

LOAD DATA SHEET - PAGE 1 OF 3 - AEROPLANE WEIGHT

Aeroplane Type:..... DIAMOND DA 42 NG

Registration Marking:..... **VH-ULO** Serial No: 42.N473

ISSUE:..... ONE	DATE:..... 26-Jan-23	EXPIRY:..... INDEFINITE
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AEROPLANE WEIGHT AND CENTRE OF GRAVITY DATA:

ITEM	WEIGHT (Kg)	ARM (mm aft of datum)	MOMENT (Kg.mm)	CABIN CONFIGURATION
EMPTY	1460.0	2405.0	3511320	FOUR SEATS TOTAL
STANDARD CABIN CONFIGURATION AUSTRO ENGINES & MT PROPELLERS				
THE FOLLOWING IMPERIAL UNITS ARE FOR USE WITH THE PILOTS HANDBOOK SECTION SIX				
	(lb)	(in)	(in.lb)	
EMPTY	3218.7	94.69	304769	FOUR SEATS TOTAL

NOTE: The above empty weights include:-

EMPTY - unusable fuel and full oil

AeroWeigh Pty. Ltd.
BRUCE C. BOLD
AUTHORITY MEMBER AN-9
MOBILE: 0412 59 5551

LOAD DATA SHEET - PAGE 3 OF 3 - LOADING SYSTEM

Aeroplane Type:..... DIAMOND DA 42 NG

Registration Marking:..... **VH-ULO** Serial No: 42.N473

ISSUE:..... ONE	DATE:..... 26/1/23
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Refer to Diamond DA 42 NG Aircraft Flight Manual

CAUTION

This aircraft can be easily loaded beyond the Centre of Gravity Limits. During load check calculations, particular attention should be made to the aft loading situations with rear cabin passengers or baggage.



LOAD DATA SHEET - PAGE 2 OF 3 - EQUIPMENT LIST

This list details the items included in the empty weight shown in Page 1.

Aeroplane Type:..... DIAMOND DA 42 NG

Registration Marking:..... **VH-ULO** Serial No: 42.N473

ISSUE:..... ONE

DATE:..... 26/1/23

ENGINES/PROPELLERS

Austro E4-C..... 2

MT MTV-6-R-C-F..... 2

COMPASSES

Magnetic..... 1

Remote Indicating..... 1*

THERMOMETERS

Engine Temp(Cyl.Hd.)..... 2*

Oil Temp..... 2*

Outside Air Temp..... 1*

INDICATORS

Airspeed..... 1*

Airspeed (Standby)..... 1

Directional Indicator..... 1*

E.G.T..... 2*

Hourmeters..... 0

Fuel Flow..... 2*

Attitude Indicator..... 1*

Gyro Horizon (Standby)..... 1

Stall Warning..... 1

Tacho Non-recording..... 2*

Trim Indicator..... 1

Landing Gear Position..... 4 Lights

Vertical Speed..... 1*

Wing Flap Position..... 3 Lights

Assigned Altitude..... 1*

AVIONICS EQUIPMENT (TYPE)

ADF..... 0

Autopilot..... GARMIN GFC-700

Speakers..... 1

G/slope..... SEE NAVS

Headsets..... 1

GPS/Com..... GARMIN GIA64W (x2)

