

# CESSNA AIRCRAFT COMPANY

## WICHITA, KANSAS

MODEL

337C    T337C

# Weight & Balance Data COPY

Aircraft Serial No. **337-0769**

F.A.A. Registration No. **N2469S**

Date: **11-10-67**

ITEM	Weight (lbs.)	C.G. Arm (inches)	Moment (lb. ins.)
Standard Airplane (Empty, Dry & Unpainted) <span style="float: right;"><i>Actual Computed</i></span>	2643.0	142.2	375835
Optional Equipment	245.0	133.9	32806
Special Installation (DOM Approved) <b>MEO #17099</b>	47.5	79.5	3776
Paint — Over All	26.5	192.0	5088
Unusable Fuel (0.8 Gal.) Std. Tanks	5.0	159.5	798
Unusable Fuel (2.0 Gal.) Optional Tanks	12.0	150.0	1800
<b>Licensed Empty Weight = Total of Items Above</b>	<b>2979.0</b>	<b>141.0</b>	<b>420103</b>

(GROSS WT.) - (LICENSED EMPTY WT.) = USEFUL LOAD

( **4400** LBS ) - ( **2979** LBS ) = **1421** LBS

SAMPLE LOADING PROBLEM

	Weight (lbs)	C.G. Arm (inches)	Moment (lb-ins/1000)
Licensed Empty Wt.	2979.0		420.1
Oil, Fwd Engine	19	43.0	0.8
Oil, Aft Engine	19	207.5	3.9
Pilot & Front Passenger	340	102.0	34.7
Center Seat Passengers (Opt)	340.0	136.0	46.2
Rear Seat Passengers (Std)	----	141.0	----
Fuel (Standard-Optional)	363.0	150.0	54.5
*Baggage and/or Aft Seat Passengers (Optional)	340.0	170.0	57.8

*11/13/67*

*Superseded See 337 Data*

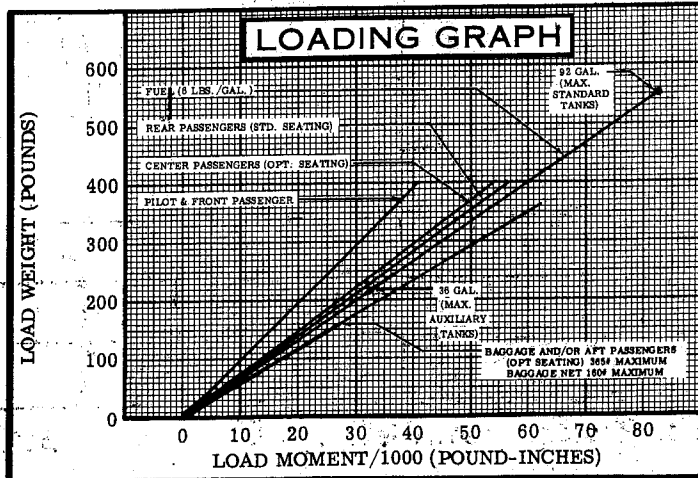
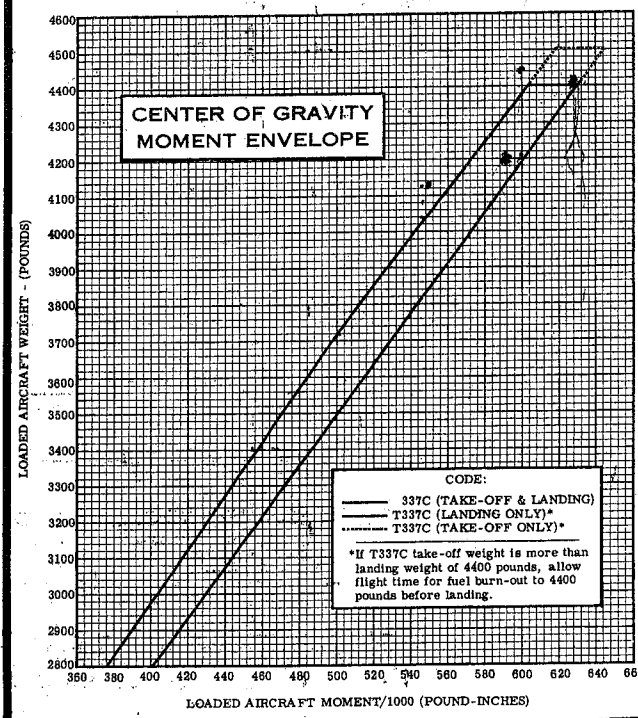
Total Loaded Airplane = **4400**                      **618**  
 Locate this point ( **4400**                      **618** ) on the C.G. Moment Envelope. Since the point falls within the envelope the loading meets all balance requirements.

