

Katana DV 20

Operator: **Fliegergruppe Wien** im österreichischen AERO- Club A -2540 Flugplatz Bad Vöslau www.fliegergruppe.at

OE-AFG: BJ. 1994 WerkNr: 20071
Eingebaut am 10.4.2006 in Hofkirchen Motornummer: Rotax 912 Baureihe A3 WerkNr. 4,410664 Bj 2005
Prop. Hoffmann Baumuster H=VHO-V352F/C170FQ; WerkNr H306A

OE-AFG



KATANA DV 20



PREFLIGHT INTERIOR

Remove flight control lock
Ignition key on trim knob
Circuit breakers all in
Battery/Master switch on
Check fuel quantity
Exterior lights on
Check exterior lights
Exterior lights off
Battery/Master switch off
Fuel shut off-valve open
Main spar pin secured

PREFLIGHT EXTERIOR**Left main gear**

Strut
Wheel fairing
Tire condition, pressure, position
mark
Brake, hydraulic line

Left wing

Wing leading edge, top- and
bottom surface
Stall warning
Pitot-static probe
Wingtip, lights
Aileron (freedom of movement,
hinges, counterweights,
control linkage, security)
Wing flap

Fuselage belly

Fuel vent
Fuel drain

Tail

Elevator & rudder (freedom of
movement, hinges, cable
condition, security)
Trim tab

Right wing

Wing flap
Aileron (freedom of movement,
hinges, counterweights,
control linkage, security)
Wingtip, lights

Wing leading edge, top- and
bottom surface

Right main gear

Strut
Wheel fairing
Tire condition, pressure, position
mark
Brake, hydraulic line

Nose section

Propeller and spinner
Air inlets (6)

Nose gear

Strut
Wheel fairing
Tire condition, pressure, position
mark

Engine bay

Oil level
Coolant level

Coolant: use only EVANS NPG+
do not add water to the system !!!

Bugradegabel entfernt ??? !!!

Übernahmeprotokoll

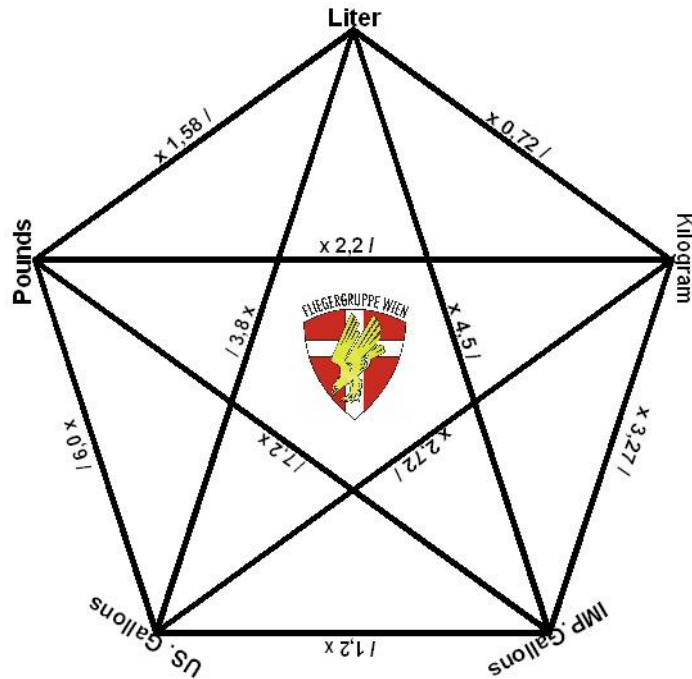
Ausgefüllt eventuelle Kommentare eingetragen

Wichtig nach Übergabe der Boardtasche das Übergabeprotokoll im Clubraum deponieren!!!

