximum Diameter: 2,311 mm / 91 in
Minimum Diameter: 2,286 mm / 90 in

7.5 Direction of Rotation

Propeller rotates Clockwise in view of flight direction

7.6 Pitch

Low Pitch: 21°
Feather: 86°
Reverse: -11°

8. Fluids

8.1 Fuel

Jet A, Jet A1, Jet B, JP4, JP5, JP8, anti-ice additive according to the specification.MIL-I-27686 in the following proportions :
- Minimum content: 0.06% by volume
- Maximum content: 0.15% by volume

8.2 Oil

Refer to POH, Section 2.3.

8.3 Coolant

N/A

9. Fluid Capacities

9.1 Fuel

Two structural wing tanks:
Total capacity: 1,100 liters / 290.6 gal
Total usable capacity: 1,066 liters / 281.6 gal
Unusable quantity: 34 liters / 9 gal

9.2 Oil

Maximum: 12 liters / 12.7 qt
Minimum: 5.7 liters / 6 qt

9.3 Coolant System Capacity

None.

10. Airspeed Limits

V_{MO}	(Maximum operating speed)	271 KCAS
V_A	(Manoeuvring speed)	160 KCAS
V_{FE}	(Maximum flaps extended speed)	
	Landing configuration	120 KCAS
	Take off configuration	180 KCAS
V_{LO}	(Maximum landing gear operating speed)	
	Retraction	130 KCAS
	Extension	180 KCAS
V_{LE}	(Maximum landing gear extended speed)	180 KCAS

11. Flight Envelope

31,000 ft

12. Approved Operational Capability

Day & night VFR and day & night IFR operations when appropriate equipment is installed and operating correctly.
Refer to approved POH, Section 2.6

13. Maximum Certified Masses

Take-Off	3,354 kg (7,394 lbs)
Landing	3,186 kg (7,024 lbs)
Ramp	3,370 kg (7,430 lbs)

14. Centre of Gravity Range

From	To	Weight up to
4,604 mm (181.3 in) 14% of MAC	4,951 mm (194.9 in) 37 % of MAC	2,000 kg (4,409 lbs)
4,664 mm (183.6 in) 18% of MAC	4,951 mm (194.9 in) 37% of MAC	2,835 kg (6,250 lbs)
4,707 mm (185.3 in) 20.85% of MAC	4,936 mm (194.3 in) 36% of MAC	2,984 kg (6,579 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,936 mm (194.3 in) 36% of MAC	3,186 kg (7,024 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,921 mm (193.74 in) 35% of MAC	3,354 kg (7,394 lbs)

Straight line between points given
MAC: Mean Aerodynamic Chord

15. Datum

3,000 mm (118.11 in.) ahead of front firewall face

16. Control surface deflections

Pitch Control

Elevator (Angles references: stabilator chord)	Nose-up attitude: Nose-down attitude:	30º ± 1.5º 10º ± 1º
Stabilator tab (elevator at 0º)	Nose-up attitude: Nose-down attitude:	15º ± 1º 20º ± 1º

Roll Control

Ailerons (Reference: wing chord)	up down	15º ± 1º 20º ± 1º
Spoiler (Reference: wing upper surface)	up down	58º + 2º / - 3° 20.5º + 1º /- 5°
Tab	up down	14º ± 1º 14º ± 1º

Yaw Control

Rudder (Reference: fin chord)	left turn right turn	26º ± 1º 35º ± 1.5º
Rudder tab (Reference: rudder chord)	left turn right turn	13.5° ± 1° 9.5° ± 1°

17. Levelling Means

Cabin floor mounting rails.

18. Minimum Flight Crew

One Pilot

19. Maximum Passenger Seating Capacity

5

20. Baggage/ Cargo Compartment

Rear baggage (in cabin)	100 kg (220 lbs)	at 7,695 mm (303 in)
Rear compartment	35 kg (77 lbs)	at 8,366 mm (329.4 in)

21. Wheels and Tyres

Nose Landing Gear Tyre:	5.00 x 5-6 PR
Main Landing Gear Tyre:	18 x 5.5-10 PR
Wheelbase:	2,910 mm (115 in)
Track:	3,880 mm (153 in)

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

DGAC/EASA approved Pilot Operating Handbook (POH):

- For TBM700 N variant up to S/N 433, the Pilot’s Operating Handbook P/N DMNFM00EE0EN edition 0 at revision 0 or later approved revision must be utilised.

2. Maintenance Manual

For TBM700 N variant up to S/N 433, TBM700 Maintenance Manual P/N DMAMMPXEE0 at revision 31 of November 2005, or following revisions (including Airworthiness Limitations) must be utilised.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.010 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List (MMEL)

TBM700 A, B, C, N Master Minimum Equipment List (MMEL) at Revision 04 approved on 20 July 2020 or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.

VI. Notes

1. Refer to Section 1 for general data.

Section 7 TBM700 N equipped with MOD70-0176-00 and MOD70-0211-57 (Trade name “TBM 850 G1000”)

Trade name “TBM 850 G1000”

I. General

1. Type / Variant or Model

a) Type: TBM700
b) Model: N/A
c) Variant N

2. Airworthiness Category

FAR-23 Normal Category

3. Manufacturer

COMPAGNIE DAHER

4. State of Design Authority

EASA

5. State of Design Type Certification Application Date

29 May 2006

6. State of Design Type Certificate Date

26 September 2007

7. State of Design Type Certificate Number

EASA.A.010

8. UK CAA Type Validation Date

26 September 2007

9. Other Information

Eligible S/N: 434 to 999, except 687

II. Certification Basis

1. Reference Date for determining the applicable requirements

29 May 2006

2. Airworthiness Requirements

FAR-23, Amendment 34, dated 01 January 1988

FAR-23, Amendment 36, dated 14 September 1988
Sections 23.783, 23.807 and 23.811

FAR-23, Amendment 44, dated 18 August 1993
Sections 23.49, 23.561, 23.562 and 23.785

And as defined in CRI A-01 (TBM700N Garmin G1000 Cockpit) Issue 2:
EASA CS-23, Initial issue, dated 14 November 2003
Sections 23.1309, 23.1311, 23.1321, 23.1331, 23.1353, 23.1357 and 23.1431

3. Special Conditions

CRI B-1 (TBM700 C2), Stalling speed exceeding 61 kts
CRI B-01, Human Factors in Integrated avionics systems, issue 2
CRI F-02, Protection from the IEL strikes, issue 2

4. Exemptions

None.

5. Deviations

None.

6. Equivalent Safety Findings

None.

7. Requirements Elected to Comply

None.

8. Environmental Protection Standards

Noise:

ICAO Annex 16 Volume I, 4th Edition, Amendment 8, Chapter 10
(see TCDSN UK.TC.A.00048 for details)

FAR 36, Amendment 25, Appendix G

Prevention of intentional fuel venting:

ICAO Annex 16, Volume II, 2nd Edition, Amendment 4, Part II, Chapter 2

FAR 34, Amendment 3

9. Operational Suitability Requirements

MMEL: JAR-MMEL/MEL Amendment 1 dated 1 August 2005

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

List of main drawings: T700 N°65/90 Ed.1 and up.

2. Description

Single-turbo-propeller engine, six to seven seats, low-wing airplane, aluminium and steel construction.

Introduction of Modifications MOD70-0176-00 (G1000 Integrated Flight Deck) and MOD70-0211-57 (Fuel Tank Extension) on TBM700 N variant.

3. Equipment

Equipment list: See POH Sec 6.5 and report ref. NAV No.34/90-RJ-App1.

4. Dimensions

Span:	12.680 m	(41.6 ft)
Length:	10.645 m	(34.9 ft)
Height:	4.355 m	(14.3 ft)
Wing Area:	18.00 m²	(193.7 ft²)

5. Engine

5.1 Model

Turbo generator Pratt & Whitney type PT6A-66D

5.2 Type Certificate

CAA Type Certificate UK.TC.E.00035

5.3 Limitations

Gas generator rotation speed: 39,000 RPM (104.1%)
Propeller rotation speed: 2,000 RPM
Maximum take-off and continuous power: 700 shp
Maximum continuous power: 850 shp
For power-plant limitations refer to POH, Section 2.3

6. Load Factors

Flaps up:

Weight below 6,579 lbs (2,984kg): $-1.5 \leq n \leq +3.8$ g

Weight above 6,579 lbs (2,984kg): $-1.5 \leq n \leq +3.5$ g

Flaps down: $-0 \leq n \leq +2.0$ g

7. Propeller

7.1 Model

Hartzell Propeller Inc. Type HC-E4N-3/E9083 S(K)

7.2 Type Certificate

FAA Type Certificate P10NE dated 2 August 2002
EASA.IM.P.133 dated 31 January 2000

7.3 Number of Blades

4

7.4 Diameter

Maximum Diameter: 2,311 mm / 91 in
Minimum Diameter: 2,286 mm / 90 in

7.5 Direction of Rotation

Propeller rotates Clockwise in view of flight direction

7.6 Pitch

Low Pitch: 21°
Feather: 86°
Reverse: -11°

8. Fluids

8.1 Fuel

Jet A, Jet A1, Jet B, JP4, JP5, JP8, anti-ice additive according to the specification.MIL-I-27686 in the following proportions :
- Minimum content: 0.06% by volume
- Maximum content: 0.15% by volume

8.2 Oil

Refer to POH, Section 2.3.

8.3 Coolant

N/A

9. Fluid Capacities

9.1 Fuel

Two structural wing tanks:
Total capacity: 1,140 liters / 301 gal
Total usable capacity: 1,106 liters / 292 gal
Unusable quantity: 34 liters / 9 gal

9.2 Oil

Maximum: 12 liters / 12.7 qt
Minimum: 5.7 liters / 6 qt

9.3 Coolant System Capacity

None.

10. Airspeed Limits

V_{MO}	(Maximum operating speed)	271 KCAS
V_A	(Manoeuvring speed)	160 KCAS
V_{FE}	(Maximum flaps extended speed)	
	Landing configuration	120 KCAS
	Take off configuration	180 KCAS
V_{LO}	(Maximum landing gear operating speed)	
	Retraction	130 KCAS
	Extension	180 KCAS
V_{LE}	(Maximum landing gear extended speed)	180 KCAS

11. Flight Envelope

31,000 ft

12. Approved Operational Capability

Day & night VFR and day & night IFR operations when appropriate equipment is installed and operating correctly.
Refer to approved POH, Section 2.6

13. Maximum Certified Masses

Take-Off 3,354 kg (7,394 lbs)

Landing 3,186 kg (7,024 lbs)

Ramp 3,370 kg (7,430 lbs)

14. Centre of Gravity Range

From	To	Weight up to
4,604 mm (181.3 in) 14% of MAC	4,951 mm (194.9 in) 37 % of MAC	2,000 kg (4,409 lbs)
4,664 mm (183.6 in) 18% of MAC	4,951 mm (194.9 in) 37% of MAC	2,835 kg (6,250 lbs)
4,707 mm (185.3 in) 20.85% of MAC	4,936 mm (194.3 in) 36% of MAC	2,984 kg (6,579 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,936 mm (194.3 in) 36% of MAC	3,186 kg (7,024 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,921 mm (193.74 in) 35% of MAC	3,354 kg (7,394 lbs)

Straight line between points given
MAC: Mean Aerodynamic Chord

15. Datum

3,000 mm (118.11 in.) ahead of front firewall face

16. Control surface deflections

Pitch Control

Elevator (Angles references: stabilator chord)	Nose-up attitude: Nose-down attitude:	30º ± 1.5º 10º ± 1º
Stabilator tab (elevator at 0º)	Nose-up attitude: Nose-down attitude:	15º ± 1º 20º ± 1º

Roll Control

Ailerons (Reference: wing chord)	up down	15º ± 1º 20º ± 1º
Spoiler (Reference: wing upper surface)	up down	58º + 2º / - 3° 20.5º + 1º /- 5°
Tab	up down	14º ± 1º 14º ± 1º

Yaw Control

Rudder (Reference: fin chord)	left turn right turn	26º ± 1º 35º ± 1.5º
Rudder tab (Reference: rudder chord)	left turn right turn	13.5° ± 1° 9.5° ± 1°

17. Levelling Means

Cabin floor mounting rails.

18. Minimum Flight Crew

One Pilot

19. Maximum Passenger Seating Capacity

5

20. Baggage/ Cargo Compartment

Front baggage (not pressurized)	50 kg (110 lbs)	at 3,250 mm (128.0 in)

a) Airplanes not equipped with optional modification MOD70-0315-25 or equipped with optional modification MOD70-0315-25* in 6-seat accommodation:

Rear baggage (in cabin)	100 kg (220 lbs)	at 7,560 mm (297.6 in)

b) Airplanes equipped with optional modification MOD70-0315-25 in 4-seat accommodation:

Rear baggage (in cabin)	80 kg (176 lbs)	at 6,586 mm (259.3 in)
	100 kg (220 lbs)	at 7,695 mm (303.0 in)

(*) Refer to Section 7.VI Notes.

21. Wheels and Tyres

Nose Landing Gear Tyre:	5.00 x 5-6 PR
Main Landing Gear Tyre:	18 x 5.5-10 PR
Wheelbase:	2,910 mm (115 in)
Track:	3,880 mm (153 in)

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

DGAC/EASA approved Pilot Operating Handbook (POH):

- For TBM700 N variant from S/N 434 up to S/N 999, except S/N 687, the Pilot’s Operating Handbook P/N DMNFM00EE1EN edition 1 at revision 0 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck” (SVS) installed, Pilot’s Operating Handbook Supplement 50 (P/N DMNFM50EE0EN) at revision 0 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0407-00 Version D “Aural alerts evolution and V15 Software for G1000 Integrated Flight Deck on TBM850/900” including ESP/USP option to G1000 system associated to Modification MOD70-0423-34 “SAFE FLIGHT Lift transducer and AoA computer installation installed, refer to Section 7.VI Notes.
    - For airplanes with optional modification MOD70-0505-25 “Cabinet installation: Lavatory compartment” installed, the Pilot’s Operating Handbook Supplement 63 Edition 3 (P/N DMNFM63EE3EN) at revision 3 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0510-27 “Stick shaker” installed, the Pilot’s Operating Handbook Supplement 64 Edition 0 (P/N DMNFM64EE0EN) at revision 0 or later approved revision must be utilised.

2. Maintenance Manual

For TBM700 N variant from S/N 434, TBM850 Maintenance Manual (P/N DMNMMPXEE0) edition 0 at revision 0, EASA approved on 26 September 2007 for MOD70-0176-00 and 6 July 2007 for MOD70-0211-57 or following revisions (including Airworthiness Limitations) must be utilised.

