



TYPE-CERTIFICATE DATA SHEET

No. EASA.A.069

for

SAAB 2000

Type Certificate Holder:

Saab AB

581 88 Linköping

SWEDEN

For Models: SAAB 2000



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SECTION 1: SAAB 2000

I. General

1. Type/ Model/ Variant

SAAB 2000

2. Performance Class

A

3. Certifying Authority

European Aviation Safety Agency (EASA)
Postfach 101253
D-50452 Köln
Deutschland

4. Manufacturer

Saab AB
581 88 Linköping
SWEDEN

5. State of Design Authority Certification Application Date

28 April 1989

6. EASA Type Certification Application Date

N/A

7. State of Design Authority Type Certificate Date

31 March 1994

Note: Original LFV TC A 1/94 was replaced by the EASA TC EASA.A.069

8. EASA Type Certification Date

N/A

9. Production conditions

N/A



II. Certification Basis

1. Reference Date for determining the applicable requirements

28 April 1989

2. State of Design Airworthiness Authority Type Certification Data Sheet No.

Original LFV TC A 1/94 was replaced by the EASA TC EASA.A.069.

3. State of Design Airworthiness Authority Certification Basis

See below

4. EASA Airworthiness Requirements

JAR 25 Change 13, including JAR 25.1419 (Ice Protection) and JAR 25.801 (Ditching), and excluding JAR 25.562(c)(5) for front row seats (See Note 4 and 5).

JAR AWO at Change 1 for automatic landing and operations in low visibility.

5. Special Conditions

CRI	Topic
B-07	Propeller position in VMC demonstrations
B-09	Stalling speeds
B-12	Stalls, Critical Engine Inoperative
B-15	Steep Approach Operation
C-02	Tuned gust
C-06	Stalling speeds for structural design
C-07	Improved seat safety standard
C-08	Factors for engine torque
C-09	Rapid decompression
C-12	Rudder limiter – Interaction of systems and structure
C-13	PECS Interaction of systems and structure
D-01	Lightning protection – Indirect effects
D-02	Landing Gear Warning
D-04	Cargo and service doors
D-08	PECS Control signal integrity
D-10	PECS Emergency Pitch Trim System
E-08	Propeller reversing system
F-03	Operation without normal electrical power
F-04	Miscellaneous electrical requirements
F-05	Effect of external radiation upon aircraft systems
F-09	Function and reliability testing
F-11	Head-up Guidance System
H-01	Enhanced Airworthiness Programme for Airplane Systems – ICA on EWIS



6. Exemptions

Item / CRI	Topic
F-10	Application of national operational regulations regarding oxygen for TC

7. Deviations

No deviations have been granted.

8. Equivalent Safety Findings

CRI	Topic
B-08	Stall and Stall Warning speeds and manoeuvre capability
D-05	Fire protection of engine and APU mounts
D-07	Emergency lights "not armed" warning
D-12	Aisle width (Flight Inspection configuration; S/N 051 and 054)
D-13	Improved flammability standards for thermal and acoustic insulation materials used in Large aeroplanes
J-02	APU Instruments

9. Elect To Comply

N/A

10. Acceptable means of compliance

CRI	Topic
B-01	Controllability and manoeuvrability, stick forces
B-02	Stick pusher
B-03	Flight in Icing Conditions
B-04	Reduced and de-rated take-off thrust procedure
B-05	Temperature extrapolation limitations in take-off and climb
B-06	Minimum Control Speed
B-13	Take-off run on wet and contaminated runways
B-16	Take-off and Landing in Tailwind greater than 10 knots
B-17	Performance Credit for alternative forward centre of gravity limits
C-05	Electrical bonding and protection against lightning and static electricity (direct effects)
C-10	Fuel tank crashworthiness
D-03	Aeroplane wheel and wheel-brake assemblies
D-09	PECS Applicability of ACJ 25.1329
D-11	Automatic Flap retraction system (Mod. No. 5786)
E-03	Engine/Propeller control integration
E-04	Aircraft propulsion system equipped with electronic controls
F-02	Electronic instrument displays
F-06	Alerting system
F-07	Software verification
F-08	System design and analysis
F-12	Head-up Guidance System, CAT III, One Engine Out Landing
J-01	APU rotor non-containment



11. Environmental Protection

Refer to TCDSN EASA.A.069

III. Technical Characteristics and Operational Limitations

1. Type Design Definition

Defined by Type Specification 73VPS0010.
Drawings are defined in the Saab AB System List, Doc. No. 7300-0.
Type Record, Doc. No. 73CCS0426

2. Description

A low wing, twin-engine turboprop aircraft equipped to carry up to 53 passengers and cargo in a pressurized cabin and intended for short to medium haul routes.