MF Display.. GARMIN GDU1055

PF Display... GARMIN GDU1050

Audio..... GARMIN GMA1360

Txponder.... GARMIN GTX345R

AHRS..... GARMIN GRS79

Air Data..... GARMIN GDC-72

Analyzer..... GARMIN GEA71B

OAT Probe.. GARMIN GTP59

Traffic..... 0

Magntomtr... GARMIN GMU44

Stormscope.. 0

Radar..... GARMIN GWX70

Bluetooth.... FLIGHTSTREAM 510

*** ITEMS MARKED ARE PART OF GARMIN G1000 Nxi DISPLAYS****INSTRUMENTS**

Altimeters..... 1*

Altimeters (Standby)..... 1

Ammeters..... 1*

Voltmeters..... 1*

Clocks..... 0

GAUGES

Engine Oil Pressure..... 2*

Fuel Contents..... 2*

Fuel Pressure..... 2*

Manifold Pressure..... 2*

Oxygen Pressure..... 1

LIGHTS

White Strokes (tips)..... 2

Inst. Full Panel Flood..... 1

Landing/Taxi..... 2

Map Reading..... 1

Navigation..... 4

Cockpit..... 2

Passenger Overhead..... 1

RESTRAINT EQUIPMENT

Baggage Net..... 1

Lap-sash/Inertia..... 4

MISCELLANEOUS EQUIPMENT

Dual Controls..... 1

Engine Fire Warning..... 2

Fire Ext.(Portable)..... 1

Land.Gear Warn.Horn..... 1

Hydraulic Pump..... 1

Heated Pitots..... 1

Alternate Static..... 1

Electric Trim..... 1

USB Ports..... 2

Oxygen System..... 1

DISPOSABLE LOAD LIST

Flight Manual..... 1

First Aid Kit..... 1

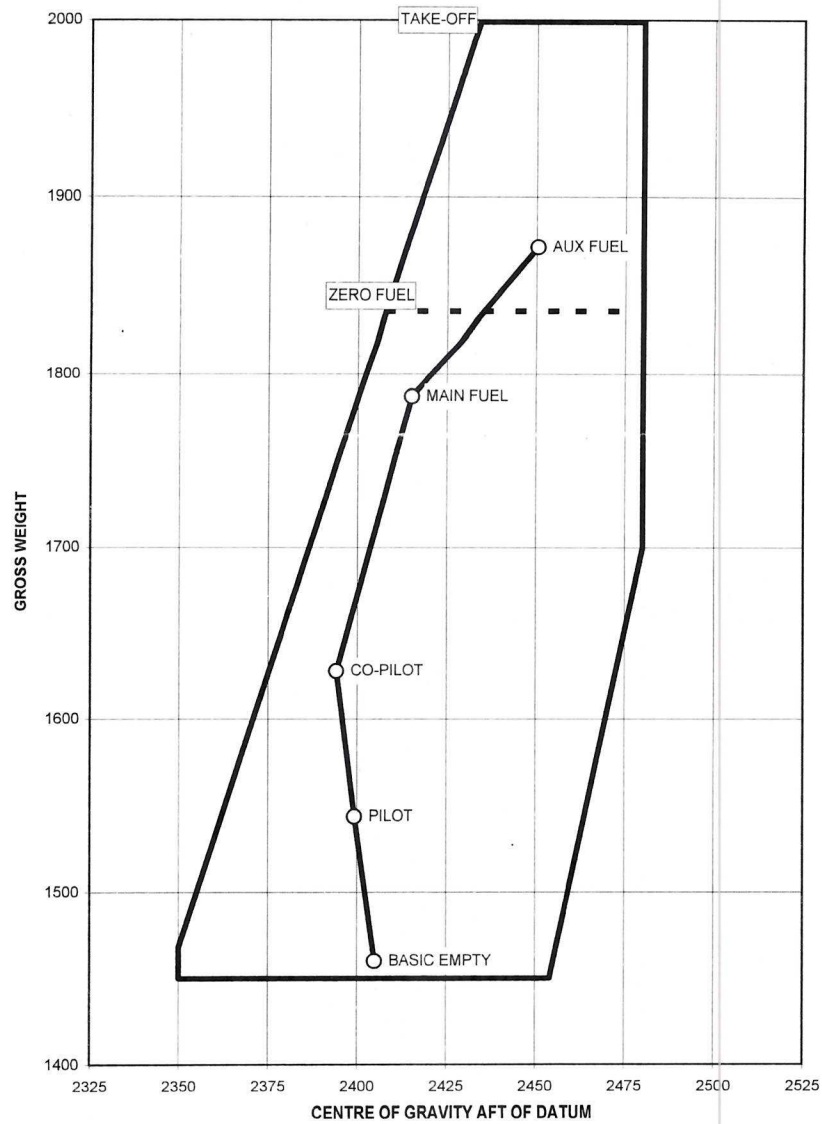
Crash Axe (Hammer)..... 1

Torch..... 1

V.S.Beacon/E.L.T..... Kannad 406

VH-ULO

DIAMOND DA 42 NG



MAIN PLOT - BASIC AIRCRAFT PLUS
TWO FRONT OCCUPANTS @ 84 Kg EACH
WITH FULL MAIN & AUX FUEL



5.3.6 TAKE-OFF DISTANCE

Conditions:

- Power lever both MAX
- Flaps UP or APP
- Runway dry, paved, level
- Nose wheel lift-off @ v_R
- Airspeed for initial climb @ v_{50}

The following factors are to be applied to the computed take-off distance for the noted condition:

- Headwind: Decrease by 10% for each 14 kt (7.2 m/s) headwind.
- Tailwind: Increase by 10% for each 3 kt (1.5 m/s) tailwind.
- Grass runway, dry, 5 cm (2 in) long: Increase the ground roll by 10%.
- Grass runway, dry, 5 cm (2 in) to 10 cm (3.9 in) long: Increase the ground roll by 15%.
- Grass runway, dry, 25 cm (9.8 in) long: Increase the ground roll by 25%.
- Grass runway, longer than 25 cm (9.8 in): A take-off should not be attempt.
- Grass runway, wet: Increase the dry grass runway distance calculation by 10%.
- Soft ground: Increase the ground roll by 45% (in addition to the grass runway distance calculation, if applicable).
- Uphill slope: Increase the ground roll by 9% for each 1% (1 m per 100 m or 1 ft per 100 ft) slope.

If brakes are not held while applying power, distances apply where full power setting is complete.

WARNING

For a safe take-off the available runway length must be at least equal to the take-off distance over a 50 ft (15 m) obstacle.

WARNING

Poor maintenance condition of the airplane, deviation from the given procedures, uneven runway, as well as unfavorable external factors (rain, unfavorable wind conditions, including cross-wind) will increase the take-off distance.

CAUTION

The factors in the above corrections are typical values. On wet ground or wet soft grass covered runways the take-off roll may become significantly longer than stated above. In any case the pilot must allow for the condition of the runway to ensure a safe take-off.

The above corrections for runway slope should be used with caution since published runway slope data is usually the net slope from one end of the runway to the other. Runways may have positions at their length at greater or lesser slopes than published slope, lengthening (or shortening) the take-off roll estimated with these tables.

NOTE

The effect of 50% of the headwind component and 150% of the tailwind component is already incorporated in the head- and tailwind factors.

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Take-Off Distance - Normal Procedure - 1999 kg / 4407 lb								
Weight: 1999 kg / 4407 lb			Flaps: UP					
V_R: 76 KIAS			Power: MAX					
V₅₀: 83 KIAS			Runway: dry, paved, level					
Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	400	420	440	470	560	680	424
	15 m / 50 ft	730	760	790	870	1050	1330	776
1000 305	Ground Roll	420	440	470	510	610	730	444
	15 m / 50 ft	760	800	840	930	1150	1450	804
2000 610	Ground Roll	440	460	500	540	660	790	462
	15 m / 50 ft	800	840	890	1000	1260	1570	836
3000 914	Ground Roll	460	490	520	590	710	860	485
	15 m / 50 ft	840	880	940	1080	1360	1710	869
4000 1219	Ground Roll	490	520	560	640	780	930	505
	15 m / 50 ft	880	920	1000	1170	1490	1850	906
5000 1524	Ground Roll	520	550	600	690	840		531
	15 m / 50 ft	920	980	1070	1280	1620		944
6000 1829	Ground Roll	550	580	640	760	920		556
	15 m / 50 ft	970	1030	1140	1400	1760		986
7000 2134	Ground Roll	580	620	680	820	990		582
	15 m / 50 ft	1030	1100	1220	1530	1910		1029
8000 2438	Ground Roll	620	660	730	900	1080		611
	15 m / 50 ft	1090	1170	1320	1660	2080		1078
9000 2743	Ground Roll	660	710	800	980	1180		642
	15 m / 50 ft	1150	1240	1450	1840	2280		1128
10000 3048	Ground Roll	700	770	900	1100			676
	15 m / 50 ft	1230	1360	1640	2110			1182
For the distance in [ft] divide by 0.3048 or multiply by 3.28.								

Take-Off Distance - Normal Procedure - 1900 kg / 4189 lb

Weight: 1900 kg / 4189 lb

Flaps: UP

V_R: 76 KIAS

Power: MAX

V₅₀: 83 KIAS

Runway: dry, paved, level

Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	370	390	410	450	520	640	400
	15 m / 50 ft	670	710	730	800	960	1210	716
1000 305	Ground Roll	390	410	440	480	570	690	417
	15 m / 50 ft	710	740	780	860	1060	1310	743
2000 610	Ground Roll	420	440	470	510	620	750	435
	15 m / 50 ft	740	770	820	920	1150	1420	773
3000 914	Ground Roll	440	460	490	550	670	810	456
	15 m / 50 ft	770	810	870	990	1250	1550	803
4000 1219	Ground Roll	460	490	530	600	730	880	477
	15 m / 50 ft	810	850	920	1080	1350	1670	838
5000 1524	Ground Roll	490	520	560	650	790		500
	15 m / 50 ft	850	900	990	1180	1470		874
6000 1829	Ground Roll	520	550	600	710	860		523
	15 m / 50 ft	900	950	1050	1280	1600		910
7000 2134	Ground Roll	550	590	640	780	930		549
	15 m / 50 ft	950	1010	1130	1400	1740		951
8000 2438	Ground Roll	580	620	690	840	1010		577
	15 m / 50 ft	1000	1080	1210	1520	1880		995
9000 2743	Ground Roll	620	670	760	920	1110		606
	15 m / 50 ft	1060	1150	1330	1680	2090		1040
10000 3048	Ground Roll	660	720	840	1030			638
	15 m / 50 ft	1140	1250	1500	1910			1094

For the distance in [ft] divide by 0.3048 or multiply by 3.28.