\*Max. Baggage Net Load is 160#

IT IS THE RESPONSIBILITY OF THE PILOT AND AIRPLANE OWNER TO INSURE THAT THE AIRPLANE IS LOADED PROPERLY. THE EMPTY WEIGHT C.G. & USEFUL LOAD ARE FOR THE AIRPLANE AS DELIVERED FROM THE FACTORY. REFER TO FORM FAA-337 WHEN ALTERATIONS HAVE BEEN MADE.

C.G. MOMENT ENVELOPE INSTRUCTIONS

- I To the licensed empty weight add weight of all items to be carried.
- II To licensed empty weight moment add moment of all items to be carried.
- III Locate point determined by I & II and if it falls within the C.G. moment envelope the loading is satisfactory.





CESSNA AIRCRAFT CO

# EQUIPMENT LIST

MODEL 337C

WICHITA, KANSAS

AIRCRAFT SERIAL NO. 337-0769

FAA REGISTRATION NO. N2469S

DATE 11-10-67

## 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:  
 ✓ = installed 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, true values (not net change values) for weight and arm are shown. Positive arms are distances aft of datum; negative arms are distances forward of datum (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 Cessna drawings or accessory kit instructions.

ITEM NO	1	2	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
001-R	✓		Engine, Continental IO-360-C (front)		320.0	45.5
002-R	✓		Engine, Continental IO-360-C (rear)		320.0	205.5
003-R	✓		Propeller, Constant Speed - Full Feathering (front) (McCauley D2AF34C59/76C)	C161003-0101	56.0	23.0
004-R	✓		Propeller, Constant Speed - Full Feathering (rear) (McCauley D2AF34C61/L76C)	C161003-0102	58.0	231.0
005-R	✓		Spinner, Propeller (front)	1557303	3.0	23.0
006-R	✓		Spinner, Propeller (rear)	1457306	3.0	231.0
007-R	✓		Governor, Propeller (front) (Woodward)	210443	4.0	30.5
008-R	✓		Governor, Propeller (rear) (Woodward)	210443	4.0	220.0
009-R	✓		Oil Cooler - Front (Harrison)	AP10AU10	4.5	53.5
010-R	✓		Oil Cooler - Rear (Harrison)	AP10AU10	4.5	196.0
011-R	✓		Alternator, 38 Amp 28-Volt (front)	G611502-0201	11.5	58.5
012-R	✓		Alternator, 38 Amp 28-Volt (rear)	G611502-0201	11.5	192.0

APPROVED

Cessna Aircraft Co. Commercial Div.  
Delegation Option Manufacturer, CE-1

ISSUED: 8-25-67

REVISED:

APPROVED: *[Signature]*

Executive Engineer

Date

8/25/67 *[Signature]*

SHT 1 OF 6



CESSNA AIRCRAFT CO

## EQUIPMENT LIST (CONT'D)

MODEL 337C

WICHITA, KANSAS

AIRCRAFT SERIAL NO. 337-0769 FAA REGISTRATION NO. N2469SDATE 11-10-67

ITEM NO	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
046-S	✓ Paint Scheme - Over All	1500028	26.5	192.0
047-S	✓ Sun Visor (two)	1414087	1.0	104.0
048-S	✓ Tow Bar, Airplane (stowed)	1200008	2.0	160.0
049-S	✓ Ventilators, Individual Adjustable, Cabin Air (four)	1514036	2.5	110.0
050-R	Placard - Operational Limitation	S-1656-27	Negl.	--
050-0	✓ Placard - Operational Limitation - IFR (requires gyros and Nav-Com radio)	S-1656-28	Negl.	--
050-0-1	Placard - Operational Limitation (requires Items 114-A and 131-A)	S-1656-29	Negl.	--
050-0-2	Placard-Operational Limitation-IFR (requires gyros, Nav-Com Radio, and items 114-A and 131-A)	S-1656-30	Negl.	--
100-A	✓ Air Vent - Left Aft	1514038	1.0	152.5
101-A	✓ Air Vent - Right Aft	1514038	1.0	151.5
102-A	✓ Ammeter	1570000	0.5	83.5
103-A	✓ Anti Ice Installation - Front Engine	1557405	7.5	45.5
104-A	✓ Armrests - Removable - Inboard (front seats)	1200453	1.5	102.0
105-A	✓ Armrests - Removable Inboard - (center seats)	1200453	1.5	136.0
106-A	✓ Armrest - Left Aft	1414082	0.5	173.0
107-A	✓ Armrest - Right Aft	1414082	0.5	173.0
108-A	✓ Camera Provisions	1500070	8.5	115.0
109-A	✓ Camera View Finder Provisions	1500070	1.5	125.5
110-A	✓ Cargo Pack	1500052	34.0	111.5
111-A	Control Cables - Stainless Steel (net change)		Negl.	--
112-A	Corrosion Proofing - Internal		12.0	183.0
113-A	✓ Controls, Dual (wheel, pedals & toe brakes)	1460300	8.5	76.0
114-A	✓ De-Ice System - (installed with item 123-A, 124-A, 125-A, 500-A, 501-A, or 502-A)	1400075	50.0	148.5
115-A	De-Ice System - Partial Plumbing	1400075	1.0	266.5
116-A	✓ Elevator Trim - Electric	1560324	3.5	234.0
117-A	Filter, Oil (Full Flow) Front Engine	1450025	4.5	58.0
118-A	Filter, Oil (Full Flow) Rear Engine	1450025	4.5	193.0
119-A	Fire Extinguisher, Hand Type (with std. pilot seat)	1400054	5.5	101.5
120-A	Fire Extinguisher, Hand Type (with vert. adjusting pilot seat)	1500054	5.5	136.0
121-A	✓ Fuel System, Auxiliary	1426025	17.5	149.5
122-A	✓ Ground Service Plug Receptacle	1570013	2.5	61.0

ISSUED: 8-25-67

REVISED:

SHT 3 OF 6



## EQUIPMENT LIST (CONT'D)

CESSNA AIRCRAFT CO

MODEL 337C

WICHITA, KANSAS

AIRCRAFT SERIAL NO. 337-0769

FAA REGISTRATION NO. N2469S

DATE 11-10-69

ITEM NO	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
500-A	Cessna Nav-O-Matic 300 (includes new A.R.C. gyros, vacuum system and turn coordinator exchange)	1470067	29.5	113.5
501-A	Cessna Nav-O-Matic 300 (includes new A.R.C. directional gyro, new horizon gyro, vacuum system and turn coordinator exchange)	1470067	29.0	114.0
502-A	✓ Cessna Nav-O-Matic 400 (includes new A.R.C. gyros and vacuum system)	1470067	41.0	141.5
503-A	Electronic Instl. - Partial - Option A	1570001	7.0	134.5
504-A	Electronic Instl. - Partial - Option B		0.5	161.5
505-A	Electronic Instl. - Partial - Option C		1.5	86.0
506-A	Electronic Instl. - Partial - Option D		0.5	143.0
507-A	Electronic Instl. - Partial - Option E		1.5	251.5
508-A	✓ Antenna - Forward - Communication (VHF)		0.5	132.5
509-A	✓ Antenna - Aft - Communication (VHF)		0.5	161.5
510-A	✓ Antenna - Navigation (VHF)		0.5	342.0
511-A	Antenna and Cable - Marker Beacon		1.0	154.0
512-A	✓ Filter, Flap Motor		0.5	169.5
513-A	Microphone, Boom	1570001	0.5	96.5
514-A	✓ Radio Cooling System	1513639	1.5	77.0
515-A	Radio Cooling System (multiple TSO instls.)	1513639	0.5	74.0
516-A	✓ Audio Amplifier	1570001	1.5	66.0
517-A	Headset and Microphone		1.0	89.0
518-A	Cabin Speakers (two)		3.0	115.0
519-A	✓ Radio Selector Switches		0.5	84.5
520-A	✓ Cessna Marker Beacon Receiver 300 (502B) (includes antenna)		3.0	109.0
521-A	Cessna ADF 300 (521B) (includes loop & antenna)		9.5	92.0
522-A	Cessna Transceiver 300 (524A)		8.0	79.0
523-A	Cessna Nav/Com 300 (540A) with IN514R		11.5	79.0
524-A	Cessna Nav/Com 300 (540A) with IN525A		12.0	79.0
525-A	Cessna Glide Slope (543A)		5.0	72.5
R - 526-A	✓ Cessna DME 300 (KN-60) (includes antenna) <del>Removed 12/7/71</del>		9.5	90.5
527-A	Cessna Transceiver 500 (302G) TSO		12.0	75.0
528-A	Cessna Nav/Com 500 (317G) TSO		19.5	75.5
529-A	Cessna ADF 500 (318G) TSO (includes gonio loop and antenna)		18.0	86.0
530-A	Cessna Nav/Omni 500 (319G) TSO (includes glide slope antenna)		22.5	124.0
531-A	Cessna Transponder 800 (105B) (includes antenna)		19.0	169.0
532-A	Bendix ADF-T-12C (includes loop & antenna)		9.5	92.0
533-A	King KY-95		9.0	76.0
534-A	King KX-160 with KI-201		13.5	76.5
535-A	King KX-160 with KI-211	1570001	14.5	77.0

ISSUED: 8-25-67

REVISED:

SHT 5 OF 6

Date: 5/21/76

ElectroSonic Division  
Repair Station # 1009  
Weight and Balance Data

W.O. # 32075

1. Aircraft Make Cessna

Model 337

Serial # 337-0769

N # 2469 S

2. Owner's Name: Harold D. Thomas, Jr., M.D.

Address: 110 Bocktown Road  
Aliquippa, Pa.

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Aircraft (Gross 4400)	2972.2		419,154.55
Installed:			
2 King KX-170B Nav/Coms	14.0	76.0	1064.0
1 King KI-214 Ind.w/G.S. Rec.	3.0	76.0	228.0
1 King KI-201C Indicator	3.0	76.0	228.0
2 King KA-39, Power Converters	2.20	68.0	149.6

Moment 419,144.15      New Empty Weight CG 141.0      New Useful Load 1428.4  
Weight 2971.60



