

Model: DA 40



Aircraft Specific Weighting Report

Aircraft Serial No.:	40.892
Registration:	N892DS
Issue Date:	17.01.08

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

Reference Plane: Vertical plane 2194 mm (86.38 in) in front of wing leading edge at root rib.
Horizontal reference line: Wedge 600.31 (2.96°), 2910 mm (114.57 in) aft of step in the cockpit rim.
Equipment List dated: 17.01.08
Cause for Weighing:

Weight and Balance Calculations

Weight Condition:

Include brake fluid, engine oil and unusable fuel (2 liters/0.5 US gal on each side).

Empty Weight:

Support	Gross		Tare		Net Weight	
	kg	lbs	kg	lbs	kg	lbs
Front, G ₂	117.5	259.0	0	0	117.5	259.0
Main, G _{1LH}	345.6	762.0	0	0	345.6	762.0
Main, G _{1RH}	352.9	778.0	0	0	352.9	778.0
EMPTY WEIGHT, G					816.0	1799.0

Finding Arm: (Measured)

	Lever Arm	
	mm	in.
X ₂	982	38.66
X _{1LH}	2739	107.83
X _{1RH}	2739	107.83

Empty Weight Centre of Gravity, X_{CG}:

Empty Weight CG Formula

$$X_{CG} = \frac{((G_{1LH} + G_{1RH}) * X_1) + (G_2 * X_2)}{G_2 + G_{1LH} + G_{1RH}}$$

$$= \begin{matrix} 2.49 \text{ m} \\ 97.88 \text{ in.} \end{matrix}$$

Empty Weight Moment, M:

Empty Weight Moment Formula

$$M = G \times X_{CG}$$

$$= \begin{matrix} 2028.65 \text{ kg}\cdot\text{m} \\ 14673.22 \text{ ft}\cdot\text{lbs} \end{matrix}$$

Maximum Permitted Useful Load:

Maximum Ramp Weight	1200.0 kg	2646.0 lbs
Empty Weight	816.0 kg	1799.0 lbs
Maximum Useful Load	384.0 kg	847.0 lbs

Data to be entered into the Flight Manual:

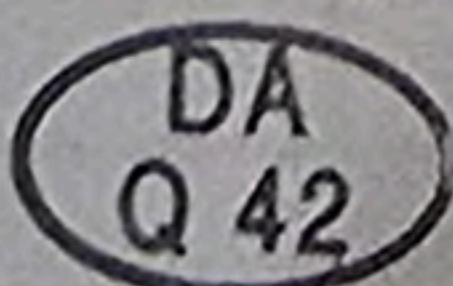
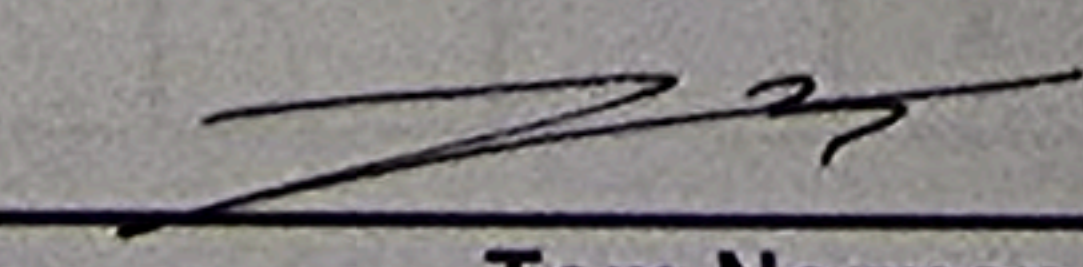
Empty Weight, G:		Empty Weight Moment, M:	
	816.0 kg		2028.65 kg·m
	1799.0 lbs		14673.22 ft·lbs

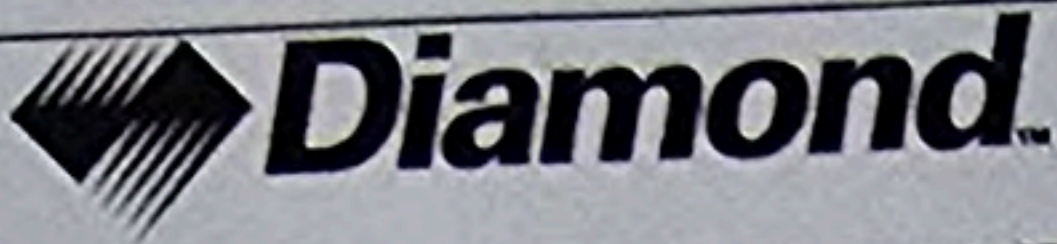
Place: D.A.I.C. - CYXU	Authorizing Stamp	Authorizing Signature
Date: 17.01.08	DA Q 42	