Take-Off Distance - Normal Procedure - 1700 kg / 3748 lb								
Weight: 1700 kg / 3748 lb			Flaps: UP					
V_R: 76 KIAS			Power: MAX					
V₅₀: 83 KIAS			Runway: dry, paved, level					
Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	330	350	360	390	460	560	350
	15 m / 50 ft	580	600	630	680	810	1010	613
1000 305	Ground Roll	350	360	390	420	500	600	367
	15 m / 50 ft	598	630	670	730	890	1100	633
2000 610	Ground Roll	370	390	410	450	540	650	384
	15 m / 50 ft	630	660	700	780	970	1190	661
3000 914	Ground Roll	390	410	440	480	590	710	401
	15 m / 50 ft	660	700	740	840	1050	1290	689
4000 1219	Ground Roll	410	430	460	530	640	770	420
	15 m / 50 ft	700	730	790	910	1140	1390	717
5000 1524	Ground Roll	430	460	490	580	700		439
	15 m / 50 ft	730	770	840	1000	1240		748
6000 1829	Ground Roll	460	490	530	630	760		461
	15 m / 50 ft	770	820	900	1090	1340		779
7000 2134	Ground Roll	480	520	560	680	820		483
	15 m / 50 ft	810	870	960	1180	1450		815
8000 2438	Ground Roll	520	550	610	740	890		507
	15 m / 50 ft	860	920	1030	1290	1570		853
9000 2743	Ground Roll	550	590	670	810	970		532
	15 m / 50 ft	910	980	1130	1410	1740		891
10000 3048	Ground Roll	590	640	740	910			560
	15 m / 50 ft	980	1070	1270	1600			935
For the distance in [ft] divide by 0.3048 or multiply by 3.28.								

Take-Off Distance - Short Field Procedure - 1999 kg / 4407 lb

Weight: 1999 kg / 4407 lb

Flaps: APP

 V_R : 74 KIAS

Power: MAX

 V_{50} : 79 KIAS

Runway: dry, paved, level

Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	350	370	390	420	500	610	375
	15 m / 50 ft	600	640	670	730	890	1120	649
1000 305	Ground Roll	370	390	410	450	540	660	392
	15 m / 50 ft	640	670	710	790	980	1230	676
2000 610	Ground Roll	390	410	440	490	590	720	411
	15 m / 50 ft	670	710	760	850	1080	1360	707
3000 914	Ground Roll	410	440	470	530	650	790	430
	15 m / 50 ft	710	750	810	930	1180	1500	739
4000 1219	Ground Roll	440	460	500	580	710	860	453
	15 m / 50 ft	750	790	870	1020	1300	1640	776
5000 1524	Ground Roll	470	490	540	630	780		477
	15 m / 50 ft	790	840	930	1130	1440		812
6000 1829	Ground Roll	500	530	580	690	850		500
	15 m / 50 ft	840	900	1000	1240	1590		854
7000 2134	Ground Roll	530	560	620	760	930		526
	15 m / 50 ft	900	960	1080	1380	1750		899
8000 2438	Ground Roll	560	600	670	830	1010		556
	15 m / 50 ft	950	1030	1180	1520	1940		946
9000 2743	Ground Roll	600	650	740	920	1120		585
	15 m / 50 ft	1020	1110	1320	1710	2200		999
10000 3048	Ground Roll	650	710	840	1040			618
	15 m / 50 ft	1100	1230	1520	2010			1055

For the distance in [ft] divide by 0.3048 or multiply by 3.28.

Take-Off Distance - Short Field Procedure - 1900 kg / 4189 lb								
Weight: 1900 kg / 4189 lb			Flaps: APP					
v_R: 71 KIAS			Power: MAX					
v₅₀: 77 KIAS			Runway: dry, paved, level					
Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	330	350	370	400	470	570	354
	15 m / 50 ft	560	590	620	680	820	1030	603
1000 305	Ground Roll	350	370	390	430	510	630	371
	15 m / 50 ft	590	620	660	730	900	1130	630
2000 610	Ground Roll	370	390	420	460	560	680	388
	15 m / 50 ft	620	660	700	790	990	1240	657
3000 914	Ground Roll	390	410	440	500	610	740	407
	15 m / 50 ft	660	690	750	860	1090	1360	686
4000 1219	Ground Roll	410	440	470	540	670	810	427
	15 m / 50 ft	700	740	800	940	1190	1490	718
5000 1524	Ground Roll	440	470	510	600	730		448
	15 m / 50 ft	740	780	860	1040	1310		755
6000 1829	Ground Roll	470	500	540	650	800		472
	15 m / 50 ft	780	840	930	1140	1440		793
7000 2134	Ground Roll	500	530	590	720	870		496
	15 m / 50 ft	830	890	1000	1260	1590		833
8000 2438	Ground Roll	530	570	640	780	950		524
	15 m / 50 ft	890	960	1090	1390	1750		877
9000 2743	Ground Roll	570	610	700	860	1050		551
	15 m / 50 ft	950	1030	1210	1550	1980		924
10000 3048	Ground Roll	610	670	790	980			583
	15 m / 50 ft	1020	1140	1380	1810			977
For the distance in [ft] divide by 0.3048 or multiply by 3.28.								

Take-Off Distance - Short Field Procedure - 1700 kg / 3748 lb

Weight: 1700 kg / 3748 lb

Flaps: APP

 V_R : 71 KIAS

Power: MAX

 V_{50} : 77 KIAS

Runway: dry, paved, level

Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	290	310	320	350	410	500	311
	15 m / 50 ft	490	510	540	590	700	870	521
1000 305	Ground Roll	310	320	340	380	450	550	326
	15 m / 50 ft	510	540	570	630	770	950	544
2000 610	Ground Roll	330	350	370	410	490	600	342
	15 m / 50 ft	540	570	610	680	840	1040	567
3000 914	Ground Roll	350	360	390	440	540	650	358
	15 m / 50 ft	570	600	650	730	920	1140	592
4000 1219	Ground Roll	370	390	420	480	590	710	376
	15 m / 50 ft	600	640	690	810	1010	1250	622
5000 1524	Ground Roll	390	410	450	520	640		396
	15 m / 50 ft	640	680	740	880	1100		651
6000 1829	Ground Roll	410	440	480	580	700		416
	15 m / 50 ft	680	720	800	970	1210		684
7000 2134	Ground Roll	440	470	520	630	770		437
	15 m / 50 ft	720	770	860	1070	1330		719
8000 2438	Ground Roll	470	500	560	690	840		461
	15 m / 50 ft	760	820	930	1170	1460		755
9000 2743	Ground Roll	500	540	620	760	930		487
	15 m / 50 ft	820	880	1030	1300	1630		797
10000 3048	Ground Roll	540	590	690	860			513
	15 m / 50 ft	880	970	1170	1500			839

For the distance in [ft] divide by 0.3048 or multiply by 3.28.