# EQUIPMENT LIST (CONT'D)

CESSNA AIRCRAFT CO

MODEL 337C

WICHITA, KANSAS

ITEM NO 1	2	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
536-A		Narco Mark 12A with VOA-4	1570001	15.5	76.0
537-A		Narco Mark 12A with VOA-5		15.5	76.0
538-A		Narco UGR-2 (includes glide slope antenna)		4.5	77.0
539-A		Narco UDI-2R DME (includes antenna)		19.5	74.5
540-A		Pantronics H.F. Transceiver DX-10DA (includes fixed wire antenna)	1570001	19.5	102.5
	✓	Equipment Per MEO #17099:		47.5	79.5
		<del>400 Nav/Com (522A)</del>			
		<del>400 Nav/Com (522A)</del>			
		400 ADF W/O BFO			
		<del>400 Glideslope (R543B)</del>			
		<del>400 Transponder (RT506A)</del>			
	✓	ALTIMETER		4.0	83.0
	✓	ALGOR EGT INDICATOR			
	✓	NARCO ELT-10		2.5	106.0
				3.3	151.0
	✓	ENCODING ALTIMETER } INSTALLED		83.0	307.10
	✓	AIR DATA CLOCK } 9-26-74		83.5	41.75
	✓	INSTALLED KT 76-926-74		79	237.0
	✓	DME-190		6.0	71.0
	✓	UDA-3 ANT		6.2	100.0

*Removed 5-20-76*

*REMOVED 9-26-74*



## EQUIPMENT LIST (CONT'D)

CESSNA AIRCRAFT CO

MODEL 337C

WICHITA, KANSAS

ITEM NO	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
123-A	Gyros, New Horizon & Directional (includes dual engine driven vacuum system)	1557400	20.0	108.0
124-A	Gyros, New Horizon & New A.R.C. Directional (includes dual engine driven vacuum system)	1557400	20.0	108.5
125-A	Gyros, New A.R.C. Horizon & Directional (includes dual engine driven vacuum system)	1557400	20.5	108.0
126-A	✓ Headrests, Front Seats (two)	1714040	2.0	113.0
127-A	✓ Headrests, Center Seats (two)	1714040	2.0	145.0
128-A	Headrests, Standard Rear Seat (two)	1714040	2.0	151.0
129-A	✓ Headrest, 5th Seat	1714040	1.0	177.0
130-A	✓ Headrest, 6th Seat	1714040	1.0	177.0
131-A	✓ Heating System - Stall Sensor & Pitot	1470002	Negl.	--
132-A	✓ Hourmeter	1570018	1.0	74.0
133-A	✓ Hydraulic Pump Installation - Rear Engine	1580016	7.0	164.0
134-A	Indicator, Economy Mixture	1550009	2.5	106.0
135-A	✓ Light, Courtesy	1470041	Negl.	--
136-A	✓ Light, Ice Detector	1400077	0.5	118.0
137-A	✓ Light, Landing (right wing)	1470038	2.0	128.0
138-A	✓ Lights, Instrument (post type)	1513676	0.5	84.5
139-A	Light, Map (doorpost mounted)	1513676	0.5	98.0
140-A	✓ Light, Map (control wheel mounted)	1570149	0.5	84.0
141-A	Oil Dilution System	1556000	2.0	124.5
142-A	Oxygen System, 6-Port	1500069	33.0	148.5
143-A	✓ Rails, Seat (net change)(use with item 043-0)		3.0	136.0
144-A	✓ Rails - 5th Seat Installation	1514229	1.5	172.0
145-A	✓ Rails - 6th Seat Installation	1514214	1.5	172.0
146-A	Rings, Airplane Hoisting	1400109	1.0	151.0
147-A	✓ Seat, 5th (left, aft)	1514223	13.0	168.0
148-A	✓ Seat, 6th (right, aft)	1514223	13.0	168.0
149-A	✓ Belt, Safety - 5th Seat	S-1746-7	1.0	170.0
150-A	✓ Belt, Safety - 6th Seat	S-1746-7	1.0	170.0
151-A	Shelf, Utility	1514045	3.5	176.0
152-A	✓ Static Dischargers	1470143	Negl.	--
153-A	Stretcher, Cushion Air	0700164	(Use actual wt. and arm change)	
154-A	✓ Synchronizer, Propeller (includes propeller governor exchange)	1550017	5.5	157.5
155-A	✓ Unfeathering System - Front Engine (includes propeller governor exchange)	1550006	5.5	34.5
156-A	✓ Unfeathering System - Rear Engine (includes propeller governor exchange)	1550006	5.5	208.0
157-A	✓ Window, Emergency (net change)	1400058	0.5	124.5
158-A	Winterization Kit - Front Engine	1552012	0.5	27.5
159-A	Winterization Kit - Rear Engine	1552012	0.5	225.0