TPX CODES

7500 HiJack
7600 COM
7700 MAYDAY

EMG FRQ
121,5 MHz



ABFANGZEICHEN

+ (Wenn in Funkkontakt) ATC informieren
 + Auf Notfrequenz (121,500MHz) Verbindung aufnehmen
 + Transponder 7700
 + ANWEISUNGEN FOLGE LEISTEN

Abfangendes LFZ		Antwort
<ul style="list-style-type: none"> • Querruder AUF - AB • Blinkende Positionslichter • Hochziehen und abdrehen 	<p>Folgen Sie!</p> <p>Weiterfliegen</p>	<ul style="list-style-type: none"> • Querruder AUF - AB • Blinken mit Positionslichtern • Querruder AUF - AB
<ul style="list-style-type: none"> • Fahrwerk raus • Landescheinwerfer EIN • Überfliegen d. Flugplatzes 	<p>Folgen und hier landen!</p>	<ul style="list-style-type: none"> • Fahrwerk raus • Landescheinwerfer EIN • Landen (wenn möglich)

LICHTSIGNALLE im Flug

■ Landung frei

■ ■ ■ ■ ■ ■ ■ ■ Zwecks Landung zurückkehren

■ In Warterunde fliegen

■ ■ ■ ■ ■ ■ ■ ■ Flugplatz unbenutzbar, nicht landen

□ □ □ □ □ □ □ □ Hier landen und zur Abstellfläche rollen (Landefreigabe abwarten!)

ROTE FEUERWERKSKÖRPER

JETZT NICHT LANDEN!

Nicht immer: Nicht-Schallhilfe dient der groben Übersicht und ersetzt weder die Flugschallplatte noch eine Altfrequenz

ATC PLAN

10a **GOVY** / 10b **S 18 NAV/SBAS**

CHECK BEFORE ENGINE START

1	Preflight check	COMPLETED	1
2	Baggage and tow bar	SECURED	2
3	Fuel shut-off valve	OPEN	3
4	Rudder pedals	ADJUSTED	4
5	Seat belts	FASTENED	5
6	Canopy	CLOSED + LATCHED	6
7	Parking brake	SET	7
8	Flight controls	CHECKED	8
9	Altimeter	SET	9
10	All switches	OFF	10
11	Circuit breakers	CHECKED IN	11
12	Ignition	OFF	12
13	Avionics master switch	OFF	13
14	Battery/Master switch	ON	14
15	Fuel quantity	CHECKED	15
16	Gen. & LowVoltage light	CHECKED ON	16
17	Fuel pressure low light	CHECKED ON	17
18	Engine counter reading	NOTED	18
19	ACL	ON	19
20	Fuel pump	ON, CHECK NOISE	20
21	Fuel pressure low light	CHECKED OUT	21
22	Carburettor heat	COLD	22
23	Propeller	HIGH RPM	23

ENGINE START PROCEDURE

Throttle	AS REQUIRED
Choke	AS REQUIRED
Prop area	CLEAR
Starter	ENGAGE
Oil pressure	GREEN ARC within 10 sec
Throttle	1200 RPM

CHECK AFTER ENGINE START

1	Oil pressure	CHECKED	1
2	Gen. & LowV light.....	CHECKED OUT	2
3	Avionics master switch	ON	3
4	Fuel pump	OFF	4
5	Fuel pressure low light	CHECKED OUT	5
6	Fuel pump	ON	6
7	Radios and GPS.....	ON	7
8	Gyros & altimeter	SET	8
9	Instruments.....	CHECKED	9
10	Ampere meter.....	LOADING	10
11	Flaps	CHECKED FULL TRAVEL	11
12	Trim	SET	12
13	Nav aids and frequencies	SET	13
14	Transponder	ALT (if required)	14

DURING TAXI

Check brakes
Check flight instruments

BEFORE TAKE OFF CHECK

1	Parking brake	SET	1
2	Gyros & altimeter	RECHECKED	2
3	Engine instruments.....	CHECKED	3

RUN UP PROCEDURE

Throttle 1700 RPM
Magnetos checked 175 / 50 RPM
Propeller governor 3 times
Carburettor heat..... checked

