

Airspeeds for Normal Operations

TAKEOFF

Climb Flaps T/O
 V_X Flaps T/O
 V_Y Flaps UP

57 KIAS
 52 KIAS
 65 KIAS 

LANDING

Final APP Flaps LDG
 Bailed Ldg Flaps LDG
 Max. demo X Wind
 V_{FE} max, Flaps LDG

60 KIAS
 60 KIAS
 15 knots
 90 KIAS

CRUISE

V_A Maneuvering
 V_{NO} Max turbul. Air
 V_{NE} Max Airspeed

112 KIAS
 130 KIAS
 165 KIAS

Airspeeds for Emergency Operations

V_A Maneuvering
 Best Glide Flaps UP
 Best Glide Flaps T/O
 Precaut. Flaps LDG

112 KIAS
 78 KIAS
 73 KIAS
 60 KIAS

No Engine Power

Flaps T/O
 Flaps UP

65 KIAS
 70 KIAS



OE-AKW


AQUILA A211G

MTOM = 750 kg / 1.653 lb

A/C-Size: W: 10.3 m H: 2.4m L: 7.4 m

OPERATOR	
MFU Flugbetrieb GmbH	
A-2542 Kottlingbrunn	
Flugplatz 1, Top 1	
UID ATU37004807	
+43 2252 77340	

CONTACT	
Tower LOAV	+43 1 700729201
Maint. LOAV	+43 2252 790894
AIS	+43 51703 3211
MET	+43 51703 3443







FUEL	
Fuel 	EN228 SUPER
Fuel (alt.)*	AVGAS 100LL
Maximum Fuel	120 L / 31.7 gal
Unusable Fuel	10.4 L / 2.8 gal

*) If alternative Fuel used → Entry in A/C LOG

OIL	
Aero Shell SPORT PLUS 4 	
Minimum	DIFF = 0.45 L
Maximum	

TIRE	
Front Tire	36 psi / 2.5 bar
Main Tires	36 psi / 2.5 bar

SPEED	
V _{S0} (Stall- Flaps max)	39 KIAS
V _G (best glide, Flaps up)	78 KIAS
Max. Demo. X-Wind	15 knots

COM FAIL	
	Clear to Land
	Return to Landing
	Continue Circling
	A/D unsafe, don't Land
	Do not Land
	Do not Land

DAILY INSPECTION

1 Fuel Tank Sumps	2x DRAIN
2 Electr. Fuel Pump	DRAIN

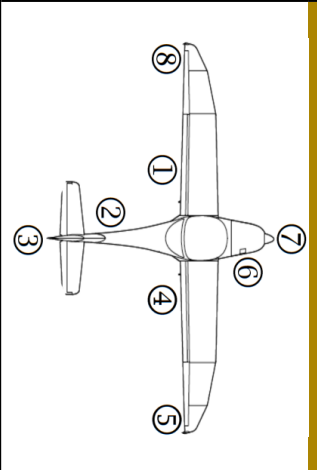
CABIN CHECK

3 A/C Documents	CHECK
4 Ignition Key	REMOVE
Master – ALT1/BAT	ON
Lights (ALT1, Fuel)	ILLUM
Lights (ALT2, Volt)	ILLUM
Master – ALT1	OFF
Eng. Instrument	CHECK
Fuel Quantity	CHECK
Light: Nav. Ldg. Instr	CHECK
ACL, Stall Warning	CHECK
Master – BAT	OFF
14 ELT	ARM
15 Foreign Objects	REMOVE
16 Baggage stowed	SECURE
17 Canopy clean	NO DAMAGE
18 Flashlights	CHECK

BATTERY

Eng. Instrument	CHECK
Fuel Quantity	CHECK
Light: Nav. Ldg. Instr	CHECK
ACL, Stall Warning	CHECK
Master – BAT	OFF

