



European Aviation Safety Agency

EASA

**TYPE-CERTIFICATE
DATA SHEET**

No. EASA.A.069

**for
SAAB 2000**

**Type Certificate Holder:
Saab AB, Aeronautics**

SE-581 88 Linköping
SWEDEN

Airworthiness Category: Large Aeroplanes

For Models: SAAB 2000

Intentionally left blank

TABLE OF CONTENT

SECTION 1: SAAB 2000	4
I. General.....	4
II. Certification Basis.....	4
III. Technical Characteristics and Operational Limitations	6
IV. Operating and Servicing Instructions	9
V. Notes	9
SECTION: ADMINISTRATIVE	10
I. Acronyms and Abbreviations.....	10
II. Type Certificate Holder Record	10
III. Change Record	10

SECTION 1: SAAB 2000

I. General

- | | |
|---|---|
| 1. Type/ Model/ Variant: | SAAB 2000 |
| 2. Performance Class: | A |
| 3. Certifying Authority: | EASA |
| 4. Manufacturer: | Saab AB, Aeronautics
SE-581 88 Linköping
SWEDEN |
| 5. Reference Application Date
for EASA Certification: | 28 April 1989 |
| 6. JAA Recommendation Date: | 22 March 1994 |
| 7. EASA Type Certification Date:
Formerly LFV TC A 1/94
(remains a valid reference) | 31 March 1994 |

II. Certification Basis

1. EASA Airworthiness Requirements

CRI A-01 Joint Type Certification Basis

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 Change 1.

2. Special Conditions

Special Conditions related to novel or unusual design features or unconventional usage:

CRI C-12 Rudder limiter – Interaction of systems and structure
CRI C-13 PECS Interaction of systems and structure
CRI D-08 PECS Control signal Integrity
CRI D-10 PECS Emergency Pitch Trim System

Special Conditions related to general experience:

CRI B-07 Propeller position in V_{MC} demonstrations
CRI C-02 Tuned gust
CRI C-07 Improved seat safety standard
CRI C-08 Factors for engine torque
CRI C-09 Rapid decompression
CRI D-01 Lightning protection – Indirect effects

SECTION 1: SAAB 2000 - continued

CRI D-04	Cargo and service doors
CRI E-08	Propeller reversing system
CRI F-03	Operation without normal electrical power
CRI F-04	Miscellaneous electrical requirements
CRI F-05	Effect of external radiation upon aircraft systems
CRI F-09	Function and reliability testing
CRI H-01	Enhanced Airworthiness Programme for Airplane Systems – ICA on EWIS

Special Conditions elected by manufacturer:

CRI B-09	Stalling speeds
CRI B-12	Stalls, Critical Engine Inoperative
CRI B-15	Steep Approach Operation
CRI C-06	Stalling speeds for structural design
CRI D-02	Landing Gear Warning
CRI F-11	Head-up Guidance System

Acceptable means of compliance and interpretations as well as Advisory material associated with or additional to the EASA Certification Basis:

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

3. Exemptions

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

SECTION 1: SAAB 2000 - continued

4. Equivalent Safety Findings

Equivalent Safety Findings in accordance with LFV Issue Book

- CRI B-08 Stall and Stall Warning speeds and manoeuvre capability
- CRI D-05 Fire protection of engine and APU mounts
- CRI D-07 Emergency lights "not armed" warning
- CRI D-12 Aisle width (Flight Inspection configuration; S/N 051 and 054)
- CRI D-13 Improved Flammability Standards for Thermal Acoustic Insulation Materials used in Large Aeroplanes
- CRI J-02 APU Instruments

5. Environmental Protection Standards

Noise: See TCDSN A.069

III. Technical Characteristics and Operational Limitations

- 1. Production Basis: Manufactured under Type Certificate
- 2. 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
- 3. 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.
With reference to mod 5949, see Note 3.
- 4. Equipment: Equipment is listed in the SAAB 2000 Master Equipment Register, Doc. No. 73PDS0039

5. Dimensions

Span	24,8 m	(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)

- 6. Engines: 2 engines – Rolls-Royce, Model AE2100A (See Note 1), free turbine engine.
Engine TCDS No EASA.IM.E.040.
Power Turbine/propeller reduction gearing 13.98:1.