ISSUED: 8-25-67

REVISED:

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## EQUIPMENT LIST (CONT'D)

CESSNA AIRCRAFT CO

MODEL 337C

WICHITA, KANSAS

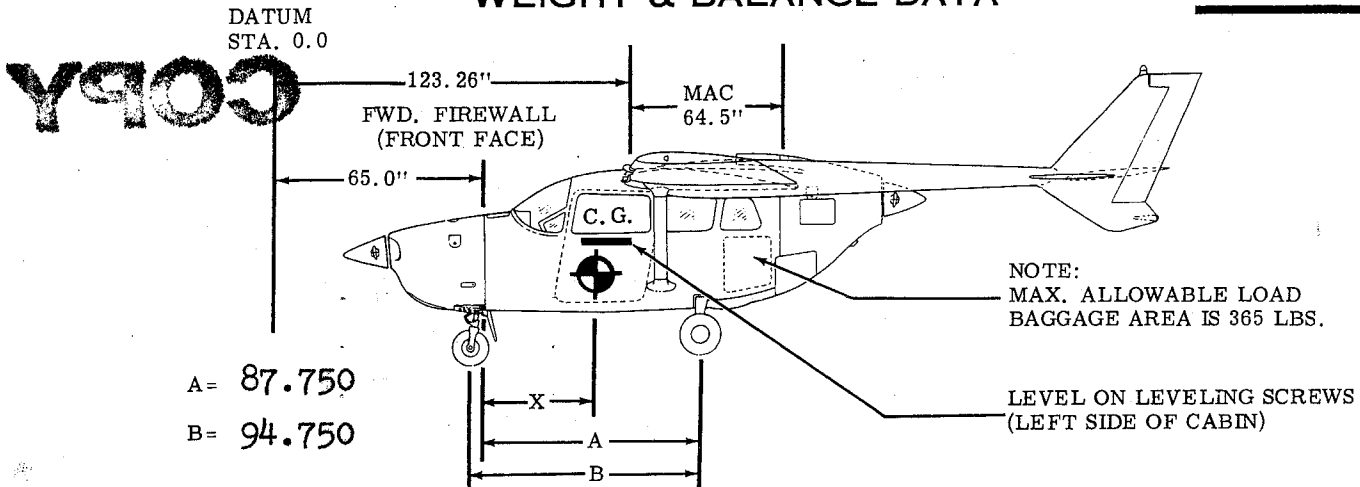
ITEM NO	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
013-R	✓ Regulator, Alternator 28-Volt (two)	1553016	1.5	63.5
014-R	✓ Battery, 24 Volt 17 Amp Hr.	0870060	27.5	61.0
015-R	✓ Filter, Engine Induction Air (front)	1457208	1.0	44.0
016-R	✓ Filter, Engine Induction Air (rear)	1457208	1.0	206.5
017-R	✓ Wheel, Brake, Tire & Tube Assy (two) 6.00 x 6, 8-ply (main)	1241156	36.0	153.0
018-R	✓ Wheel, Tire & Tube Assy 15-6.00 x 6 4-ply (nose)	1241156	11.5	59.0
019-R	✓ Indicator, Stall Warning Audible	0511062	1.0	74.0
020-R	✓ Altimeter, Sensitive	C661011-0201	1.0	83.0
<del>020-0</del>	<del>Altimeter, Sensitive (feet &amp; millibars)</del>	<del>C661011-0202</del>	<del>1.0</del>	<del>83.0</del>
021-R	✓ Compass	CM2639-3	0.5	82.0
022-R	✓ Cluster, Engine Gage	C669506-0103	1.5	84.0
023-R	✓ Gages, Manifold Pressure (dual)	S-1514N2	1.0	83.5
024-R	✓ Indicator, Fuel Flow (dual)	S-1513N2	0.5	83.5
025-R	✓ Indicator, Airspeed	C661010-0603	1.0	84.0
025-0	✓ Indicator, True Airspeed	C661010-0210	1.0	84.0
026-R	✓ Indicator, Wing Flap Position	1562030	Negl.	83.0
027-R	✓ Light, Flashing Beacon	1531003	1.0	341.0
028-R	✓ Tachometer (dual)	C668010-0201	1.5	83.5
<del>029-S</del>	<del>Glock, Electric</del>	<del>S-1317N1</del>	<del>0.5</del>	<del>84.5</del>
