

Aircraft Weight and Balance Revision

Tail Number: N34626		Date: 11-15-17	
Prepared by: Chautauqua Aircraft Sales, INC 3163 Airport Dr, Ste 11 Jamestown, NY 14701		Work Order No: 9512	
		Type Certificate Data No:	
Aircraft Make: Cessna	Model: 177B	Serial No: 17701907	Time: 2887.3
Registered Owner: ROBERTSON JASON		Address: 5998 WYNDEMERE DR ERIE, PA 16505-5608	
Maximum Weight		CG Range FWD AFT	
As Received; Date of Previous Weight and Balance: 09-26-17	Useful Load: 909.28	EW: 1590.72	EWCG: 103.98 Moment: 165397.98
Notes: Removed OEM belt and Shoulder Harness (front seat crew), Installed B.A.S. system INC shoulder harness assembly			
	Weight	Arm	Moment
Removed OEM belt and shoulder harness (front seat crew)	-3.20	93.00	-297.60
Installed BAS shoulder harness sysrtem kit	5.20	110.00	572.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
☒ As Calculated ☐ As Weighed	Moment 165672.38 Weight 1592.72	New Empty Weight CG 104.02	
		New Useful Load 907.28	
		Signature  11-15-17	
		Repair Agency or License No: CRS#IC1R213K	



3163 Airport Drive, Box 11
Jamestown, NY 14701
716-664-7700
FAA CRS# DKZR372X

FORM 107

WEIGHT & BALANCE AND EQUIPMENT LIST REVISION

Work Order #: 5173

Aircraft Make: Cessna

Customer: Jason Robertson

Aircraft Model: 177B

Address: 5998 Wyndemere Drive

Aircraft Serial #: 17701907

Erie, PA 16505

FAA Registration #: N34626

Supersedes:	W&B Dated	Gross Weight	Empty Weight	CG	Moment
	10/23/14	2500	1590.72	103.98	165397.1

REMOVED EQUIPMENT

Manufacturer	Description	Part Number	Serial#	Weight	Arm	Moment
ARC	RT359A Transponder	41420-1114	4118	3.50	68.50	239.75

INSTALLED EQUIPMENT

Manufacturer	Description	Part Number	Serial#	Weight	Arm	Moment
Garmin	ADS-B in/out transponder	010-01216-01	3EG008952	3.50	68.75	240.63

New Useful Load	New Empty	Total Change	New CG	New Moment
909.28	1590.72	0.00	103.98	165397.98

Completed By: mlt

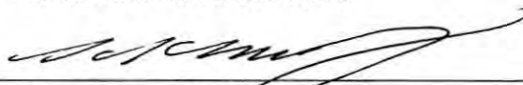
Date: 9/26/17

Revision to Weight and Balance dated: 10/23/14

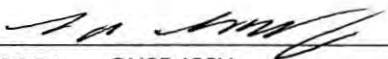
Aircraft Weight and Balance Revision

[illegible]

Aircraft Weight and Balance Revision

Tail Number: N34626				Date: 09-30-2011	
Prepared by: QUALITY AVIONICS, INC. GROVE CITY REGIONAL AIRPORT 40 OAKLEY KELLY DRIVE MERCER, PA 16137				Work Order No: 1103121	
				Type Certificate Data No:	
Aircraft Make: CESSNA	Model: 177B	Serial No: 17701907	Time: TACH 2552.50		
Registered Owner: JASON ROBERTSON		Address: 5998 WYNDEMERE DR ERIE, PA 16505-5608			
Maximum Weight		CG Range FWD AFT			
As Received; Date of Previous Weight and Balance: 09-30-2011		Useful Load: 928.33	EW: 1571.67	EWCG: 104.52	Moment: 164273.05
Notes:					
			Weight	Arm	Moment
INSTALLED AUDIO SELECTOR/MARKER BEACON/INTERCOM SYSTEM PSE PMA 8000B			4.85	69.00	334.65
INSTALLED INDICATOR GARMIN GI 106A			1.40	71.00	99.40
INSTALLED GPS/NAV/COM GARMIN GTN 650			7.50	69.00	517.50
INSTALLED GPS ANTENNA GARMIN GA 35			0.50	109.00	54.50
INSTALLED GPSS S-TEC ST-901 SYSTEM			1.00	71.00	71.00
INSTALLED NAV SPLITTER GARMIN P/N 013-00112-00			0.35	187.00	65.45
INSTALLED ALTITUDE ENCODER TCI SSD 120-30-RS232			0.45	63.00	28.35
					0.00
					0.00
					0.00
X As Calculated	Moment 165443.90		New Empty Weight CG 104.20		New Useful Load 912.28
As Weighed	Weight 1587.72				
Signature GARY LEE HUTCHINSON JR 					
Repair Agency QU8R488X or License No:					