EXTERIOR CHECK



1. Left Main Gear

19 Wheel Fairng/Strut	CHECK
20 Tire Press/Slip Mkr**	CHECK
21 Tire/Wheel/Brake	VIS INSP
22 Chocks	REMOVE

*) Red dot under tire valve

2. Fuselage

23 Shell & Skid Plate	VIS INSP
24 Tail Tiedown	DISCON

3. Empennage

25 Elevat. & Stabilizer	VIS INSP
26 Rudder	VIS INSP
27 Fitting Bolt Connect	CHECK
28 Vertical Stabilizer	VIS INSP

4. Right Main Gear

29 Wheel Fairng/Strut	CHECK
30 Tire Press/Slip Mkr**	CHECK
31 Tire/Wheel/Brake	VIS INSP
32 Chocks	REMOVE

*) Red dot under tire valve

5. Right Wing

33 Wing Surfaces	VIS INSP
34 Fuel Vent – clear	CHECK
35 Flap	CHECK
36 Aileron/Insp. Wndw.	VIS INSP
37 Wing Tip	VIS INSP
38 Fuel Level - Dipstick	CHECK
39 Fuel Filler Cap	CLOSE
40 Wing Tiedown	DISCON

Pressure altitude	Standard temperature		Engine performance in % of MCP																			
			55%				65%				75%				85%				MCP			
			RPM	MP	FF	FF	RPM	MP	FF	FF	RPM	MP	FF	FF	RPM	MP	FF	FF	RPM	MP	FF	FF
H	T	T	[U/min]	[in Hg]	[l/h]	[gal/h]	[U/min]	[in Hg]	[l/h]	[gal/h]	[U/min]	[in Hg]	[l/h]	[gal/h]	[U/min]	[in Hg]	[l/h]	[gal/h]	[U/min]	[in Hg]	[l/h]	[gal/h]
(ft)	[°C]	[°F]																				
0	15	59	1900	24.6	14.0	3.7	2000	25.7	15.6	4.12	2100	27.0	21.0	5.55	2260	27.7	24.0	6.34	2260	28.0	26.0	6.87
2000	11	52	1900	24.0	15.0	4.0	2000	24.7	16.0	4.23	2200	25.7	21.3	5.63	2260	26.7	22.0	5.81	2260	27.0	26.0	6.87
3000	9	48	1900	23.7	15.5	4.1	2050	24	16.4	4.33	2230	25.0	21.4	5.65	2260	26	22.0	5.81				
4000	7	44	1900	23.3	16.0	4.2	2100	23.3	16.8	4.44	2260	24.3	21.5	5.68	2260	25.2	22.0	5.81				
5000	5	41	1950	22.7	16.5	4.4	2150	23	18.1	4.77	2260	23.8	21.9	5.79								
6000	3	37	2000	22.0	17.0	4.7	2200	22.7	19.3	5.1	2260	23.3	22.3	5.89								
8000	-1	30	2100	21.0	18.0	4.8	2200	21.5	21.5	5.68	2260	21.5	23.0	6.08								
10,000	-5	23	2200	19.7	19.0	5.0	2260	20.1	22.0	5.81												
12,000	-9	16	2260	18.5	19.0	5.0																

MCP: maximum continuous power
 RPM: revolutions per minute
 MP: manifold pressure
 FF: fuel flow

Correction for non ISA temperature conditions:

For each 50°F (10°C) above ISA: increase Manifold Pressure by 3%, Fuel consumption increases by 5%
 For each 50°F (10°C) below ISA: decrease Manifold Pressure by 3%, Fuel consumption decreases by 5%

CRUISE	
1 Throttle	AS REQ
2 Prop	1650-2260 rpm
3 Flaps	CHECK UP
4 Trim	AS REQ
5 P/S Heat as req.	OAT > 15°C OFF
6 Engine Instruments	IN GREEN
7 Manvr. Speed (V _A)	112 KIAS
8 Turbulent Air (V _{NO})	130 KIAS

