

AMERICAN AVIATION CORPORATION

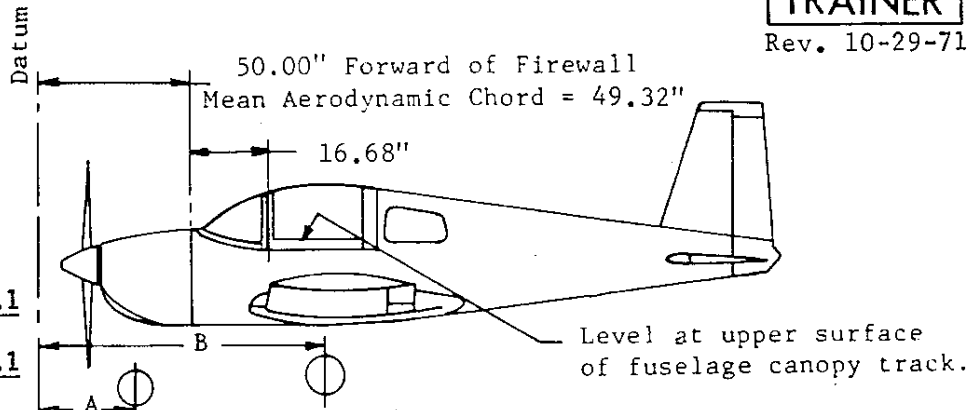
WEIGHT AND BALANCE DATA

MODEL AA-1A

TRAINER

Rev. 10-29-71

Date	7-29-71
Serial No.	AA1A-0170
"N" No.	N9356L
Scales used	HOWE
Prepared by:	R.T.



A = Nosewheel Sta. = 36.1

B = Mainwheel Sta. = 89.1

AIRCRAFT WEIGHT, AS WEIGHED					
Position	Scale Reading	Tare	Net Weight	Reaction Arm	Moment
Left Wheel	409	-	409	x(B) 89.1	= 36441
Right Wheel	411	-	411	x(B) 89.1	= 36620
Nose Wheel	330	2	328	x(A) 36.1	= 11840
TOTAL NET WEIGHT, AS WEIGHED			1148	Total Moment	= 84901

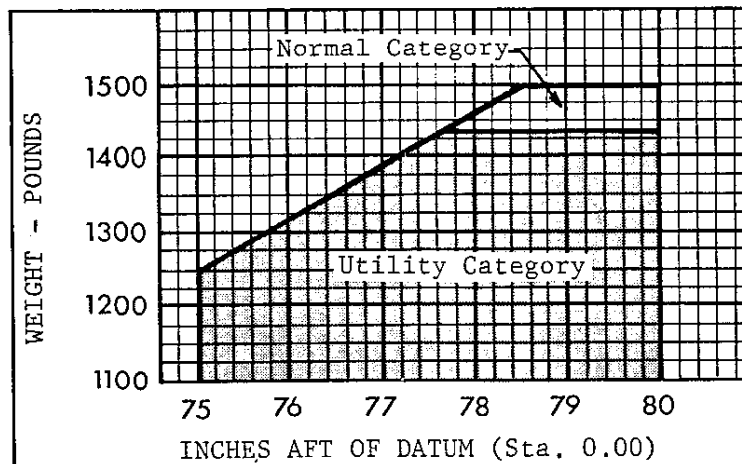
$$\text{Arm} = \frac{\text{Total Moment}}{\text{Net Weight}} = \frac{84901}{1148} = 73.9 \text{ Inches}$$