NOTE: From Revision 11 TBM850 Maintenance Manual becomes TBM Maintenance Manual keeping the same reference number.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.010 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List (MMEL)

TBM700 A, B, C, N Master Minimum Equipment List (MMEL) at Revision 04 approved on 20 July 2020 or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.

VI. Notes

1. Modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck” (SVS):

   It is a modification applicable to s/n 434-9999, that is to say for TBM700 N airplanes equipped with Modification MOD70-0176-00.

2. Optional modification MOD70-0315-25 “Cabin multi-configuration”:

   It is a modification applicable to s/n 639-9999, that is to say for TBM700 N airplanes equipped with Modifications MOD70-0316-25 Provisions for cabin multi-configuration and MOD70-0336-26 Relocation of fire extinguisher.

3. Optional modification MOD70-0407-00 Version D “Aural alerts evolution and V15 Software for G1000 Integrated Flight Deck on TBM850/900” including ESP/USP option to G1000 system:

   It is a modification applicable as a retrofit to s/n 434-684. For airplanes with optional modification MOD70-0407-00 Version D “Aural alerts evolution and V15 Software for G1000 Integrated Flight Deck on TBM850/900” including ESP/USP option to G1000 system associated to Modification MOD70-0423-34 “SAFE FLIGHT Lift transducer and AoA computer installation installed:

   - Pilot’s Operating Handbook P/N DMNFM00EE1EN edition 1 at revision 12 or later approved revision, and
   - Pilot’s Operating Handbook Supplement 62 Edition 1 (P/N DMNFM62EE1EN) at revision 1 or later approved revision must be utilised.

4. Optional modification MOD70-0505-25 Version C “Cabinet installation: Lavatory compartment”:

   It is a modification applicable to s/n 609-9999, for TBM700 N airplanes equipped with Modification MOD70-0315-25.

5. Optional modification MOD70-0510-27 “Stick shaker”.

   It is a modification applicable as a retrofit to s/n 434-684.

6. Refer to Section 1 for general data.

Section 8 TBM700 N equipped with MOD70-0176-00, -0211-57, -0234-24, -0322-00, -0323-71, -0324-00, -0325-21 and -0357-71 (Trade name “TBM 900”)

Trade name “TBM 900”

I. General

1. Type / Variant or Model

a) Type: TBM700
b) Model: N/A
c) Variant N

2. Airworthiness Category

FAR-23 Normal Category

3. Manufacturer

COMPAGNIE DAHER

4. State of Design Authority

EASA

5. State of Design Type Certification Application Date

13 May 2011

6. State of Design Type Certificate Date

02 December 2013

7. State of Design Type Certificate Number

EASA.A.010

8. UK CAA Type Validation Date

02 December 2013

9. Other Information

Eligible S/N: From 1000 to 1169, plus 687

II. Certification Basis

1. Reference Date for determining the applicable requirements

13 May 2011

2. Airworthiness Requirements

FAR-23, Amendment 34, dated 01 January 1988

FAR-23, Amendment 36, dated 14 September 1988
Sections 23.783, 23.807 and 23.811

FAR-23, Amendment 44, dated 18 August 1993
Sections 23.49, 23.561, 23.562 and 23.785

And as defined in CRI A-01 (TBM700N Garmin G1000 Cockpit) Issue 2:
EASA CS-23, Initial issue, dated 14 November 2003
Sections 23.1309, 23.1311, 23.1321, 23.1331, 23.1353, 23.1357 and 23.1431

3. Special Conditions

CRI B-1 (TBM700 C2), Stalling speed exceeding 61 kts

CRIs valid for TBM700N variant equipped with MOD70-0176-00:
- CRI B-01, Human Factors in Integrated avionics systems, issue 2
- CRI F-02, Protection from the IEL strikes, issue 2

CRI valid for TBM700N variant equipped with MOD70-0234-24:
- CRI F-52, Protection from effects of HIRF, Issue 4

CRI valid for TBM700N variant equipped with MOD70-0322-00:
- CRI C-101, load requirement for justification of winglets structural loads, issue 4

CRI valid for TBM700N variant equipped with optional MOD70-0407-00 Version C (refer to Section 8.VI):
- CRI F-14, Electronic Stability and Protection (ESP) and Underspeed Protection (USP)

4. Exemptions

None.

5. Deviations

None.

6. Equivalent Safety Findings

ELOS valid for TBM700N equipped with MOD70-0324-00:
- CRI D-101 – cockpit control location and shape – powerplant control, Issue 4.

7. Requirements Elected to Comply

None.

8. Environmental Protection Standards

Noise:

ICAO Annex 16 Volume I, 4th Edition, Amendment 8, Chapter 10
(see TCDSN UK.TC.A.00048 for details)

FAR 36, Amendment 28, Appendix G

Prevention of intentional fuel venting:

ICAO Annex 16, Volume II, 2nd Edition, Amendment 4, Part II, Chapter 2

FAR 34, Amendment 3

9. Operational Suitability Requirements

MMEL: JAR-MMEL/MEL Amendment 1 dated 1 August 2005

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

List of main drawings: T700 N°65/90 Ed.1 and up.

2. Description

Single-turbo-propeller engine, six to seven seats, low-wing airplane, aluminium and steel construction.

Introduction of Modifications:

- MOD70-0234-24 (new electrical generation and primary distribution),
- MOD70-0322-00 (Aerodynamic efficiency Improvement),
- MOD70-0323-71 (Propulsion efficiency Improvement),
- MOD70-0324-00 (Human Machine interface improvement),
- MOD70-0325-21 (Cabin comfort Improvement),
- MOD70-0357-71 (Take-off and landing operation at 850 SHP)

These modifications are applicable to TBM700 N variant equipped with MOD70-0176-00 (G1000 Integrated Flight Deck) and MOD70-0211-57 (Fuel Tank Extension) from s/n 1000, plus s/n 687.

3. Equipment

Equipment list: See POH Sec 6.4, 6.5 and report ref. NAV No.34/90-RJ-App2 up to s/n 1049 or NAV No.34/90-RJ-App3 from s/n 1050.

4. Dimensions

Span:	12.833 m	(42.1 ft)
Length:	10.736 m	(35.2 ft)
Height:	4.355 m	(14.3 ft)
Wing Area:	18.00 m²	(193.7 ft²)

5. Engine

5.1 Model

Turbo generator Pratt & Whitney type PT6A-66D

5.2 Type Certificate

CAA Type Certificate UK.TC.E.00035

5.3 Limitations

Gas generator rotation speed: 39,000 RPM (104.1%)
Propeller rotation speed: 2,000 RPM
Maximum take-off and continuous power: 850 shp
For power-plant limitations refer to POH, Section 2.3

6. Load Factors

Flaps up:

Weight below 6,579 lbs (2,984kg): $-1.5 \leq n \leq +3.8$ g

Weight above 6,579 lbs (2,984kg): $-1.5 \leq n \leq +3.5$ g

Flaps down: $-0 \leq n \leq +2.0$ g

7. Propeller

7.1 Model

Hartzell Propeller Inc. Type HC-E4N-3/E9083 S(K) or

Hartzell Propeller Inc. Type HC-E5N-3C/NC8834 K (if installed according to optional modification MOD70-0345-61 - Refer to paragraph Section 8.VI – Note 2)

7.2 Type Certificate

FAA Type Certificate P10NE dated 2 August 2002
EASA.IM.P.133 dated 31 January 2000

or

FAA Type certificate P20NE dated 18 June 1996
EASA.IM.P.125 dated 24 September 2013

7.3 Number of Blades

4 or 5

7.4 Diameter

Maximum Diameter: 2311 mm / 91 in
Minimum Diameter: 2286 mm / 90 in

or

with modification MOD70-0345-61 - Refer to Section 8.VI

7.5 Direction of Rotation

Propeller rotates Clockwise in view of flight direction

7.6 Pitch

Low Pitch: 21°
Feather: 86°
Reverse: -11°
or

with modification MOD70-0345-61 - Refer to Section 8.VI

8. Fluids

8.1 Fuel

Jet A, Jet A1, Jet B, JP4, JP5, JP8, anti-ice additive according to the specification.MIL-I-27686 in the following proportions :
- Minimum content: 0.06% by volume
- Maximum content: 0.15% by volume

8.2 Oil

Refer to POH, Section 2.3.

8.3 Coolant

N/A

9. Fluid Capacities

9.1 Fuel

Two structural wing tanks:
Total capacity: 1,140 liters / 301 gal
Total usable capacity: 1,106 liters / 292 gal
Unusable quantity: 34 liters / 9 gal

9.2 Oil

Maximum: 12 liters / 12.7 qt
Minimum: 5.7 liters / 6 qt

9.3 Coolant System Capacity

None.

10. Airspeed Limits

V_{MO}	(Maximum operating speed)	271 KCAS
V_A	(Manoeuvring speed)	160 KCAS
V_{FE}	(Maximum flaps extended speed)	
	Landing configuration	120 KCAS
	Take off configuration	180 KCAS
V_{LO}	(Maximum landing gear operating speed)	
	Retraction	151 KCAS
	Extension	180 KCAS
V_{LE}	(Maximum landing gear extended speed)	180 KCAS

11. Flight Envelope

31,000 ft

12. Approved Operational Capability

Day & night VFR and day & night IFR operations when appropriate equipment is installed and operating correctly.
Refer to approved POH, Section 2.6

13. Maximum Certified Masses

Take-Off	3,354 kg (7,394 lbs)
Landing	3,186 kg (7,024 lbs)
Ramp	3,370 kg (7,430 lbs)

14. Centre of Gravity Range

From	To	Weight up to
4,604 mm (181.3 in) 14% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,000 kg (4,409 lbs)
4,664 mm (183.6 in) 18% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,835 kg (6,250 lbs)
4,707 mm (185.3 in) 20.85% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,984 kg (6,579 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,927 mm (193.97 in) 35.4 % of MAC	3,186 kg (7,024 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,921 mm (193.74 in) 35% of MAC	3,354 kg (7,394 lbs)

Straight line between points given
MAC: Mean Aerodynamic Chord

15. Datum

3,000 mm (118.11 in.) ahead of front firewall face

16. Control surface deflections

Pitch Control

Elevator (Angles references: stabilator chord)	Nose-up attitude: Nose-down attitude:	30º ± 1.5º 10º ± 1º
Stabilator tab (elevator at 0º)	Nose-up attitude: Nose-down attitude:	15º ± 1º 20º ± 1º

Roll Control

Ailerons (Reference: wing chord)	up down	15º ± 1º 20º ± 1º
Spoiler (Reference: wing upper surface)	up down	58º + 2º / - 3° 20.5º + 1º /- 5°
Tab	up down	14º ± 1º 14º ± 1º

Yaw Control

Rudder (Reference: fin chord)	left turn right turn	26º ± 1º 35º ± 1.5º
Rudder tab (Reference: rudder chord)	left turn right turn	13.5° ± 1° 9.5° ± 1°

17. Levelling Means

Cabin floor mounting rails.

18. Minimum Flight Crew

One Pilot

19. Maximum Passenger Seating Capacity

5

20. Baggage/ Cargo Compartment

Front baggage (not pressurized)	50 kg (110 lbs)	at 3,250 mm (128.0 in)
6-seat accommodation:		
Rear baggage (in cabin)	100 kg (220 lbs)	at 7,560 mm (297.6 in)
4-seat accommodation:		
Rear baggage (in cabin)	80 kg (176 lbs)	at 6,586 mm (259.3 in)
	100 kg (220 lbs)	at 7,695 mm (303.0 in)

21. Wheels and Tyres

Nose Landing Gear Tyre:	5.00 x 5-6 PR
Main Landing Gear Tyre:	18 x 5.5-10 PR
Wheelbase:	2,910 mm (115 in)
Track:	3,880 mm (153 in)

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

DGAC/EASA approved Pilot Operating Handbook (POH):

- For TBM700 N variant from S/N 1000 up to S/N 1049, plus S/N 687, the Pilot’s Operating Handbook P/N DMHFM00EE0EN edition 0 at revision 1 or later approved revision must be utilised (Refer to Section 8.VI Note 3) and:
    - For airplanes with optional modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck” (SVS) installed, Pilot’s Operating Handbook Supplement 50 P/N DMHFM50EE1EN edition 1 at revision 0 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0345-61 “Installation of a 5-blade propeller” installed, Pilot’s Operating Handbook Supplement 58 P/N DMHFM58EE0EN at revision 0 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0407-00 “Aural alerts evolution and V15 Software for G1000 Integrated Flight Deck on TBM850/900” including ESP/USP option to G1000 system associated to Modification MOD70-0423-34 “SAFE FLIGHT Lift transducer and AoA computer installation installed, refer to Section 8.VI.
    - For airplanes with optional modification MOD70-0505-25 Version C “Cabinet installation: Lavatory compartment” installed, Pilot’s Operating Handbook Supplement 58 P/N DMJFM63EE1EN at revision 2 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0510-27 “Stick shaker” installed, refer to Section 8.VI.
- For TBM700 N variant from S/N 1050, the Pilot’s Operating Handbook P/N DMHFM00EE1EN edition 1 at revision 0 or later approved revision must be utilised (Refer to Section 8.VI Note 3) and:
    - For airplanes with optional modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck” (SVS) installed, Pilot’s Operating Handbook Supplement 50 P/N DMHFM50EE1EN edition 1 at revision 0 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0407-00 “Aural alerts evolution and V15 Software for G1000 Integrated Flight Deck on TBM850/900” including ESP/USP option to G1000 system associated to Modification MOD70-0423-34 “SAFE FLIGHT Lift transducer and AoA computer installation” installed, refer to Section 8.VI.
    - For airplanes with optional modification MOD70-0510-27 “Stick shaker” installed, refer to Section 8.VI.

2. Maintenance Manual

For TBM700 N variant from S/N 1000, plus S/N 687, TBM Maintenance Manual (P/N DMNMMPXEE0) edition 0 at revision 11 or following revisions (including Airworthiness Limitations) must be utilised.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.010 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List (MMEL)

TBM700 A, B, C, N Master Minimum Equipment List (MMEL) at Revision 04 approved on 20 July 2020 or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.

VI. Notes

1. Modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck” (SVS):

   It is a modification applicable to s/n 434-9999, that is to say for TBM700 N airplanes equipped with Modification MOD70-0176-00.

2. Optional modification MOD70-0345-61 (Installation of a 5-blade propeller):

   It is a modification applicable from s/n 1000, plus to s/n 687.