DA 40 / DA 40 F List of Supplementary Equipment Original	 Diamond. Aircraft Specific Equipment Record	Aircraft Serial No.:	40.892
		Registration:	N892DS
		Issue date:	17 JAN 2008

Note: This List of Original Equipment is in addition to and does not supercede 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									
22-08	Pitch Servo	STC # SA01389WI	Garmin GFC700 GSA 81 011-00878-00	66406538	X		2.27	1.03	154.4	3.921
22-09	Pitch Servo Mount	STC # SA01389WI	Garmin GFC700 GSM 85 011-00894-07	68606075	X		1.39	0.63	154.4	3.921
22-10	Pitch Servo Bridle Cable Assy	STC # SA01389WI	Garmin GFC700 117-00187-00/ 117-00188-00	N/A	X		0.04	0.017	154.4	3.921
22-11	Roll Servo	STC # SA01389WI	Garmin GFC700 GSA 81 011-00878-00	66406490	X		2.27	1.03	122.4	3.109
22-12	Roll Servo Mount	STC # SA01389WI	Garmin GFC700 GSM 85 011-00894-07	68606076	X		1.39	0.63	122.4	3.109
22-13	Roll Servo Bridle Cable Assy	STC # SA01389WI	Garmin GFC700 117-00187-00/ 117-00188-00	N/A	X		0.04	0.017	122.4	3.109
22-14	Pitch Trim Servo	STC # SA01389WI	Garmin GFC700 GSA 81 011-00878-00	66406327	X		2.27	1.03	87.9	2.232
22-15	Pitch trim Servo Mount	STC # SA01389WI	Garmin GFC700 GSM 85 011-00894-04	66805067	X		1.61	0.73	87.9	2.232
22-16	Pitch Trim Servo Chain	STC # SA01389WI	Garmin GFC700 233-30003-00	N/A	X		0.88	0.40	87.9	2.232
	SEAT BELTS, AMSAFE AAIR, FRONT									
25-20	AmSafe Front Seat Belt LH	STC # SA01918LA	7053-1-011-8157	N/A	X		4.662	2.115	92.52	2.350
25-21	AmSafe Front Seat Belt RH	STC # SA01918LA	7053-1-021-8157	N/A	X		4.662	2.115	92.52	2.350
25-22	AmSafe Front Receptacle LH	STC # SA01918LA	7053-1-011-8157	N/A	X		1.304	0.591	92.52	2.350
25-23	AmSafe Front Receptacle RH	STC # SA01918LA	7053-1-021-8157	N/A	X		1.304	0.591	92.52	2.350
25-24	Inflator Front	STC # SA01918LA	508792-401	N/A	X		1.28	0.580	93.3	2.370
25-25	Electronic Module Assy Front	STC # SA01918LA	508358-421	06JUN07-93	X		0.65	0.294	88.4	2.245
	SEAT BELTS, AMSAFE AAIR, REAR									
25-30	AAIR Rear Seat Belt LH	STC # SA01918LA	7057-1-011-8157				4.622	2.115	126.77	3.220
25-31	AAIR Rear Seat Belt RH	STC # SA01918LA	7057-1-021-8157				4.622	2.115	126.77	3.220
25-32	AAIR Rear Receptacle	STC # SA01918LA	7057-1-011-8157				0.6	0.272	126.77	3.220

Place:	Date:	Authorizing Stamp	Authorizing Signature
DAII - CYXU	17 JAN 2008		 Tom Norman

DA 40 / DA 40 F List of Supplementary Equipment Original	 Diamond Aircraft Specific Equipment Record	Aircraft Serial No.:	40.892
		Registration:	N892DS
		Issue date:	17 JAN 2008