5.3.7 CLIMB PERFORMANCE (ALL ENGINES OPERATING)

Conditions:

- Power lever both 92%
- Flaps UP or APP
- Landing gear retracted
- Airspeed V_Y

The climb performance tables show the rate of climb. The gradient of climb can be calculated using the following formula:

$$\text{Gradient} [\%] = \frac{ROC [fpm]}{TAS [KTAS]} \cdot 0.98$$

NOTE

Rate of climb at MTOM (1900 kg / 4189 lb) with a power setting of 100% at MSL and ISA conditions:

- 1337 ft/min (6.8 m/s) with flaps UP
- 1267 ft/min (6.4 m/s) with flaps APP

NOTE

If MÄM 42-678 is installed, the rate of climb at MTOM (1999 kg / 4407 lb) with a power setting of 100% at MSL and ISA conditions:

- 1243 ft/min (6.3 m/s) with flaps UP
- 1183 ft/min (6.0 m/s) with flaps APP

All Engines Operating Climb - Flaps UP

Flaps: UP

Power: 92%

v_Y: 92 KIAS above 1900 kg (4189 lb)

Gear: retracted

90 KIAS up to 1900 kg (4189 lb)

Weight [kg] / [lb]	Press. Alt. [ft]	Press. Alt. [m]	Rate of Climb - [ft/min]								
			Outside Air Temperature - [°C] / [°F]								ISA
			-20 -4	-10 14	0 32	10 50	20 68	30 86	40 104	50 122	
1999 / 4407	SL		1120	1120	1120	1110	1110	1100	1040	880	1114
	2000	610	1120	1110	1110	1100	1090	1090	970	820	1103
	4000	1219	1110	1100	1090	1090	1080	1050	900	760	1092
	6000	1829	1090	1090	1080	1070	1070	990	840		1081
	8000	2438	1080	1070	1060	1050	1040	930	780		1069
	10000	3048	1060	1050	1040	1040	990	820			1052
	12000	3658	1040	1030	1020	1020	850	680			1033
	14000	4267	1020	1020	960	830	660	520			1021
	16000	4877	1010	940	820	680	540				1007
	18000	5486	890	800	700	560	410				895
1900 / 4189	SL		1210	1210	1200	1200	1200	1190	1130	960	1203
	2000	610	1200	1200	1200	1190	1180	1180	1050	890	1193
	4000	1219	1200	1190	1180	1170	1170	1140	98	830	1181
	6000	1829	1180	1170	1170	1160	1150	1080	920		1169
	8000	2438	1170	1160	1150	1150	1130	1010	860		1158
	10000	3048	1150	1140	1130	1130	1080	900			1144
	12000	3658	1130	1120	1120	1110	930	750			1124
	14000	4267	1110	1110	1050	920	740	590			1113
	16000	4877	1100	1030	910	760	610				1102
	18000	5486	980	890	780	630	480				986

All Engines Operating Climb - Flaps UP

Flaps: UP

Power: 92%

v_y : 92 KIAS above 1900 kg (4189 lb)
 90 KIAS up to 1900 kg (4189 lb)

Gear: retracted

Weight [kg] / [lb]	Press. Alt. [ft]	Press. Alt. [m]	Rate of Climb - [ft/min]								
			Outside Air Temperature - [°C] / [°F]								ISA
			-20 -4	-10 14	0 32	10 50	20 68	30 86	40 104	50 122	
1700 / 3748	SL		1380	1380	1380	1380	1370	1370	1290	1100	1378
	2000	610	1380	1380	1370	1360	1360	1350	1210	1030	1368
	4000	1219	1370	1360	1360	1350	1340	1320	1130	960	1357
	6000	1829	1360	1350	1340	1340	1330	1240	1060		1345
	8000	2438	1340	1340	1330	1320	1310	1170	1000		1334
	10000	3048	1330	1320	1310	1300	1250	1050			1320
	12000	3658	1310	1300	1290	1290	1080	890			1299
	14000	4267	1290	1290	1220	1070	870	710			1289
	16000	4877	1280	1200	1070	900	730				1278
	18000	5486	1140	1040	930	760	590				1151
For the rate of climb in [m/s] divide by 196.8 or multiply by 0.00508.											

All Engines Operating Climb - Flaps APP

Flaps: APP

Power: 92%

V_Y: 85 KIAS

Gear: retracted

Weight [kg] / [lb]	Press. Alt. [ft]	Press. Alt. [m]	Rate of Climb - [ft/min]								
			Outside Air Temperature - [°C] / [°F]								ISA
			-20 -4	-10 14	0 32	10 50	20 68	30 86	40 104	50 122	
1999 / 4407	SL		1080	1070	1060	1050	1040	1030	980	820	1052
	2000	610	1060	1050	1040	1030	1020	1010	890	750	1036
	4000	1219	1040	1030	1020	1010	1000	970	820	680	1020
	6000	1829	1020	1010	1000	980	970	900	750		997
	8000	2438	1000	980	970	950	940	830	690		973
	10000	3048	970	950	940	930	880	720			949
	12000	3658	940	920	910	900	730	570			923
	14000	4267	910	900	840	710	540	410			904
	16000	4877	890	810	700	560	410				883
	18000	5486	760	670	570	430	280				769
1900 / 4189	SL		1160	1150	1140	1130	1120	1110	1050	880	1129
	2000	610	1140	1130	1120	1110	1100	1090	960	810	1112
	4000	1219	1120	1110	1100	1090	1070	1050	890	740	1096
	6000	1829	1100	1090	1070	1060	1050	970	820		1073
	8000	2438	1070	1060	1040	1030	1020	900	750		1049
	10000	3048	1040	1030	1010	1000	950	780			1024
	12000	3658	1010	990	980	970	800	620			998
	14000	4267	980	970	910	780	600	460			978
	16000	4877	960	880	760	610	460				957
	18000	5486	830	730	630	480	320				838

All Engines Operating Climb - Flaps APP

Flaps: APP

Power: 92%

V_Y: 85 KIAS

Gear: retracted

Weight [kg] / [lb]	Press. Alt. [ft]	Press. Alt. [m]	Rate of Climb - [ft/min]								
			Outside Air Temperature - [°C] / [°F]								ISA
			-20 -4	-10 14	0 32	10 50	20 68	30 86	40 104	50 122	
1700 / 3748	SL		1330	1320	1300	1290	1280	1270	1210	1020	1294
	2000	610	1310	1290	1280	1270	1260	1250	1110	930	1277
	4000	1219	1280	1270	1260	1250	1240	1210	1030	860	1260
	6000	1829	1260	1250	1240	1220	1210	1130	950		1236
	8000	2438	1240	1220	1200	1190	1180	1050	870		1210
	10000	3048	1200	1190	1170	1160	1110	910			1184
	12000	3658	1170	1150	1140	1130	930	740			1156
	14000	4267	1140	1130	1060	910	710	550			1136
	16000	4877	1120	1030	900	730	560				1114
	18000	5486	980	870	750	580	410				983
For the rate of climb in [m/s] divide by 196.8 or multiply by 0.00508.											

5.3.8 ONE ENGINE INOPERATIVE CLIMB PERFORMANCE

Conditions:

- Remaining engine 92% load
- Dead engine feathered and secured
- Flaps UP
- Landing gear retracted
- Airspeed $V_{YSE} = 85$ KIAS
- Sideslip one ball out, max. 5° bank

NOTE

With respect to handling and performance, the left-hand engine (pilots view) is considered the "critical" engine.

