

PREFLIGHT

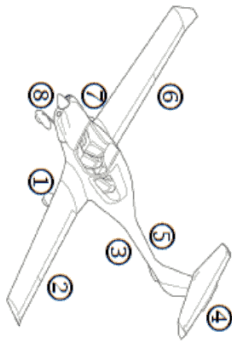
1 Wing Tanks & Gascolator	DRAIN
2 A/C Doc, Mass&Bal	CHECK



CABIN CHECK

3 Ignition Key	REMOVE
4 Canopy, Pax Door	CHECK
5 Electr. Equipment	OFF
6 Circ. Breaker	ALL-IN
7 Control Levers	Check Free
8 Prop	FULL FWD
9 Throttle	IDLE
10 Mixture	LEAN
Master – BAT	ON
Annunc. Panel	CHECK
Fuel Quantity	CHECK
Pos. Light, ACL	CHECK
Ldg./ Taxi - Light	CHECK
Fire Extinguisher	CHARGED
All Doors Closed	LATCHED
Doors Warning	EXTINGUISHED
Pax Door	UNLATCH
Doors Warning	ACTIVE
Pull Handle	MUST HOLD
Pax Door Lock Bolts	CHECK
Pax Door Lock Button	MOVES FREE
Master – BAT	OFF
Loose Items	CHECK
Flight Control	CORRECT
Trim Tab	MOVABLE
Baggage	SECURED

EXTERIOR CHECK



1. Left Main Gear

29 Gear Strut	VIS. INSP.
30 Strut Fairing	VIS. INSP.
31 Wheel Fairing	VIS. INSP.
32 Tire 36psi / 2,5 bar	CHECK
33 Tire Wear, Tread	CHECK
34 Wheel Brake	VIS. INSP.
35 Break Line Leaks	CHECK
36 Slip Marks	VIS. INSP.
37 Chocks	REMOVE

2. Left Wing

38 Wing Surfaces	VIS. INSP.
39 Step	VIS. INSP.
40 Air Intake Lower	VIS. INSP.
41 Openings Lower	CHECK
42 Tank Drain	DRAIN
43 Stall Warning	CHECK
44 Tank Filler	VIS. INSP.
45 Tank Air Outlet	VIS. INSP.
46 2x Stall Strips	VIS. INSP.
47 Pitot Probe	CLEAN
48 Ldg / Taxi Lights	VIS. INSP.

Airspeeds for Normal Operations

TAKEOFF

A/C Mass	850 - 1150 kg
V _y Flaps T/O	54 - 66 KIAS
Cruise Climb Flaps UP	60 - 73 KIAS

LANDING

Final APP Flaps LDG	58 - 71 KIAS
Balked Ldg Flaps T/O	54 - 66 KIAS
Max. demo X Wind	20 knots
V _{FE} max, Flaps LDG	91 KIAS