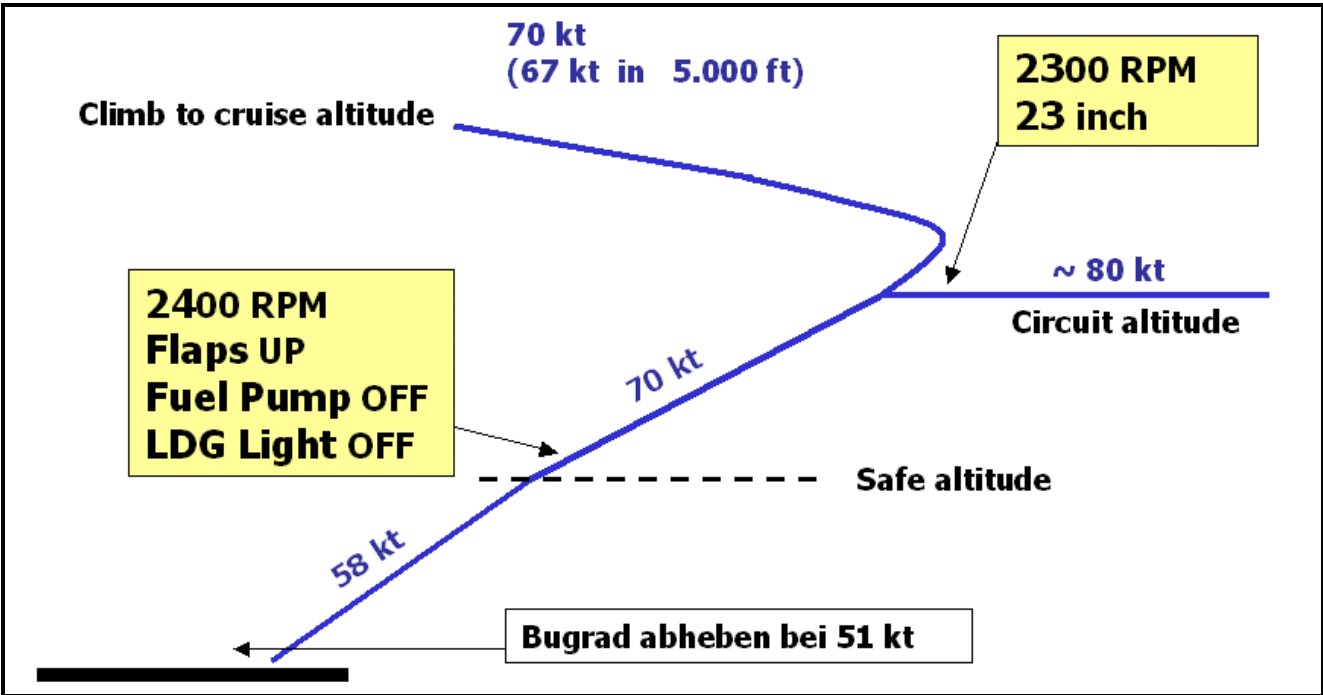
4	Flaps	SET FOR TAKE-OFF	4
5	Transponder	ALT	5
6	Parking brake	RELEASED	6

LINE UP PROCEDURE

Landing light..... on
 Approach sector clear
 Runway identified
 Gyro check rwy hdg

AFTER TAKE-OFF PROCEDURE

After passing safe altitude:
 RPM..... 2400
 Flaps..... up
 Fuel pump off
 Landing light..... off



CLIMB TO CRUISE CHECK

1	Landing Light.....	CHECKED OFF	1
2	Flaps	CHECKED UP	2
3	Fuel pump	CHECKED OFF	3
4	RPM.....	2400	4

PERIODICALLY DURING CRUISE

Fuel Radio Engine Direction Altitude

DESCENT / APPROACH CHECK

1	Landing data.....	RECEIVED	1
2	Altimeter	SET	2
3	COM / NAV	SET	3
4	Gyro	SET	4
5	Carburettor heat	AS REQUIRED	5

BEFORE LANDING PROCEDURE

"3 levers – 3 switches"