   Characteristics:

Manufacturer:	Hartzell Propeller Inc.	
Type Certificate:	FAA Type Certificate P20NE dated 18 June 1996 EASA IM.P.125 dated 24 September 2013	
Type:	HC-E5N-3C / NC8834 K	
Blades:	5	
Diameter:	Not over 91 in., not under 90 in.	
Pitch setting at 30 in., sta.:	Low	19.5º
	Feather	85º
	Reverse	- 9º

3. Optional modification MOD70-0407-00 (Aural alerts evolution and V15 Software for G1000 Integrated Flight Deck on TBM850/900) including ESP/USP option to G1000 system associated to Modification MOD70-0423-34 (SAFE FLIGHT Lift transducer and AoA computer installation):

   It is a modification applicable according to installed version:

   Version C (series equipment):

   - from S/N 1106, equipped with MOD70-0176-00 (G1000 Integrated Flight Deck),
     - Pilot’s Operating Handbook P/N DMHFM00EE1EN edition 1 at revision 2 or later approved revision must be utilised.

   Version D (optional equipment):

   - as a retrofit from S/N 1000 to S/N 1049, plus S/N 687, equipped with MOD70-0176-00 (G1000 Integrated Flight Deck),
     - Pilot’s Operating Handbook P/N DMHFM00EE0EN edition 0 at revision 3 or later approved revision and
     - Pilot’s Operating Handbook Supplement 62 Edition 0 (P/N DMHFM62EE0EN) at revision 2 or later approved revision

     must be utilised.
   - as a retrofit from S/N 1050 to S/N 1105, equipped with MOD70-0176-00 (G1000 Integrated Flight Deck),
     - Pilot’s Operating Handbook P/N DMHFM00EE1EN edition 1 at revision 2 or later approved revision must be utilised.

4. Modification MOD70-0439-79 (Oil pressure limits change):

   It is a modification applicable from s/n 1000, plus s/n 687.

   Characteristics:

   Version A: applicable on airplanes not equipped with MOD70-0440-72 (New torque indicating engine piston) up to s/n 1049

   Version B: applicable on airplanes equipped with MOD70-0440-72 (New torque indicating engine piston) from s/n 1050

5. Optional modification MOD70-0505-25 Version C “Cabinet installation: Lavatory compartment”:

   It is a modification applicable to s/n 609-9999, for TBM700 N airplanes equipped with Modification MOD70-0315-25.

6. Optional modification MOD70-0510-27 “Stick shaker”.

   It is a modification applicable:
   - as a retrofit to s/n 1000-1110, plus s/n 687, equipped with MOD70-0176-00 (G1000 Integrated Flight Deck),
     - Pilot’s Operating Handbook Supplement 64 Edition 1 (P/N DMHFM64EE1EN) at revision 0 or later approved revision must be utilised
   - as a series equipment from S/N 1111, equipped with MOD70-0176-00 (G1000 Integrated Flight Deck),
     - Pilot’s Operating Handbook P/N DMHFM00EE1EN edition 1 at revision 2 or later approved revision must be utilised. It is a modification applicable as a retrofit to s/n 434-684.

7. Refer to Section 1 for general data.

Section 9 TBM700 N equipped with MOD70-0476-00, -0211-57, -0234-24, -0322-00, -0323-71, -0324-00, -0325-21, -0357-71, -0439-79, -0423-34 and -0462-34 (Trade name “TBM 930”)

Trade name “TBM 930”

I. General

1. Type / Variant or Model

a) Type: TBM700
b) Model: N/A
c) Variant N

2. Airworthiness Category

FAR-23 Normal Category

3. Manufacturer

COMPAGNIE DAHER

4. State of Design Authority

EASA

5. State of Design Type Certification Application Date

24 March 2015

6. State of Design Type Certificate Date

18 February 2016

7. State of Design Type Certificate Number

EASA.A.010

8. UK CAA Type Validation Date

18 February 2016

9. Other Information

Eligible S/N: From 1111 to 1215

II. Certification Basis

1. Reference Date for determining the applicable requirements

24 March 2015

2. Airworthiness Requirements

FAR-23, Amendment 34, dated 01 January 1988

FAR-23, Amendment 36, dated 14 September 1988
Sections 23.783, 23.807 and 23.811

FAR-23, Amendment 44, dated 18 August 1993
Sections 23.49, 23.561, 23.562 and 23.785

And as defined in CRI A-01 (TBM700N Garmin G1000 Cockpit) Issue 2:
EASA CS-23, Initial issue, dated 14 November 2003
Sections 23.1309, 23.1311, 23.1321, 23.1331, 23.1353, 23.1357 and 23.1431

And CS-ACNS Initial issue for communication, navigation, surveillance, TAWS and RVSM functions (TBM700N equipped with MOD70-0476-00)

3. Special Conditions

CRI B-1 (TBM700 C2), Stalling speed exceeding 61 kts

CRIs valid for TBM700N variant equipped with MOD70-0176-00 or MOD70-0476-00:
- CRI B-01, Human Factors in Integrated avionics systems, issue 2
- CRI F-02, Protection from the IEL strikes, issue 4

CRI valid for TBM700N variant equipped with MOD70-0234-24:
- CRI F-52, Protection from effects of HIRF, Issue 4

CRI valid for TBM700N variant equipped with MOD70-0322-00:
- CRI C-101, load requirement for justification of winglets structural loads, issue 4

CRI valid for TBM700N variant equipped with optional MOD70-0476-00 Version C:
- CRI F-14, Electronic Stability and Protection (ESP) and Underspeed Protection (USP)

CRI valid for TBM700N variant equipped with optional MOD70-0388-25 (refer to Section 9.VI):
- CRI D-54, Installation of Inflatable Seat Restraints

4. Exemptions

None.

5. Deviations

None.

6. Equivalent Safety Findings

ELOS valid for TBM700N equipped with MOD70-0324-00:
- CRI D-101 – cockpit control location and shape – powerplant control, Issue 4.

7. Requirements Elected to Comply

Elect to comply with CS 23, Initial issue, dated 14-Nov-2003

Sections 23.201, 23.203 and 23.207

valid for TBM700N equipped with MOD70-0423-34 (Safe Flight: Lift transducer and AOA computer installation).

8. Environmental Protection Standards

Noise:

ICAO Annex 16 Volume I, 4th Edition, Amendment 8, Chapter 10
(see TCDSN UK.TC.A.00048 for details)

FAR 36, Amendment 28, Appendix G

Prevention of intentional fuel venting:

ICAO Annex 16, Volume II, 2nd Edition, Amendment 4, Part II, Chapter 2

FAR 34, Amendment 3

9. Operational Suitability Requirements

MMEL: JAR-MMEL/MEL Amendment 1 dated 1 August 2005

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

List of main drawings: T700 N°65/90 Ed.1 and up.

2. Description

Single-turbo-propeller engine, six to seven seats, low-wing airplane, aluminium and steel construction.

Introduction of Modifications:

- MOD70-0462-34 (Standby Altitude module MD302),
- MOD70-0539-00 Versions A & B (G1000 Nxi Integrated Flight Deck)

These modifications are applicable to TBM700 N variant equipped with:

- MOD70-0176- 00 (G1000 Integrated Flight Deck),
- MOD70-0211-57 (Fuel Tank Extension),
- MOD70-0322-00 (Aerodynamic efficiency Improvement),
- MOD70-0323-71 (Propulsion Efficiency Improvement),
- MOD70-0324-00 (Human Machine interface improvement),
- MOD70-0325-21 (Cabin comfort Improvement),
- MOD70-0357-71 (Take-off and landing operation at 850 SHP),
- MOD70-0439-79 (Oil pressure limits change) and
- MOD70-0423-34 (Safe Flight: Lift transducer and AOA computer installation) associated to MOD70-0407-00 (Aural Alert Evolution and V15 Software for G1000 Integrated Flight Deck on TBM850/900 including ESP/USP option)

3. Equipment

Equipment list: See POH Sec 6.4, 6.5 and and report ref. NAV No.34/90-RJ-App 5 from s/n 1170.

4. Dimensions

Span:	12.833 m	(42.1 ft)
Length:	10.736 m	(35.2 ft)
Height:	4.355 m	(14.3 ft)
Wing Area:	18.00 m²	(193.7 ft²)

5. Engine

5.1 Model

Turbo generator Pratt & Whitney type PT6A-66D

5.2 Type Certificate

CAA Type Certificate UK.TC.E.00035

5.3 Limitations

Gas generator rotation speed: 39,000 RPM (104.1%)
Propeller rotation speed: 2,000 RPM
Maximum take-off and continuous power: 850 shp
For power-plant limitations refer to POH, Section 2.3.

6. Load Factors

Flaps up:

Weight below 6579 lbs (2984kg):	$-1.5 \leq n \leq +3.8$ g
Weight above 6579 lbs (2984kg):	$-1.5 \leq n \leq +3.5$ g
Flaps down:	$-0 \leq n \leq +2.0$ g

7. Propeller

7.1 Model

Hartzell Propeller Inc. Type HC-E4N-3/E9083 S(K) or

Hartzell Propeller Inc. Type HC-E5N-3C/NC8834 K (if installed according to optional modification MOD70-0345-61 - Refer to paragraph Section 9.VI)

7.2 Type Certificate

FAA Type Certificate P10NE dated 2 August 2002
EASA.IM.P.133 dated 31 January 2000

or

FAA Type certificate P20NE dated 18 June 1996
EASA IM.P.125 dated 24 September 2013 (with modification MOD70-0345-61 - Refer to Section 9.VI)

7.3 Number of Blades

4 or 5

7.4 Diameter

Maximum Diameter: 2,311 mm / 91 in
Minimum Diameter: 2,286 mm / 90 in

or

with modification MOD70-0345-61 - Refer to Section 9.VI

7.5 Direction of Rotation

Propeller rotates Clockwise in view of flight direction

7.6 Pitch

Low Pitch: 21°
Feather: 86°
Reverse: -11°
or

with modification MOD70-0345-61 - Refer to Section 9.VI

8. Fluids

8.1 Fuel

Jet A, Jet A1, Jet B, JP4, JP5, JP8, anti-ice additive according to the specification.MIL-I-27686 in the following proportions :
- Minimum content: 0.06% by volume
- Maximum content: 0.15% by volume

8.2 Oil

Refer to POH, Section 2.3.

8.3 Coolant

N/A

9. Fluid Capacities

9.1 Fuel

Two structural wing tanks:
Total capacity: 1,140 liters / 301 gal
Total usable capacity: 1,106 liters / 292 gal
Unusable quantity: 34 liters / 9 gal

9.2 Oil

Maximum: 12 liters / 12.7 qt
Minimum: 5.7 liters / 6 qt

9.3 Coolant System Capacity

None.

10. Airspeed Limits

V_{MO}	(Maximum operating speed)	271 KCAS
V_A	(Manoeuvring speed)	160 KCAS
V_{FE}	(Maximum flaps extended speed)	
	Landing configuration	120 KCAS
	Take off configuration	180 KCAS
V_{LO}	(Maximum landing gear operating speed)	
	Retraction	151 KCAS
	Extension	180 KCAS
V_{LE}	(Maximum landing gear extended speed)	180 KCAS

11. Flight Envelope

31,000 ft

12. Approved Operational Capability

Day & night VFR and day & night IFR operations when appropriate equipment is installed and operating correctly.
Refer to approved POH, Section 2.6

13. Maximum Certified Masses

Take-Off	3,354 kg (7,394 lbs)
Landing	3,186 kg (7,024 lbs)
Ramp	3,370 kg (7,430 lbs)

14. Centre of Gravity Range

From	To	Weight up to
4,604 mm (181.3 in) 14% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,000 kg (4,409 lbs)
4,664 mm (183.6 in) 18% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,835 kg (6,250 lbs)
4,707 mm (185.3 in) 20.85% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,984 kg (6,579 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,927 mm (193.97 in) 35.4 % of MAC	3,186 kg (7,024 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,921 mm (193.74 in) 35% of MAC	3,354 kg (7,394 lbs)

Straight line between points given
MAC: Mean Aerodynamic Chord

15. Datum

3,000 mm (118.11 in.) ahead of front firewall face

16. Control surface deflections

Pitch Control

Elevator (Angles references: stabilator chord)	Nose-up attitude:	30º ± 1.5º
	Nose-down attitude:	10º ± 1º
Stabilator tab (elevator at 0º)	Nose-up attitude:	15º ± 1º
	Nose-down attitude:	20º ± 1º

Roll Control

Ailerons (Reference: wing chord)	up	15º ± 1º
	down	20º ± 1º
Spoiler (Reference: wing upper surface)	up	58º + 2º / - 3°
	down	20.5º + 1º /- 5°
Tab	up	14º ± 1º
	down	14º ± 1º

Yaw Control

Rudder (Reference: fin chord)	left turn	26º ± 1º
	right turn	35º ± 1.5º
Rudder tab (Reference: rudder chord)	left turn	13.5° ± 1°
	right turn	9.5° ± 1°

17. Levelling Means

Cabin floor mounting rails.

18. Minimum Flight Crew

One Pilot

19. Maximum Passenger Seating Capacity

5

20. Baggage/ Cargo Compartment

Front baggage (not pressurized)	50 kg (110 lbs)	at 3,250 mm (128.0 in)
6-seat accommodation:		
Rear baggage (in cabin)	100 kg (220 lbs)	at 7,560 mm (297.6 in)
4-seat accommodation:		
Rear baggage (in cabin)	80 kg (176 lbs)	at 6,586 mm (259.3 in)
	100 kg (220 lbs)	at 7,695 mm (303.0 in)

21. Wheels and Tyres

Nose Landing Gear Tyre:	5.00 x 5-6 PR
Main Landing Gear Tyre:	18 x 5.5-10 PR
Wheelbase:	2,910 mm (115 in)
Track:	3,880 mm (153 in)

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

DGAC/EASA approved Pilot Operating Handbook (POH):

- For TBM700 N variant from S/N 1170, airplanes equipped with modification MOD70-0539-00, the Pilot’s Operating Handbook P/N DMDFM00EE0EN edition 0 at revision 0 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck“ (SVS) installed, Pilot’s Operating Handbook Supplement 50 P/N DMHFM50EE2EN edition 2 at revision 1 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0505-25 “Cabinet installation: Lavatory compartment” installed, the Pilot’s Operating Handbook Supplement 63 Edition 1 (P/N DMJFM63EE1EN) at revision 1 or later approved revision must be utilised.

2. Maintenance Manual

For TBM700 N variant from S/N 1000, plus S/N 687, TBM Maintenance Manual (P/N DMNMMPXEE0) edition 0 at revision 15 or following revisions (including Airworthiness Limitations) must be utilised.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.010 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List (MMEL)

TBM700 A, B, C, N Master Minimum Equipment List (MMEL) at Revision 04 approved on 20 July 2020 or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.

VI. Notes

1. Modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck” (SVS):

   It is a modification applicable to s/n 434-9999, that is to say for TBM700 N airplanes equipped with Modification MOD70-0176-00.