Item No.	Equipment List Description	Status	Part/Model No.	Serial No.	In-stalled	Re-moved	Weight		Arm	
							lbs	kg	in	m
							0.6	0.272	126.77	3.220
25-33	AmSafe Rear Receptacle	STC # SA01918LA	7057-1-021-8157				1.28	0.580	128.9	3.275
25-34	Inflator Rear	STC # SA01918LA	508792-401				0.65	0.294	134.8	3.425
25-35	Electronic Module Assy Rear	STC # SA01918LA	508358-421							
	SEAT BELTS, AMSAFE NON-AAIR, REAR									
25-40	Rear Seat Belt LH	STC # SA01918LA	3149-2-021-8157	N/A	X		3.00	1.360	126.77	3.220
25-41	Rear Seat Belt, RH	STC # SA01918LA	3149-2-021-8157	N/A	X		3.00	1.360	126.77	3.220
							X	X	X	X
	GARMIN G1000	STC # SA01254WI								
31-05	Transponder GTX33	STC # SA01254WI	Garmin 011-00779-10	89105838	X		3.03	1.38	155.5	3.950
31-06	Nav/Comm#1 GIA63	STC # SA01254WI	Garmin 011-00781-01				5.29	2.40	70.08	1.780
31-06a	Nav/Comm#1 GIA63W	STC # SA01444WI	Garmin 011-01105-00	68506241	X		5.29	2.40	70.08	1.780
31-07	Nav/Comm#2 GIA63	STC # SA01254WI	Garmin 011-00781-01				5.29	2.40	70.08	1.780
31-07a	Nav/Comm#2 GIA63W	STC # SA01444WI	Garmin 011-01105-00	68506244	X		5.29	2.40	70.08	1.780
31-08	Magnetometer GMU44	STC # SA01254WI	Garmin 011-00870-00	47508928	X		0.379	0.172	101.7	2.584
31-09	Air Data Computer GDC74	STC # SA01254WI	Garmin 011-00882-00	47808373	X		1.58	0.720	155.5	1.780
31-10	AHRS GRS77	STC # SA01254WI	Garmin 011-00868-10	42006719	X		2.54	1.15	155.5	3.950
31-11	PFD GDU1040	STC # SA01254WI	Garmin 011-00972-03	106000512	X		6.40	2.91	70.08	1.780
31-12	MFD GDU1040	STC # SA01254WI	Garmin 011-00972-03				6.40	2.91	70.08	1.780
31-12a	MFD GDU1042 GFC700	STC # SA01389WI	Garmin 011-01080-00				6.40	2.91	70.08	1.780
31-12b	MFD GDU1044 GFC700/NAV	STC # SA01444WI	Garmin 011-01078-01	86960275	X		6.40	2.91	70.08	1.780
31-13	Engine Instruments GEA 71	STC # SA01254WI	Garmin 011-00831-00	46707063	X		1.66	0.755	70.08	1.780
31-14	GMA 1347	STC # SA01254WI	Garmin 011-00809-00	47109999	X		1.74	0.785	70.08	1.780
31-15	GDL69	STC # SA01254WI	Garmin 011-00987-00	47758845	X		2.49	1.13	161.1	4.092
	ADF with G1000	OAM 40-210a STC # SA01254WI					X	X	X	X

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[illegible]

(Continuous report on structural or equipment changes)

[illegible]

Main, G _{1RH}	352.9	778.0	0	0	352.9	778.0	X _{1RH}	2739	107.83
EMPTY WEIGHT, G					816.0	1799.0			

DESCRIPTION

8. CORRECTIVE
MAINTENANCE

Airplane Serial No.: 40.892		Registration: N892DS		Date:		Mass		Lever Arm	
Description	Type	Part No.	Manufacturer	S/N	Installed	lb	kg	in	m
PROPELLER SYSTEM									
Propeller	MTV-12-B/180-17		mt-Propeller			47.0	21.32	15.0	0.381
Propeller	MTV-12-B/180-171		mt-Propeller			47.0	21.32	15.0	0.381
Propeller governor	C-210776		Woodward			3.05	1.385	29.4	0.747
Propeller governor	MT-P-420-10		mt-Propeller			2.0	0.907	29.4	0.747
Propeller governor	MT-P860-23	P-860-23	mt-Propeller			2.05	0.93	29.4	0.747
AIRPLANE FLIGHT MANUAL		Doc.No. 6.01.01(-E)	Diamond						

¹⁾ The Amerex A 620 T fire extinguisher is UL approved and can be used in airplanes registered in Canada and the USA. For airplanes registered in other countries, refer to the national Airworthiness Authority.

Place: _____

Date: _____

Signature: _____

Doc. No. 6.01.01-E

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31-Jan-2014

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Main, G _{1RH}	352.9	778.0	0	0	352.9	778.0	X _{1LH}	2739	107.83
EMPTY WEIGHT, G					816.0	1799.0	X _{1RH}	2739	107.83