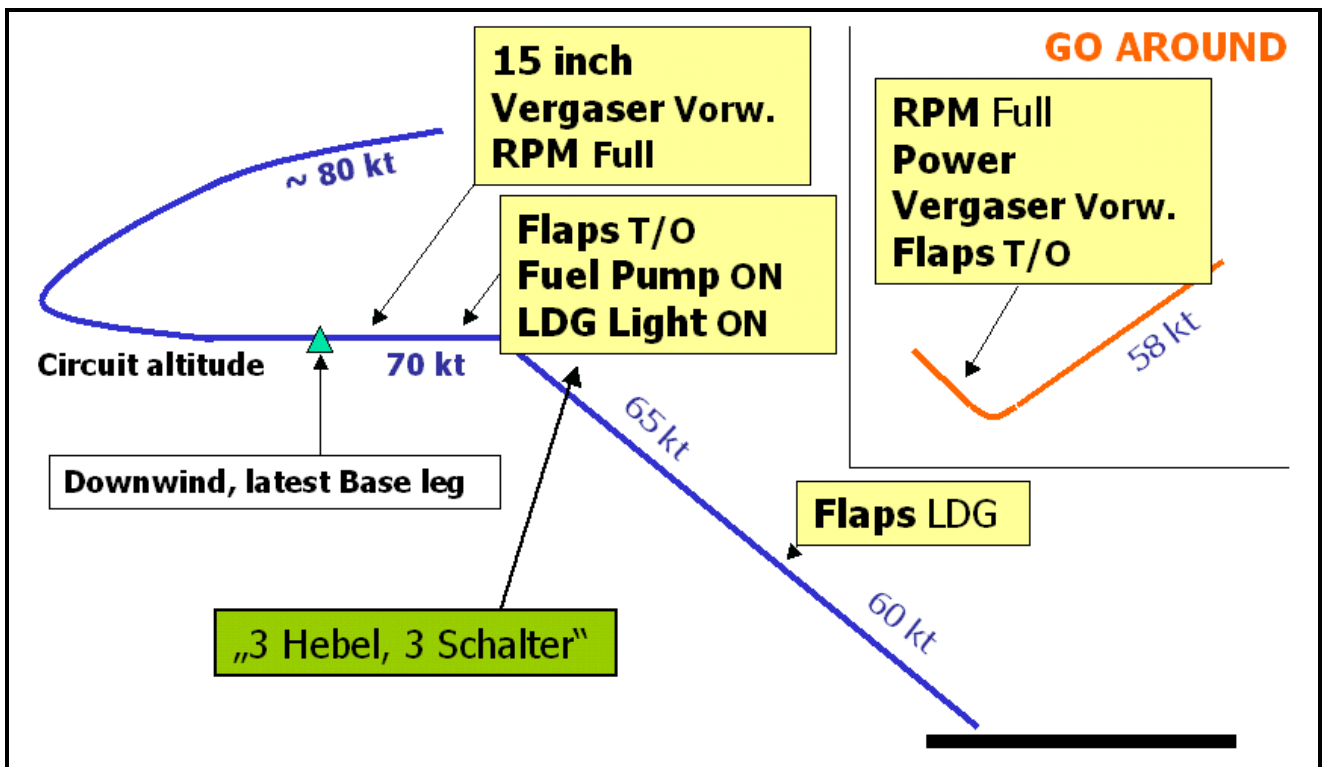
1. Throttle..... 15 inch
2. Carburettor heat on
3. RPM..... full

1. Flaps T/O
2. Fuel pump..... on
3. Landing light on

On final:
 Flaps.....as required

GO AROUND PROCEDURE

RPM and throttleFULL
 Carburettor heat..... OFF
 Flaps..... T/O
 Continue with take-off profile



AFTER LANDING CHECK

(when reaching taxi speed)

1	Carburettor heat	OFF	1
2	Flaps	UP	2
3	Fuel pump	OFF	3
4	Landing light.....	OFF	4
5	Transponder	SBY	5

PARKING CHECK

1	Parking brake	SET	1
2	Position lights, transponder, GPS.....	OFF	2
3	ELT.....	121,5 CHECKED	3
4	Avionics master switch.....	OFF	4
5	Starter key	OFF	5
6	ACL	OFF	6
7	Battery/Master switch	OFF	7
8	Engine counter reading	NOTED	8