Aircraft Weight and Balance Revision

Tail Number: N34626				Date: 09-30-2011	
Prepared by: QUALITY AVIONICS, INC. GROVE CITY REGIONAL AIRPORT 40 OAKLEY KELLY DRIVE MERCER, PA 16137				Work Order No: 1103121	
Aircraft Make: CESSNA				Model: 177B	
Registered Owner: JASON ROBERTSON				Serial No: 17701907	
				Time: TACH 2552.50	
				Address: 5998 WYNDEMERE DR ERIE, PA 16505-5608	
Maximum Weight		CG Range FWD AFT			
As Received; Date of Previous Weight and Balance: 12-18-2003		Useful Load: 900.58	EW: 1599.42	EWCG: 104.00	Moment: 166350.74
Notes:					
			Weight	Arm	Moment
REMOVED CESSNA AUDIO SWITCH PANEL			-1.50	72.30	-108.45
REMOVED COLLINS COM VHF 251, NAV VIR 351 AND INDICATOR IND-350			-10.80	72.30	-780.84
REMOVED INTERCOM SYSTEM DAVTRON M202			-1.00	72.30	-72.30
REMOVED ADF SYSTEM ARC R-546A RECEIVER, LOOP ANT L-346A, IND IN-546A-1, SENCE ANT			-8.40	77.80	-653.52
REMOVED LORAN SYSTEM APOLLO 618 RECEIVER, AMP A-6 AND COMANT CI-121SP ANT			-4.85	81.15	-393.58
REMOVED ALTITUDE ENCODER ACK A 30			-1.00	56.00	-56.00
REMOVED NAV ANTENNA COUPLER GENAVE ETA 2			-0.20	65.00	-13.00
					0.00
					0.00
					0.00
X As Calculated	Moment 164273.05	New Empty Weight CG 104.52		New Useful Load 928.33	
As Weighed	Weight 1571.67				
Signature GARY LEE HUTCHINSON JR					
					
Repair Agency QU8R488X or License No:					



FIREWALL FORWARD INTERNATIONAL, LLC

EQUIPMENT CHANGE - WEIGHT AND BALANCE

REG. NO.: N34626

MODEL: 177B

SERIAL NO.: 17701907

Item:	Weight	Arm	Moment
Remove stock exhaust and add Power Flow exhaust	+5.85 (net)	54.0	315.9
Totals	+5.85		315.9

A. Old Empty Weight	1593.57
B. Old Empty CG	
C. Old Empty Weight CG Moment	166034.84
D. Max Gross Weight	2500
E. Old Useful Load	906.43

A. New Empty Weight	1599.42
B. New Empty CG	104.00
C. New Empty Weight CG Moment	166350.74
D. Maximum Gross Weight	2500
E. New Useful Load	900.58

This new weight and balance information supersedes all previous weight and balance data. For aircraft loading, see instructions in Weight and Balance section of Aircraft Flight Manual.

Calculated from weight and balance dated: Feb. 24. 1990

Date: 12-18-03

Signed: *Jack Spaulding* A&P: 522901579

Firewall Forward, Inc.
Loveland, CO 80538

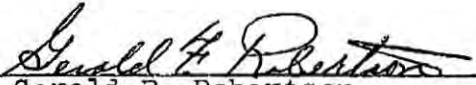
Weight and Balance Computation-----N34626
Previous Useful Load--920.43
Computed Feb. 24. 1990--Tach Time--1427.0 hrs.