2. Optional modification MOD70-0345-61 (Installation of a 5-blade propeller):

   It is a modification applicable from s/n 1000, plus to s/n 687.

   Characteristics:

Manufacturer:	Hartzell Propeller Inc.	
Type Certificate:	FAA Type Certificate P20NE dated 18 June 1996 EASA IM.P.125 dated 24 September 2013	
Type:	HC-E5N-3C / NC8834 K	
Blades:	5	
Diameter:	Not over 91 in., not under 90 in.	
Pitch setting at 30 in., sta.:	Low	19.5º
	Feather	85º
	Reverse	- 9º

3. Optional modification MOD70-0388-25 “AMSAFE Airbag seat belts”:

   It is a modification applicable to s/n 1170-9999.

4. Optional modification MOD70-0505-25 Version C “Cabinet installation: Lavatory compartment”:

   It is a modification applicable to s/n 609-9999, for TBM700 N airplanes equipped with Modification MOD70-0315-25.

5. Optional modification MOD70-0510-27 “Stick shaker”.

   It is a modification applicable to s/n 1111-9999.

6. Refer to Section 1 for general data.

Section 10 TBM700 N equipped with MOD70-0176-00, -0211-57, -0234-24, -0322-00, -0323-71, -0324-00, -0325-21, -0357-71, -0407-00, -0423-34, -0439-79, -0462-34 and -0539-00 Versions A & B (Trade name "TBM 910")

Trade name "TBM 910"

I. General

1. Type / Variant or Model

a) Type: TBM700
b) Model: N/A
c) Variant N

2. Airworthiness Category

FAR-23 Normal Category

3. Manufacturer

COMPAGNIE DAHER

4. State of Design Authority

EASA

5. State of Design Type Certification Application Date

13 September 2016

6. State of Design Type Certificate Date

24 March 2017

7. State of Design Type Certificate Number

EASA.A.010

8. UK CAA Type Validation Date

24 March 2017

9. Other Information

Eligible S/N: From 1170 to 1269

II. Certification Basis

1. Reference Date for determining the applicable requirements

13 September 2016

2. Airworthiness Requirements

FAR-23, Amendment 34, dated 01 January 1988

FAR-23, Amendment 36, dated 14 September 1988
Sections 23.783, 23.807 and 23.811

FAR-23, Amendment 44, dated 18 August 1993
Sections 23.49, 23.561, 23.562 and 23.785

And as defined in CRI A-01 (TBM700N Garmin G1000 Cockpit) Issue 2:
EASA CS-23, Initial issue, dated 14 November 2003
Sections 23.1309, 23.1311, 23.1321, 23.1331, 23.1353, 23.1357 and 23.1431

And CS-ACNS Initial issue for communication, navigation, surveillance, TAWS and RVSM functions (TBM700N equipped with MOD70-0476-00)

3. Special Conditions

CRI B-1 (TBM700 C2), Stalling speed exceeding 61 kts

CRIs valid for TBM700N variant equipped with MOD70-0176-00 and MOD70-0539-00:
- CRI B-01, Human Factors in Integrated avionics systems, issue 2
- CRI F-02, Protection from the IEL strikes, issue 4

CRI valid for TBM700N variant equipped with MOD70-0234-24:
- CRI F-52, Protection from effects of HIRF, Issue 4

CRI valid for TBM700N variant equipped with MOD70-0322-00:
- CRI C-101, load requirement for justification of winglets structural loads, issue 4

CRI valid for TBM700N variant equipped with optional MOD70-0407-00 Version C (refer to Section 10.VI):
- CRI F-14, Electronic Stability and Protection (ESP) and Underspeed Protection (USP)

CRI valid for TBM700N variant equipped with optional MOD70-0388-25 (refer to Section 10.VI):
- CRI D-54, Installation of Inflatable Seat Restraints

4. Exemptions

None.

5. Deviations

None.

6. Equivalent Safety Findings

ELOS valid for TBM700N equipped with MOD70-0324-00:
- CRI D-101 – cockpit control location and shape – powerplant control, Issue 4.

7. Requirements Elected to Comply

Elect to comply with CS 23, Initial issue, dated 14-Nov-2003

Sections 23.201, 23.203 and 23.207

valid for TBM700N equipped with MOD70-0423-34 (Safe Flight: Lift transducer and AOA computer installation).

8. Environmental Protection Standards

Noise:

ICAO Annex 16 Volume I, 4th Edition, Amendment 8, Chapter 10
(see TCDSN UK.TC.A.00048 for details)

FAR 36, Amendment 28, Appendix G

Prevention of intentional fuel venting:

ICAO Annex 16, Volume II, 2nd Edition, Amendment 4, Part II, Chapter 2

FAR 34, Amendment 3

9. Operational Suitability Requirements

MMEL: JAR-MMEL/MEL Amendment 1 dated 1 August 2005

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

List of main drawings: T700 N°65/90 Ed.1 and up.

2. Description

Single-turbo-propeller engine, six to seven seats, low-wing airplane, aluminium and steel construction.

Introduction of Modifications:

- MOD70-0462-34 (Standby Altitude module MD302),
- MOD70-0476-00 (G3000 Integrated Flight Deck)

These modifications are applicable to TBM700 N variant equipped with:

- MOD70-0211-57 (Fuel Tank Extension),
- MOD70-0322-00 (Aerodynamic efficiency Improvement),
- MOD70-0323-71 (Propulsion Efficiency Improvement),
- MOD70-0324-00 (Human Machine interface improvement),
- MOD70-0325-21 (Cabin comfort Improvement),
- MOD70-0357-71 (Take-off and landing operation at 850 SHP),
- MOD70-0439-79 (Oil pressure limits change) and
- MOD70-0423-34 (Safe Flight: Lift transducer and AOA computer installation)

3. Equipment

Equipment list: See POH Sec 6.4, 6.5 and and report ref. NAV No.34/90-RJ-App4.

4. Dimensions

Span:	12.833 m	(42.1 ft)
Length:	10.736 m	(35.2 ft)
Height:	4.355 m	(14.3 ft)
Wing Area:	18.00 m²	(193.7 ft²)

5. Engine

5.1 Model

Turbo generator Pratt & Whitney type PT6A-66D

5.2 Type Certificate

CAA Type Certificate UK.TC.E.00035

5.3 Limitations

Gas generator rotation speed: 39,000 RPM (104.1%)
Propeller rotation speed: 2,000 RPM
Maximum take-off and continuous power: 850 shp
For power-plant limitations refer to POH, Section 2.3.

6. Load Factors

Flaps up:

Weight below 6,579 lbs (2,984kg):	$-1.5 \leq n \leq +3.8$ g
Weight above 6,579 lbs (2,984kg):	$-1.5 \leq n \leq +3.5$ g

Flaps down: $-0 \leq n \leq +2.0$ g

7. Propeller

7.1 Model

Hartzell Propeller Inc. Type HC-E4N-3/E9083 S(K) or

Hartzell Propeller Inc. Type HC-E5N-3C/NC8834 K (if installed according to optional modification MOD70-0345-61 - Refer to paragraph Section 10.VI)

7.2 Type Certificate

FAA Type Certificate P10NE dated 2 August 2002
EASA.IM.P.133 dated 31 January 2000

or

FAA Type certificate P20NE dated 18 June 1996
EASA IMP.125 dated 24 September 2013 (with modification MOD70-0345-61 - Refer to Section 10.VI)

7.3 Number of Blades

4 or 5

7.4 Diameter

Maximum Diameter: 2,311 mm / 91 in
Minimum Diameter: 2,286 mm / 90 in

Or1with modification MOD70-0345-61 - Refer to Section 10.VI

7.5 Direction of Rotation

Propeller rotates Clockwise in view of flight direction

7.6 Pitch

Low Pitch: 21°
Feather: 86°
Reverse: -11°
or

with modification MOD70-0345-61 - Refer to Section 10.VI

8. Fluids

8.1 Fuel

Jet A, Jet A1, Jet B, JP4, JP5, JP8, anti-ice additive according to the specification.MIL-I-27686 in the following proportions :
- Minimum content: 0.06% by volume
- Maximum content: 0.15% by volume

8.2 Oil

Refer to POH, Section 2.3.

8.3 Coolant

N/A

9. Fluid Capacities

9.1 Fuel

Two structural wing tanks:
Total capacity: 1,140 liters / 301 gal
Total usable capacity: 1,106 liters / 292 gal
Unusable quantity: 34 liters / 9 gal

9.2 Oil

Maximum: 12 liters / 12.7 qt
Minimum: 5.7 liters / 6 qt

9.3 Coolant System Capacity

None.

10. Airspeed Limits

V_{MO}	(Maximum operating speed)	271 KCAS
V_A	(Manoeuvring speed)	160 KCAS
V_{FE}	(Maximum flaps extended speed)	
	Landing configuration	120 KCAS
	Take off configuration	180 KCAS
V_{LO}	(Maximum landing gear operating speed)	
	Retraction	151 KCAS
	Extension	180 KCAS
V_{LE}	(Maximum landing gear extended speed)	180 KCAS

11. Flight Envelope

31,000 ft

12. Approved Operational Capability

Day & night VFR and day & night IFR operations when appropriate equipment is installed and operating correctly.
Refer to approved POH, Section 2.6

13. Maximum Certified Masses

Take-Off	3,354 kg (7,394 lbs)
Landing	3,186 kg (7,024 lbs)
Ramp	3,370 kg (7,430 lbs)

14. Centre of Gravity Range

From	To	Weight up to
4,604 mm (181.3 in) 14% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,000 kg (4,409 lbs)
4,664 mm (183.6 in) 18% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,835 kg (6,250 lbs)
4,707 mm (185.3 in) 20.85% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,984 kg (6,579 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,927 mm (193.97 in) 35.4 % of MAC	3,186 kg (7,024 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,921 mm (193.74 in) 35% of MAC	3,354 kg (7,394 lbs)

Straight line between points given
MAC: Mean Aerodynamic Chord

15. Datum

3,000 mm (118.11 in.) ahead of front firewall face

16. Control surface deflections

Pitch Control

Elevator (Angles references: stabilator chord)	Nose-up attitude: Nose-down attitude:	30º ± 1.5º 10º ± 1º
Stabilator tab (elevator at 0º)	Nose-up attitude: Nose-down attitude:	15º ± 1º 20º ± 1º

Roll Control

Ailerons (Reference: wing chord)	up down	15º ± 1º 20º ± 1º
Spoiler (Reference: wing upper surface)	up down	58º + 2º / - 3° 20.5º + 1º /- 5°
Tab	up down	14º ± 1º 14º ± 1º

Yaw Control

Rudder (Reference: fin chord)	left turn right turn	26º ± 1º 35º ± 1.5º
Rudder tab (Reference: rudder chord)	left turn right turn	13.5° ± 1° 9.5° ± 1°

17. Levelling Means

Cabin floor mounting rails.

18. Minimum Flight Crew

One Pilot

19. Maximum Passenger Seating Capacity

5

20. Baggage/ Cargo Compartment

Front baggage (not pressurized)	50 kg (110 lbs)	at 3,250 mm (128.0 in)
6-seat accommodation:		
Rear baggage (in cabin)	100 kg (220 lbs)	at 7,560 mm (297.6 in)
4-seat accommodation:		
Rear baggage (in cabin)	80 kg (176 lbs)	at 6,586 mm (259.3 in)
	100 kg (220 lbs)	at 7,695 mm (303.0 in)

21. Wheels and Tyres

Nose Landing Gear Tyre:	5.00 x 5-6 PR
Main Landing Gear Tyre:	18 x 5.5-10 PR
Wheelbase:	2,910 mm (115 in)
Track:	3,880 mm (153 in)

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

DGAC/EASA approved Pilot Operating Handbook (POH):

- For TBM700 N variant from S/N 1111, airplanes equipped with modification MOD70-0476-00, the Pilot’s Operating Handbook P/N DMJFM00EE0EN edition 0 at revision 0 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck“ (SVS) installed, Pilot’s Operating Handbook Supplement 50 P/N DMJFM50EE2EN edition 2 at revision 0 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0505-25 “Cabinet installation: Lavatory compartment” installed, the Pilot’s Operating Handbook Supplement 63 Edition 1 (P/N DMJFM63EE1EN) at revision 1 or later approved revision must be utilised.

2. Maintenance Manual

For TBM700 N variant from S/N 1111, airplanes equipped with modification MOD70-0476-00, TBM Maintenance Manual (P/N DMJMMPXEE0) edition 0 at revision 0 or following revisions (including Airworthiness Limitations) must be utilised.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.010 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List (MMEL)

TBM700 A, B, C, N Master Minimum Equipment List (MMEL) at Revision 04 approved on 20 July 2020 or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.

VI. Notes

1. Modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck” (SVS) Version C:

   It is a modification applicable to s/n 1111-9999, that is to say for TBM700 N airplanes equipped with Modification MOD70-0476-00.

2. Optional modification MOD70-0345-61 (Installation of a 5-blade propeller):

   It is a modification applicable from s/n 1000, plus to s/n 687.

   Characteristics:

Manufacturer:	Hartzell Propeller Inc.	
Type Certificate:	FAA Type Certificate P20NE dated 18 June 1996 EASA IM.P.125 dated 24 September 2013	
Type:	HC-E5N-3C / NC8834 K	
Blades:	5	
Diameter:	Not over 91 in., not under 90 in.	
Pitch setting at 30 in., sta.:	Low	19.5º
	Feather	85º
	Reverse	- 9º

3. Optional modification MOD70-0388-25 “AMSAFE Airbag seat belts”:

   It is a modification applicable to s/n 1170-9999.

4. Optional modification MOD70-0505-25 Version C “Cabinet installation: Lavatory compartment”:

   It is a modification applicable to s/n 609-9999, for TBM700 N airplanes equipped with Modification MOD70-0315-25.

5. Optional modification MOD70-0510-27 “Stick shaker”.

   It is a modification applicable to s/n 1111-9999.