Emergency Landingpage 8
Engine Roughness.....page 8
Windmill Engine Startpage 9
Powered Engine Startpage 9
Low Oil Pressure page 10
Low Fuel Pressure page 10
Generator Warning..... page 10
LowV Warning on Ground..... page 10
LowV Warning in Flight page 10
Engine Fire on Ground page 11
Electrical Fire /Smoke on Ground page 11
Engine Fire in Flight..... page 11
Electrical Fire / Smoke in Flight..... page 11

EMERGENCY LANDING

1	Carburettor heat	OFF	1
2	Flaps	T/O	2
3	Speed	70 kts	3
4	Fuel shut-off valve	CLOSED	4
5	Ignition	OFF	5
6	ATC	MAYDAY CALL	6
7	Flaps	AS REQUIRED	7
8	Battery/Master switch	OFF	8

ENGINE ROUGHNESS

- 1 Carburettor heat ON 1
- 2 Fuel pump ON 2
- 3 ChokeOFF (PUSHED IN) 3
- 4 MagnetosCHECKED, then BOTH 4
- 5 Throttle..... KEEP POSITION 5
- If no success:
- 6 Throttle.....REDUCE POWER 6
- Land ASAP

WINDMILL ENGINE START

1	Minimum speed.....	54 kts	1
2	Recommended speed.....	70 kts	2
3	Flaps	TAKE-OFF	3
4	Propeller	MAX RPM	4
5	Fuel pump	ON	5
6	Ignition	BOTH	6
7	Fuel shut-off valve	OPEN	7
8	Throttle.....	2 cm	8
If no start within 10 seconds:			
9	Throttle.....	IDLE	9
10	Choke	ON (PULLED)	10
11	Starter	ENGAGE	11

POWERED ENGINE START

1	Minimum speed.....	54 kts	1
2	Recommended speed.....	70 kts	2
3	Flaps	TAKE-OFF	3
4	All switches	OFF	4
5	Battery/Master switch	ON	5
6	Fuel shut-off valve	OPEN	6
7	Propeller	MAX RPM	7
8	Fuel pump	ON	
Cold engine:			
9	Throttle.....	IDLE	9
10	Choke	ON (PULLED)	10
Warm engine:			
11	Throttle.....	2 cm	11
12	Choke:.....	OFF (PUSHED IN)	12
13	Starter	ENGAGE	13
When engine starts:			
14	Oil pressure.....	CHECKED	14
15	Choke	OFF (PUSHED IN)	15
16	Electrical systems.....	AS REQUIRED	16
17	Oil temperature	CHECKED	17

LOW OIL PRESSURE

- 1 Oil temperature CHECKED 1
 - If oil temperature normal:
Land ASAP
 - If oil temperature is rising:
- 2 Throttle.....REDUCE POWER 2
Land ASAP, be prepared for emergency landing

LOW FUEL PRESSURE

- 1 Fuel pump ON 1
If fuel pressure low light still on:
Land ASAP, be prepared for emergency landing

GENERATOR WARNING

- 1 Ampere meter CHECK 1
If pointer left of 0:
- 2 All unnecessary equipment OFF 2
Land ASAP

LOW/V WARNING ON GROUND

- 1 RPM..... 1200 1
- 2 Landing light..... OFF 2
- 3 Position lights OFF 3
- 4 Ampere meter CHECK 4
If LowV light still on and Ampere meter left of 0:
Discontinue operation

LOW/V WARNING IN FLIGHT

- 1 Landing light..... OFF 1
- 2 Ampere meter CHECK 2
If LowV light still on and Ampere meter left of 0:
- 3 All unnecessary equipment OFF 3
Land ASAP

ENGINE FIRE ON GROUND

- 1 Fuel shut-off valve CLOSED
- 2 Throttle..... FULL
- 3 Battery/Master switch OFF
- 4 Ignition OFF