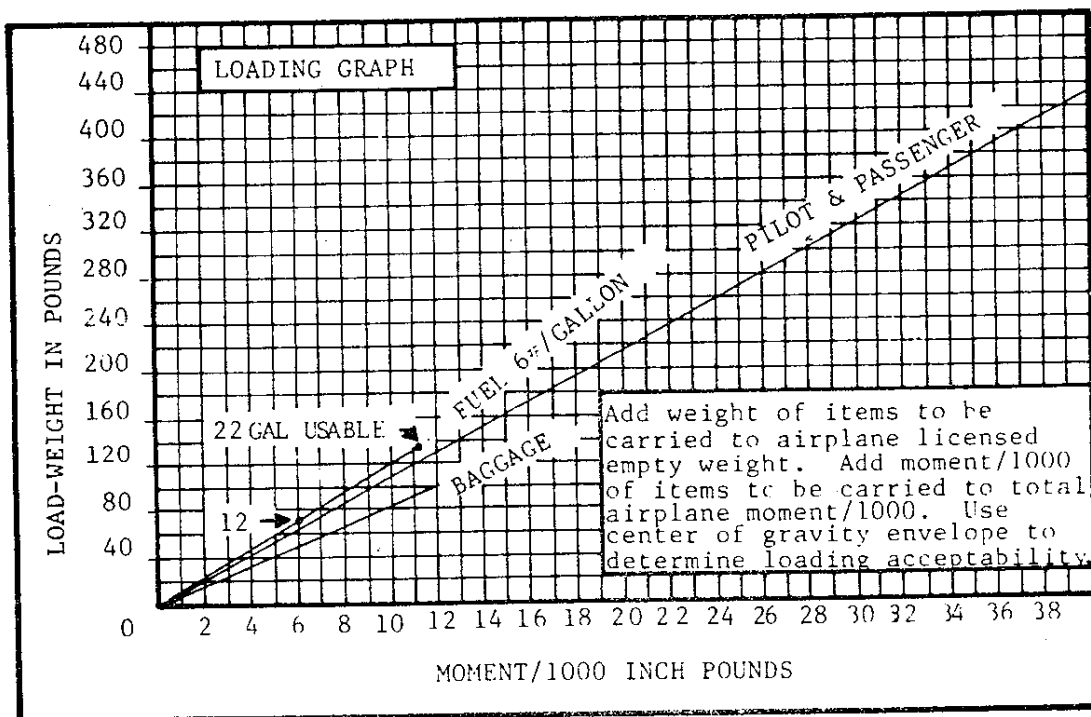
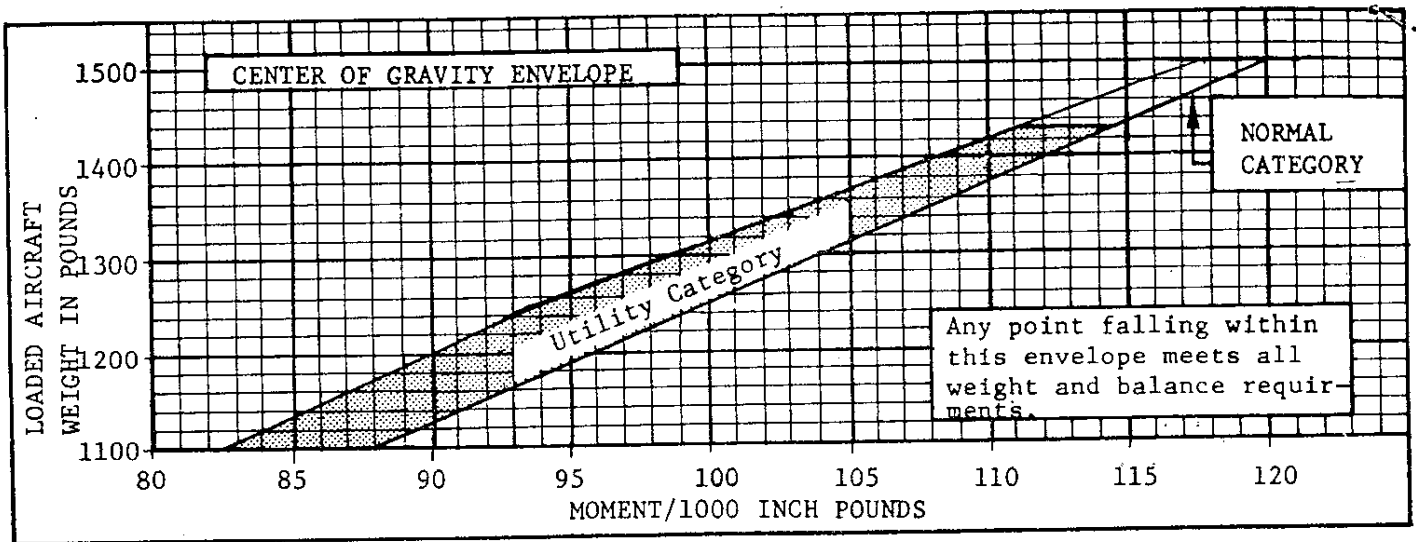
* WEIGHT CORRECTED FOR PAINT AND EQUIPMENT SHORTAGE --- PLUS OIL REMOVAL