Full Throttle: → Prop min. 2140 rpm

DESCENT	
1 Throttle	AS REQ
2 Prop	MIN 2000 rpm
3 Carburetor Heat	AS REQ
Throttle	IDLE
Prop	FULL FWD
Carburetor Heat	PULL (ON)
Flaps	UP
Airspeed Max.	130 KIAS
Engine Instruments	IN GREEN

LANDING	
1 Lap Belt	TIGHTEN
2 Fuel Pump	ON
3 Landing Light	AS REQ
4 Carburetor Heat	PULL (ON)
5 Throttle	AS REQ
6 Airspeed (V _{FE}) Max.	90 KIAS
7 Flaps	T/O OR LDG
8 Trim	AS REQ
9 Flaps	LDG

6. Nose Section / Cowling	
41 Ignition/ALT1/BAT	CHECK OFF
42 Parking Brake	SET
43 Crank Engine	CHECK NOISE
44 Oil level/diff. 0.45L	CHECK
45 Coolant Level	CHECK
46 Air+Cooler Intakes	FREE
47 Cowling Fasteners	CHECK
48 Propeller/Spinner	CHECK

7. Nose Ldg Gear	
49 Wheel Fairing/Strut	CHECK
50 Gear Strut Mount	VIS INSP
51 Tire Pressure	CHECK
52 Tire/Wheel	VIS INSP
53 Shock Absorber	CHECK
54 Chocks/Tow Bar	REMOVE

8. Left Wing	
55 Wing Surfaces	VIS INSP
56 Fuel Vent - clear	CHECK
57 Pitot / Static Cover	REMOVE
58 Pitot / Stat Opening	CLEAR
59 Wing Tip	VIS INSP
60 Aileron Insp. Wndw.	VIS INSP
61 Fuel Level / Dipstick	CHECK
62 Fuel Filler Cap	CLOSE
63 Flap	CHECK
64 Wing Tiedown	DISCON

PREFLIGHT	
1 Daily Inspection	COMPL
2 Tow Bar	REMOVE
3 Fuel Quant. Dipstk	2 x CHECK
4 Ignition, ALT1/BAT	CHECK OFF
5 Parking Brake	SET
6 Crank Engine	CHECK NOISE
7 Oil level / diff. 0,45L	CHECK
8 Coolant Level	CHECK
9 Tiedown Straps	REMOVE
10 Baggage Door	CLOSE/LOCK
11 Pitot Cover	REMOVE
12 Control Locks	REMOVE
13 Seating Positions	ADJUST/LOCK
14 Carburetor Heat	FREE - PUSH
15 Cabin Heat	FREE - PUSH
16 Choke free move	AUTO RESET
17 Throttle free move	IDLE
18 Prop free move	FULL FWD
19 Mass & Balance	IN LIMITS

BEF. ENGINE START	
1 Preflight Check	COMPL
2 Passenger Briefing	COMPL
3 Seats	ADJUST
4 Seat Belts / Harn.	FASTEN
5 Canopy Closed	LOCK
6 Canopy Locked	CHECK
7 Parking Brake	SET
8 Controls Movement	CHECK
9 Fuel Selector	FULLER TANK

10	Carburetor Heat	PUSH (OFF)
11	Throttle	IDLE
12	Prop	FULL FWD
13	Avionic - Master	OFF
14	P/S Heat	OFF
15	All CBS	CHECK
16	Attitude Indicator	CAGE
17	Master - ALT1/BAT	ON
18	G500 AHRS Warnings	CHECK
19	ALT1/ALT2 Light	ILLUMIN
20	Fuel Warning Light	ILLUMIN
21	P/S HEAT Light	ILLUMIN
22	ACL	ON