Evacuate - Extinguish

ELECTRICAL FIRE / SMOKE ON GROUND

- 1 Battery/Master switch OFF
- 2 Throttle..... IDLE
- 3 Ignition OFF
- 4 Canopy OPEN

Extinguish – Evacuate

ENGINE FIRE IN FLIGHT

- 1 Speed 70 kts
- 2 Flaps T/O
- 3 Fuel shut-off valve CLOSED
- 4 Throttle..... FULL
- 5 Fuel pump OFF
- 6 Cabin heat..... OFF
- 7 Emergency landing checklist PERFORM

ELECTRICAL FIRE / SMOKE IN FLIGHT

- 1 Battery/Master switch OFF
- 2 Cabin heat..... OFF
- 3 Cabin ventilation ON
- 4 Fire extinguisher USE when smoke persistent

IMPORTANT: Ventilate cabin when using fire extinguisher

If fire extinguished and electrical supply necessary:

- 5 Avionics master switch..... OFF
- 6 All switches OFF
- 7 Battery/Master switch ON
- 8 Avionics master switch..... ON
- 9 Radios ON

Land ASAP

OPERATING SPEEDS	
	Kt
Best gliding angle (Flaps 10°)	70
Best angle of climb (V _X)	58
Best rate of climb (V _Y)	65
Cruising climb speed	70
Rotating speed	51
Max. flap speed (V _{FE})	81
Landing speed Flaps 0°	65
Landing speed Flaps 10°-40°	60
Stall speed (V _{S0})	38
Stall speed (V _{S1})	43
Max. cruising speed (V _{NO})	117
Never exceed speed (V _{NE})	157
Manoeuvring speed (V _A)	104
Max. turbulence speed	117

POWER SETTING and CRUISING SPEED							
Press Alt	Cruise TAS (kt)				65%		
	55%	65%	75%	85%	RPM	MP	ltr/hr
SL	81	92	98	106	2.100	26	13,0
2.000	84	95	102	110	2.100	25	13,3
4.000	87	100	107	115	2.200	24	14,0
6.000	90	103	110		2.300	23	16,3
8.000	92	106	114		2.300	22	17,7
10.000	94	110			2.400	20	18,7
Cons.	16 ltr/hr	18 ltr/hr	20 ltr/hr	21 ltr/hr			
Endurance	4:45 hrs	4:15 hrs	3:45 hrs	3:40 hrs			

Recommended Quick-setting		
	RPM	MP
High Speed Cruise	2.400	Maximum minus 0,7
Economical Cruise	2.300-2.200	Maximum minus 1 - 2

LIMITATIONS

Max. TKOF power	5 min. 2550 RPM
Max. cruise RPM	2420 RPM
Landing light	Max. 5 min. continuously ON Max. 6 min. per hour
Position lights	Max. 30 min. per hour
Max. fuel on board	79 Liter
Max. usable fuel	77 Liter 56 kp

Max. TKOF weight	730 kp
Empty weight	510 kp
Max. load incl. fuel	220 kp
Max. load with full tank	164 kp
Max. baggage weight	20 kp

GARMIN - GNS 430



TAKEOFF BRIEFING

TAKEOFF BRIEFING

NORMAL START from RUNWAY.....

CROSS WIND COMPONENT.....KT FROM

ROTATE BYKT BEFORE / AFTER MID FIELD INDICATOR

INITIAL CLIMBKT UNTIL FEET THEREAFTERKT

LANDING AREA OBSTACLES ARE.....

EMERGENCY LANDING MAX BANK ANGLE 45° LEFT / RIGHT__

IN CASE OF EMERGENCY OR FIRE **BEFORE TAKEOFF**

1. POWER IDLE
2. BRAKES FULL APPLY
3. INFORM ATC

IN CASE OF EMERGENCY **AFTER TAKEOFF**

1. SPEED 70 KNOTS OR.....
2. FUEL SELECTOR; IGNITION OFF
3. FLAPS FULL DOWN
4. MASTER SWITCH OFF