



3fly.at

OE-KAS

Diamond DA40-180

MTOM = 1150 kg / 2.535 lb

A/C-Size: W: 11.9 m H: 2.0 m L: 8.0 m

OPERATOR

MFU Flugvermietung GmbH
A-2542 Kottlingbrunn
Flugplatz 1, Top 1
UID ATU80021129
+43 2252 77340

FPL (EXAMPLE)	
7	A/C ID OE-KAS
8	Flight Rules V,I,Y,Z
	Type of Flight G
9	Type of A/C DA40
	Wake Turbul. Cat. L
10	Equipment BDFGLORY/S
13	Departure A/D LOAV
	Departure Time 0830
15	Speed N0125
	Flight Level 080
	Route SNU GRZ
16	Destination A/D LJMB
	Total EET 0045
	Alternate A/D LOWG
18	Other Info EET/GOLVA0045
	PBN/B2C2D2O2S2 NAV/SBAS
19	Endurance 04:00
	Persons on Bord 2
	Emerg. Equipm. ELT
	A/C Colour WHITE
	Name PIC NAME

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

FUEL	Fuel	AVGAS 100LL
	Maximum Fuel	156 L / 41.2 gal
	Unusable Fuel	3.8 L / 1 gal

OIL	Shell Aero	15 W 50
	Minimum	4 quarts
	Minimum IFR	6 quarts

TIRE	Front Tire	29 psi / 2.0 bar
	Main Tires	36 psi / 2.5 bar

SPEED	V _{SO} (Stall- Flaps max)	49 KIAS
	V ₀ (Stall- Flaps up)	52 KIAS
	V _G (Flaps up)	60-73 KIAS*
	Max. Demo. X-Wind	20 knots

*) A/C - Mass 850Kg - 1150Kg

COM FAIL

Clear to Land

Return to Landing

Continue Circling

A/D unsafe, don't Land

A/D unsafe, don't Land

A/D unsafe, don't Land

A/D unsafe, don't Land

A/D unsafe, don't Land

A/D unsafe, don't Land

Do not Land

Do not Land

Do not Land

Do not Land

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Do not Land

Do not Land

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PREFLIGHT

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

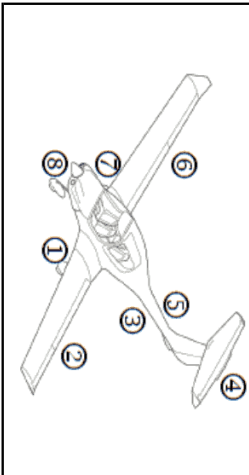


CABIN CHECK

3 Ignition Key	REMOVE
4 Canopy, Rear 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
Master – BAT	OFF
17 Loose Items	CHECK
18 Flight Control	CORRECT
19 Trim Tab	MOVABLE
20 Baggage	SECURED



EXTERIOR CHECK



1. Left Main Gear

21 Gear Strut	VIS. INSP.
22 Strut Fairing	VIS. INSP.
23 Wheel Fairing	VIS. INSP.
24 Tire 36psi / 2,5 bar	CHECK
25 Tire Wear, Tread	CHECK
26 Wheel Brake	VIS. INSP.
27 Break Line Leaks	CHECK
28 Slip Marks	VIS. INSP.
29 Chocks	REMOVE



2. Left Wing

30 Wing Surfaces	VIS. INSP.
31 Step	VIS. INSP.
32 Air Intake Lower	VIS. INSP.
33 Openings Lower	CHECK
34 Tank Drain	CHECK
35 Stall Warning	CHECK
36 Tank Filler	VIS. INSP.
37 Tank Air Outlet	VIS. INSP.
38 2x Stall Strips	VIS. INSP.
39 Pitot Probe	CLEAN
40 Ldg. / Taxi Lights	VIS. INSP.
41 Wing Tip	VIS. INSP.
42 Pos. Light & AC	VIS. INSP.
43 Tiedown	CHECK, CLEAR
44 Aileron & Linkage	VIS. INSP.
45 Aileron Hinges & Pin	Aileron & Linkage
46 Foreign. Obj. AileronPad	VIS. INSP.
47 Flap & Linkages	VIS. INSP.
48 Flap Hinges & Pin	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

3. Fuselage (Left)

49 Canopy Left side	VIS. INSP.
50 Rear Door, Window	VIS. INSP.
51 Fuselage Skin	VIS. INSP.
52 Antennas	VIS. INSP.

4. Empennage

53 Stabilizer Contr. Surf.	VIS. INSP.
54 Hinges	VIS. INSP.
55 Elev. Trim, Wire	VIS. INSP.
56 Rudder Trim Tab	VIS. INSP.
57 Fin Tiedown	CHECK, CLEAR
58 Tail Skid & Lower Fin	VIS. INSP.