Items	Weight(lbs.)	C.G. Arm(in.)	Moment(lb.-in.)
* Net Weight As Weighed	1017	73.6	74856
Unusable Fuel	12.0	84.5	1014
Licensed Empty Weight	1029	73.7	75870

(Gross Wt.) - (Licensed Empty Wt.) = Useful Load

(1500) Lbs. - (1029 Lbs.) = (471 Lbs.) Useful Load





Sample Loading Problem: Empty Weight of 1029 lbs., Moment of 75870 in. lbs. (Normal Category Shown)

	Weight	Arm in Inches	Moment in thousands of in. lbs.
Empty Weight (Licensed)	(1029)	(73.7)	(75.870)
Oil (Qts. 6) 1 Qt. = 1.875 lbs.	(11)	(39.0)	(.429)
Fuel (in excess of unusable)	(132)	(84.5)	(11.154)
Pilot and passenger	(328)	(92.5)	(30.340)
Baggage (allowable 100 lbs.)	()	(120.0)	()
Total Weight	(1500)	(78.5)	(117.793)

Locate this point(1500 ; 117.7) on the center of gravity envelope graph, and if the point falls within the envelope, the above loading meets all balance requirements.

It is the responsibility of the airplane owner and the pilot to insure that the airplane is loaded properly. The empty weight C.G. and useful load are noted above for this airplane as delivered from the factory. If the airplane has been altered, refer to the latest approved repair and alteration form (FAA 337) for this information.



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EQUIPMENT LIST

MODEL AA-1A

318 Bishop Road, Cleveland Ohio 44143

AIRCRAFT SERIAL NO. AA1A-0170 FAA REGISTRATION NO. N9356L DATE 8-9-71

NOTES

1. Suffix letters to item numbers:
 -R = required items of equipment for FAA certification
 -S = standard equipment items
 -O = optional equipment items replacing required or standard items
 -A = optional equipment items which are in addition to required or standard items
2. Status of equipment
 X = Installed in the aircraft at the factory
 N = Not installed on, or stowed in, the aircraft at the factory
 L = Loose item of equipment which is stowed in the aircraft when it left the factory but which is not included in the Optional Equipment Weight and Moment. (Installed ARM is listed)
3. Unless otherwise indicated, actual value (not net change values) for weight and arm are shown. See weight and balance data sheet for datum location.
4. A separate FAA approval must be obtained if the following items are not installed per applicable American Aviation Corporation drawings or accessory kit instructions.

