



SAAB

Saab Aircraft AB

Eva Snejder

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ACDA-03.052

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To: All holders of an Airplane Flight Manual AFM SAAB 91B-C SAFIR

REVISIONS TO SUPPLEMENTS

Subject: **Revision No. 1**

Date: May 05/03

| <u>Page</u> | <u>Reason for change</u> |
|-------------|--|
| Title Page | Editorial, word in text changed from appendix to supplement. |
| 1 | Revised to reflect changes in this revision. |
| 5 | Text added to clarify that the operational factor (1.43) is included in the tables for the Landing Distance. |
| All | Editorial, all pages are updated to current Saab layout and typographical standard. |

With kind regards,

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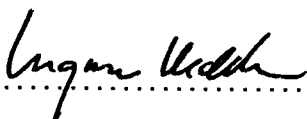
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Saab Aircraft AB**AIRPLANE FLIGHT MANUAL SUPPLEMENT No. S12/95****R.P.M. and MANEUVER LIMITATIONS****TAKE-OFF and LANDING PERFORMANCE****WEIGHT & BALANCE and FUEL PROCEDURES**

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 supplement, 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 05/03 (Initially Issued May 17/95)



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Ingmar Hedblom

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.

REVISION No: 1

Date: May 05/03

APPROVED BY LFBV:



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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/ 15 m) | | | | | | | |
|---|-----|-----|------|------|------|------|------|
| 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 distance 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.

(Cont'd...)

PERFORMANCE (cont'd)

A. TAKE-OFF (cont'd)

91B

| TAKE-OFF DISTANCE (in meters) TO 50 ft (15 m) 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 |

91C

| TAKE-OFF DISTANCE (in meters) TO 50 ft (15 m) 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 | - | - |

(Cont'd...)

PERFORMANCE (cont'd)

B. LANDING

Landing Distance = By manufacturer measured landing distance from 50 feet multiplied by 1.43.

Speeds:

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

DISTANCES (at MLW):

NOTE
The Landing Distance may be reduced by 1 % per 100 kg below MLW.

– Correction 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 %

91B

| 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 |

(Cont'd...)

PERFORMANCE (cont'd)

91C

| 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.