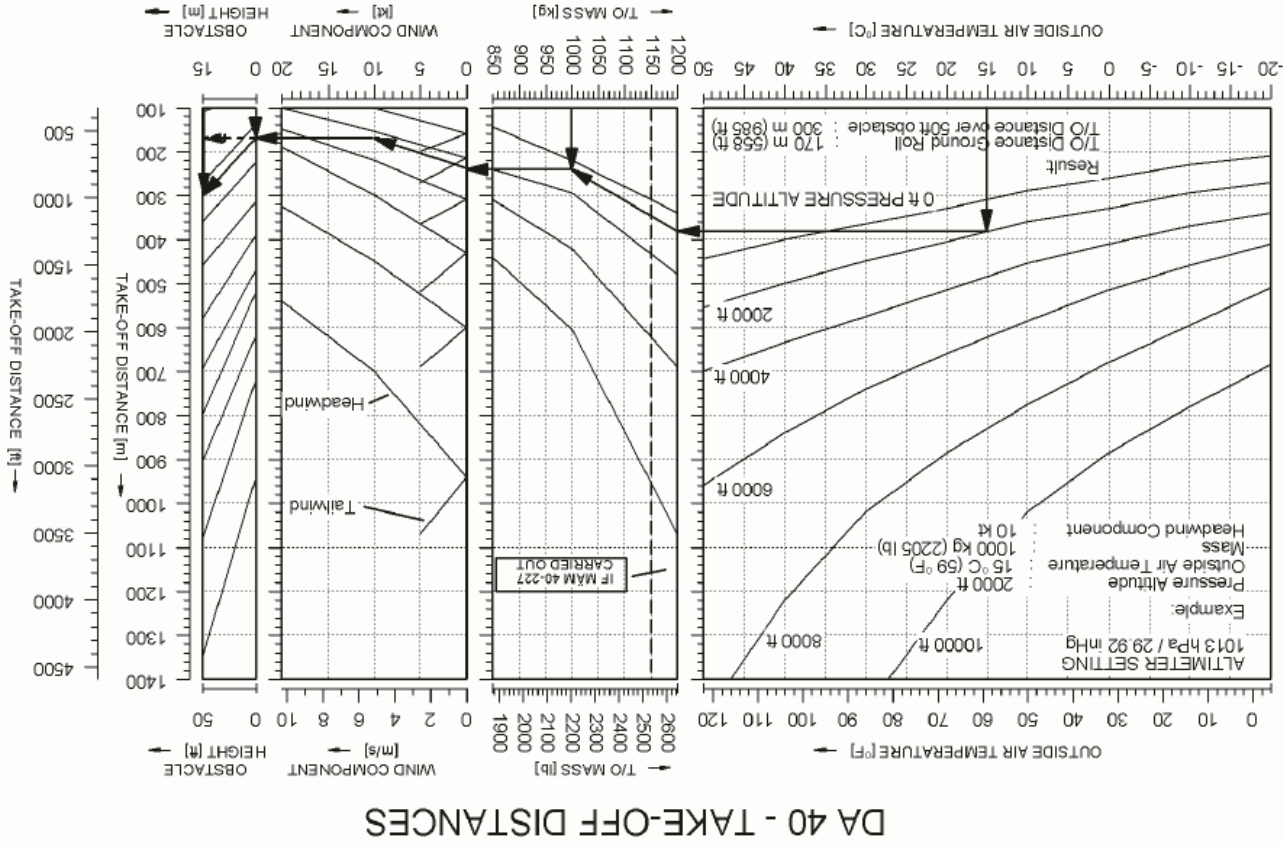
CRUISE

V _A Maneuvering	94 - 108 KIAS*
V _{NO} Max turbul. Air	129 KIAS
V _{NE} Max Airspeed	178 KIAS

Airspeeds for Emergency Operations

V _A Maneuvering	94 - 108 KIAS*
Engine Off - Best Glide / Flaps Up	60 - 73 KIAS
Engine Off - Best Glide / Flaps T/O	59 - 72 KIAS
Engine Off - Best Glide / Flaps LDG	59 - 71 KIAS
Engine Failure after T/O Flaps T/O	59 - 72 KIAS
Engine Failure after T/O / Flaps Up	60 - 73 KIAS

*) A/C - Mass 780Kg - 980Kg 94 KIAS
*) A/C - Mass 981Kg - 1150Kg 108 KIAS



49 Wing Tip	VIS. INSP.
50 Pos.Light & AC	VIS. INSP.
51 Tiedown	REMOVED
52 Aileron & Linkage	VIS. INSP.
53 Aileron Hinges & Pin	VIS. INSP.
54 Foreign.Obj.AileronPad	VIS- INSP.
55 Flap & Linkages	VIS. INSP.
56 Flap Hinges & Pin	VIS. INSP.

3. Fuselage (Left)	
57 Canopy Left side	VIS. INSP.
58 Pax Door, Window	VIS. INSP.
59 Fuselage Skin	VIS. INSP.
60 Antennas	VIS. INSP.

4. Empennage	
61 Stabilizer Contr. Surf.	VIS. INSP.
62 Hinges	VIS. INSP.
63 Elev. Trim, Wire	VIS. INSP.
64 Rudder Trim Tab	VIS. INSP.
65 Fin Tiedown	REMOVED
66 Tail Skid & Lower Fin	VIS. INSP.

5. Fuselage (Right)	
67 Fuselage Skin	VIS. INSP.
68 Window	VIS. INSP.
69 Canopy Right Side	VIS. INSP.

6. Right Wing	
70 Flap & Linkages	VIS. INSP.
71 Flap Hinges & Pin	VIS. INSP.
72 Aileron & Linkage	VIS. INSP.
73 Aileron Hinges & Pin	VIS. INSP.
74 Foreign.Obj.AileronPad	VIS. INSP.
75 Wing Tip	VIS. INSP.
76 Pos.Light & AC	VIS. INSP.
77 Tiedown	REMOVED
78 Wing Surfaces	VIS. INSP.
79 2x Stall Strips	VIS. INSP.
80 Tank Air Outlet	VIS. INSP.
81 Tank Filler	VIS. INSP.
82 Openings Lower	CHECK
83 Tank Drain	DRAIN
84 Step	VIS. INSP.