The climb performance tables show the rate of climb. The gradient of climb can be calculated using the following formula:

$$Gradient [\%] = \frac{ROC [fpm]}{TAS [KTAS]} \cdot 0.98$$

One Engine Inoperative Climb											
Flaps: UP						Power: feathered / 92%					
V _{YSE} : 85 KIAS						Gear: retracted					
Weight [kg] / [lb]	Press. Alt. [ft]	Press. Alt. [m]	Rate of Climb - [ft/min]								
			Outside Air Temperature - [°C] / [°F]								ISA
			-20 -4	-10 14	0 32	10 50	20 68	30 86	40 104	50 122	
1999 / 4407	SL		270	255	245	235	225	210	185	120	230
	2000	610	245	235	220	210	200	190	140	80	212
	4000	1219	225	210	200	185	175	160	95	40	193
	6000	1829	200	185	175	160	150	120	55		170
	8000	2438	175	160	145	130	120	75	15		147
	10000	3048	145	130	115	100	80	10			123
	12000	3658	115	95	85	70	0	-70			97
	14000	4267	85	70	35	-30	-105	-160			75
	16000	4877	55	10	-50	-120	-180				50
	18000	5486	-25	-75	-135	-195	-255				-19
1900 / 4189	SL		305	295	285	270	260	250	225	155	269
	2000	610	285	270	260	250	240	225	175	110	250
	4000	1219	260	250	235	225	210	195	130	70	231
	6000	1829	235	225	210	195	185	155	90		208
	8000	2438	210	195	180	165	155	110	45		184
	10000	3048	180	165	150	140	115	40			160
	12000	3658	150	135	120	110	30	-45			134
	14000	4267	120	105	70	0	-75	-135			111
	16000	4877	90	45	-20	-90	-155				86
	18000	5486	10	-45	-105	-170	-235				14

One Engine Inoperative Climb

Flaps: UP

Power: feathered / 92%

V_{YSE}: 85 KIAS

Gear: retracted

Weight [kg] / [lb]	Press. Alt. [ft]	Press. Alt. [m]	Rate of Climb - [ft/min]								
			Outside Air Temperature - [°C] / [°F]								ISA
			-20 -4	-10 14	0 32	10 50	20 68	30 86	40 104	50 122	
1700 / 3748	SL		390	375	365	355	345	330	300	220	350
	2000	610	365	355	340	330	320	305	245	170	331
	4000	1219	340	330	315	305	290	275	200	125	311
	6000	1829	320	305	290	275	265	225	150		287
	8000	2438	290	275	260	245	230	180	105		263
	10000	3048	260	245	230	215	190	100			237
	12000	3658	225	210	195	185	95	10			210
	14000	4267	195	180	140	65	-25	-90			186
	16000	4877	165	115	45	-35	-110				161
	18000	5486	80	20	-45	-120	-195				83

CAUTION: Dark grey shaded areas indicate a climb rate of less than 50 ft/min.
 For the rate of climb in [m/s] divide by 196.8 or multiply by 0.00508.

5.3.11 LANDING DISTANCES

Conditions:

- Power lever both IDLE
- Flaps LDG, APP or UP
- Runway dry, paved, level
- Approach speed V_{REF}

The following factors are to be applied to the computed landing distance for the noted condition:

- Headwind: Decrease by 10% for each 14 kt (7.2 m/s) headwind.
- Tailwind: Increase by 10% for each 3 kt (1.5 m/s) tailwind.
- Paved runway, wet: Increase by 15%.
- Grass runway, dry, 5 cm (2 in) long: Increase the ground roll by 10%.
- Grass runway, dry, 5 cm (2 in) to 10 cm (3.9 in) long: Increase the ground roll by 15%.
- Grass runway, dry, longer than 10 cm (3.9 in): Increase the ground roll at least by 25%.
- Grass runway, wet or soft runway: Increase the ground roll by 10%.
- Downhill slope: Increase the ground roll by 9% for each 1% (1 m per 100 m or 1 ft per 100 ft) of slope.

WARNING

For a safe landing the available runway length must be at least equal to the landing distance over a 50 ft (15 m) obstacle.

WARNING

Poor maintenance condition of the airplane, deviation from the given procedures, uneven runway, as well as unfavorable external factors (rain, unfavorable wind conditions, including cross-wind) will increase the landing distance.

CAUTION

The factors in the above corrections are typical values. On wet ground or wet soft grass covered runways the landing distance may become significantly longer than stated above. In any case the pilot must allow for the condition of the runway to ensure a safe landing.

The above corrections for runway slope should be used with caution since published runway slope data is usually the net slope from one end of the runway to the other. Runways may have positions at their length at greater or lesser slopes than published slope, lengthening (or shortening) the landing roll estimated with these tables.

NOTE

The effect of 50% of the headwind component and 150% of the tailwind component is already incorporated in the head- and tailwind factors.

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Landing Distance - Flaps LDG - 1999 kg / 4407 lb								
Weight:	1999 kg / 4407 lb				Flaps: LDG			
V _{REF} :	86 KIAS				Power: IDLE			
Runway: dry, paved, level								
Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	370	380	400	410	440	500	387
	15 m / 50 ft	620	640	660	680	730	820	647
1000 305	Ground Roll	380	400	410	420	470	530	399
	15 m / 50 ft	640	660	680	700	770	860	662
2000 610	Ground Roll	400	410	430	440	490	550	411
	15 m / 50 ft	660	680	700	720	810	900	680
3000 914	Ground Roll	410	430	440	460	520	580	422
	15 m / 50 ft	680	700	720	750	840	940	697
4000 1219	Ground Roll	430	440	460	490	550	610	435
	15 m / 50 ft	700	720	750	790	890	990	715
5000 1524	Ground Roll	440	460	480	510	580		449
	15 m / 50 ft	730	750	770	830	930		734
6000 1829	Ground Roll	460	480	490	540	610		461
	15 m / 50 ft	750	770	800	870	980		753
7000 2134	Ground Roll	480	500	520	580	650		479
	15 m / 50 ft	780	810	830	930	1030		780
8000 2438	Ground Roll	510	530	550	630	700		507
	15 m / 50 ft	820	850	880	990	1110		818
9000 2743	Ground Roll	550	570	610	690	770		542
	15 m / 50 ft	870	900	950	1070	1200		862
10000 3048	Ground Roll	600	620	670	750			584
	15 m / 50 ft	930	960	1040	1160			913
For the distance in [ft] divide by 0.3048 or multiply by 3.28.								

Landing Distance - Flaps LDG - 1900 kg / 4189 lb								
Weight:		1900 kg / 4189 lb			Flaps: LDG			
V _{REF} :		84 KIAS			Power: IDLE			
Runway: dry, paved, level								
Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	360	370	380	390	430	480	372
	15 m / 50 ft	600	620	630	650	700	780	620
1000 305	Ground Roll	370	380	390	410	450	500	381
	15 m / 50 ft	620	630	650	670	740	820	635
2000 610	Ground Roll	380	390	410	420	470	530	392
	15 m / 50 ft	630	650	670	690	770	860	652
3000 914	Ground Roll	400	410	420	440	500	560	405
	15 m / 50 ft	650	670	690	720	810	910	668
4000 1219	Ground Roll	410	420	440	460	520	590	415
	15 m / 50 ft	670	700	720	760	850	950	685
5000 1524	Ground Roll	420	440	450	490	550		428
	15 m / 50 ft	700	720	740	800	900		704
6000 1829	Ground Roll	440	450	470	520	580		442
	15 m / 50 ft	720	740	770	840	940		722
7000 2134	Ground Roll	460	480	490	550	620		459
	15 m / 50 ft	750	780	800	890	1000		751
8000 2438	Ground Roll	490	510	530	600	670		488
	15 m / 50 ft	790	820	850	960	1070		788
9000 2743	Ground Roll	530	550	580	660	740		523
	15 m / 50 ft	840	870	920	1030	1160		832
10000 3048	Ground Roll	580	590	640	730			562
	15 m / 50 ft	900	930	1000	1120			884
For the distance in [ft] divide by 0.3048 or multiply by 3.28.								