ENGINE START		
1	Before Start Check	COMPL
2	Fuel Pump	ON
3	Fuel Warning Light	OFF
4	Throttle - when cold	IDLE
5	Choke - when cold	PULL/HOLD
6	Throttle - when hot	1-2 cm OPEN
7	Choke - when hot	PUSH
8	Brakes Both Pedals	PRESS
9	Prop Area	CLEAR
10	Ignition	START/BOTH
11	Oil Press < 10 sec	RISING
12	ALT1 Warning Light	OFF
13	ALT2 Warning Light	OFF
14	Fuel Pump	OFF
15	Fuel Warning Light	OFF

BEFORE TAXI		
1	Warmup max 1000 _{rpm}	OIL MIN 50°C
2	Avionics	ON/SET
3	Engine Instruments	CHECK
4	Volt Meter in green	CHECK
5	Trim Sw. + Indicator	CHECK
6	Flap Sw. + Indicator	CHECK+UP
7	P/S Heat ON	LIGHT OFF
8	P/S Heat OFF	LIGHT ON
9	Throttle 1000 rpm	SET
10	NAV Lights	ON
11	Landing Light	ON
12	Instrument Lights	ON
13	Ammeter Charge	CHECK
14	Master - ALT1	OFF
15	Ammeter Discharge	CHECK
16	ALT2 CB	PULL (OFF)
17	If Discharge increase	→ ALT2 OK
18	If no Change	→ ALT2 U/S
19	If one ALT u/s	→ NO NVFR
20	ALT2 CB	PUSH (ON)
21	Master - ALT1	ON
22	If Charge increase	→ ALT1 OK
23	If no change	→ ALT1 U/S
24	If one ALT u/s	→ NO NVFR
25	All Switches	AS REQ
26	Parking Brake	RELEASE
27	Brakes	CHECK
28	Steering	CHECK
29	Flight Instruments	CHECK

BEFORE TAKEOFF		
1	Transponder	CHECK
2	Brakes	APPLY
3	Parking Brake	SET
4	Compass/Gyro	CHECK/SET
5	Fuel Selector	FULLER TANK
6	Fuel Waring Light	OFF
7	Engine Instruments	IN GREEN
8	Throttle	1700 rpm
9	L - B - R - B	SWITCH
10	Drop max. 120 rpm	CHECK
11	Diff L/R max 50 rpm	CHECK
12	Ignition Switch Both	CONFIRM
13	Carburetor pull (on)	DROP 20-50 rpm
14	Carburetor	PUSH (OFF)
15	Prop 3x Cycle Slowly	END STOPS
16	→ Drop	200 ±50 rpm
17	→ Oil Press	CONSTANT
18	→ Manifold Press	CHANGE
19	Throttle	IDLE
20	Fuel Pump	ON
21	Flaps	T/O
22	Trim	WHITE MARK
23	All CBS	CHECK
24	Contr. Movement	FREE
25	Lap Belt	TIGHTEN
26	Canopy → closed	LOCK
27	Departure Briefing	COMPL
28	T/O Briefing	COMPL
29	Parking Brake	RELEASE

LINE UP / TAKEOFF		
1	Before T/O Check	COMPL
2	Landing Light	AS REQ
3	Approach Sector	CLEAR
4	Runway Heading	CONFIRM
5	Throt/Prop/Carb	FULL FWD
6	RPM=2300-2385	CHECK
7	T/O Power Values	CORRECT
8	Elevator	NEUTRAL
9	Rudder	DIRECTION
10	Rotate (V _R)	50 KIAS
11	Climb Initially	57 KIAS
12	Short T/O (V _X)	52 KIAS

CLIMB		
1	Throttle	FULL
2	Prop full forward	MAX 5 MIN
3	Prop 2260 rpm	REDUCE
4	Engine Instruments	IN GREEN
5	Climb Speed (V _y)	65 KIAS
6	min. 400 ft AGL	CHECK Safe Spd
7	Flaps	UP
8	Trim	AS REQ
9	Landing Light	OFF
10	Fuel Pump	OFF
11	Fuel Warning Light	CHECK