7. Right Main Gear	
85 Gear Strut	VIS. INSP.
86 Strut Fairing	VIS. INSP.
87 Wheel Fairing	VIS. INSP.
88 Tire 36psi / 2,5 bar	CHECK
89 Tire Wear, Tread	CHECK
90 Wheel Brake	VIS. INSP.
91 Break Line Leaks	CHECK
92 Slip Marks	VIS. INSP.
93 Chocks	REMOVE

8. Front Fuselage		
94 Oil Level 6-8 Qts	CHECK	
95 Cowling	VIS. INSP.	
96 3 Air Intakes	CLEAR	
97 Propeller 	VIS. INSP.	
98 Spinner & Screws	VIS. INSP.	
99 Nose Landing Gear	VIS. INSP.	
100 Tire and Wheel	VIS. INSP.	
101 Slip Marks	VIS. INSP.	
102 Strut Fairing	VIS. INSP.	
103 Tire Wear, Tread	CHECK	
104 Wheel Fairing	VIS. INSP.	
105 Tow Bar	REMOVE	
106 Tire 29psi / 2,0bar	CHECK	
107 Chocks	REMOVE	
108 Exhaust	VIS. INSP.	
109 Forw. Cabin Inlets	CLEAR	
110 Antennas	VIS. INSP.	
111 Gascolator	DRAIN	
112 Venting Pipes	CHECK	
113 Fuselage Underside	CLEAN	

BEF. ENGINE START		
1 Preflight Check	COMPL	
2 Rudder Pedals	ADJUST	
3 Passenger Briefing	COMPL	
4 Seat Belts / Harness	FASTEN	
5 Baggage	SECURE	
6 Pax Door	LOCKED/LATCHED	
7 Door Lock 	UNBLOCKED	
8 Front Canopy	POS. 1 or 2	
9 Canopy Lock 	UNBLOCKED	
10 Parking Brake	SET	
11 Flight Controls	FREE	
12 Trim Wheel	SET T/O	
13 Throttle	IDLE	
14 Prop	FULL FWD	
15 Mixture	LEAN	
16 Friction Device	ADJUST	
17 Alternate Air	CLOSED	
18 Alternate Static	CLOSED	
19 Avionics Master	OFF	
20 Essential Bus	OFF	
21 Master - BAT	ON	
22 Annunciator Panel	Test 5secs.	
23 Fuel Tank Selector	FULLER TANK	

			Motorleistung in % der maximalen Startleistung						Motorleistung in % der maximalen Startleistung					
			45 %				55 %		65 %			75 %		
	Drehzahl		1800	2000	2200	2400	2000	2200	2400	2000	2200	2400	2200	2400
Fuel Flow [US gal/h]	Best Economy		5,8	6	6,3	6,6	7	7,2	7,5	7,9	8,2	8,5	9,2	9,5
	Best Power		-	-	7,3	7,7	-	8,5	8,7	-	9,5	9,8	10,7	11
			Ansaugdruck (MP) [inHg]						Ansaugdruck (MP) [inHg]					
ISA	[°C]	[°F]	22,7	21,3	20,2	19	23,9	22,4	21,2	26,8	24,9	23,4	27,3	25,8
MSL	15	59	22,7	21,3	20,2	19	23,9	22,4	21,2	26,8	24,9	23,4	27,3	25,8
1000	13	55	22,4	21,0	19,9	18,7	23,6	22,2	21,0	26,4	24,5	23,2	26,8	25,5
2000	11	52	22,1	20,7	19,6	18,4	23,3	21,9	20,7	26,0	24,2	22,9	26,5	25,2
3000	9	48	21,8	20,4	19,3	18,2	23,0	21,6	20,4	25,7	23,8	22,6	26,1	24,8
4000	7	45	21,5	20,2	19,0	17,9	22,7	21,2	20,1	25,4	23,5	22,3	-	24,5
5000	5	41	21,2	19,9	18,7	17,6	22,3	20,9	19,8	-	23,1	22,0		24,1
6000	3	38	20,9	19,6	18,4	17,4	22,0	20,6	19,5		22,8	21,7		-
7000	1	34	20,5	19,3	18,2	17,1	21,7	20,3	19,3		22,4	21,4		
8000	-1	31	20,2	19,0	17,9	16,9	21,3	20,0	19,0		-	21,0		
9000	-3	27	19,9	18,7	17,6	16,6	21,1	19,7	18,7			20,7		
10000	-5	23	19,6	18,4	17,3	16,3	-	19,4	18,4			-		
11000	-7	19	19,3	18,2	17,0	16,1		19,1	18,1					
12000	-9	16	-	17,9	16,7	15,8		-	17,8					
13000	-11	12		17,6	16,4	15,5			17,6					
14000	-13	9		-	16,1	15,3			-					
15000	-15	6			15,8	15,0								
16000	-17	2			15,5	14,7								
17000	-19	-2			-	14,5								

