

Model: DA 42



Aircraft Serial No.:	42.AC077
Registration:	N935YM
Issue Date:	11/09/2007

Aircraft Specific Weighting Report

Data with reference to the Type Certificate Data Sheet and the Flight Manual

Reference Plane: 2196mm fwd of the leading edge at wing root rib
 Horizontal reference line: Nose Baggage Floor Level
 Equipment List dated: 11/09/2007
 Cause for Weighing: Original

ORIGINAL

Weight and Balance Calculations

Weight Condition:

Include brake fluid, engine oil, cooling water, hydraulic oil and unusable fuel (1 gallon/wing) unusable in aux. tanks (.5gallon/tank) if installed, TKS with 1 litre if installed

Empty Weight:

Finding Arm: (Measured)

Support	Gross		Tare		Net Weight	
	kg	lbs	kg	lbs	kg	lbs
Front, G ₂	256.96	566.50	0	0	256.96	566.50
Main, G _{1LH}	537.27	1184.48	0	0	537.27	1184.48
Main, G _{1RH}	535.27	1180.07	0	0	535.27	1180.07
EMPTY WEIGHT, G					1329.50	2931.05

	Lever Arm	
	mm	in.
X ₂	900	35.43
X _{1LH}	2779	109.41
X _{1RH}	2784	109.61

Empty Weight Centre of Gravity, X_{CG}:

Empty Weight CG Formula

$$X_{CG} = \frac{G_{1LH} \cdot X_{1LH} + G_{1RH} \cdot X_{1RH} + (G_2 \cdot X_2)}{G_2 + G_{1LH} + G_{1RH}} = \begin{matrix} 2.418 \text{ m} \\ 95.19 \text{ in.} \end{matrix}$$

Empty Weight Moment, M:

Empty Weight Moment Formula

$$M = G \times X_{CG} = \begin{matrix} 3214.5 \text{ kg}\cdot\text{m} \\ 279008.8 \text{ in}\cdot\text{lbs} \end{matrix}$$

Maximum Permitted Useful Load:

Maximum Ramp Weight	1785.00 kg	3935.30 lbs
Empty Weight	1329.50 kg	2931.05 lbs
Maximum Useful Load	455.50 kg	1004.25 lbs

Data to be entered into the Flight Manual:

Empty Weight, G:	Empty Weight Moment, M:
1329.5 kg	3214.5 kg·m
2931.0 lbs	279008.8 in·lbs

Place: D.A.I.C. - CYXU Date: 11/09/2007	Authorizing Stamp DA Q 20	Authorizing Signature
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DA 42 List of Removable Equipment	 Diamond™ Aircraft Specific Equipment Record	Aircraft Serial No.:	42.AC077
		Registration:	N935YM
		Issue date:	11 SEPT 2007

Note: This List of Original Equipment is in addition to and does not supersede the Equipment List in your Approved Flight Manual

Item No.	Equipment List Description	Status	Part/Model No.	Serial No.	In-stalled	Re-moved	Weight		Arm	
							lbs	kg	in	m
	AUTOPILOT SYSTEM		Bendix/King KAP 140							
22-01	Flight computer		Bendix/King KC 140 065-00176-7703	11190	X		2.04	0.93	70.08	1.780
22-02	Pitch servo		Bendix/King KS 270 C 065-00178-2500	9416	X		2.29	1.04	175.40	4.455
22-03	Pitch servo mount		Bendix/King KM 275 065-00030-0000	68280	X		1.077	0.489	175.40	4.455
22-04	Roll servo		Bendix/King KS 271 C 065-00179-0300	12956	X		2.29	1.04	124.81	3.170
22-05	Roll servo mount		Bendix/King KM 275 065-00030-0000	67932	X		1.077	0.489	124.81	3.170
22-06	Trim servo		Bendix/King KS 272 C 065-00180-3500	9882	X		2.29	1.04	88.19	2.240
22-07	Trim servo mount		Bendix/King KM 277 065-00041-0000	5996	X		1.097	.498	88.19	2.240
	ELECTRICAL POWER									
24-01	Battery		Gill G-243				28.8	13.06	49.17	1.249
24-02	Battery		Concorde CB24-11M				28.0	12.70	49.17	1.249
24-03	Battery		Concorde RG24-15M	N/A	X		29.5	13.40	49.17	1.249
	EQUIPMENT									
25-01	ELT unit		Artex ME406	03820	X		2.77	1.260	179.73	4.565
25-02	ELT unit		Artex C406				4.22	2.774	179.73	4.565
25-03	ELT antenna		Artex 110-338	N/A	X		0.47	0.213	152.76	3.880
	SEAT BELTS, STANDARD									
25-10	Front Seat Belt (Pilot)		5-01-1C5710	N/A	X		2.11	0.960	92.52	2.350
25-11	Front Seat Belt RH (Co Pilot)		5-01-1C0710	N/A	X		2.11	0.960	92.52	2.350
25-12	Rear Seat Belt, LH		5-01-1B5710	N/A	X		2.25	1.020	126.77	3.220
25-13	Rear Seat Belt, RH		5-01-1B0710	N/A	X		2.25	1.020	126.77	3.220