5. Fuselage (Right)

59 Fuselage Skin	VIS. INSP.
60 Window	VIS. INSP.
61 Canopy Right Side	VIS. INSP.

6. Right Wing

62 Flap & Linkages	VIS. INSP.
63 Flap Hinges & Pin	VIS. INSP.
64 Aileron & Linkage	VIS. INSP.
65 Aileron Hinges & Pin	VIS. INSP.
66 Foreign.Obj.AileronPad	VIS- INSP.
67 Wing Tip	VIS. INSP.
68 Pos.Light & AC	VIS. INSP.
69 Tiedown	CHECK, CLEAR
70 Wing Surfaces	VIS. INSP.
71 2x Stall Strips	VIS. INSP.
72 Tank Air Outlet	VIS. INSP.

73 Tank Filler	VIS. INSP.
74 Openings Lower	CHECK
75 Tank Drain	CHECK
76 Step	VIS. INSP.

7. Right Main Gear

77 Gear Strut	VIS. INSP.
78 Strut Fairing	VIS. INSP.
79 Wheel Fairing	VIS. INSP.
80 Tire 36psi / 2,5 bar	CHECK
81 Tire Wear, Tread	CHECK
82 Wheel Brake	VIS. INSP.
83 Break Line Leaks	CHECK
84 Slip Marks	VIS. INSP.
85 Chocks	REMOVE

8. Front Fuselage

86 Oil Level 6-8 Qts	CHECK
87 Cowling	VIS. INSP.
88 3 Air Intakes	CLEAR
89 Propeller	VIS. INSP.
90 Spinner & Screws	VIS. INSP.
91 Nose Landing Gear	VIS. INSP.
92 Tire and Wheel	VIS. INSP.
93 Slip Marks	VIS. INSP.
94 Strut Fairing	VIS. INSP.
95 Tire Wear, Tread	CHECK
96 Wheel Fairing	VIS. INSP.
97 Tow Bar	REMOVE
98 Tire 29psi / 2,0bar	CHECK
99 Chocks	REMOVE

100 Exhaust	VIS. INSP.
101 Forw. Cabin Inlets	CLEAR
102 Antennas	VIS. INSP.
103 Gascolator	DRAIN
104 Venting Pipes	CHECK
105 Fuselage Underside	CLEAN

BEF. ENGINE START

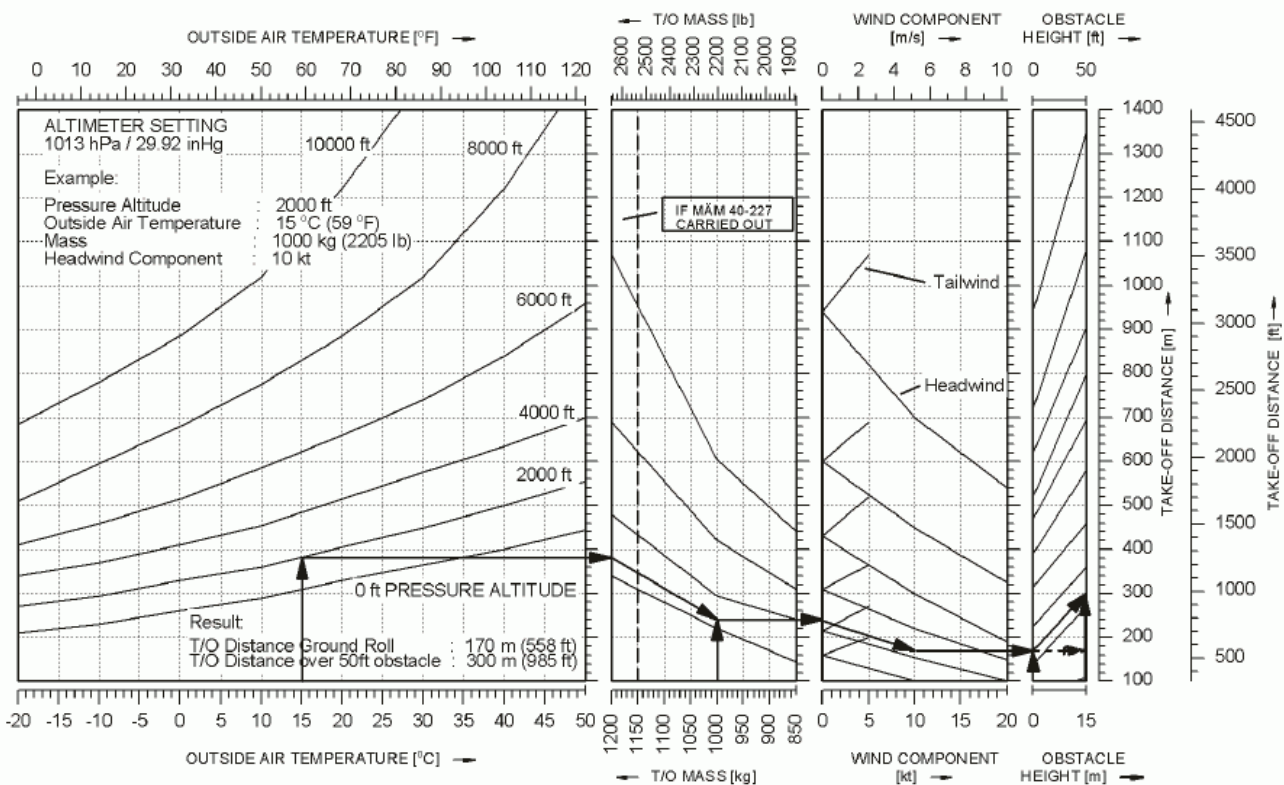
1 Preflight Check	COMPL
2 Rudder Pedals	ADJUST
3 Passenger Briefing	COMPL
4 Seat Belts / Harness	FASTEN
5 Baggage	SECURE
6 Rear Door	LOCKED
7 Front Canopy	POS. 1 or 2
8 Parking Brake	SET
9 Flight Controls	FREE
10 Trim Wheel	SET T/O
11 Throttle	IDLE
12 Prop	FULL FWD
13 Mixture	LEAN
14 Friction Device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

