

WEIGHT AND BALANCE EQUIPMENT LIST REVISION

Date: 10/29/2018
 Aircraft Make: Grumman American
 Model: AA5

Reg. No. : 7178L
 Serial No. : AA5-0678

Weight data from previous weight & Balance on 11/18/2016
 Arm data taken from AA5 Maintenance Manual July 15, 1978

	Scale Reading	Arm	Moment
Right Wheel	613	100.15	61391.95
Left Wheel	606	100.15	60690.9
Nose Wheel	417	36.08	15045.36
	1636		137128.21
Arm with full fuel and oil		83.8191993	
	Weight	Arm	Moment
7178L weight (Full Fuel & Oil)	1636	83.82	137128.21
Usable Fuel Weight (37Gal)	222	90.9	20179.80
Weight minus useable fuel	1414		116948.41
Corrected CG with oil & unusable fuel		82.71	

PREVIOUS DATA	
Date:	11/18/2016
Empty weight:	1414
Arm/CG:	88.88
Moment:	125682.4

NEW DATA	
Date:	10/29/2018
Empty weight:	1414
Arm/CG:	82.71
Moment:	116948.41

Authorized Individual: B. LYNN HEEN

Authorization: AMP IA 1684101

Signature: *B.L. Heen*

Date: 10/29/2018

WEIGHT AND BALANCE Grumman American AA-5

7178L

10/29/2018

Supersedes

11/18/2016

AIRPLANE EMPTY WEIGHT

ITEM	WEIGHT (Lbs) X	C. G. ARM (Inches aft of datum)	= MOMENT (In Lbs)
Actual Empty Weight	1414	82.71	116948.41
Oil (Included above)			
Unusable Fuel (included)			
Total Empty Weight	1414	82.71	116948.41

AIRPLANE USEFUL LOAD - NORMAL CATEGORY OPERATIONS

(Gross Weight) - (Total Empty Weight) = Useful Load

2200

1414

786

SAMPLE LOADING PROBLEM

ITEM	WEIGHT (Lbs) X	C. G. ARM (Inches aft of datum)	= MOMENT (In Lbs)
Total Empty Weight	1414.00	82.71	116948.41
Pilot & Front Passenger	290.00	90.60	26274.00
Passengers, Aft (Rear Seat)	265.00	126.00	33390.00
Fuel (37 Gal. Maximum)	222.00	90.90	20179.80
Baggage*	9.00	151.00	1359.00
Cargo Area (rear seat folded down) **	0.00	116.40	0.00
Total Loaded Airplane	2200	90.07	198151.21

*Maximum baggage 120 lbs.

**Maximum Cargo 340 lbs.

Center of gravity (CG) = 90.06873182 Moment/100 = 198.15121

The moment of this sample problem is 198.15121

Locate this point on the C.G. envelope graph along with the total weight. Since this point falls within the weight-C.G. envelope, this loading meets the weight and balance requirements.