Place: DAII - CYXU	Date: 11 SEPT 2007	Authorizing Stamp 	Authorizing Signature  Tom Norman
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DA 42 List of Removable Equipment	 Aircraft Specific Equipment Record	Aircraft Serial No.:	42.AC076
		Registration:	N56KD
		Issue date:	11 SEPT 2007

Item No.	Equipment List Description	Status	Part/Model No.	Serial No.	In- stalled	Re- moved	Weight		Arm	
							lbs	kg	in	m
	AUX FUEL PUMP									
28-01	LH auxiliary fuel pump		Dukes 5100-009	N/A	X		1.94	0.878	151.42	3.846
28-02	RH auxiliary fuel pump		Dukes 5100-009	N/A	X		1.94	0.878	151.42	3.846
	ICE PROTECTION SYSTEM									
30-01	Metering Pump 1		9513A-386	AST06M123	X		4.18	1.896	40.16	1.020
30-02	Metering Pump 2		9513A-386	AST06H133	X		4.18	1.896	40.16	1.020
30-03	Ice Protection Fluid Tank Assembly		D60-3013-24-00	N/A	X		8.14	3.692	38.39	0.975
30-04	Filter 1		F908	N/A	X		0.68	0.308	40.16	1.020
30-05	Filter 2		F908	N/A	X		0.68	0.308	40.16	1.020
30-06	Windsheild Pump 1		WP209A	AST06H1218	X		0.65	0.295	40.16	1.020
30-07	Windsheild Pump 2		WP209A	AST06K1193	X		0.65	0.295	40.16	1.020
30-08	Solenoid Valve		FV158D-28V	AST06L1866	X		0.87	0.395	40.16	1.020
30-09	Solenoid Valve		FV158D-28V	AST06K1864	X		0.87	0.395	40.16	1.020
30-10	Ice Protection Control Box		DAI-9030-00-01	N/A	X		1.11	0.502	28.54	0.725
30-11	Tail Bracket Assembly		12132-03	AST07A1694	X		1.07	0.485	278.75	7.080
	INDICATING / REC. SYSTEMS									
31-01	Storm Scope		Goodrich 805-11500-001	83062	X		2.29	1.040	140.16	3.560
31-02	Storm Scope Antenna		Goodrich 805-10930-001	82517	X		0.82	0.370	280.72	7.130
31-03	Altimeter inHg /mbar, secondary		United In. 5934PD-3	460952	X		0.496	0.225	70.08	1.780
31-04	Artificial Horizon, secondary		Mid Continental. 4300-206	E07-11307	X		2.50	1.132	70.08	1.780
31-05	Airspeed indicator, secondary		United In. 8030-B.864	195747	X		0.68	0.308	70.08	1.780
31-06	Magnetic Compass		SIRS Navigation PG2C-28V	N/A	X		0.36	0.165	70.08	1.780
31-10	Transponder GTX33		Garmin 011-00779-10	89104428	X		3.03	1.38	153.15	3.890
31-11	Nav/Comm GIA63		Garmin 011-00781-01	48106393	X		5.29	2.40	154.92	3.935