ITEM	WT.	ARM	MOMENT	S/N
Aircraft	1579.57	104.05	164356.22	
Programmer/Computer	2.8	71.6	200.48	1502
Roll Servo	2.9	126.6	367.14	Unknown
Pitch Servo	2.9	213.00	617.7	Unknown
Turn Cord-Net Chg.	.5	71.6	35.8	5284E
Dir. Gyro-Net Chg.	2.6	70.5	183.3	32577
Transducer	.5	213.00	106.5	Unknown
Associated Wiring	1.5	111.8	167.7	None
	<u>1593.57</u>		<u>166034.84</u>	

Superseded 10-16-03

New Empty Weight C. G. --104.19
New Useful load--906.43 lbs.

The above computation was made after installation of S-Tec
Autopilot Model ST-243-50 as per STC. #SA5317SW-D.


Gerald F. Robertson
A&P 1015598

GOODRICH AVIATION, INC.

Municipal Airport - Ames, Iowa 50010

Telephone 515-232-7662

WEIGHT AND BALANCE AMENDMENT REPORT

MAKE: Cessna

MODEL: 177B

SERIAL: 17701907

REGISTRATION: 34626

	DATE	EMPTY WEIGHT	EMPTY WEIGHT C. G.		USEFUL LOAD
			<u>EWCG</u>	<u>moment</u>	
1.	8-29-73	1550.0	104.1	162397.	949.4
2.	1-19-76	1554.3	104.3	161681	948.4
3.	2-29-76	1557.3	104.7	163051	944.1
4.	6-11-79	1569.62	104.45	163941.59	931.8
REMOVE ITEM 1.	6-19-79	1568.62	104.48	163888.09	930.8
	8-15-79	1571.72	104.5	163889.41	928.28
	9-15-81	1574.72	104.27	164202.41	925.28
	12-19-83	1579.57	104.05	164356.22	920.43
	2-24-90	1593.57	104.19	166034.84	906.43

Loading and Center of Gravity Charts

IT IS THE RESPONSIBILITY OF THE PILOT AND AIRCRAFT OWNER TO ENSURE THAT THE AIRCRAFT IS LOADED PROPERLY.

