

LANGSTON AVIATION

REVISION OF WEIGHT AND BALANCE

DEC. 28, 2016

P.O. Box 63034
Pipe Creek, TX 78063

AIRCRAFT REWEIGHED

PIPER PA-12
N3157M
S/N 12-1890

Datum: Wing L.E.
C.G. Range: +9.0 to +18.6
Max. Weight:
Normal = 1750 lbs.
Utility = 1500 lbs.

EMPTY WEIGHT WITH UNUSABLE FUEL & 8 QTS. OIL

(See Aircraft Equipment List for equipment installed)

item	net weight	arm	moment	Calculations
Left wheel	590 lbs.	1.75	1,032.5	C.G. = D + (RXL)
right wheel	455 lbs.	1.375	625.625	(W)
tail wheel	69 lbs.	206.25	14,231.25	C.G. = 1.56+ (204.25 X 69)
Totals	1,114 lbs.	14.2	15,889.375	(1114)
				C.G. = 1.56+ (14,093.25)
				(1114)
				C.G. = 1.56 + 12.65
				C.G. = 14.2

EMPTY WEIGHT = 1,114 LBS.

EMPTY WEIGHT C.G. = 14.2" AFT OF DATUM

FWD. & AFT C.G. EXTREMES

MOST FWD. C.G. LOADINGS:

Item	weight	arm	moment
A/C empty weight	1114	12.2	15,889.375
pilot	195	6.0	1,170.0
full fuel (36 gals.)	216	23.0	4,966.8
Totals	1525	14.4	22,027.375

A/C empty weight	1,114	12.2	15,889.375
pilot	195	6.0	1,170.0
min. fuel (4 gal.)	24	23.0	552.0
Totals	1,333	13.2	17,611.375

MOST AFT C.G. LOADING

item	weight	arm	moment
A/C empty weight	1114	12.2	15,889.375
pilot	195	6.0	1,170.0
full fuel	216	23.0	4,966.8
2 passengers @ 92 lbs. ea.	184	34.0	6,256.0
baggage	41	56.0	2,296.0
Totals	1750	16.3	28,579.375

John H. L.
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