Landing Distance - Flaps LDG - 1805 kg / 3979 lb								
Weight:	1805 kg / 3979 lb				Flaps: LDG			
V _{REF} :	84 KIAS				Power: IDLE			
Runway: dry, paved, level								
Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	334	347	360	370	401	451	353
	15 m / 50 ft	573	590	607	625	672	753	598
1000 305	Ground Roll	347	360	371	384	423	473	364
	15 m / 50 ft	590	608	626	644	705	790	613
2000 610	Ground Roll	360	371	385	399	445	500	373
	15 m / 50 ft	608	627	645	663	741	827	629
3000 914	Ground Roll	372	386	400	415	470	528	385
	15 m / 50 ft	628	646	665	691	777	866	645
4000 1219	Ground Roll	386	401	413	440	494	553	397
	15 m / 50 ft	647	667	687	726	816	909	661
5000 1524	Ground Roll	399	414	429	463	522		407
	15 m / 50 ft	668	689	709	764	856		679
6000 1829	Ground Roll	415	431	444	490	552		420
	15 m / 50 ft	690	710	732	803	898		696
7000 2134	Ground Roll	435	451	465	523	588		437
	15 m / 50 ft	719	741	764	852	952		721
8000 2438	Ground Roll	466	484	503	571	638		465
	15 m / 50 ft	760	783	814	917	1025		758
9000 2743	Ground Roll	506	522	556	626	703		500
	15 m / 50 ft	809	835	884	995	1109		802
10000 3048	Ground Roll	550	570	615	694			540
	15 m / 50 ft	868	894	964	1082			855
For the distance in [ft] divide by 0.3048 or multiply by 3.28.								

Landing Distance - Flaps LDG - 1700 kg / 3748 lb								
Weight:		1700 kg / 3748 lb			Flaps: LDG			
V _{REF} :		84 KIAS			Power: IDLE			
Runway: dry, paved, level								
Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	320	340	350	360	390	430	335
	15 m / 50 ft	550	570	590	600	650	730	577
1000 305	Ground Roll	340	350	360	370	410	460	346
	15 m / 50 ft	570	590	610	620	680	760	591
2000 610	Ground Roll	350	360	370	380	430	480	356
	15 m / 50 ft	590	610	630	640	720	800	605
3000 914	Ground Roll	360	370	380	400	450	500	367
	15 m / 50 ft	610	630	640	670	750	840	621
4000 1219	Ground Roll	370	380	400	420	480	530	376
	15 m / 50 ft	630	650	660	700	790	880	636
5000 1524	Ground Roll	390	400	410	450	500		388
	15 m / 50 ft	650	670	690	740	830		652
6000 1829	Ground Roll	400	410	430	470	530		401
	15 m / 50 ft	670	690	710	780	870		670
7000 2134	Ground Roll	420	440	450	500	560		417
	15 m / 50 ft	690	720	740	820	920		693
8000 2438	Ground Roll	450	460	490	550	610		445
	15 m / 50 ft	740	760	790	890	990		731
9000 2743	Ground Roll	490	510	540	610	680		481
	15 m / 50 ft	790	810	860	960	1070		775
10000 3048	Ground Roll	530	550	600	670			522
	15 m / 50 ft	850	870	940	1050			828
For the distance in [ft] divide by 0.3048 or multiply by 3.28.								

Landing Distance - Abnormal Flap Position - 1999 kg / 4407 lb								
Weight:		1999 kg / 4407 lb			Flaps: APP or UP			
V _{REF} :		92 KIAS			Power: IDLE			
Runway: dry, paved, level								
Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	510	530	550	560	610	680	532
	15 m / 50 ft	860	880	910	940	1010	1130	894
1000 305	Ground Roll	530	550	570	580	640	720	548
	15 m / 50 ft	880	910	940	970	1060	1180	916
2000 610	Ground Roll	550	570	580	610	680	760	565
	15 m / 50 ft	910	940	970	1000	1110	1240	938
3000 914	Ground Roll	570	590	610	630	710	800	580
	15 m / 50 ft	940	970	1000	1040	1160	1300	963
4000 1219	Ground Roll	590	610	630	670	750	840	598
	15 m / 50 ft	970	1000	1030	1090	1220	1360	987
5000 1524	Ground Roll	610	630	650	700	790		614
	15 m / 50 ft	1000	1030	1060	1150	1290		1014
6000 1829	Ground Roll	630	650	680	740	830		634
	15 m / 50 ft	1030	1070	1100	1200	1350		1040
7000 2134	Ground Roll	660	680	710	790	890		659
	15 m / 50 ft	1080	1110	1150	1280	1430		1080
8000 2438	Ground Roll	700	730	760	860	960		698
	15 m / 50 ft	1140	1180	1220	1380	1540		1136
9000 2743	Ground Roll	760	780	830	940	1050		745
	15 m / 50 ft	1210	1250	1320	1490	1660		1200
10000 3048	Ground Roll	810	840	910	1030			799
	15 m / 50 ft	1300	1340	1440	1620			1276
For the distance in [ft] divide by 0.3048 or multiply by 3.28.								

Landing Distance - Abnormal Flap Position - 1900 kg / 4189 lb								
Weight:		1900 kg / 4189 lb			Flaps: APP or UP			
V _{REF} :		86 KIAS			Power: IDLE			
Runway: dry, paved, level								
Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	490	510	520	540	580	650	511
	15 m / 50 ft	820	840	870	890	960	1080	852
1000 305	Ground Roll	510	520	540	560	610	690	524
	15 m / 50 ft	840	870	900	920	1010	1130	874
2000 610	Ground Roll	520	540	560	580	650	730	540
	15 m / 50 ft	870	900	920	950	1060	1180	895
3000 914	Ground Roll	540	560	580	610	680	760	554
	15 m / 50 ft	900	930	950	990	1110	1240	919
4000 1219	Ground Roll	560	580	600	640	720	800	572
	15 m / 50 ft	930	950	980	1040	1170	1300	942
5000 1524	Ground Roll	580	600	620	670	760		590
	15 m / 50 ft	960	990	1010	1090	1220		966
6000 1829	Ground Roll	600	630	650	710	800		606
	15 m / 50 ft	990	1020	1050	1150	1290		992
7000 2134	Ground Roll	630	660	680	760	850		633
	15 m / 50 ft	1030	1060	1090	1220	1360		1030
8000 2438	Ground Roll	680	700	730	830	920		672
	15 m / 50 ft	1090	1130	1170	1320	1470		1085
9000 2743	Ground Roll	730	750	800	900	1010		717
	15 m / 50 ft	1160	1200	1270	1430	1590		1150
10000 3048	Ground Roll	790	820	880	990			772
	15 m / 50 ft	1250	1290	1390	1560			1227
For the distance in [ft] divide by 0.3048 or multiply by 3.28.								