Shaded Areas are the recommended powersettings

AFTER LANDING	
1 Throttle	IDLE
2 Brakes	AS REQ
3 Fuel Pump	OFF
4 Transponder	GND/STBY
5 Pitot Heat	OFF
6 Avionics	AS REQ
7 Landing Light	OFF
8 Taxi Light	ON
9 Flaps	UP

SHUT DOWN	
1 Parking Brake	SET
2 Engine Instruments	CHECK
3 ELT (121,5 MHz)	CHECK
4 Flight Plan	CLOSE
5 Avionic Master	OFF
6 Throttle	1000 rpm
7 Taxi Light	OFF
8 Position Lights	OFF
9 Mixture	CUTOFF
10 Ignition	OFF
11 Strobes	OFF
12 Master ALT - BAT	OFF
13 Flight Logger	SLIDE CARD
14 Map Light	CHECK OFF
15 Parking Brake	AS REQ
16 Tie-down	AS REQ

ENGINE START		
1 Bef. Engine Start CL	COMPL	
2 Strobe Light / ACL	ON	
3 Fuel Pump	ON	
4 Throttle	3 cm OPEN	
5 Mixture	3-5 SEC RICH	
6 Mixture	LEAN	
7 Throttle	1 cm OPEN	
8 Mixture	1 SEC RICH	
9 Mixture	LEAN	
10 Fuel Pump	OFF	
11 Prop Area	CLEAR	
12 Ignition	START	
13 Mixture when fires	RICH	
14 Oil Press. <15 sec	IN RANGE 	
15 Master -ALT	ON	
16 Ammeter	Check	
17 Fuel Press. 14-35 psi	CHECK	
18 Annunciator Panel	CHECK 5 SECS.	

10 Master - ALT	ON
11 Ammeter	CHECK
12 Fuel Press. 14-35 psi	CHECK
13 Annunciator Panel	CHECK 5 SECS.

ENG. START WITH EXT. POWER	
1 See Abnormal Ops.	4B.8

BEFORE TAXI	
1 Avionic Master	ON
2 Electr. Equipment	ON
3 Flaps all Positions	CHECK
4 Eng-/Flight Instr.	CHECK / SET
5 Instr.-/Flood light	AS REQ.
6 GTN750 NAV Data	CHECK
7 GPS Selftest	CHECK
8 Fuel Selector 	LEFT/RIGHT
9 Pitot On → Ammeter	CHECK
10 Pitot	OFF
11 Taxi/Posn. Lights	AS REQ.
12 Engine Warm UP 	max 1100rpm
13 Transponder	CHECK
14 Parking Barake	RELEASE
15 Brakes	CHECK
16 Flight Instruments	CHECK
17 Gyro Instruments	CHECK

FLOODED ENGINE START	
1 Strobe Light / ACL	ON
2 Fuel Pump	OFF
3 Mixture	LEAN
4 Throttle	MID POS
5 Prop Area	CLEAR
6 Ignition	START
7 Throttle When Fires	PULL BACK
8 Mixture	RAPIDLY RICH
9 Oil Press. <15 sec	IN RANGE 

