

Saab Aircraft AB**AIRPLANE FLIGHT MANUAL SUPPLEMENT No. S12/95****R.P.M. and MANEUVER LIMITATIONS****TAKE-OFF and LANDING PERFORMANCE****WEIGHT & BALANCE and FUEL PROCEDURES**

This supplement forms a part of the Airplane Flight Manual approved by LFV – The Swedish Civil Aviation Administration (formerly The Royal Board of Civil Aviation). The information contained herein supplements or supersedes the Airplane Flight Manual only in those areas listed herein. For Limitations, Procedures and Performance information not contained in this appendix, consult the applicable Airplane Flight Manual.

Any information in the basic Airplane Flight Manual that is contrary to information in this Supplement shall be crossed over.

LFV Approved May 17/95


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LIST OF EFFECTIVE PAGES

The following pages comprise Supplement No. S12/95, which shall be used as a complement to the AFM SAAB 91B-C SAFIR.

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LIMITATIONS**POWERPLANT INSTRUMENT MARKINGS****RPM Indicator:**

Green arc (normal operating range): 1900 to 2550 rpm.

Red line (maximum): 2550 rpm.

CAUTION -

Avoid continuous operation between 2080 and 2300 rpm with metal propeller.

MANEUVERING LOAD FACTORS**Normal category:**

All acrobatic maneuvers including spin prohibited. Stalls are permitted.

Flaps retracted: + 3.8 to -1.5

Flaps extended: + 2.0 to +-0.

Aerobatic category:

Flaps retracted: + 4.8 to -2.4

Flaps extended: + 2.0 to +-0.

NOTE

Application of aileron in the direction of rotation will increase rotation rate considerably.

PERFORMANCE**A. TAKE-OFF****SPEEDS:**

TAKE-OFF SAFETY SPEED (= speed at 50 ft / 15m)							
TOW, kg	900	950	1000	1050	1100	1165	1215
IAS, km/h	108	109	112	115	118	123	127

NOTE

The above speeds are based on $V_X + 8$ km/h, in accordance with CAR 3.84 (b).
It is recommended to use the above speeds also as lift-off speeds.

DISTANCES (at MTOW):**NOTE**

The tables below apply to private flying only. For training flights, commercial flights etc., the distances shall be multiplied by 1.25 (BCL-D1.5).

NOTE

1. The take-off distance may be reduced by 13 % per 100 kg below MTOW.
2. The take-off distance may be reduced by 1 % per knot headwind.
3. Increase take-off distance by 4 % per knot tailwind.

- Corrections for surface conditions**NOTE**

The correction factors below should be taken as guidance only. In adverse conditions, considerably larger corrections are necessary and may preclude take-off.

Increase take-off distances by factors below:

- Dry, cut grass (5 – 10 cm): 10 %
- Wet, soft, long grass: 50 % or more
- Water or slush (max. depth 1 cm): 20 % per cm
- Compacted snow: 10 % per cm
- Loose, dry snow: 5 % per cm.

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A. TAKE-OFF (cont'd...)**91 B**

TAKE-OFF DISTANCE (In meters) TO 50 ft (15m) at different OATs (°C)						
Airport pressure altitude		Conditions: Max. Take-off Weight (MTOW) = 1165 kg. Full throttle; Flaps at take-off setting; Paved, level, dry runway; Zero wind.				
Ft	m	-15°C	0°C	+15°C	+25°C	+35°C
0	0	505	525	545	560	575
1650	500	620	645	665	685	700
3300	1000	750	780	800	820	835
5000	1500	895	925	955	975	995
6500	2000	1070	1100	1150	1180	1200

91 C

TAKE-OFF DISTANCE (In meters) TO 50 ft (15m) at different OATs (°C)						
Airport pressure altitude		Conditions: Max. Take-off Weight (MTOW) = 1215 kg. Full throttle; Flaps at take-off setting; Paved, level, dry runway; Zero wind.				
Ft	m	-15°C	0°C	+15°C	+25°C	+35°C
0	0	585	610	630	650	665
1650	500	715	740	770	785	800
3300	1000	865	895	920	940	960
5000	1500	1085	1125	1160	1200	—
6500	2000	1300	1370	1460	—	—

B. LANDING**SPEEDS:**

IAS at 50 ft (15 m): 135 km/h.

DISTANCES (at MLW):**NOTE**

The take-off distance may be reduced by 1 % per 100 kg below MTOW.

- Corrections for surface conditions**NOTE**

The correction factors below should be taken as guidance only. In adverse conditions, considerably larger corrections are necessary.

Increase landing distances by factors below:

- Wet, cut grass (5 – 10 cm): 20 %
- Wet, compacted snow, or wet ice: 50 %
- Dry, compacted snow, or dry ice: 20 %

91 B

LANDING DISTANCE (in meters) at different OATs (°C)						
Airport pressure altitude		Conditions: Max. Landing Weight (MLW) = 1165 kg. Power off; Flaps down (43 degrees); Paved, level, dry runway; Zero wind.				
Ft	m	-15°C	0°C	+15°C	+25°C	+35°C
0	0	715	745	775	795	820
1650	500	745	805	815	835	860
3300	1000	780	840	855	880	910
5000	1500	825	880	905	930	955
6500	2000	870	915	950	970	1005

91 C

LANDING DISTANCE (in meters) at different OATs (°C)						
Airport pressure altitude		Conditions: Max. Landing Weight (MLW) = 1215 kg. Power off; Flaps down (43 degrees); Paved, level, dry runway; Zero wind.				
Ft	m	-15°C	0°C	+15°C	+25°C	+35°C
0	0	720	750	785	815	835
1650	500	765	795	830	860	880
3300	1000	800	835	870	900	930
5000	1500	845	885	920	945	970
6500	2000	885	930	965	995	1020

WEIGHT & BALANCE

It is the responsibility of the Pilot-in-Command to check that weight limits are not exceeded, and that the center of gravity is maintained within limits during flight. The check shall be carried out using loading instructions and/or load sheet.

FUEL**FUEL QUANTITY CHECK**

91B: At a remaining fuel quantity of 50 L, switch to RESERV/TANK (Auxiliary tank).

91C: At a remaining fuel quantity of 30 L in the tank selected, switch to the other tank if this has more fuel.