3. Equipment

Equipment is listed in the SAAB 2000 Master Equipment Register, Doc. No. 73PDS0039.

4. Dimensions

	Dimensions	
Span	24,8m	(81 ft 3 in)
Length	27,3 m	(89 ft 6 in)
Height	7,7 m	(25 ft 4 in)
Wing Area	55,7 m ²	(600 ft ²)

5. Engines

2 engines – Rolls-Royce, Model AE2100A (See Note 1), free turbine turboprop
Power turbine/propeller reduction gearing 13.98:1

The maximum continuous and take-off static sea level ratings at ISA:

	Shaft horse power		Jet Thrust		Torquemeter Reading
	(kW)	(SHP)	(N)	(lbf)	(%)
Take-off Normal	2 788	3 738	3025	680	100
Take-off Max.	3 097	4 152	3305	743	111
Max, continuous	2 788	3 738	3025	680	100



6. Auxiliary Power Unit

Hamilton Sundstrand, Model T-62T-46C7 (APS 1000)

Limitations are stated in T-62T-46C7 Model Specification Sundstrand Doc. No. ESR0687

7. Propellers

2 propellers

	Propeller model	Blade config / Dimension	Note
Dowty Propellers	(c) R.381/6-123-F/5	Blades: 6 Diameter: 3.81 m (12 ft 6 in)	No reduction permitted

8. Fluids (Fuel, Oil, Additives, Hydraulics)

Jet A, Jet A-1, Jet B (ASTM D-1655), JP 5 (MIL-T-5624), JP-8 (MIL-T-83133D), as listed in the latest revision of Rolls-Royce Installation Design Manual No. CSP34006 for the AE2100A engine.

CIS fuels RT and TS-1 (GOST 10227), according to Allison Service Letter 2100A SL-011.

Location	Volume		Mass	
	l	U.S. Gal	kg	lbs
Pre Modification 5949 (Increased fuel capacity)				
Left wing	2650	700	2125	4685
Right wing	2650	700	2125	4685
Total Usable	5300	1400	4250	9370
Post Modification 5949 (Increased fuel capacity)				
Left wing	3067	810,5	2460	5423
Right wing	3067	810,5	2460	5423
Total Usable	6733	1779	5400	11904

Fuel weight based upon fuel density 0.802 kg/l (6.7 lb/U.S. Gal).

Max pressure for pressure fuelling is 350 kPa (50 psi)

9. Fluid Capacities

Refer to applicable approved manuals

10. Airspeed Limits

Indicated Airspeed – IAS – unless otherwise stated

Refer to Aeroplane Flight Manual



11. Flight Envelope

Maximum operating altitude: 9 450 m (31 000 ft) pressure altitude

12. Operating Limitations

Refer to Aeroplane Flight Manual

Engine	Rolls-Royce, Model AE2100A
Data sheets	TE1CH (FAA) IM.E.040 (EASA)

Propeller	Dowty Propellers, Model (c) R.381/6-123-F/5
Data sheet	114 (CAA-UK)

Other engine/propeller limitations: see the relevant Engine/Propeller Type Certificate Data Sheet.

12.1 Approved Operations

Transport commercial operations.
All Weather capability: CAT III

12.2 Other Limitations

Refer to Aeroplane Flight Manual

13. Maximum Certified Masses

	Mass		Note
	kg	lbs	
Taxi	23 200 kg	(51 140 lbs)	Pre Modification No. 5949 (Increased fuel capacity)
	23 000 kg	(50 700 lbs)	Post Modification. No. 5949 (Increased fuel capacity)
Take off	22 999 kg	(50 700 lbs)	Pre Modification No. 5949 (Increased fuel capacity)
	22 800 kg	(50 260 lbs)	Post Modification. No. 5949 (Increased fuel capacity)
Landing	22 000 kg	(48 500 lbs)	Pre Modification No. 5949 (Increased fuel capacity)
	22 000 kg	(48 500 lbs)	Post Modification. No. 5949 (Increased fuel capacity)
Zero Fuel	20 000 kg	(44 090 lbs)	Pre Modification No. 5949 (Increased fuel capacity)



	19 210 kg	(42 350 lbs)	Post Modification. No. 5949 (Increased fuel capacity)
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14. Centre of Gravity Range

Refer to Aeroplane Flight Manual

15. Datum

N/A.

16. Mean Aerodynamic Chord (MAC)

2.41 m

17. Levelling Means

Refer to Weight and Balance Manual.