SECTION 1: SAAB 2000 - continued

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

	Shaft Horse Power		Jet Thrust		Power Units
	(kW)	(SHP)	(N)	(lbf)	(%)
Take-off Normal	2788	3738	3025	680	100
Take-off Max.	3097	4152	3305	743	111
Max Cont.	2788	3738	3025	680	100

7. Auxiliary Power Unit: Hamilton Sundstrand, Model T-62T-46C7 (APS 1000)
Limitations are stated in T-62T-46C7 Model Specification Sundstrand Doc. No. ESR0687.
8. Propellers: 2 propellers
Dowty Propellers, Model (c) R.381/6-123-F/5
Blades: 6
Diameter: 3.81 m (12 ft 6 in)
Propeller TCDS CAA No. 114
9. Fluids (Fuel, Oil, Additives, Hydraulics) Jet A, Jet A-1 (ASTM D-1655), JP-5 (MIL-T-5624), JP-8, as listed in the latest revision of Rolls-Royce Installation Design Manual No. CSP34006 for the AE2100A engine. CIS fuels TS-1, RT (GOST 10227) according to Allison Service Letter 2100A SL-011.

In addition, all aviation gas turbine fuels conforming to the latest revision of GE Jet Fuel Specification No. D50TF2 for the GE CT7 engine installation are approved.

Location	Volume		Weight	
	Litres	U.S. Gal	kg	lb
<i>Without mod. 5949</i>				
Left wing	2650	700.0	2125	4685
Right wing	2650	700.0	2125	4685
Total Usable	5300	1400.0	4250	9370
<i>With mod. 5949</i>				
Left wing	3067	810.5	2460	5423
Right wing	3067	810.5	2460	5423
Center	599	158.0	480	1058
Total Usable	6733	1779.0	5400	11904

Fuel weight based upon fuel density 0.802 kg/l (6.7 lb/U.S. Gal).
Pressure fuelling.
Max. pressure for pressure fuelling is 350 kPa (50 psi).

10. Fluid Capacities: Refer to applicable approved manuals
11. Airspeed Limits: See Airplane Flight Manual

SECTION 1: SAAB 2000 - continued

12. Maximum Operating Altitude: 9 450 m (31 000 ft) pressure altitude

13. All Weather Capability: Cat III

14. Maximum Certified Masses:

Taxi	23 200 kg	(51 140 lb)	
	23 000 kg	(50 700 lb)	With Mod. No. 5949
Takeoff	22 999 kg	(50 700 lb)	
	22 800 kg	(50 260 lb)	With Mod. No. 5949
Landing	22 000 kg	(48 500 lb)	
	22 000 kg	(48 500 lb)	With Mod. No. 5949
Zero Fuel	20 000 kg	(44 090 lb)	
	19 210 kg	(42 350 lb)	With Mod. No. 5949

15. Centre of Gravity Range: See Airplane Flight Manual

16. Mean Aerodynamic Chord: 2.41 m
(MAC)

17. Levelling Means: See Weight and Balance Manual

18. Minimum Flight Crew: Two (Pilot and Co-pilot)

19. Maximum Seating Capacity: 53 Passengers (See Note 2)

20. Exits:

	Nr	Type	Size mm (inches)
Passenger door	1	Type I	0.68x1.62 m (27x63 in)
Service/ emergency 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:

Location	Maximum Baggage
Rear Cargo	1 200 kg (2 645 lb)

See 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

SECTION 1: SAAB 2000 - continued

IV. Operating and Servicing Instructions

1. Flight Manuals:

1.1	Airplane Flight Manual: AFM 2000 Code 000	Doc. No. 73LKS0042
1.2	Aircraft Operations Manual - Without mod. 5949 - With mod. 5949	73LKS0041 73LKS0505
1.3	Weight and Balance Manual	73LKS0034
1.4	Master Minimum Equipment List (MMEL)	73LKS0044

2. Service Instructions:

2.1	EASA Airworthiness Directives Swedish Airworthiness Directives (SAD)	
2.2	Service Letter and Service Bulletins	
2.3	Available service documents:	Doc. No.
	Aircraft Maintenance Manual	73LKS0030
	Wiring Diagram Manual	73LKS0032
	Structural Repair Manual	73LKS0033
	Maintenance Review Board Report	73LKS0035
	Illustrated Parts Catalogue	73LKS0031
	System Schematics Manual	73LKS0287
	Certification Maintenance requirement based on System Safety Assessment	73DSS0106

V. 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 aircraft with mod 5949 is an aircraft 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
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, Aeronautics
SE-581 88 Linköping
SWEDEN

III. Change Record

Starting with Issue 09

Issue	Date	Changes	TC issue
Issue 09	16/12/2011	Type Certificate Holder's name changed. Addition of CRI H-01 for ICA on EWIS and CRI D-13 for Improved Flammability Standards New TCDS format plus some editorials	Issue 1, 31/03/1994 (LFV A 1/94)

[insert rows as necessary]

-END-