**DA 42
List of Removable
Equipment**

 **Diamond™**
**Aircraft Specific Equipment
Record**

Aircraft Serial No.:	42.AC076
Registration:	N56KD
Issue date:	11 SEPT 2007

Item No.	Equipment List Description	Status	Part/Model No.	Serial No.	In- stalled	Re- moved	Weight		Arm	
							lbs	kg	in	m
31-12	Nav/Comm GIA63		Garmin 011-00781-01	48106388	X		5.29	2.40	155.32	3.945
31-13	Magnetometer GMU44		Garmin 011-00870-00	47508499	X		0.379	0.172	103.86	2.638
31-14	Air Data Computer GDC74		Garmin 011-00882-00	47807965	X		1.58	0.720	70.08	1.780
31-15	AHRS GRS77		Garmin 011-00868-10	42006921	X		2.54	1.15	154.92	3.935
31-16	PFD GDU1040		Garmin 011-00972-03	88904368	X		6.40	2.91	70.08	1.780
31-17	MFD GDU1040		Garmin 011-00972-03	88904406	X		6.40	2.91	70.08	1.780
31-18	Engine Instruments GEA 71		Garmin 011-00831-00	46706085	X		1.66	0.755	70.08	1.780
31-19	GMA 1347		Garmin 011-00809-00	47109126	X		1.74	0.785	70.08	1.780
	INDICATING / REC. OPTIONS									
31-20	GDL69A		Garmin 011-00987-00	47757296	X		2.49	1.13	159.45	4.050
31-21	GDL/GPS dual antenna GA57		Garmin 011-01032-00	44000399	X		0.47	0.210	105.47	2.679
31-22	ADF Receiver RA3502		05053.757-912				2.08	0.940	155.52	3.950
31-23	RMI converter		0856.010-912				1.30	0.590	165.36	4.200
31-24	ADF Antenna AN3500		0832.601-912				3.45	1.56	133.86	3.400
31-25	DME KN63		066-1070-01				2.48	1.12	141.15	3.585
31-26	DME antenna KA 60		071-01591-0001				0.22	0.100	91.93	2.335
31-28	TAS600 Processor		70-2420-x TAS610				6.80	3.10	164.37	4.175
31-29	TAS600 Transponder Coupler		70-2040				0.50	0.23	197.64	5.020
31-30	TAS600 Antennas Single Blade		S72-1750-31L				0.66	0.298	164.89	4.188
31-31	TAS600 Antennas Double Blade		S72-1750-32L				0.75	0.340	104.33	2.650
31-01	Storm Scope		Goodrich 805-11500-001	83062	X		2.29	1.040	140.16	3.560
31-02	Storm Scope Antenna		Goodrich 805-10930-001	82517	X		0.82	0.370	280.72	7.130

DA 42 List of Removable Equipment	 Diamond™ Aircraft Specific Equipment Record	Aircraft Serial No.:	42.AC076
		Registration:	N56KD
		Issue date:	11 SEPT 2007

Item No.	Equipment List Description	Status	Part/Model No.	Serial No.	In- stalled	Re- moved	Weight		Arm	
							lbs	kg	in	m
	LIGHTS									
33-01	Strobe Light Power Supply LH/RH		Whelen A490ATS-CF-14/28 01-0770062-05	N/A	X		1.59	0.719	103.86	2.638
33-02	Landing Light Power Supply		Aerovision XV1-28	N/A	X		0.88	0.400	82.29	2.090
33-03	Landing Light Assy (Housing and Bulb)		Aerovision XV23-D1S	N/A	X		0.99	0.449	79.92	2.030
	NAVIGATION									
34-01	XPDR antenna		Bendix/King KA60 071-01591-0001	N/A	X		0.22	0.100	91.93	2.335
34-02	NAV antenna coupler		Comant CI 1125	N/A	X		0.20	0.089	197.05	5.005
34-03	GPS antenna #1		Garmin GA 56 011-10040-00	N/A	X		0.4	0.18	104.14	2.645
34-04	GPS antenna #2		Garmin GA 56 011-10040-00	N/A	X		0.4	0.18	104.14	2.645
34-05	COMM antenna #1		DMC63-1-A	N/A	X		0.4	0.18	177.17	4.500
34-06	COMM antenna #2		DMC63-2	N/A	X		0.4	0.18	155.12	3.940
34-07	Turn Coordinator		1394T100-12RA				1.41	0.64	70.08	1.780
34-08	Turn Coordinator		1394T100-12RZ				1.41	0.64	70.08	1.780
34-09	Turn Coordinator		1394T100-12RB	A07-10751	X		1.41	0.64	70.08	1.780
	OXYGEN									
53-01	Oxygen Cylinder Empty		1270152-2				7.40	3.357	32.28	0.820
53-02	Oxygen Cylinder Fully Charged		1270152-2				11.60	5.262	32.28	0.820
53-02	Outlet Manifold Pilot		4110-401-2				0.23	0.104	69.69	1.770
53-03	Outlet Manifold Copilot		4110-401-2				0.23	0.104	69.69	1.770
53-04	Dual Outlet Manifold		4110-400-2				0.42	0.191	109.25	2.775
53-05	Pressure Regulator		4110-110				0.74	0.336	21.26	0.540
53-06	Filling Block		4110-405				0.54	0.245	28.15	0.715
53-07	Pressure Gauge		4110-490				0.11	0.050	70.08	1.780