18. Minimum Flight Crew

Two (Pilot and Co-pilot)

19. Minimum Cabin Crew

See paragraph 20.

20. Maximum Seating Capacity and Exit configuration

The table below provides the certified Maximum Passenger Seating Capacities (MPSC) and the associated minimum numbers of cabin crew members used to demonstrate compliance with the certification requirements:

Passenger Seating Capacity	Cabin crew
53 (See Note 2)	2

The corresponding cabin configuration (exits arrangement) is the following:

	Nr	Type	Size mm (inches)
Passenger door	1	Type I	0.68x1.62 m (27x63 in)
Service door	1	Type II	0.61x1.22 m (24x48 in)
Emergency exits	2	Type III	0.51x0.91 m (20x36 in)
Crew hatch	1	-	0.48x0.50 m (19x19.7 in)

21. Baggage/ Cargo Compartment

Cargo compartment	Maximum load
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Rear (bulk)	1 200 kg	(2645 lbs.)
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Refer to Weight and Balance Manual.

22. Wheels and Tyres

Main wheel tyres: A 32 x 8.8-16
Nose wheel tyres: A 18 x 5.5-8

23. ETOPS

N/A

IV. Operating and Service Instructions

1. Aeroplane Flight Manual (AFM)

Aeroplane Flight Manual	Document ref.
Standard version – Code 000	73LKS0042

2. Instructions for Continued Airworthiness and Airworthiness Limitations

Service document	Document ref.
Airworthiness Limitation Manual	2000LKS031010
Aircraft Maintenance Manual	73LKS0030
Wiring Manual	73LKS0032
Structural Repair Manual	73LKS0033
Maintenance Review Board Report	73LKS0035
Illustrated Parts Catalogue	73LKS0031
Certification Maintenance requirement based on System Safety Assessment	73DSS0106

Other limitations

Document	Document ref.
Aircraft Operations Manual for pre Modification 5949 aeroplanes	73LKS0041
Aircraft Operations Manual for post Modification 5949 aeroplanes	73LKS0505
Weight and Balance Manual	73LKS0034
Master Minimum Equipment List	73LKS0044

V. Operational Suitability Data (OSD)

Master Minimum Equipment List: CRI A-MMEL



The Operational Suitability Data element listed below is approved by the European Aviation Safety Agency under the EASA Type Certificate EASA.A.069 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014.

1. Master Minimum Equipment List

- a. The Master Minimum Equipment List has been approved as per the defined Operational Suitability Data Certification Basis and as documented in SAAB 2000 Master Minimum Equipment List, ref: 73LKS0044 at the latest applicable revision.
- b. Required for entry into service by EU operator.

VI. Notes

1. Engine Model AE2100A is same as Model GMA 2100A.
2. An interior layout for 53 passengers requires mod 5407 to be installed.
3. An aeroplane with mod 5949 is an aeroplane with increased fuel capacity. Maximum weights are reduced.
4. Ditching requires mod nos. 5352, 5540 and 6054 to be installed.
5. Ditching provision (i.e. excluding life rafts) requires mod nos. 5352, 5540 and 6054 to be installed.



SECTION: ADMINISTRATIVE**I. Acronyms and Abbreviations**

AFM	Airplane Flight Manual
ALM	Airworthiness Limitation Manual
APU	Auxiliary Power Unit
CRI	Certification Review Item
CS	Certification Specification
EASA	European Aviation Safety Agency
ES(F)	Equivalent Safety (Finding)
EWIS	Enhanced Wiring Interconnection System
ICA	Instructions for Continued Airworthiness
JAA	Joint Aviation Authorities
JAR	Joint Aviation Requirements
LFV	Luftfartsverket (Swedish Civil Aviation Administration)
NPA	Notice of Proposed Amendment
SB	Service Bulletin
SC	Special Condition
TC	Type Certificate
TCDS	Type Certificate Data Sheet
TCDSN	Type Certificate Data Sheet for Noise

II. Type Certificate Holder Record

Saab AB, Support and Services
581 88 Linköping
SWEDEN

III. Change Record

Starting with issue 09

Issue	Date	Changes	TC issue
09	16/12/2011	Type Certificate Holder's name changed. Addition of CRI H-01 for ICA on EWIS and CRI D-9 for Improved Flammability Standards New TCDS format plus some editorials.	Issue 1, dated 31/03/1994 (LFV A 1/94)
10	27/06/2018	Type Certificate Holder's name changed. Typo correction. TCDS reformatting Addition of CRI A-MMEL for OSD	dated 25 June 2018

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