6. Refer to Section 1 for general data.

Section 11 TBM700 N equipped with MOD70-0476-00, -0211-57, -0234-24, -0322-00, -0323-71, -0324-00, -0325-21, -0357-71, -0439-79, -0423-34, -0462-34 and with -0549-00 Versions A & B (Trade name "TBM 930 2018"

Trade name "TBM 930 2018"

I. General

1. Type / Variant or Model

a) Type: TBM700
b) Model: N/A
c) Variant N

2. Airworthiness Category

FAR-23 Normal Category

3. Manufacturer

COMPAGNIE DAHER

4. State of Design Authority

EASA

5. State of Design Type Certification Application Date

18 November 2016

6. State of Design Type Certificate Date

05 March 2018

7. State of Design Type Certificate Number

EASA.A.010

8. UK CAA Type Validation Date

05 March 2018

9. Other Information

Eligible S/N: From 1227 to 1266

II. Certification Basis

1. Reference Date for determining the applicable requirements

18 November 2016

2. Airworthiness Requirements

FAR-23, Amendment 34, dated 01 January 1988

FAR-23, Amendment 36, dated 14 September 1988
Sections 23.783, 23.807 and 23.811

FAR-23, Amendment 44, dated 18 August 1993
Sections 23.49, 23.561, 23.562 and 23.785

And as defined in CRI A-01 (TBM700N Garmin G1000 Cockpit) Issue 2:
EASA CS-23, Initial issue, dated 14 November 2003
Sections 23.1309, 23.1311, 23.1321, 23.1331, 23.1353, 23.1357 and 23.1431

And CS-ACNS Initial issue for communication, navigation, surveillance, TAWS and RVSM functions (TBM700N equipped with MOD70-0476-00)

3. Special Conditions

CRI B-1 (TBM700 C2), Stalling speed exceeding 61 kts

CRIs valid for TBM700N variant equipped with MOD70-0176-00 and MOD70-0539-00:
- CRI B-01, Human Factors in Integrated avionics systems, issue 2
- CRI F-02, Protection from the IEL strikes, issue 4

CRI valid for TBM700N variant equipped with MOD70-0234-24:
- CRI F-52, Protection from effects of HIRF, Issue 4

CRI valid for TBM700N variant equipped with MOD70-0322-00:
- CRI C-101, load requirement for justification of winglets structural loads, issue 4

CRI valid for TBM700N variant equipped with optional MOD70-0476-00 Version C:
- CRI F-14, Electronic Stability and Protection (ESP) and Underspeed Protection (USP)

CRI valid for TBM700N variant equipped with optional MOD70-0388-25 (refer to Section 11.VI):
- CRI D-54, Installation of Inflatable Seat Restraints

4. Exemptions

None.

5. Deviations

None.

6. Equivalent Safety Findings

ELOS valid for TBM700N equipped with MOD70-0324-00:
- CRI D-101 – cockpit control location and shape – powerplant control, Issue 4.

7. Requirements Elected to Comply

Elect to comply with CS 23, Initial issue, dated 14-Nov-2003

Sections 23.201, 23.203 and 23.207

valid for TBM700N equipped with MOD70-0423-34 (Safe Flight: Lift transducer and AOA computer installation).

8. Environmental Protection Standards

Noise:

ICAO Annex 16 Volume I, 4th Edition, Amendment 8, Chapter 10
(see TCDSN UK.TC.A.00048 for details)

FAR 36, Amendment 28, Appendix G

Prevention of intentional fuel venting:

ICAO Annex 16, Volume II, 2nd Edition, Amendment 4, Part II, Chapter 2

FAR 34, Amendment 3

9. Operational Suitability Requirements

MMEL: JAR-MMEL/MEL Amendment 1 dated 1 August 2005

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

List of main drawings: T700 N°65/90 Ed.1 and up.

2. Description

Single-turbo-propeller engine, six to seven seats, low-wing airplane, aluminium and steel construction.

Introduction of Modifications:

- MOD70-0549-00 (G3000 2018 Integrated Flight Deck and Software V20.8X)

These modifications are applicable to TBM700 N variant equipped with:

- MOD70-0476-00 (G3000),
- MOD70-0211-57 (Fuel Tank Extension),
- MOD70-0322-00 (Aerodynamic efficiency Improvement),
- MOD70-0323-71 (Propulsion Efficiency Improvement),
- MOD70-0324-00 (Human Machine interface improvement),
- MOD70-0325-21 (Cabin comfort Improvement),
- MOD70-0357-71 (Take-off and landing operation at 850 SHP),
- MOD70-0439-79 (Oil pressure limits change)
- MOD70-0423-34 (Safe Flight: Lift transducer and AOA computer installation) and
- MOD70-0462-34 (Standby Altitude module MD302)

3. Equipment

Equipment list: See POH Sec 6.4, 6.5 and and report ref. NAV No.34/90-RJ-App6.

4. Dimensions

Span:	12.833 m	(42.1 ft)
Length:	10.736 m	(35.2 ft)
Height:	4.355 m	(14.3 ft)
Wing Area:	18.00 m²	(193.7 ft²)

5. Engine

5.1 Model

Turbo generator Pratt & Whitney type PT6A-66D

5.2 Type Certificate

CAA Type Certificate UK.TC.E.00035

5.3 Limitations

Gas generator rotation speed: 39,000 RPM (104.1%)
Propeller rotation speed: 2,000 RPM
Maximum take-off and continuous power: 850 shp
For power-plant limitations refer to POH, Section 2.3.

6. Load Factors

Flaps up:

Weight below 6,579 lbs (2,984kg):	- 1.5 ≤ n ≤ + 3.8 g
Weight above 6,579 lbs (2,984kg):	- 1.5 ≤ n ≤ + 3.5 g

Flaps down: -0 ≤ n ≤ + 2.0 g

7. Propeller

7.1 Model

Hartzell Propeller Inc. Type HC-E4N-3/E9083 S(K) or

Hartzell Propeller Inc. Type HC-E5N-3C/NC8834 K (if installed according to optional modification MOD70-0345-61 - Refer to paragraph Section 11.VI)

7.2 Type Certificate

FAA Type Certificate P10NE dated 2 August 2002
EASA.IM.P.133 dated 31 January 2000

or

FAA Type certificate P20NE dated 18 June 1996
EASA IMP.125 dated 24 September 2013 (with modification MOD70-0345-61 - Refer to Section 11.VI)

7.3 Number of Blades

4 (HC-E4N-3/E9083 S(K))

or

5 (HC-E5N-3C/NC8834 K)

7.4 Diameter

Maximum Diameter: 2,311 mm / 91 in
Minimum Diameter: 2,286 mm / 90 in

or

With modification MOD70-0345-61 - Refer to Section 11.VI

7.5 Direction of Rotation

Propeller rotates Clockwise in view of flight direction

7.6 Pitch

Low Pitch: 21°
Feather: 86°
Reverse: -11°
or

With modification MOD70-0345-61 - Refer to Section 11.VI

8. Fluids

8.1 Fuel

Jet A, Jet A1, Jet B, JP4, JP5, JP8, anti-ice additive according to the specification.MIL-I-27686 in the following proportions :
- Minimum content: 0.06% by volume
- Maximum content: 0.15% by volume

8.2 Oil

Refer to POH, Section 2.3.

8.3 Coolant

N/A

9. Fluid Capacities

9.1 Fuel

Two structural wing tanks:
Total capacity: 1,140 liters / 301 gal
Total usable capacity: 1,106 liters / 292 gal
Unusable quantity: 34 liters / 9 gal

9.2 Oil

Maximum: 12 liters / 12.7 qt
Minimum: 5.7 liters / 6 qt

9.3 Coolant System Capacity

None.

10. Airspeed Limits

V_{MO}	(Maximum operating speed)	271 KCAS
V_A	(Manoeuvring speed)	160 KCAS
V_{FE}	(Maximum flaps extended speed)	
	Landing configuration	120 KCAS
	Take off configuration	180 KCAS
V_{LO}	(Maximum landing gear operating speed)	
	Retraction	151 KCAS
	Extension	180 KCAS
V_{LE}	(Maximum landing gear extended speed)	180 KCAS

11. Flight Envelope

3,1000 ft

12. Approved Operational Capability

Day & night VFR and day & night IFR operations when appropriate equipment is installed and operating correctly.
Refer to approved POH, Section 2.6

13. Maximum Certified Masses

Take-Off	3,354 kg (7,394 lbs)
Landing	3,186 kg (7,024 lbs)
Ramp	3,370 kg (7,430 lbs)

14. Centre of Gravity Range

From	To	Weight up to
4,604 mm (181.3 in) 14% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,000 kg (4,409 lbs)
4,664 mm (183.6 in) 18% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,835 kg (6,250 lbs)
4,707 mm (185.3 in) 20.85% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,984 kg (6,579 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,927 mm (193.97 in) 35.4 % of MAC	3,186 kg (7,024 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,921 mm (193.74 in) 35% of MAC	3,354 kg (7,394 lbs)

Straight line between points given
MAC: Mean Aerodynamic Chord

15. Datum

3,000 mm (118.11 in.) ahead of front firewall face

16. Control surface deflections

Pitch Control

Elevator (Angles references: stabilator chord)	Nose-up attitude: Nose-down attitude:	30º ± 1.5º 10º ± 1º
Stabilator tab (elevator at 0º)	Nose-up attitude: Nose-down attitude:	15º ± 1º 20º ± 1º

Roll Control

Ailerons (Reference: wing chord)	up down	15º ± 1º 20º ± 1º
Spoiler (Reference: wing upper surface)	up down	58º + 2º / - 3° 20.5º + 1º /- 5°
Tab	up down	14º ± 1º 14º ± 1º

Yaw Control

Rudder (Reference: fin chord)	left turn right turn	26º ± 1º 35º ± 1.5º
Rudder tab (Reference: rudder chord)	left turn right turn	13.5° ± 1° 9.5° ± 1°

17. Levelling Means

Cabin floor mounting rails.

18. Minimum Flight Crew

One Pilot

19. Maximum Passenger Seating Capacity

5

20. Baggage/ Cargo Compartment

Front baggage (not pressurized)	50 kg (110 lbs)	at 3,250 mm (128.0 in)
6-seat accommodation:		
Rear baggage (in cabin)	100 kg (220 lbs)	at 7,560 mm (297.6 in)
4-seat accommodation:		
Rear baggage (in cabin)	80 kg (176 lbs)	at 6,586 mm (259.3 in)
	100 kg (220 lbs)	at 7,695 mm (303.0 in)

21. Wheels and Tyres

Nose Landing Gear Tyre:	5.00 x 5-6 PR
Main Landing Gear Tyre:	18 x 5.5-10 PR
Wheelbase:	2,910 mm (115 in)
Track:	3,880 mm (153 in)

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

DGAC/EASA approved Pilot Operating Handbook (POH):

- For TBM700 N variant from S/N 1227, airplanes equipped with modification MOD70-0549-00, the Pilot’s Operating Handbook P/N DMJFM00EE1EN edition 1 at revision 0 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck“ (SVS) installed, Pilot’s Operating Handbook Supplement 50 P/N DMHFM50EE2EN edition 2 at revision 1 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0505-25 “Cabinet installation: Lavatory compartment” installed, the Pilot’s Operating Handbook Supplement 63 Edition 1 (P/N DMJFM63EE1EN) at revision 1 or later approved revision must be utilised.

2. Maintenance Manual

For TBM700 N variant from S/N 1227, airplanes equipped with modification MOD70-0549-00, TBM Maintenance Manual P/N DMJMMPXEE0 edition 0 at revision 3 or following revisions (including Airworthiness Limitations) must be utilised.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.010 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List (MMEL)

TBM700 A, B, C, N Master Minimum Equipment List (MMEL) at Revision 04 approved on 20 July 2020 or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.

VI. Notes

1. Modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck” (SVS) Version C:

   It is a modification applicable to s/n 1111-9999, that is to say for TBM700 N airplanes equipped with Modification MOD70-0476-00.

2. Optional modification MOD70-0345-61 (Installation of a 5-blade propeller):

   It is a modification applicable from s/n 1000, plus to s/n 687.

   Characteristics:

Manufacturer:	Hartzell Propeller Inc.	
Type Certificate:	FAA Type Certificate P20NE dated 18 June 1996 EASA IM.P.125 dated 24 September 2013	
Type:	HC-E5N-3C / NC8834 K	
Blades:	5	
Diameter:	Not over 91 in., not under 90 in.	
Pitch setting at 30 in., sta.:	Low	19.5º
	Feather	85º
	Reverse	- 9º

3. Optional modification MOD70-0388-25 “AMSAFE Airbag seat belts”:

   It is a modification applicable to s/n 1170-9999.

4. Optional modification MOD70-0505-25 Version C “Cabinet installation: Lavatory compartment”:

   It is a modification applicable to s/n 609-9999, for TBM700 N airplanes equipped with Modification MOD70-0315-25.

5. Optional modification MOD70-0510-27 “Stick shaker”.

   It is a modification applicable to s/n 1111-9999.

6. Refer to Section 1 for general data.

Section 12 TBM700 N equipped with MOD70-0176-00, -0211-57, -0234-24, -0322-00, -0323-71, -0324-00, -0325-21, -0357-71, -0407-00, -0423-34, -0439-79, -0462-34, -0539-00 Versions A & B and Version H, -0619-11, -0632-34 and -0570-30 (Trade name "TBM 910 2019")

Trade name "TBM 910 2019"

I. General

1. Type / Variant or Model

a) Type: TBM700
b) Model: N/A
c) Variant N

2. Airworthiness Category

FAR-23 Normal Category

3. Manufacturer

COMPAGNIE DAHER

4. State of Design Authority

EASA

5. State of Design Type Certification Application Date

14 February 2017 (MOD70-0570-30)

and

20 September 2018 (MOD70-0539-00 Vers. H)

6. State of Design Type Certificate Date

14 January 2019

and

03 January 2019

7. State of Design Type Certificate Number

EASA.A.010

8. UK CAA Type Validation Date

14 January 2019

9. Other Information

Eligible S/N: From 1270

II. Certification Basis

1. Reference Date for determining the applicable requirements

14 February 2017

2. Airworthiness Requirements

FAR-23, Amendment 34, dated 01 January 1988

FAR-23, Amendment 36, dated 14 September 1988
Sections 23.783, 23.807 and 23.811

FAR-23, Amendment 44, dated 18 August 1993
Sections 23.49, 23.561, 23.562 and 23.785

And as defined in CRI A-01 (TBM700N Garmin G1000 Cockpit) Issue 2:
EASA CS-23, Initial issue, dated 14 November 2003
Sections 23.1309, 23.1311, 23.1321, 23.1331, 23.1353, 23.1357 and 23.1431

And CS-ACNS Initial issue for communication, navigation, surveillance, TAWS and RVSM functions (TBM700N equipped with MOD70-0476-00)

3. Special Conditions

CRI B-1 (TBM700 C2), Stalling speed exceeding 61 kts

CRIs valid for TBM700N variant equipped with MOD70-0176-00 and MOD70-0539-00:
- CRI B-01, Human Factors in Integrated avionics systems, issue 2
- CRI F-02, Protection from the IEL strikes, issue 4

CRI valid for TBM700N variant equipped with MOD70-0234-24:
- CRI F-52, Protection from effects of HIRF, Issue 4

CRI valid for TBM700N variant equipped with MOD70-0322-00:
- CRI C-101, load requirement for justification of winglets structural loads, issue 4

CRI valid for TBM700N variant equipped with optional MOD70-0407-00 Version C (refer to Section 12.VI):
- CRI F-14, Electronic Stability and Protection (ESP) and Underspeed Protection (USP)

CRI valid for TBM700N variant equipped with optional MOD70-0388-25 (refer to Section 12.VI):
- CRI D-54, Installation of Inflatable Seat Restraints

4. Exemptions

None.