Landing Distance - Abnormal Flap Position - 1805 kg / 3979 lb								
Weight:		1805 kg / 3979 lb			Flaps: APP or UP			
V _{REF} :		86 KIAS			Power: IDLE			
Runway: dry, paved, level								
Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	462	477	494	511	551	621	485
	15 m / 50 ft	780	804	827	850	916	1025	816
1000 305	Ground Roll	477	495	513	528	582	652	500
	15 m / 50 ft	804	828	852	877	961	1076	835
2000 610	Ground Roll	495	514	530	548	613	688	516
	15 m / 50 ft	829	853	879	904	1010	1127	856
3000 914	Ground Roll	514	531	550	572	647	723	529
	15 m / 50 ft	854	881	906	942	1059	1182	879
4000 1219	Ground Roll	532	552	569	605	681	763	546
	15 m / 50 ft	882	908	936	989	1112	1239	901
5000 1524	Ground Roll	552	571	591	638	720		560
	15 m / 50 ft	909	938	966	1041	1167		925
6000 1829	Ground Roll	572	593	612	675	757		578
	15 m / 50 ft	940	968	998	1093	1226		948
7000 2134	Ground Roll	599	622	642	720	810		602
	15 m / 50 ft	983	1013	1044	1165	1302		987
8000 2438	Ground Roll	643	667	694	786	880		641
	15 m / 50 ft	1044	1075	1118	1258	1406		1041
9000 2743	Ground Roll	693	719	762	862	963		688
	15 m / 50 ft	1116	1150	1217	1368	1527		1104
10000 3048	Ground Roll	755	783	844	953			742
	15 m / 50 ft	1201	1236	1332	1494			1183
For the distance in [ft] divide by 0.3048 or multiply by 3.28.								

Landing Distance - Abnormal Flap Position - 1700 kg / 3748 lb								
Weight:		1700 kg / 3748 lb			Flaps: APP or UP			
V _{REF} :		86 KIAS			Power: IDLE			
Runway: dry, paved, level								
Press. Alt. [ft] / [m]	Distance [m]	Outside Air Temperature - [°C] / [°F]						ISA
		0 / 32	10 / 50	20 / 68	30 / 86	40 / 104	50 / 122	
SL	Ground Roll	450	460	480	490	530	600	464
	15 m / 50 ft	750	780	800	820	880	990	783
1000 305	Ground Roll	460	480	490	510	560	630	478
	15 m / 50 ft	780	800	820	850	930	1040	802
2000 610	Ground Roll	480	490	510	530	590	660	492
	15 m / 50 ft	800	820	850	870	970	1080	821
3000 914	Ground Roll	490	510	530	550	620	690	505
	15 m / 50 ft	820	850	870	910	1020	1140	843
4000 1219	Ground Roll	510	530	550	580	650	730	521
	15 m / 50 ft	850	880	900	950	1070	1190	864
5000 1524	Ground Roll	530	550	570	610	690		535
	15 m / 50 ft	880	900	930	1000	1120		887
6000 1829	Ground Roll	550	570	590	650	730		552
	15 m / 50 ft	910	930	960	1050	1180		910
7000 2134	Ground Roll	580	600	620	690	780		577
	15 m / 50 ft	950	980	1000	1120	1250		945
8000 2438	Ground Roll	620	640	670	760	850		614
	15 m / 50 ft	1010	1040	1080	1210	1360		1001
9000 2743	Ground Roll	670	700	740	830	930		662
	15 m / 50 ft	1080	1110	1170	1320	1470		1064
10000 3048	Ground Roll	730	760	820	920			717
	15 m / 50 ft	1160	1200	1290	1450			1144
For the distance in [ft] divide by 0.3048 or multiply by 3.28.								

5.3.12 GO-AROUND CLIMB PERFORMANCE

Conditions:

- Power lever both MAX
- Flaps LDG
- Landing gear extended
- Airspeed:
 - Up to 1900 kg (4189 lb) $V_{REF} = 84$ KIAS
 - Above 1900 kg (4189 lb) $V_{REF} = 86$ KIAS

The climb performance charts show the rate of climb. The gradient and angle of climb can be calculated using the following formula:

$$Gradient [\%] = \frac{ROC [fpm]}{TAS [KTAS]} \cdot 0.98$$

NOTE

The angles of climb at MSL and ISA condition are:

4.7° for Maximum Take-Off Mass (1900 kg / 4189 lb)

5.1° for Maximum Landing Mass (1805 kg / 3979 lb)

If MÄM 42-678 is carried out:

3.9° for Maximum Take-Off Mass (1999 kg / 4407 lb)

Go-Around Climb Performance

Flaps: LDG

Power: MAX

V_{REF}: 86 KIAS above 1900 kg (4189 lb)

Gear: extended

84 KIAS up to 1900 kg (4189 lb)

Weight [kg] / [lb]	Press. Alt. [ft]	Press. Alt. [m]	Rate of Climb - [ft/min]								
			Outside Air Temperature - [°C] / [°F]								ISA
			-20 -4	-10 14	0 32	10 50	20 68	30 86	40 104	50 122	
1999 / 4407	SL		635	620	600	585	570	505	375	240	580
	2000	610	605	585	570	550	515	425	280	155	552
	4000	1219	570	550	530	510	450	340	200	80	517
	6000	1829	530	505	485	455	380	250	120		480
	8000	2438	485	460	440	400	310	170	45		443
	10000	3048	440	415	380	310	190	40			405
1900 / 4189	SL		735	715	700	685	670	605	470	325	678
	2000	610	700	685	665	650	620	525	375	240	652
	4000	1219	670	650	635	615	555	440	290	160	622
	6000	1829	635	610	590	560	485	345	210		585
	8000	2438	590	565	545	505	410	265	135		548
	10000	3048	545	520	485	415	290	135			509
1805 / 3979	SL		794	777	760	744	728	659	518	366	735
	2000	610	761	744	726	710	675	578	420	276	708
	4000	1219	727	709	693	671	611	488	330	193	677
	6000	1829	693	670	647	614	536	390	244		640
	8000	2438	647	623	600	557	462	304	165		602
	10000	3048	599	574	539	465	333	169			562

Go-Around Climb Performance

Flaps: LDG

Power: MAX

v_{REF}: 86 KIAS above 1900 kg (4189 lb)