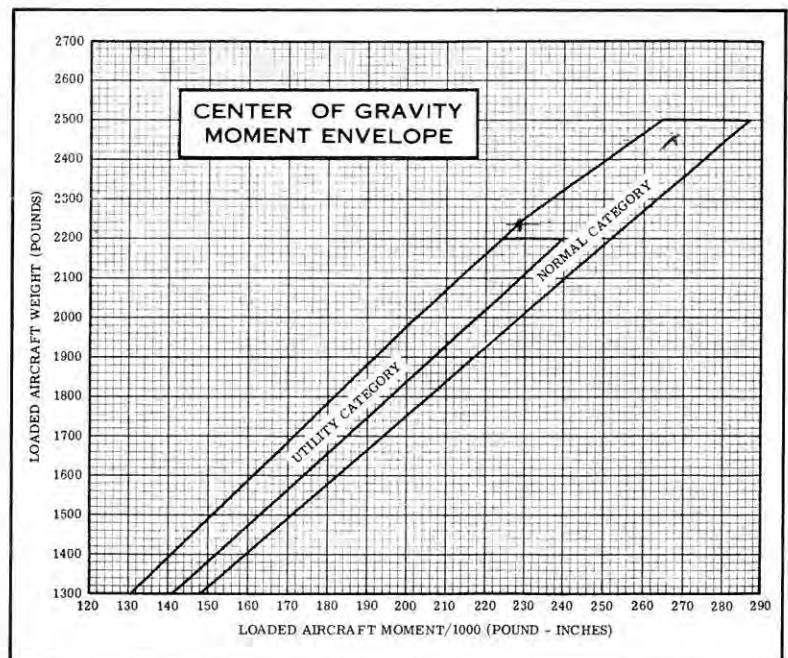
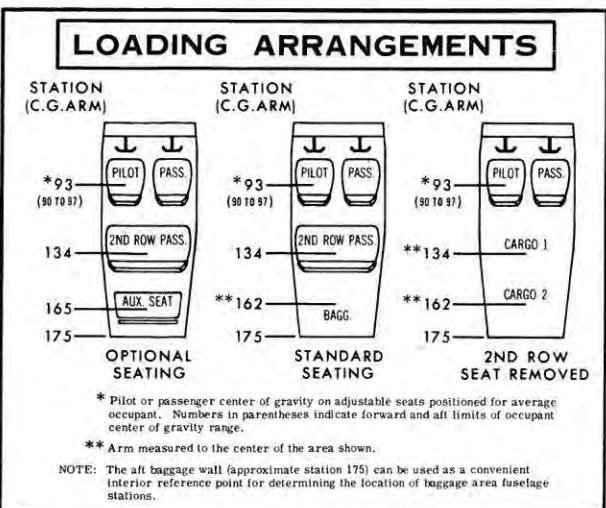
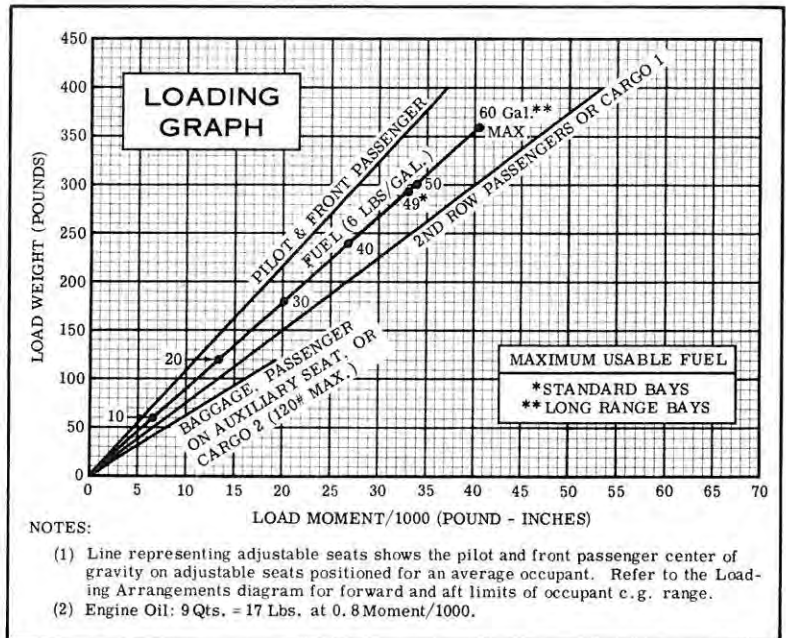
When computing aircraft loading requirements, refer to the Weight and Balance and Installed Equipment Data sheet in the aircraft file for the licensed empty weight, arm and moment of the aircraft as delivered from the factory. (If alterations have been made to the aircraft, refer to FAA form 337 for the latest empty weight, arm and moment.) The aircraft weight and balance may then be determined using the Loading Graph and Center of Gravity Moment Envelope as indicated in the Sample Loading Problems below.

SAMPLE LOADING PROBLEM (NORMAL CATEGORY)	SAMPLE AIRPLANE		YOUR AIRPLANE	
	Weight (lbs.)	Moment (lb.-ins./1000)	Weight (lbs.)	Moment (lb.-ins./1000)
1. Licensed Empty Weight (Sample Airplane)	1527	159.7		
2. Oil (9 Qts. - The weight of full oil may be used for all calculations)	17	0.8	17	0.8
3. Fuel (Reduced Usable - 43 Gal. at 6 lbs./Gal.)	258	28.9		
Fuel (Standard Total Usable - 49 Gal. at 6 lbs./Gal.)				
Fuel (Long Range Total Usable - 60 Gal. at 6 lbs./Gal.)				
4. Pilot and Front Passenger (Station 90 to 97)	340	31.6		
5. Second Row Passengers	340	45.6		
Cargo 1 Replacing Second Row Seat (Station 126 to 142)				
6. Baggage, Passenger on Auxiliary Seat, or Cargo 2 (Station 142 to 175; 120 lbs. Max.)	18	2.9		
7. TOTAL WEIGHT AND MOMENT	2500	269.5		

8. Locate this point (2500 at 269.5) on the center of gravity moment envelope, and since this point falls within the envelope, the loading is acceptable.