5. Deviations

None.

6. Equivalent Safety Findings

ELOS valid for TBM700N equipped with MOD70-0324-00:
- CRI D-101 – cockpit control location and shape – powerplant control, Issue 4.

7. Requirements Elected to Comply

Elect to comply with CS 23, Initial issue, dated 14-Nov-2003

Sections 23.201, 23.203 and 23.207

valid for TBM700N equipped with MOD70-0423-34 (Safe Flight: Lift transducer and AOA computer installation).

8. Environmental Protection Standards

Noise:

ICAO Annex 16 Volume I, 4th Edition, Amendment 8, Chapter 10
(see TCDSN UK.TC.A.00048 for details)

FAR 36, Amendment 28, Appendix G

Prevention of intentional fuel venting:

ICAO Annex 16, Volume II, 2nd Edition, Amendment 4, Part II, Chapter 2

FAR 34, Amendment 3

9. Operational Suitability Requirements

MMEL: JAR-MMEL/MEL Amendment 1 dated 1 August 2005

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

List of main drawings: T700 N°65/90 Ed.1 and up.

2. Description

Single-turbo-propeller engine, six to seven seats, low-wing airplane, aluminium and steel construction.

Introduction of Modifications:

- MOD70-0539-00 Version H (G1000 Nxi Integrated Flight Deck Phase II),
- MOD70-0632-34 (Magnetometer MD032 integration),
- MOD70-0619-11 (Modification of cabin interior markings) and
- MOD70-0570-30 (Automatic advisory In Flight ice detection system)

These modifications are applicable to TBM700 N variant equipped with:

- MOD70-0176-00 (G1000 Integrated Flight Deck),
- MOD70-0211-57 (Fuel Tank Extension),
- MOD70-0322-00 (Aerodynamic efficiency Improvement),
- MOD70-0323-71 (Propulsion Efficiency Improvement),
- MOD70-0324-00 (Human Machine interface improvement),
- MOD70-0325-21 (Cabin comfort Improvement),
- MOD70-0357-71 (Take-off and landing operation at 850 SHP),
- MOD70-0439-79 (Oil pressure limits change)
- MOD70-0423-34 (Safe Flight: Lift transducer and AOA computer installation) associated to MOD70-0407-00 (Aural Alert Evolution and V15 Software for G1000 Integrated Flight Deck on TBM850/900 including ESP/USP option),
- MOD70-0539-00 (G1000 Nxi Integrated Flight Deck) and
- MOD70-0462-34 (Standby Altitude module MD302)

3. Equipment

Equipment list: See POH Sec 6.4, 6.5 and and report ref. NAV No.34/90-RJ-App 7 from s/n 1270.

4. Dimensions

Span:	12.833 m	(42.1 ft)
Length:	10.736 m	(35.2 ft)
Height:	4.355 m	(14.3 ft)
Wing Area:	18.00 m²	(193.7 ft²)

5. Engine

5.1 Model

Turbo generator Pratt & Whitney type PT6A-66D

5.2 Type Certificate

CAA Type Certificate UK.TC.E.00035

5.3 Limitations

Gas generator rotation speed: 39,000 RPM (104.1%)
Propeller rotation speed: 2,000 RPM
Maximum take-off and continuous power: 850 shp
For power-plant limitations refer to POH, Section 2.3.

6. Load Factors

Flaps up:

Weight below 6,579 lbs (2,984kg): - 1.5 ≤ n ≤ + 3.8 g

Weight above 6,579 lbs (2,984kg): - 1.5 ≤ n ≤ + 3.5 g

Flaps down: -0 ≤ n ≤ + 2.0 g

7. Propeller

7.1 Model

Hartzell Propeller Inc. Type HC-E4N-3/E9083 S(K) or

Hartzell Propeller Inc. Type HC-E5N-3C/NC8834 K (if installed according to optional modification MOD70-0345-61 - Refer to paragraph Section 12.VI)

7.2 Type Certificate

FAA Type Certificate P10NE dated 2 August 2002
EASA.IM.P.133 dated 31 January 2000

or

FAA Type certificate P20NE dated 18 June 1996
EASA IMP.125 dated 24 September 2013 (with modification MOD70-0345-61 - Refer to Section 12.VI)

7.3 Number of Blades

4 or 5

7.4 Diameter

Maximum Diameter: 2,311 mm / 91 in
Minimum Diameter: 2,286 mm / 90 in

or

With modification MOD70-0345-61 - Refer to Section 12.VI

7.5 Direction of Rotation

Propeller rotates Clockwise in view of flight direction

7.6 Pitch

Low Pitch: 21°
Feather: 86°
Reverse: -11°
or

With modification MOD70-0345-61 - Refer to Section 12.VI

8. Fluids

8.1 Fuel

Jet A, Jet A1, Jet B, JP4, JP5, JP8, anti-ice additive according to the specification.MIL-I-27686 in the following proportions :
- Minimum content: 0.06% by volume
- Maximum content: 0.15% by volume

8.2 Oil

Refer to POH, Section 2.3.

8.3 Coolant

N/A

9. Fluid Capacities

9.1 Fuel

Two structural wing tanks:
Total capacity: 1,140 liters / 301 gal
Total usable capacity: 1,106 liters / 292 gal
Unusable quantity: 34 liters / 9 gal

9.2 Oil

Maximum: 12 liters / 12.7 qt
Minimum: 5.7 liters / 6 qt

9.3 Coolant System Capacity

None.

10. Airspeed Limits

V_{MO}	(Maximum operating speed)	271 KCAS
V_A	(Manoeuvring speed)	160 KCAS
V_{FE}	(Maximum flaps extended speed)	
	Landing configuration	120 KCAS
	Take off configuration	180 KCAS
V_{LO}	(Maximum landing gear operating speed)	
	Retraction	151 KCAS
	Extension	180 KCAS
V_{LE}	(Maximum landing gear extended speed)	180 KCAS

11. Flight Envelope

31,000 ft

12. Approved Operational Capability

Day & night VFR and day & night IFR operations when appropriate equipment is installed and operating correctly.
Refer to approved POH, Section 2.6

13. Maximum Certified Masses

Take-Off	3,354 kg (7,394 lbs)
Landing	3,186 kg (7,024 lbs)
Ramp	3,370 kg (7,430 lbs)

14. Centre of Gravity Range

From	To	Weight up to
4,604 mm (181.3 in) 14% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,000 kg (4,409 lbs)
4,664 mm (183.6 in) 18% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,835 kg (6,250 lbs)
4,707 mm (185.3 in) 20.85% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,984 kg (6,579 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,927 mm (193.97 in) 35.4 % of MAC	3,186 kg (7,024 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,921 mm (193.74 in) 35% of MAC	3,354 kg (7,394 lbs)

Straight line between points given
MAC: Mean Aerodynamic Chord

15. Datum

3,000 mm (118.11 in.) ahead of front firewall face

16. Control surface deflections

Pitch Control

Elevator (Angles references: stabilator chord)	Nose-up attitude: Nose-down attitude:	30º ± 1.5º 10º ± 1º
Stabilator tab (elevator at 0º)	Nose-up attitude: Nose-down attitude:	15º ± 1º 20º ± 1º

Roll Control

Ailerons (Reference: wing chord)	up down	15º ± 1º 20º ± 1º
Spoiler (Reference: wing upper surface)	up down	58º + 2º / - 3° 20.5º + 1º /- 5°
Tab	up down	14º ± 1º 14º ± 1º

Yaw Control

Rudder (Reference: fin chord)	left turn right turn	26º ± 1º 35º ± 1.5º
Rudder tab (Reference: rudder chord)	left turn right turn	13.5° ± 1° 9.5° ± 1°

17. Levelling Means

Cabin floor mounting rails.

18. Minimum Flight Crew

One Pilot

19. Maximum Passenger Seating Capacity

5

20. Baggage/ Cargo Compartment

Front baggage (not pressurized)	50 kg (110 lbs)	at 3,250 mm (128.0 in)
6-seat accommodation:		
Rear baggage (in cabin)	100 kg (220 lbs)	at 7,560 mm (297.6 in)
4-seat accommodation:		
Rear baggage (in cabin)	80 kg (176 lbs)	at 6,586 mm (259.3 in)
	100 kg (220 lbs)	at 7,695 mm (303.0 in)

21. Wheels and Tyres

Nose Landing Gear Tyre:	5.00 x 5-6 PR
Main Landing Gear Tyre:	18 x 5.5-10 PR
Wheelbase:	2,910 mm (115 in)
Track:	3,880 mm (153 in)

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

DGAC/EASA approved Pilot Operating Handbook (POH):

- For TBM700 N variant from S/N 1270, airplanes equipped with modification MOD70-0539-00 Version H and modification MOD70-0570-30, the Pilot’s Operating Handbook P/N DMDFM00EE1EN edition 0 at revision 0 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck“ (SVS) installed, Pilot’s Operating Handbook Supplement 50 P/N DMHFM50EE2EN edition 2 at revision 1 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0505-25 “Cabinet installation: Lavatory compartment” installed, the Pilot’s Operating Handbook Supplement 63 Edition 1 (P/N DMJFM63EE1EN) at revision 3 or later approved revision must be utilised.

2. Maintenance Manual

For TBM700 N variant from S/N 1000, plus S/N 687, TBM Maintenance Manual (P/N DMNMMPXEE0) edition 0 at revision 17 or following revisions (including Airworthiness Limitations) must be utilised.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.010 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List (MMEL)

TBM700 A, B, C, N Master Minimum Equipment List (MMEL) at Revision 04 approved on 20 July 2020 or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.

VI. Notes

1. Modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck” (SVS):

   It is a modification applicable to s/n 434-9999, that is to say for TBM700 N airplanes equipped with Modification MOD70-0176-00.

2. Optional modification MOD70-0345-61 (Installation of a 5-blade propeller):

   It is a modification applicable from s/n 1000, plus to s/n 687.

   Characteristics:

Manufacturer:	Hartzell Propeller Inc.	
Type Certificate:	FAA Type Certificate P20NE dated 18 June 1996 EASA IM.P.125 dated 24 September 2013	
Type:	HC-E5N-3C / NC8834 K	
Blades:	5	
Diameter:	Not over 91 in., not under 90 in.	
Pitch setting at 30 in., sta.:	Low	19.5º
	Feather	85º
	Reverse	- 9º

3. Optional modification MOD70-0388-25 “AMSAFE Airbag seat belts”:

   It is a modification applicable to s/n 1170-9999.

4. Optional modification MOD70-0505-25 Version C “Cabinet installation: Lavatory compartment”:

   It is a modification applicable to s/n 609-9999, for TBM700 N airplanes equipped with Modification MOD70-0315-25.

5. Optional modification MOD70-0510-27 “Stick shaker”.

   It is a modification applicable to s/n 1111-9999.

6. Refer to Section 1 for general data.

Section 13 TBM700 N equipped with MOD70-0476-00, -0211-57, -0234-24, -0322-00, -0323-71, -0324-00, -0325-21, -0357-71, -0439-79, -0423-34, -0462-34, -0549-00 Versions A & B and Version D, -0619-11, -0632-34, -0570-30, -0550-00, -0649-00 and -0650-34 Versions A & B (Trade name "TBM 940")

Trade name "TBM940"

I. General

1. Type / Variant or Model

a) Type: TBM700
b) Model: N/A
c) Variant N

2. Airworthiness Category

FAR-23 Normal Category

3. Manufacturer

COMPAGNIE DAHER

4. State of Design Authority

EASA

5. State of Design Type Certification Application Date

1 18 November 2016 (MOD70-0550-00)
and
20 September 2018 (MOD70-0649-00)

2 30 January 2018 (MOD70-0650-34)

6. State of Design Type Certificate Date

1 14 May 2019
and
17 May 2019

2 17 July 2020

7. State of Design Type Certificate Number

EASA.A.010

8. UK CAA Type Validation Date

1 14 May 2019
and
17 May 2019

2 17 July 2020

9. Other Information

Eligible S/N:

1 from 1275, plus 1272

2 from 1333 – refer to Section 13.VI

II. Certification Basis

1. Reference Date for determining the applicable requirements

1 18 November 2016

2 30 January 2018

2. Airworthiness Requirements

FAR-23, Amendment 34, dated 01 January 1988

FAR-23, Amendment 36, dated 14 September 1988
Sections 23.783, 23.807 and 23.811

FAR-23, Amendment 44, dated 18 August 1993
Sections 23.49, 23.561, 23.562 and 23.785

And as defined in CRI A-01 (TBM700N Garmin G1000 Cockpit) Issue 2:
EASA CS-23, Initial issue, dated 14 November 2003
Sections 23.1309, 23.1311, 23.1321, 23.1331, 23.1353, 23.1357 and 23.1431

And CS-ACNS Initial issue for communication, navigation, surveillance, TAWS and RVSM functions (TBM700N equipped with MOD70-0476-00 and MOD70-0549-00)

3. Special Conditions

CRI B-1 (TBM700 C2), Stalling speed exceeding 61 kts

CRIs valid for TBM700N variant equipped with MOD70-0176-00 and MOD70-0539-00:
- CRI B-01, Human Factors in Integrated avionics systems, issue 2
- CRI F-02, Protection from the IEL strikes, issue 4

CRI valid for TBM700N variant equipped with MOD70-0234-24:
- CRI F-52, Protection from effects of HIRF, Issue 4

CRI valid for TBM700N variant equipped with MOD70-0322-00:
- CRI C-101, load requirement for justification of winglets structural loads, issue 4

CRI valid for TBM700N variant equipped with optional MOD70-0476-00 Version C:
- CRI F-14, Electronic Stability and Protection (ESP) and Underspeed Protection (USP)

CRI valid for TBM700N variant equipped with optional MOD70-0388-25 (refer to Section 13.VI):
- CRI D-54, Installation of Inflatable Seat Restraints

CRI valid for TBM700N variant equipped with optional MOD70-0550-00
- CRI F-110, Auto-throttle for CS 23 Single Engine Aeroplane

CRIs valid for TBM700N variant equipped with optional MOD70-0650-34
- CRI F-201, Emergency Auto-land proper Functioning and Failure conditions.
- CRI F-202, Emergency Auto-land, compliance issues associated with emergency functions.

4. Exemptions

None.

5. Deviations

None.

6. Equivalent Safety Findings

ELOS valid for TBM700N equipped with MOD70-0324-00:
- CRI D-101 – cockpit control location and shape – powerplant control, Issue 4.