030-S	✓ Gage, Outside Air Temperature	S-1322-1	Negl.	99.0
030-0	✓ Gage, Outside Air Temperature (electric)	1470204	1.0	133.0
031-S	✓ Heating and Ventilation System, Cabin	1513551	10.0	64.0
032-S	✓ Heating System, Engine Induction Air (front)	1560200	1.0	60.0
033-S	✓ Heating System, Engine Induction Air (rear)	1560200	1.0	200.0
034-S	✓ Indicator, Rate-of-Climb	S-1392N2	1.0	82.0
035-S	✓ Indicator, Turn Coordinator	C661003-0202	2.5	81.0
035-0	✓ Indicator, Turn and Bank	S-1303N1	2.0	81.0
036-S	✓ Lights, Instrument Panel Flood	1513676	0.5	87.5
037-S	✓ Light, Landing and Taxi	1420000	1.5	128.0
038-S	✓ Lights, Navigation	1420005	0.5	210.0
		1431000		
039-S	✓ Pump, Auxiliary Electric Fuel (two)	1426033	4.0	129.5
040-R	✓ Seat Adjustable, Pilot	1414100	14.5	105.0
040-0	✓ Seat Adjustable, Pilot (vertical adjusting)	0700630	18.5	105.0
040-0-1	✓ Seat Adjustable, Pilot (power vertical adjusting)	1414265	24.5	105.0
041-R	✓ Belt, Safety, Pilot	S-1746-7	1.0	102.0
042-S	✓ Seat, Adjustable, Copilot	1414100	14.5	105.0
042-0	✓ Seat, Adjustable, Copilot (vertical adjusting)	0700630	18.5	105.0
042-0-1	✓ Seat, Adjustable, Copilot (power vertical adjusting)	1414265	24.5	105.0
043-S	✓ Seat, Rear Bench	1414200	24.0	144.5
043-0	✓ Seats, Center - Set of Two (requires item 143-A for installation)	1414250	27.0	137.0
044-S	✓ Belt, Safety, Copilot	S-1746-7	1.0	102.0
045-S	✓ Belt, Safety, Rear (two)(use with 043-S or 043-0)	S-1746-3	2.0	143.0