SAMPLE LOADING PROBLEM (UTILITY CATEGORY)	SAMPLE AIRPLANE		YOUR AIRPLANE	
	Weight (lbs.)	Moment (lb.-ins./1000)	Weight (lbs.)	Moment (lb.-ins./1000)
1. Licensed Empty Weight (Sample Airplane)	1527	159.7		
2. Oil (9 Qts. - The weight of full oil may be used for all calculations)	17	0.8	17	0.8
3. Fuel (Reduced Usable) (43 Gal. at 6 lbs./Gal.)	258	28.9		
Fuel (Standard Total Usable) (49 Gal. at 6 lbs./Gal.)				
Fuel (Long Range Total Usable) (60 Gal. at 6 lbs./Gal.)				
4. Pilot and Front Passenger (Station 90 to 97)	340	31.6		
5. TOTAL WEIGHT AND MOMENT	2142	221.0		

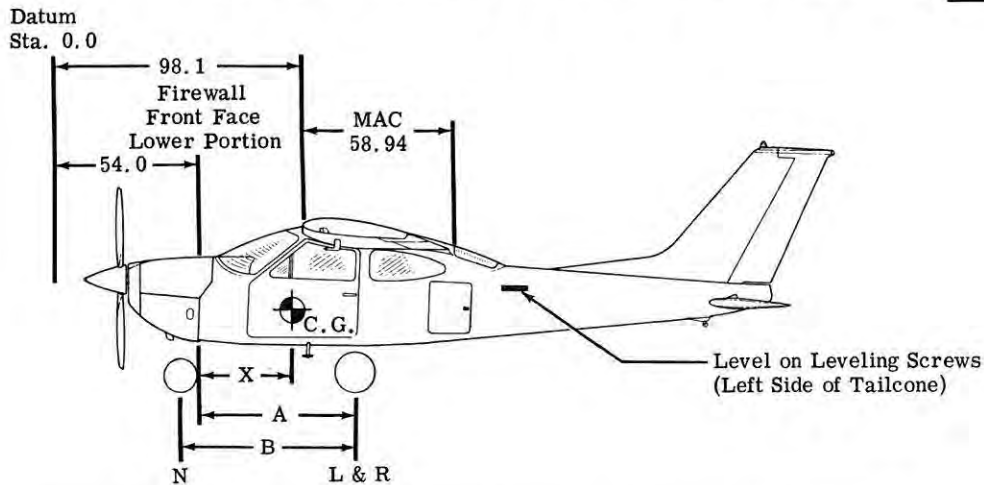
6. Locate this point (2142 at 221.0) on the center of gravity moment envelope, and since this point falls within the utility category envelope, the loading is acceptable.



Weighing Procedure

MODEL 177B

1973



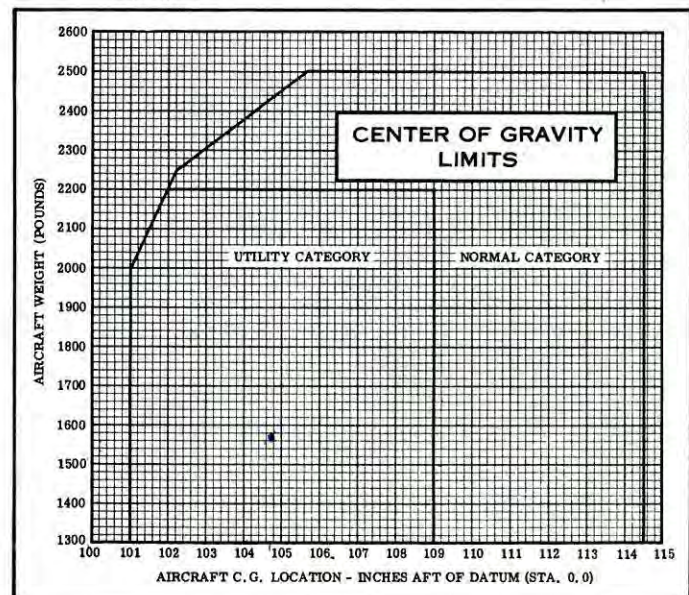
Scale Position	Scale Reading	Tare	Symbol	Net Weight
Left Wheel			L	
Right Wheel			R	
Nose Wheel			N	
Aircraft Empty Weight (As Weighed)			W	