ENGINE START

1 Bef. Engine Start CL	COMPL
2 Strobe Light / ACL	ON
3 Fuel Pump	ON
4 Throttle	3 cm OPEN
Mixture	3-5 SEC RICH
C O L D Mixture	LEAN
Throttle	1 cm OPEN
Mixture	1 SEC RICH
H O T Mixture	LEAN
Fuel Pump	OFF
Prop Area	CLEAR
Ignition	START
Mixture when fires	RICH
Oil Press. < 15 sec	IN RANGE 
Master - ALT	ON
Ammeter	Check
Fuel Press. 14-35 psi	CHECK
Annunciator Panel	CHECK 5 SECS.

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 

DA 40 - TAKE-OFF DISTANCES

Motorleistung in % der maximalen Startleistung		Drehzahl		Best Economy		Best Power		Fuel Flow		ISA					
				5,8	6	6,3	6,6	7	7,2	7,5	7,9	8,2	8,5	9,5	11
Motorleistung in % der maximalen Startleistung		1800		2000	2200	2400	45 %		55 %		65 %		75 %		
Motorleistung in % der maximalen Startleistung		1800		2000	2200	2400	2000	2200	2400	2000	2200	2400	2000	2200	2400
MSL	15	69	22,7	21,3	20,2	19	23,9	22,4	21,2	26,8	24,9	23,4	27,3	25,8	26,5
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	26,5
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	26,5
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	26,1
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	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	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 power settings

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 Brake	RELEASE
TAXI	Brakes	CHECK
	Flight Instruments	CHECK
	Gyro Instruments	CHECK

BEFORE TAKEOFF		
1	Parking Brake	SET
2	Seat Belts/Harness	FASTEN
3	Rear Door	CLOSE LOCK
4	Front Canopy	CLOSE LOCK
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	VERRIDE
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
MAGNETOS	Prop 3x Pull-Drop	250-500rpm
	Ignition R-B-L-B	Switch
	Drop max. 175rpm	Check
	Diff. L/R max. 50rpm	Check
	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	Ptitot Heat	AS REQ.
30	Departure Briefing	COMPLETE
31	Parking Brake	Release

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OE-KAS (Diamond DA40-180)

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	66-73 KIAS*	
3 Prop 2400	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	

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OE-KAS (Diamond DA40-180)

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	

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	

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*	

D Z N C R O E A O		
Prop	FULL FWD	
Throttle	FULL FWD	
Airspeed	60-66 KIAS*	
Flaps	T/O	
400ft AGL Safe Alt	CHECK	
Prop	2400	
Airspeed	68-73 KIAS*	
Flaps	UP	
Fuel Pump	OFF	

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

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 Tiedown	AS REQ	

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