Gear: extended

84 KIAS up to 1900 kg (4189 lb)

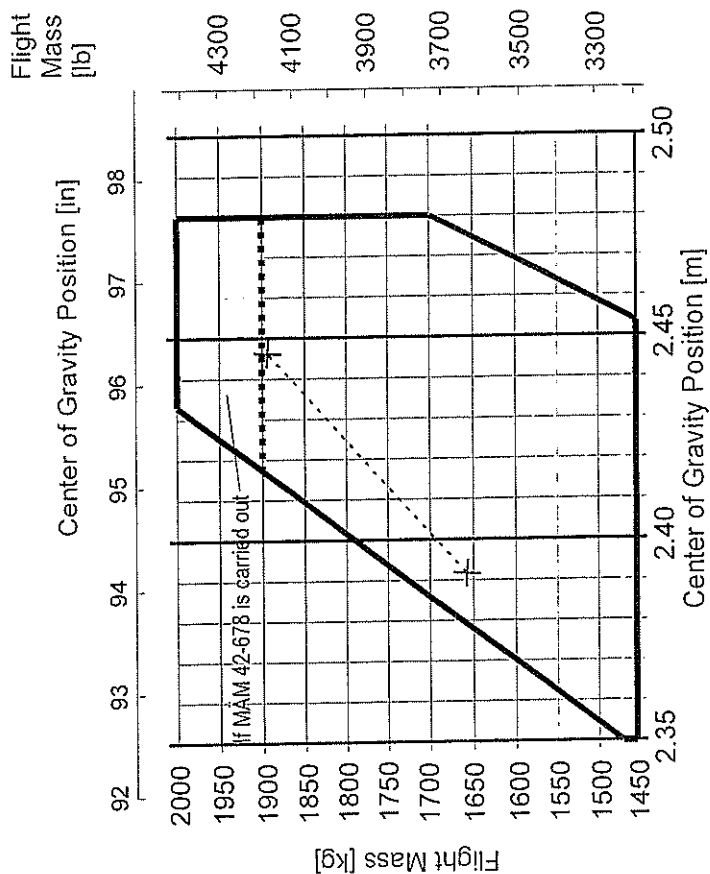
Weight [kg] / [lb]	Press. Alt. [ft]	Press. Alt. [m]	Rate of Climb - [ft/min]								
			Outside Air Temperature - [°C] / [°F]								ISA
			-20 -4	-10 14	0 32	10 50	20 68	30 86	40 104	50 122	
1700 / 3748	SL		865	845	830	810	795	725	575	410	805
	2000	610	830	810	795	775	740	640	470	315	777
	4000	1219	795	775	760	735	675	545	375	225	746
	6000	1829	760	735	710	680	595	440	285	/	707
	8000	2438	710	685	665	620	520	350	200	/	667
	10000	3048	660	635	600	520	380	205	/	/	626
For the rate of climb in [m/s] divide by 196.8 or multiply by 0.00508.											

CALCULATION OF LOADING CONDITION	DA 42 NG (Example)		Your DA 42 NG	
	Mass [kg] [lb]	Moment [kgm] [in.lb]	Mass [kg] [lb]	Moment [kgm] [in.lb]
1. Empty mass (from Mass and Balance Report)	1450 3197	3488.0 302,747		
2. Front seats Lever arm: 2.30 m (90.6 in)	160 353	368.0 31,982		
3. Rear seats Lever arm: 3.25 m (128.0 in)	0 0	0.0 0,0		
4. Nose baggage compt. Lever arm: 0.60 m (23.6 in)	0 0	0.0 0,0		
5. Cabin baggage compt. Lever arm: 3.89 m (153.1 in)	10 22	38.9 3,368		
6. Baggage extension Lever arm: 4.54 m (178.7 in)	8 18	36.3 3,217		
7. Standard baggage compartment Lever arm: 3.65 m (143.7 in)	0 0	0.0 0,0		
8. Short baggage extension (if OÄM 42-207 is carried out) Lever arm: 3.97 m (156.3 in)	0 0	0.0 0,0		
9. De-icing fluid (if only OÄM 42-160 is installed; see NOTE on previous page) (1.1 kg/liter) (9.2 lb/US gal) Lever arm: 1.00 m (39.4 in)	27.5 61	27.5 2,403		

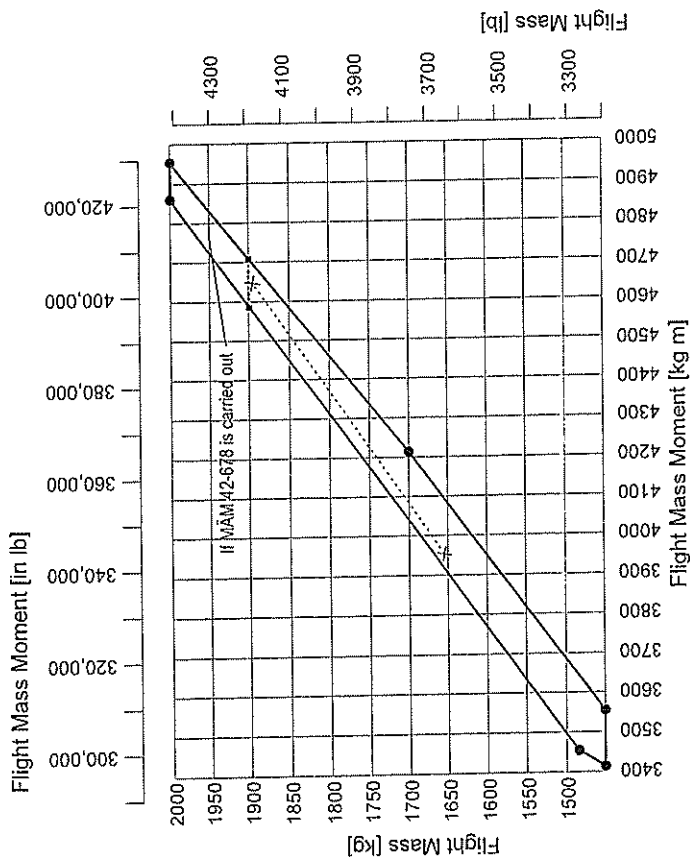
CALCULATION OF LOADING CONDITION	DA 42 NG (Example)		Your DA 42 NG	
	Mass [kg] [lb]	Moment [kgm] [in.lb]	Mass [kg] [lb]	Moment [kgm] [in.lb]
10. De-Icing fluid (if OÄM 42-160 AND OÄM 42-203 are installed; see NOTE on previous page) (1.1 kg/liter) (9.2 lb/US gal) Lever arm: 4.52 m (178.0 in)	0 0	0.0 0,0		
11. Total mass & total moment with empty fuel tanks (Total of 1.through 10.)	1655.5 3651	3958.7 343,717		
12. Usable fuel, main tanks (0.84 kg/liter) (7.01 lb/US gal) Lever arm: 2.63 m (103.5 in)	159 351	418.2 36,329		
13. Usable fuel, auxiliary tanks (if installed) (0.84 kg/liter) (7.01 lb/US gal) Lever arm: 3.20 m (126.0 in)	84 185	268.8 23,310		
14. Total mass & total moment with fuel & de-icing fluid (Total of 11. through 13.)	1898.5 4187	4645.7 403,356		

The CG's shown in the following diagrams are those from the example in Section 6.4.3 - CALCULATION OF LOADING CONDITION, rows 11 and 14.

6.4.4 PERMISSIBLE CENTER OF GRAVITY RANGE



6.4.5 PERMISSIBLE MOMENT RANGE



The flight mass moments shown in the diagram are those from the example in Table 6.4.3 (a) - CALCULATION OF LOADING CONDITION, rows 11 and 14.