7. Requirements Elected to Comply

Elect to comply with CS 23, Initial issue, dated 14-Nov-2003

Sections 23.201, 23.203 and 23.207

valid for TBM700N equipped with MOD70-0423-34 (Safe Flight: Lift transducer and AOA computer installation).

8. Environmental Protection Standards

Noise:

ICAO Annex 16 Volume I, 4th Edition, Amendment 8, Chapter 10
(see TCDSN UK.TC.A.00048 for details)

FAR 36, Amendment 28, Appendix G

Prevention of intentional fuel venting:

ICAO Annex 16, Volume II, 2nd Edition, Amendment 4, Part II, Chapter 2

FAR 34, Amendment 3

9. Operational Suitability Requirements

MMEL: JAR-MMEL/MEL Amendment 1 dated 1 August 2005

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

List of main drawings: T700 N°65/90 Ed.1 and up.

2. Description

Single-turbo-propeller engine, six to seven seats, low-wing airplane, aluminium and steel construction.

Introduction of Modifications:

1: MOD70-0649-00 (G3000 Software V21.25),
MOD70-0632-34 (Magnetometer MD032 integration),
MOD70-0619-11 (Modification of cabin interior markings),
MOD70-0570-30 (Automatic advisory In Flight ice detection system)
and
MOD70-0550-00 (Auto-throttle)

2: MOD70-0650-34 Versions A & B (Emergency Auto-land)

1: These modifications are applicable to TBM700 N variant equipped with:

- MOD70-0476-00 (G3000 Integrated Flight Deck),
- MOD70-0211-57 (Fuel Tank Extension),
- MOD70-0322-00 (Aerodynamic efficiency Improvement),
- MOD70-0323-71 (Propulsion Efficiency Improvement),
- MOD70-0324-00 (Human Machine interface improvement),
- MOD70-0325-21 (Cabin comfort Improvement),
- MOD70-0357-71 (Take-off and landing operation at 850 SHP),
- MOD70-0439-79 (Oil pressure limits change)
- MOD70-0423-34 (Safe Flight: Lift transducer and AOA computer installation),
- MOD70-0549-00 (G3000 2018) and
- MOD70-0462-34 (Standby Altitude module MD302)

2: This modification is applicable to TBM700 N variant equipped with:

- MOD70-0550-00 (Auto-throttle) and
- MOD70-0649-00 Version E (G3000 Software SR 5.1.8).

3. Equipment

Equipment list: See POH Sec 6.4, 6.5 and and report ref. NAV No.34/90-RJ-App8.

4. Dimensions

Span:	12.833 m	(42.1 ft)
Length:	10.736 m	(35.2 ft)
Height:	4.355 m	(14.3 ft)
Wing Area:	18.00 m²	(193.7 ft²)

5. Engine

5.1 Model

Turbo generator Pratt & Whitney type PT6A-66D

5.2 Type Certificate

CAA Type Certificate UK.TC.E.00035

5.3 Limitations

Gas generator rotation speed: 39,000 RPM (104.1%)
Propeller rotation speed: 2,000 RPM
Maximum take-off and continuous power: 850 shp
For power-plant limitations refer to POH, Section 2.3.

6. Load Factors

Flaps up:

Weight below 6,579 lbs (2,984kg): - 1.5 ≤ n ≤ + 3.8 g

Weight above 6,579 lbs (2,984kg): - 1.5 ≤ n ≤ + 3.5 g

Flaps down: -0 ≤ n ≤ + 2.0 g

7. Propeller

7.1 Model

Hartzell Propeller Inc. Type HC-E4N-3/E9083 S(K) or

Hartzell Propeller Inc. Type HC-E5N-3C/NC8834 K (if installed according to optional modification MOD70-0345-61 - Refer to paragraph Section 13.VI)

7.2 Type Certificate

FAA Type Certificate P10NE dated 2 August 2002
EASA.IM.P.133 dated 31 January 2000

or

FAA Type certificate P20NE dated 18 June 1996
EASA IMP.125 dated 24 September 2013 (with modification MOD70-0345-61 - Refer to Section 13.VI)

7.3 Number of Blades

4 (HC-E4N-3/E9083 S(K))

or

5 (HC-E5N-3C/NC8834 K)

7.4 Diameter

Maximum Diameter: 2,311 mm / 91 in
Minimum Diameter: 2,286 mm / 90 in

or

With modification MOD70-0345-61 - Refer to Section 13.VI

7.5 Direction of Rotation

Propeller rotates Clockwise in view of flight direction

7.6 Pitch

Low Pitch: 21°
Feather: 86°
Reverse: -11°
or

With modification MOD70-0345-61 - Refer to Section 13.VI

8. Fluids

8.1 Fuel

Jet A, Jet A1, Jet B, JP4, JP5, JP8, anti-ice additive according to the specification.MIL-I-27686 in the following proportions :
- Minimum content: 0.06% by volume
- Maximum content: 0.15% by volume

8.2 Oil

Refer to POH, Section 2.3.

8.3 Coolant

N/A

9. Fluid Capacities

9.1 Fuel

Two structural wing tanks:
Total capacity: 1,140 liters / 301 gal
Total usable capacity: 1,106 liters / 292 gal
Unusable quantity: 34 liters / 9 gal

9.2 Oil

Maximum: 12 liters / 12.7 qt
Minimum: 5.7 liters / 6 qt

9.3 Coolant System Capacity

None.

10. Airspeed Limits

V_{MO}	(Maximum operating speed)	271 KCAS
V_A	(Manoeuvring speed)	160 KCAS
V_{FE}	(Maximum flaps extended speed)	
	Landing configuration	120 KCAS
	Take off configuration	180 KCAS
V_{LO}	(Maximum landing gear operating speed)	
	Retraction	151 KCAS
	Extension	180 KCAS
V_{LE}	(Maximum landing gear extended speed)	180 KCAS

11. Flight Envelope

31,000 ft

12. Approved Operational Capability

Day & night VFR and day & night IFR operations when appropriate equipment is installed and operating correctly.
Refer to approved POH, Section 2.6

13. Maximum Certified Masses

Take-Off	3,354 kg (7,394 lbs)
Landing	3,186 kg (7,024 lbs)
Ramp	3,370 kg (7,430 lbs)

14. Centre of Gravity Range

From	To	Weight up to
4604 mm (181.3 in) 14% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,000 kg (4,409 lbs)
4664 mm (183.6 in) 18% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,835 kg (6,250 lbs)
4707 mm (185.3 in) 20.85% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,984 kg (6,579 lbs)
4752 mm (187.1 in) 23.8% of MAC	4,927 mm (193.97 in) 35.4 % of MAC	3,186 kg (7,024 lbs)
4752 mm (187.1 in) 23.8% of MAC	4,921 mm (193.74 in) 35% of MAC	3,354 kg (7,394 lbs)

Straight line between points given
MAC: Mean Aerodynamic Chord

15. Datum

3,000 mm (118.11 in.) ahead of front firewall face

16. Control surface deflections

Pitch Control

Elevator (Angles references: stabilator chord)	Nose-up attitude: Nose-down attitude:	30º ± 1.5º 10º ± 1º
Stabilator tab (elevator at 0º)	Nose-up attitude: Nose-down attitude:	15º ± 1º 20º ± 1º

Roll Control

Ailerons (Reference: wing chord)	up down	15º ± 1º 20º ± 1º
Spoiler (Reference: wing upper surface)	up down	58º + 2º / - 3° 20.5º + 1º /- 5°
Tab	up down	14º ± 1º 14º ± 1º

Yaw Control

Rudder (Reference: fin chord)	left turn right turn	26º ± 1º 35º ± 1.5º
Rudder tab (Reference: rudder chord)	left turn right turn	13.5° ± 1° 9.5° ± 1°

17. Levelling Means

Cabin floor mounting rails.

18. Minimum Flight Crew

One Pilot

19. Maximum Passenger Seating Capacity

5

20. Baggage/ Cargo Compartment

Front baggage (not pressurized)	50 kg (110 lbs)	at 3,250 mm (128.0 in)
6-seat accommodation:		
Rear baggage (in cabin)	100 kg (220 lbs)	at 7,560 mm (297.6 in)
4-seat accommodation:		
Rear baggage (in cabin)	80 kg (176 lbs)	at 6,586 mm (259.3 in)
	100 kg (220 lbs)	at 7,695 mm (303.0 in)

21. Wheels and Tyres

Nose Landing Gear Tyre:	5.00 x 5-6 PR
Main Landing Gear Tyre:	18 x 5.5-10 PR
Wheelbase:	2,910 mm (115 in)
Track:	3,880 mm (153 in)

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

DGAC/EASA approved Pilot Operating Handbook (POH):

- For TBM700 N variant from S/N 1275, airplanes equipped with modifications MOD70-0649-00, MOD70-0550-00 and MOD70-0650-34, the Pilot’s Operating Handbook P/N DMKFM00EE0EN edition 0 at revision 3 or later approved revision must be utilised.
  - For airplanes with optional modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck“ (SVS) installed, Pilot’s Operating Handbook Supplement 50 P/N DMHFM50EE2EN edition 2 at revision 2 or later approved revision must be utilised.
  - For airplanes with optional modification MOD70-0505-25 “Cabinet installation: Lavatory compartment” installed, the Pilot’s Operating Handbook Supplement 63 Edition 1 (P/N DMJFM63EE1EN) at revision 1 or later approved revision must be utilised.

2. Maintenance Manual

For TBM700 N variant from S/N 1275, airplanes equipped with modification MOD70-0649-00, MOD70-0550-00 and MOD70-0650-34, TBM Maintenance Manual P/N DMJMMPXEE0 edition 0 at revision 6 or following revisions (including Airworthiness Limitations) must be utilised.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.010 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List (MMEL)

TBM700 A, B, C, N Master Minimum Equipment List (MMEL) at Revision 04 approved on 20 July 2020 or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.

VI. Notes

1. Modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck” (SVS) Version C:

   It is a modification applicable to s/n 1111-9999, that is to say for TBM700 N airplanes equipped with Modification MOD70-0476-00.

2. Optional modification MOD70-0345-61 (Installation of a 5-blade propeller):

   It is a modification applicable from s/n 1000, plus to s/n 687.

   Characteristics:

Manufacturer:	Hartzell Propeller Inc.	
Type Certificate:	FAA Type Certificate P20NE dated 18 June 1996 EASA IM.P.125 dated 24 September 2013	
Type:	HC-E5N-3C / NC8834 K	
Blades:	5	
Diameter:	Not over 91 in., not under 90 in.	
Pitch setting at 30 in., sta.:	Low	19.5º
	Feather	85º
	Reverse	- 9º

3. Optional modification MOD70-0388-25 “AMSAFE Airbag seat belts”:

   It is a modification applicable to s/n 1170-9999.

4. Optional modification MOD70-0505-25 Version C “Cabinet installation: Lavatory compartment”:

   It is a modification applicable to s/n 609-9999, for TBM700 N airplanes equipped with Modification MOD70-0315-25.

5. Optional modification MOD70-0510-27 “Stick shaker”.

   It is a modification applicable to s/n 1111-9999.

6. Optional modification MOD70-0650-34 Versions A & B “Emergency Autoland/HomeSafe System”:

   It is a modification applicable to s/n 1333-9999, for TBM700 N airplanes equipped with modifications MOD70-0649-00 Version E and MOD70-0550-00.

7. Refer to Section 1 for general data.

Section 14 TBM700 N equipped with MOD70-0621-76, -0665-61, -0646-21, -0753-00, -0680-10, -0650-34, -0632-34, -0619-11, -0570-30, -0550-00, -0476-00, -0462-34, -0439-79, -0423-34, -0324-00, -0323-71, -0322-00, -0234-24 and -0211-57 (Trade name "TBM 960")

Trade name "TBM 960"

I. General

1. Type / Variant or Model

a) Type: TBM700
b) Model: N/A
c) Variant N

2. Airworthiness Category

FAR-23 Normal Category

3. Manufacturer

COMPAGNIE DAHER

4. State of Design Authority

EASA

5. State of Design Type Certification Application Date

03 July 2018 (MOD70-0621-76)

6. State of Design Type Certificate Date

March 2022

7. State of Design Type Certificate Number

EASA.A.010

8. UK CAA Type Validation Application Date

18 July 2022

9. UK CAA Type Validation Date

02 November 2022

10. Other Information

Eligible S/N: from 1408

II. Certification Basis

1. Reference Date for determining the applicable requirements

03 July 2018

2. Airworthiness Requirements

FAR-23, Amendment 34, dated 01 January 1988

FAR-23, Amendment 36, dated 14 September 1988
Sections 23.783, 23.807 and 23.811

FAR-23, Amendment 44, dated 18 August 1993
Sections 23.49, 23.561, 23.562 and 23.785

And as defined in CRI A-01 (TBM700N Garmin G1000 Cockpit) Issue 2:
EASA CS-23, Initial issue, dated 14 November 2003
Sections 23.1309, 23.1311, 23.1321, 23.1331, 23.1353, 23.1357 and 23.1431

And FAR-23, Amendment 62, dated 31 January 2012
Sections 23.201, 23.203, 23.207 and 23.221
(TBM700N equipped with MOD70-0621-76)

And EASA CS-23 Amendment 5, dated 15 August 2017
Sections 23.2105, 23.2115, 23.2120, 23.2125, 23.2135, 23.2140, 23.2145, 23.2155, 23.2160, 23.2165, 23.2170, 23.2300, 23.2340, 23.2400, 23.2405, 23.2410, 23.2415, 23.2425, 23.2445, 23.2500, 23.2505, 23.2510, 23.2515, 23.2520, 23.2525, 23.2600, 23.2605, 23.2610, 23.2615, 23.2620, 23.2625
(TBM700N equipped with MOD70-0621-76)

And CS-ACNS Initial issue for communication, navigation, surveillance, TAWS and RVSM functions
(TBM700N equipped with MOD70-0476-00 and MOD70-0549-00)

3. Special Conditions

CRI B-1 (TBM700 C2), Stalling speed exceeding 61 kts

CRIs valid for TBM700N variant equipped with MOD70-0176-00 and MOD70-0539-00:
- CRI B-01, Human Factors in Integrated avionics systems, issue 2
- CRI F-02, Protection from the IEL strikes, issue 4

CRI valid for TBM700N variant equipped with MOD70-0234-24:
- CRI F-52, Protection from effects of HIRF, Issue 4

CRI valid for TBM700N variant equipped with MOD70-0322-00:
- CRI C-101, load requirement for justification of winglets structural loads, issue 4

CRI valid for TBM700N variant equipped with optional MOD70-0476-00 Version C:
- CRI F-14, Electronic Stability and Protection (ESP) and Underspeed Protection (USP)

CRI valid for TBM700N variant equipped with optional MOD70-0388-25 (refer to Section 14.VI):
- CRI D-54, Installation of Inflatable Seat Restraints

CRI valid for TBM700N variant equipped with optional MOD70-0550-00
- CRI F-110, Auto-throttle for CS 23 Single Engine Aeroplane

CRIs valid for TBM700N variant equipped with optional MOD70-0650-34
- CRI F-201, Emergency Auto-land proper Functioning and Failure conditions.
- CRI F-202, Emergency Auto-land, compliance issues associated with emergency functions.