ITEM NO.		DESCRIPTION	REF DRAWING	WT. LBS	ARM INS
001-R	X	Engine, Lycoming 108 hp	12-500005	247.3	34.70
002-R	X	Propeller, McCauley	16-500007	19.6	17.00
003-S		Spinner, Propeller	16-500007	1.0	12.70
003-O	X	Spinner, Propeller Deluxe	14-804011	2.75	11.00
004-R	X	Starter (incl. in engine wt.)	12-500005	-	-
005-R	X	Alternator, 40 amp. 12-volt (incl. in engine wt.)	12-500005	-	-
006-R	X	Regulator, Alternator (40 amp. 12 volt)	12-500005	1.25	49.00
007-R	X	Battery (12 volt)	16-402010	23.00	47.00
008-R	X	Filter, Induction Air	16-503006	.69	35.00
009-R	X	Heating System, Cabin	16-406002	3.76	52.68
010-R		Fresh Air Vents, Side	13-102286	.59	60.00
011-R		Wheel, Tire and Tube, and Brake Assy. (two) 6:00 x 6,15" (main) (Cleveland)	16-701051	31.90	89.00
012-R	X	Wheel, Tire and Tube 5:00 x 5 (nose) (Cleveland)	16-702054	8.70	36.10
013-R	X	Stall Warning Indicator (audible)	16-402010	.62	58.24
014-R	X	Indicator, Airspeed	13-801013	.50	68.50

ISSUED: 7-2-68

REVISED: 12-22-69

APPROVED: *[Handwritten signatures]*

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EQUIPMENT LIST (CONT'D)
MODEL AA-1A

ITEM NO.		DESCRIPTION	REF DRAWING	WT. LBS	ARM INS
014-0		Indicator, Airspeed (true)	14-804010	.50	68.50
015-R		Altimeter	16-102346	1.12	68.00
015-0	X	Altimeter (sensitive)	14-804010	.88	68.00
016-R	X	Compass, Magnetic	16-102346	.58	68.75
017-R	X	Tachometer, Recording	13-801010	.75	67.50
018-R	X	Brakes, Hydraulic Toe (pilot side)	16-403009	2.80	54.93
019-R	X	Control Wheel Assembly (pilot side)	14-602113	1.08	73.00
020-R	X	Flap System	16-604054	16.06	103.26
021-R	X	Cluster, Engine Gauge (oil pressure, fuel pressure, oil temp. and ammeter)	13-801010	.48	69.25
022-R		Exhaust Muffler System	14-504001	13.50	32.15
023-R	X	Heat System, Carburetor	16-503006	1.36	44.91
024-R	X	Control Lock	13-602111	.08	71.00
025-R	X	Pump, Fuel (Electric)	13-401122	1.67	48.50
* 026-R	X	Seats, Pilot and Co-pilot (standard interior)	16-102336-501-502	19.50	91.00
027-R	X	Straps, Baggage	13-102353	.30	120.00
028-R	X	Drains, Fuel Tank Quick (2)	14-401128	.80	70.50
029-R	X	Fuse Holder - Spare	13-402011	.01	69.00
030-R		Pitot and Static System	16-200003	1.86	83.68
030-0	X	Heated Pitot and Static System	14-804007	2.00	83.68
100-S	X	Brake, Parking	16-403013	.74	65.75
101-S	X	Covers, Wheel Hub	13-701007	.07	71.33
102-S	X	Light, Dome	14-102354	.38	111.50
103-S	X	Lights, Instrument	16-102338	.06	73.00
			14-102358		
104-S	X	Lights, Navigation	16-201181	.97	118.69
			14-103011		
105-S	X	Paint Scheme	16-000003	10.12	124.00
106-S		Shelf, Hat (removable)	14-102345	.99	130.00
107-S		Interior (except seats)	16-102344-501	23.27	93.82
200-A	X	Cigarette Lighter	14-804013	.25	70.00
201-A	X	Clock, 8 Day	14-804012	.38	70.00
202-A	X	Corrosion Proofing	-	3.38	94.50
203-A	X	Dual Controls (co-pilots side)	16-600007-502	7.27	59.10
204-A	X	Gyros, Horizontal and Directional (includes engine driven vacuum system)	16-405022	13.81	59.12
205-A		Hour Meter (Hobbs)	14-804005	.40	69.25
206-A	X	Interior, Deluxe (except seats)	16-102344-502	26.52	93.82
			16-102344-503		
207-A		Indicator, Turn and Bank	13-804009	1.94	68.00
208-A	X	Indicator, Rate of Climb	14-804004	.50	68.25
209-A	X	Indicator, Outside Air	14-804006	.38	70.00
210-A	X	Light, Landing	14-804002	1.12	13.50
211-A	X	Light, Flashing Beacon	16-804001	1.04	207.60
212-A		Receptacle, Aux. Power		1.44	48.00

* Deluxe Interior Seats Add .75 lb.

