

WEIGHT AND BALANCE COMPUTATION

Actual measured weight 5/27/17					
	Measured	Tare	Weight	Arm	Moment
LEFT MAIN	365		365	48.5	17,688
RIGHT MAIN	359		359	48.5	17,392
TAIL POST	50	4	47	236.0	11,021
STANDARD EMPTY WEIGHT			770	59.9	46,101
EMPTY WEIGHT CG:		59.9			

Weight adjusted for substitution of wood prop					
	Measured	Tare	Weight	Arm	Moment
	360		360	48.5	17,467
	354		354	48.5	17,171
	50	4	47	236.0	11,021
			761	60.0	45,660
		60.0			



McCauly Aluminium

Prop:	19.8
Bolts:	0.7
	20.5

Sensenich Wood

Prop:	9.8
Bolts & Flange:	1.6
	11.4
Weight saved	9.1

Empty Weight condition:

1. zero fuel
2. 4 quarts of oil
3. Stratus 2S mounting bracket plus ADS-B and GPS antenna
4. ELT with mounting bracket

LOADING EXTREMES

Actual weights measured 5/27/17 (Adjusted)

	AT FAA MIN WEIGHT			AT MAX ALLOWABLE GROSS WEIGHT		
	WEIGHT	ARM	MOMENT	WEIGHT	ARM	MOMENT
STANDARD EMPTY WEIGHT	761	60	45562	761	60	45562
FAA MIN FUEL (85/12 = 7.1 Gal)	0	28	0	43	28	1193
FULL FUEL (12 Gal)	72	28	2016	0	28	0
OPTIONAL EQUIPMENT (for BEW)	12	68	818	12	68	818
OCCUPANT FRONT SEAT	0	55	0	0	55	0
OCCUPANT REAR SEAT (FOR SOLO)	170	82	13940	170	82	13940
BAGGAGE	0	95	0	20	95	1900
TOTAL	1015	61.4	62336	1006	63.1	63413

MOST FORWARD C.G. LOCATION AS LOADED = **61.4** (GREATER THAN)
 APPROVED MOST FORWARD C.G. LIMIT = **56.6** <==

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MOST REARWARD C.G. LOCATION AS LOADED = **63.1** (LESS THAN)
 APPROVED MOST REARWARD C.G. LIMIT = **68.7** <==

MOST REARWARD C.G. LOCATION AS LOADED = **66.4** (LESS THAN)
 APPROVED MOST REARWARD C.G. LIMIT = **68.7** <==

OPTIONAL EQPMT	Lbs	Arm	Moment
Tie-downs	5	95.0	475
Chocks	6	95.0	570
	11	95.0	1,045
Handheld Radio	2	70.0	140
Flt Bag + iPad	4	70.0	280
Stratus 2S	1	55.0	55
Clark (2) Headphones	5	68.5	343
	12	68.1	818

CERTIFIED GROSS WEIGHT	1,220.0	1,220.0
STANDARD EMPTY WEIGHT	761.0	-
BASIC EMPTY WEIGHT	-	772.9
USEFUL LOAD	459.0	447.1

Stations	Arm
Leading Edge	46.0
Main gear axle C/L	48.5
Tailwheel Post	236.0

FACTORS CONTRIBUTING TO WEIGHT CHANGE SINCE 1946

1. Maule vs Scott tailwheel +
2. C-85 vs C-65 +
3. Ceconite vs Linen covering +
4. 14+ vs 5 or 6 factory coats of DOPE +
5. Grove brake conversion and ELT +
6. Thicker plexiglass side windows +
7. Aluminium vs steel fuel tank -

"Datum" is at crankshaft propeller flange.

This aircraft was originally equipped a C - 65 hp engine and wooden propeller.