ISSUED: 8-25-67

REVISED:

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WEIGHT & BALANCE DATA



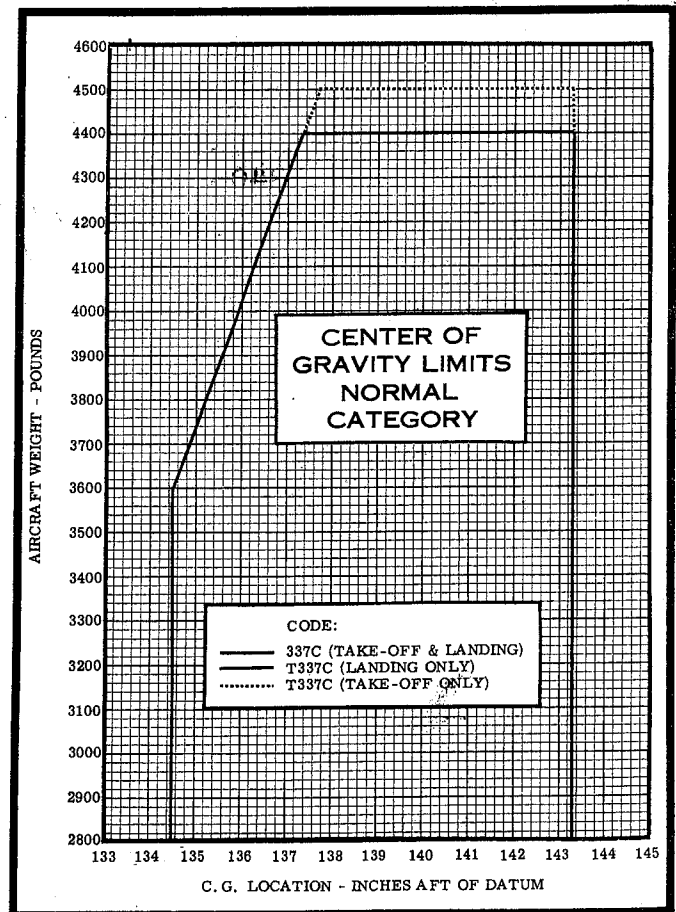
Scale Position	Scale Reading	Tare	Symbol	Net Weight	
Left Wheel	1287		L	1287	
Right Wheel	1303		R	1303	
Nose Wheel	366		N	366	
Aircraft Empty Weight (As Weighed)				W	2956

$$X = \frac{(A) - \frac{(N) \times (B)}{W}}{W} = \frac{(87.750) - \frac{(366) \times (94.750)}{2956}}{2956} = (76.0) \text{ IN.}$$

C.G. ARM = 65.0 + X = 141.0 IN.

WEIGHING PROCEDURE

- Preparation:
  - Inflate tires to recommended operating pressures.
  - Remove all wing tank and accumulator tank drain plugs to remove all fuel.
  - Remove both oil sump drain plugs to drain all oil.
  - Move all sliding seats to the most forward position. All seat backs should be in the most nearly vertical position.
  - Put flaps in the fully retracted position.
  - Place all control surfaces in neutral position.
- Leveling:
  - Place scales under each wheel (500# nose - 1500# each main, minimum capacity for scales).
  - Deflate nose tire to center bubble on level (See Diagram).
- Weighing:
  - With the airplane level and brakes released, record the weight shown on each scale. Deduct the tare, if any, from each reading.
- Measuring:
  - Obtain measurement "A" by measuring horizontally (along A/C  $\bar{C}$ ) from a line stretched between the main wheel centers to a plumb bob dropped from the firewall.
  - Obtain measurement "B" by measuring horizontally from center of nosewheel axle, left side, to a plumb bob dropped from the line between the main wheel centers. Repeat on right side and average the measurements.
- Completing the Form:
  - Using weights from (3) and measurements from (4) the airplane weight and C.G. can be determined.
  - Obtain licensed empty weight by adding weight and moment of unusable fuel (see other side) to airplane empty weight and moment.



Computed:

New Empty Weight: 2,973.84 Lbs.

New Empty Weight CG: 140.93 Inches

New Empty Moment: 419,105.57

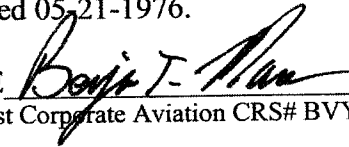
New Useful load: 1426.16 Lbs.

All weight in Lbs and all measurements in inches.

It is the **Owner/Operators** responsibility to determine that the aircraft remains within the safe weight and balance limits. Refer to the weight and balance data sheet for the loading instructions. This weight and balance has been computed using original factory data from the Cessna Aircraft Company dated 11-10-1967 and data from previous weight and balance computation from Electronics Division dated 05-21-1976.

DATE: 08-17-2007

SIGNATURE



For

Midwest Corporate Aviation CRS# BVYR657C