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REVISED:

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EQUIPMENT LIST (CONT'D)
MODEL AA-1A

ITEM NO.		DESCRIPTION	REF DRAWING	WT. LBS	AR.MINS
213-A		Speed Fairings - Main Gear		8.66	88.70
213-A		Speed Fairings - Nose Gear	-	3.75	35.50
214-A	X	Sunshade, Canopy	-	2.50	87.00
215-A	X	Tinted Windows	14-804010	-	-
216-A	X	Tow Bar	-	2.00	134.00
217-A		Vacuum System, Engine Driven	16-405002	6.75	50.36
218-A		Winterization Kit	-	.50	13.00
** 300-A		Narco Mark XII Radio - Fwd. Mtd Pwr Supply (Sta 54.6)	14-802011	11.28	60.06
** 300-A		Narco Mark XII Radio - Aft Mtd Pwr Supply (Sta 200.3)	-	11.53	112.38
** 301-A		Narco Mark XII Radio - 2nd Set - (Pwr Supply @ Sta 145)	-	13.88	92.08
302-A		Narco Mark III Radio	14-802008	7.95	63.93
303-A		Narco Mark III Radio (2nd set)	14-802008	7.95	63.93
304-A		Indicator, Narco VOA-8	14-802011	2.85	66.00
305-A		Indicator, Narco VOA-9 (plus glide slope receiver)	14-802011	5.30	98.81
306-A		Narco ADF-31A Radio	14-802018	10.14	84.47
307-A		Narco Marker Beacon (incl antenna)	14-802014	1.83	73.50
308-A		VHF Antenna and Cable	16-802016	.94	115.15
309-A		VHF Antenna and Cable (2nd set)	16-802016	.47	142.00
310-A		Omni Antenna and Cable	16-802016	1.38	177.54
311-A	X	Partial Option 1	13-802013	4.39	126.92
312-A		Partial Option 2	13-802013	5.34	101.96
313-A		Cabin Speaker	14-802010	1.50	105.50
314-A		Mark VIII Radio	14-804008	7.70	63.70
315-A		Ballast	13-804034	4.00	200.30
316-A		Fire Extinguisher Installation	13-804025	4.60	106.97
317-A		Genave Alpha/200 Radio		5.55	63.82
318-A		Childs Seat Installation	13-804030	7.61	129.30
319-A		Narco MK XVI Installation	14-802031	9.95	63.94
320-A	X	Turn Coordinator	13-804009	2.40	66.56
321-A		Canopy Air Scoop Installation	13-804036	.38	79.00
322-A	X	Shoulder Harness Installation	13-804035	2.26	121.72
323-A		Climb Propeller & Oil Shroud Instl. Net Change	14-804039	.55	43.38
324-A		Indicator, Narco VOA 40/40M	14-802011	1.80	66.00
325-A		Indicator, Narco VOA 50M (plus glide slope receiver)	14-802011	4.35	105.98
326-A		Genave Beta 4096 Transponder	14-802033	4.73	64.84
327-R	X	Exhaust Muffler System	14-504009	13.13	33.45
328-R	X	Airbox Assy.	16-406009	2.32	67.00
329-O	X	Wheel, Tire, Tube and Brake Assy. Includes Two Optional 6:00x6 Tires and an Optional 14-702067-501 Fork Assy.	14-804042	33.90	89.00
330-A	X	Genave Alpha 360		7.25	65.09
331-A	X	Genave Beta 500 Transponder		3.33	66.55
** Does not include indicator.					

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