4. Exemptions

None.

5. Deviations

None.

6. Equivalent Safety Findings

ELOS valid for TBM700N equipped with MOD70-0324-00:
- CRI D-101 – cockpit control location and shape – powerplant control, Issue 4.

7. Requirements Elected to Comply

None.

8. Environmental Protection Standards

Noise:

ICAO Annex 16 Volume I, 8th Edition, Amendment 12, Chapter 10
(see TCDSN UK.TC.A.00048 for details)

FAR 36, Amendment 31, Appendix G

Prevention of intentional fuel venting:

ICAO Annex 16, Volume II, 2nd Edition, Amendment 4, Part II, Chapter 2

FAR 34, Amendment 6

9. Operational Suitability Requirements

MMEL: JAR-MMEL/MEL Amendment 1 dated 1 August 2005

III. Technical Characteristic and Operating Limitations

1. Type Design Definition

List of main drawings: T700 N°65/90 Ed.1 and up.

2. Description

Single-turbo-propeller engine, six to seven seats, low-wing airplane, aluminium and steel construction.

Introduction of Modifications:

- MOD70-0621-76 Engine power increase, Engine control and e-Throttle
- MOD70-0665-61 Five blades Raptor Propeller
- MOD70-0646-21 ENVIRO components based ECS
- MOD70-0753-00 Software Upgrade

These modifications are applicable to TBM700 N variant equipped with:

- MOD70-0476-00 (G3000 Integrated Flight Deck),
- MOD70-0211-57 (Fuel Tank Extension),
- MOD70-0322-00 (Aerodynamic efficiency Improvement),
- MOD70-0323-71 (Propulsion Efficiency Improvement),
- MOD70-0324-00 (Human Machine interface improvement),
- MOD70-0325-21 (Cabin comfort Improvement),
- MOD70-0357-71 (Take-off and landing operation at 850 SHP),
- MOD70-0439-79 (Oil pressure limits change),
- MOD70-0423-34 (Safe Flight: Lift transducer and AOA computer installation),
- MOD70-0549-00 (G3000 2018),
- MOD70-0462-34 (Standby Altitude module MD302),
- MOD70-0550-00 (Auto-throttle) and
- MOD70-0649-00 Version E (G3000 Software SR 5.1.8).

3. Equipment

Equipment list: See POH Sec 6.4, 6.5 and and report ref. NAV No.34/90-RJ-App8.

4. Dimensions

Span:	12.833 m	(42.1 ft)
Length:	10.736 m	(35.2 ft)
Height:	4.355 m	(14.3 ft)
Wing Area:	18.00 m²	(193.7 ft²)

5. Engine

5.1 Model

Turbo generator Pratt & Whitney type PT6E-66XT

5.2 Type Certificate

CAA Type Certificate UK.TC.E.00035

5.3 Limitations

Gas generator rotation speed: 39,000 RPM (104.1%)
Propeller rotation speed: 1,925 RPM
Maximum take-off and continuous power: 895 shp
For power-plant limitations refer to POH, Section 2.3.

6. Load Factors

Flaps up:

Weight below 6579 lbs (2984kg): - 1.5 ≤ n ≤ + 3.8 g

Weight above 6579 lbs (2984kg): - 1.5 ≤ n ≤ + 3.5 g

Flaps down: -0 ≤ n ≤ + 2.0 g

7. Propeller

7.1 Model

Hartzell Propeller Inc. Type 5D31-NK366B1/86DB01B

7.2 Type Certificate

CAA Type Certificate UK.TC.P.00041

7.3 Number of Blades

5

7.4 Diameter

2311 mm / 91 in

7.5 Direction of Rotation

Propeller rotates Clockwise in view of flight direction

7.6 Pitch

Low Pitch: 19.5°
Feather: 86.1°
Reverse: -9.3°

8. Fluids

8.1 Fuel

Jet A, Jet A1, Jet B, JP4, JP5, JP8, anti-ice additive according to the specification.MIL-I-27686 in the following proportions :
- Minimum content: 0.06% by volume
- Maximum content: 0.15% by volume

8.2 Oil

Refer to POH, Section 2.3.

8.3 Coolant

N/A

9. Fluid Capacities

9.1 Fuel

Two structural wing tanks:
Total capacity: 1,140 liters / 301 gal
Total usable capacity: 1,106 liters / 292 gal
Unusable quantity: 34 liters / 9 gal

9.2 Oil

Maximum: 12 liters / 12.7 qt
Minimum: 5.7 liters / 6 qt

9.3 Coolant System Capacity

None.

10. Airspeed Limits

V_{MO}	(Maximum operating speed)	271 KCAS
V_A	(Manoeuvring speed)	160 KCAS
V_{FE}	(Maximum flaps extended speed)	
	Landing configuration	120 KCAS
	Take off configuration	180 KCAS
V_{LO}	(Maximum landing gear operating speed)	
	Retraction	151 KCAS
	Extension	180 KCAS
V_{LE}	(Maximum landing gear extended speed)	180 KCAS

11. Flight Envelope

31,000 ft

12. Approved Operational Capability

Day & night VFR and day & night IFR operations when appropriate equipment is installed and operating correctly.
Refer to approved POH, Section 2.6

13. Maximum Certified Masses

Take-Off	3,454 kg (7,615 lbs)
Landing	3,225 kg (7,110 lbs)
Ramp	3,470 kg (7,650 lbs)

14. Centre of Gravity Range

From	To	Weight up to
4,604 mm (181.3 in) 14% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,000 kg (4,409 lbs)
4,664 mm (183.6 in) 18% of MAC	4,928 mm (194 in) 35.5 % of MAC	2,835 kg (6,250 lbs)
4,707 mm (185.3 in) 20.85% of MAC	4,928 mm (194 in) 35.5 % of MAC	2984 kg (6,579 lbs)
-	4,928 mm (194 in) 35.5% of MAC	3,169 kg (6,986 lbs)
4,752 mm (187.1 in) 23.8% of MAC	-	3,186 kg (7,024 lbs)
4,752 mm (187.1 in) 23.8% of MAC	4,921 mm (193.74 in) 35% of MAC	3,354 kg (7,394 lbs)
4,912mm (193.4 in) 34.4% of MAC	4,916 mm (193.6 in) 34.7% of MAC	3,454 kg (7,615 lbs)

Straight line between points given
MAC: Mean Aerodynamic Chord

15. Datum

3,000 mm (118.11 in.) ahead of front firewall face

16. Control surface deflections

Pitch Control

Elevator (Angles references: stabilator chord)	Nose-up attitude: Nose-down attitude:	30º ± 1.5º 10º ± 1º
Stabilator tab (elevator at 0º)	Nose-up attitude: Nose-down attitude:	15º ± 1º 20º ± 1º

Roll Control

Ailerons (Reference: wing chord)	up down	15º ± 1º 20º ± 1º
Spoiler (Reference: wing upper surface)	up down	58º + 2º / - 3° 20.5º + 1º /- 5°
Tab	up down	14º ± 1º 14º ± 1º

Yaw Control

Rudder (Reference: fin chord)	left turn right turn	26º ± 1º 35º ± 1.5º
Rudder tab (Reference: rudder chord)	left turn right turn	13.5° ± 1° 9.5° ± 1°

17. Levelling Means

Cabin floor mounting rails.

18. Minimum Flight Crew

One Pilot

19. Maximum Passenger Seating Capacity

5

20. Baggage/ Cargo Compartment

Front baggage (not pressurized)	50 kg (110 lbs)	at 3,250 mm (128.0 in)
6-seat accommodation:		
Rear baggage (in cabin)	100 kg (220 lbs)	at 7,560 mm (297.6 in)
4-seat accommodation:		
Rear baggage (in cabin)	80 kg (176 lbs)	at 6,586 mm (259.3 in)
	100 kg (220 lbs)	at 7,695 mm (303.0 in)

21. Wheels and Tyres

Nose Landing Gear Tyre:	5.00 x 5-6 PR
Main Landing Gear Tyre:	18 x 5.5-10 PR
Wheelbase:	2,910 mm (115 in)
Track:	3,880 mm (153 in)

IV. Operating and Service Instructions

1. Airplane Flight Manual (AFM)

DGAC/EASA approved Pilot Operating Handbook (POH):

- For TBM700 N variant from S/N 1409, airplanes equipped with modifications MOD70-0621-76, the Pilot’s Operating Handbook P/N DMMFM00EE0EN edition 0 at revision 0 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck“ (SVS) installed, Pilot’s Operating Handbook Supplement 50 P/N DMHFM50EE2EN edition 2 at revision 2 or later approved revision must be utilised.
    - For airplanes with optional modification MOD70-0505-25 “Cabinet installation: Lavatory compartment” installed, the Pilot’s Operating Handbook Supplement 63 Edition 1 (P/N DMJFM63EE1EN) at revision 1 or later approved revision must be utilised.

2. Maintenance Manual

For TBM700 N variant from S/N 1409, airplanes equipped with modification MOD70-0621-76, TBM Maintenance Manual P/N DMMMMPXEE0R0 edition 0 at revision 0 or following revisions (including Airworthiness Limitations) must be utilised.

V. Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Union Aviation Safety Agency under the EASA Type Certificate EASA.A.010 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014, and are therefore accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement.

1. Master Minimum Equipment List (MMEL)

TBM700 A, B, C, N Master Minimum Equipment List (MMEL) at Revision 04 approved on 20 July 2020 or later EASA approved revisions prior to 01 January 2021, or UK CAA approved revisions from 01 January 2021.

VI. Notes

1. Modification MOD70-0226-00 “Synthetic Vision System in GARMIN Integrated Flight Deck” (SVS) Version C:

   It is a modification applicable to s/n 1111-9999, that is to say for TBM700 N airplanes equipped with Modification MOD70-0476-00.

2. Optional modification MOD70-0388-25 “AMSAFE Airbag seat belts”:

   It is a modification applicable to s/n 1170-9999.

3. Optional modification MOD70-0505-25 Version C “Cabinet installation: Lavatory compartment”:

   It is a modification applicable to s/n 609-9999, for TBM700 N airplanes equipped with Modification MOD70-0315-25.

4. Optional modification MOD70-0510-27 “Stick shaker”.

   It is a modification applicable to s/n 1111-9999.

5. Optional modification MOD70-0650-34 Versions A & B “Emergency Autoland/HomeSafe System”:

   It is a modification applicable to s/n 1333-9999, for TBM700 N airplanes equipped with modifications MOD70-0649-00 Version E and MOD70-0550-00.

6. Refer to Section 1 for general data.

Section 15 Administration

I. Acronyms and Abbreviations

Acronym / Abbreviation	Definition
AFM	Airplane Flight Manual
AMM	Aircraft Maintenance Manual
CAA	Civil Aviation Authority (UK)
CRI	Certification Review Item
CS	Certification Specification
DGAC	Direction Générale de l'Aviation Civile
EASA	European Union Aviation Safety Agency
ELOS	Equivalent Level of Safety
ESF	Equivalent Safety Finding
EU	European Union
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FCD	Flight Crew Data
HIRF	High Intensity Radiated Fields
ICAO	International Civil Aviation Organisation
IFR	Instrument flight rules
ISA	International Standard Atmosphere
JAA	Joint Aviation Authorities
JAR	Joint Aviation Requirements
KCAS	Knots, Calibrated Airspeed
LOPA	Location of Passenger Accommodations
MAC	Mean Aerodynamic Chord
MEL	Minimum Equipment List
MLG	Main Landing Gear
MMEL	Master Minimum Equipment List
MOD	Modification
MTOW	Maximum Takeoff Weight
NLG	Nose Landing Gear
OSD	Operational Suitability Data
POH	Pilot Operating Handbook
PR	Ply Rating (of tyre)
RPM	Revolutions Per Minute
S/N, s/n	Serial Number
SC	Special Condition
shp	Shaft horsepower
SVS	Synthetic Vision System
TC	Type Certificate
TCDS	Type Certificate Data Sheet
TCDSN	Type Certificate Data Sheet for Noise
TCH	Type Certificate Holder
UK	United Kingdom of Great Britain and Northern Ireland
V_A	Manoeuvring speed
V_{FE}	Maximum flaps extended speed
VFR	Visual Flight Rules
V_{LE}	Maximum landing gear extended speed
V_{LO}	Maximum landing gear operating speed
V_{MO}	Maximum operating speed
WBM	Weight and Balance Manual

II. Type Certificate Holder Record

TCH Record	Period
DAHER AEROSPACE 7 avenue de l'UNION 94390 ORLY AEROGARE CEDEX FRANCE	Present. No changes.

III. Amendment Record

TCDS Issue No.	TCDS Issue Date	Changes	TC Issue and Date
1	17 Nov 2022	The content of the initial issue of this UK CAA TCDS was taken from EASA TCDS EASA.A.010 at Issue 15 dated 28 July 2020 which was the current EASA version at 31 December 2020 and therefore the version of the TCDS for the TBM700 Aircraft accepted by the UK under Article 15 of Annex 30 of the UK-EU Trade and Cooperation Agreement, except as listed below: Title Page, TC holder address updated. Section 1, General (All Models) added.Notes relating to all variants moved to Section 1 (previously Section M of TCDS.EASA.A.010 Issue 15). Section 14 added: Introduction of new Major Changes (UK.MAJ.00116): • MOD70-0621-76: "Engine power increase, Engine Control and e-Throttle" (includes reference to UK.TC.E.00035 for PT6A-67 Series Engines), • MOD70-0665-61: "5 blades Raptor Propeller" (includes reference to UK.TC.P.00048), • MOD70-0753-00: "Software Upgrade", • MOD70-0646-21: "ENVIRO components Based ECS", • MOD70-0680-10: "Weight and Balance Modification": Sections 2-13.II.5.2:Engine TCDS reference updated to reflect Issue of UK.TC.E.00035 for PT6A-67 Series Engines, replacing reference to EASA.IM.E.008 and TCCA E-21. Section 15.II, TC Holder address updated. Updates related to EU-Exit: Sections 2-13.I.7 State of Design TC number and history added. Sections 2-13.I.8 UK CAA Type Validation Date added. Sections 2-13.II.8 Reference to TCDSN UK.TC.A.00048 added. Sections 2-13.V OSD section added	Issue 1 17 Nov 2022

– END –