BEFORE TAKEOFF		
1 Parking Brake	SET	
2 Seat Belts/Harness	FASTEN	
3 Pax Door	LOOKED/LATCHED	
4 Front Canopy	LOOKED/LATCHED	
5 Door Warning Light	CHECK OFF	
6 Fuel Selector	FULLER TANK	
7 Engine Instruments	IN GREEN	
8 Circuit Breakers	CHECK IN	
9 Fuel Pressuere	14-35 psi	
10 Autopilot	ON	
11 Flight Controls	OVERRIDE	
12 A/P DISC+Horn	PRESS & VFY	
13 Fuel Pump	ON	
14 Mixture	FULL FWD	
15 Flaps	T/O	
16 Trim	T/O	
17 Flight Controls	FREE&CORR	
18 Throttle	2000 rpm	
19 Prop 3x Pull-Drop	250-500rpm	
20 Ignition R-B-L-B	Switch	
21 Drop max. 175rpm	Check	
22 Diff. L/R max. 50rpm	Check	
23 Ignition Switch Both	CONFIRM	
24 Circuit Breakers	CHECK IN	
25 Voltmeter	IN GREEN	
26 Throttle Idle 600-800rpm	CHECK	
27 Alternate Air	Closed	
28 Landing Light	ON	
29 Pitot Heat	AS REQ.	
30 Departure Briefing	COMPLETE	
31 Parking Brake	Release	

LINE UP / TAKEOFF

1 Before T/O Check	COMPL
2 Approach Sector	CLEAR
3 Runway Heading	CONFIRM
4 Transponder	ON/ALT
5 Prop	FULL FWD
6 Throttle	FULL FWD
7 Full Takeoff Power	CONFIRM
8 Elevator	NEUTRAL
9 Rudder	DIRECTION
10 Rotate (V _R)	59 KIAS
11 Climb Speed (V _Y)	60-66 KIAS*

*) A/C - Mass 1000Kg - 1150Kg

CLIMB

1 Throttle	FULL FWD
2 Mixture	RICH
3 Prop 2400 rpm	REDUCE
4 Engine Instruments	IN GREEN
5 Climb Speed (V _Y)	60-66 KIAS*
6 400ft AGL Safe Alt	CHECK
7 Flaps	UP
8 Trim	AS REQ
9 Landing Light	OFF
10 Fuel Pump	OFF
11 Fuel Press.	CHECK
12 Mixture >5000ft	SET EGT

*) A/C - Mass 1000Kg - 1150Kg

CRUISE - CLIMB	
1 Flaps	UP
2 Airspeed	68-73 KIAS*
3 Prop 2400rpm	SET
4 Throttle	FULL FWD
5 Mixture >5000ft	SET EGT
6 Engine Instruments	IN GREEN
7 Trim	AS REQ
8 Fuel Pump (high Alt.)	ON

*) A/C - Mass 1000Kg - 1150Kg

CRUISE

1 Flaps	CHECK UP
2 Throttle (Page 7)	SET
3 Prop 1800 - 2400 rpm	SET
4 Mixture	SET
5 Trim	AS REQ
6 Fuel Selector	AS REQ
7 Fuel Pump (high Alt.)	ON
8 Manover Spd V _A	94/108 KIAS*
9 Turbulent Air Spd V _{no}	129 KIAS
10 Fuel Pump (high Alt)	ON

*) A/C - Mass 780Kg - 980Kg 94 KIAS

*) A/C - Mass 981Kg - 1150Kg 108 KIAS

DESCENT

1 Mixture	AS REQ
2 Prop 1800 - 2400 rpm	AS REQ
3 Throttle	AS REQ
4 Fuel Pump (high Alt.)	ON
5 Descent Planning	COMPLETE

LANDING APPROACH

1 Fuel Pump	ON
2 Fuel Selector	FULLER TANK
3 Safety Harness	FASTEN
4 Airspeed Reduce MAX	108 KIAS
5 Flaps	T/O
6 Trim	AS REQ
7 Landing Light	AS REQ

BEFORE LANDING

1 Mixture	FULL FWD
2 Throttle	AS REQ
3 Airspeed Reduce	91 KIAS
4 Prop	FULL FWD
5 Flaps	LANDING
6 Final Approach Spd	63-71 KIAS*
7 Prop	FULL FWD
8 Throttle	FULL FWD
9 Airspeed	60-66 KIAS*
10 Flaps	T/O
11 400ft AGL Safe Alt	CHECK
12 Prop	2400
13 Airspeed	68-73 KIAS*
14 Flaps	UP
15 Fuel Pump	OFF

*) A/C - Mass 1000Kg - 1150Kg