$$X = \text{ARM} = (A) - \frac{(N) \times (B)}{W}; X = (\quad) - \frac{(\quad) \times (\quad)}{(\quad)} = (\quad) \text{ IN.}$$

$$\text{C.G. ARM} = 54.0 + X = \quad \text{IN.}$$

- Preparation:
 - Inflate tires to recommended operating pressures.
 - Remove all fuel bay sump and fuel reservoir drain plugs to remove all fuel.
 - Remove oil sump drain plug 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, 1000# 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 the airplane center line) from a line stretched between the main wheel centers to a plumb bob dropped from the firewall.
 - Obtain measurement "B" by measuring horizontally and parallel to the airplane center line, from center of nose wheel 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 1 gallon of unusable fuel (weight = 6.0#, moment = 600 lb. in.) to airplane empty weight and moment.





CESSNA AIRCRAFT CO

EQUIPMENT LIST
MODEL 177B (1973)

WICHITA, KANSAS

NOTES

1. Suffix letter 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. Refer to the sheet titled "Weight and Balance Data and Installed Equipment Data" for a listing of equipment installed on your aircraft at the factory.
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.
- * Complete assembly installations are indicated by asterisks after the item weight and arm. Some major components of the assembly are listed on the lines immediately following. The summation of these major components does not necessarily equal the complete assembly installation.

ITEM NO	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
001-R	Engine, Lycoming O-360-A1F6D Includes the following: Starter - Prestolite Z4206 Magnetos - Dual Mag (Bendix) Alternator, 14 Volt, 60 Amp Oil Filter (Integral mount) Carburetor Marvel Shebler	1750001- D4LN-2021 C611501-0102 MA-4-5	296.3 * 17.0 10.8 5.4	38.7 * 33.4 51.0 30.0 51.0 43.5
002-R	Propeller, Constant Speed (McCauley B2D34C208/82PA-6)	C161008-0105	49.8	21.0
003-R	Governor, Propeller (McCauley C290D2/T12)	C161030-0109	3.0	51.5
004-R	Spinner Installation, Propeller Spinner Dome Aft Spinner Bulkhead Fwd Spinner Spacer Bulkhead	1750050 0752637 1750051-1 1750051-4	3.5* 2.0 1.0	21.0* 17.4 24.2
005-R	Regulator 14 Volt, 60 Amp Alternator	C611001-0101	1.0	58.5
006-R	Battery, 12 Volt, 25 Amp Hour	0511319	23.0	184.5
006-O	Battery, 12 Volt, 33 Amp Hour	0712605	28.0	184.5
007-R	Filter, Carburetor Air	C294510-0601	1.5	30.0

APPROVED

Cessna Aircraft Co. Commercial Div.
Delegation of Authority Manufacture, CE

Executive Engineer

ISSUED: 31 July '72

REVISED:

APPROVED:

Date

7-31-72

SHT 1 OF 10



EQUIPMENT LIST (CONT'D)

CESSNA AIRCRAFT CO

MODEL 177B (1973)

WICHITA, KANSAS

ITEM NO ▶	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
010-R	Heating System, Cabin & Carburetor Air (Includes Exhaust System)	1706050	17.5	36.0
011-R	Pump, Bendix Electric Fuel	1216012	2.0	53.0
012-R	Oil Cooler, (Stewart-Warner 8406E) or (Harrison 8526250)	1750001 1750001	2.5 2.5	52.0 52.0
020-R	Wheel, Brake & Tire Assy, 6.00-6 Main (2) Wheel Assy, Cleveland 40-133 (Each) Brake Assy, Cleveland 30-75 (Left) Brake Assy, (Right) Tire 6-Ply Blackwall (Each) Tube (Each)	1241156-38 C163001-0104 C163030-0113 C163030-0114 C262003-0204 C262023-0102	35.0* 6.2 1.9 1.9 7.1 1.7	123.4* 123.8 120.5 120.5 123.8 123.8
021-R	Wheel & Tire Assy, 5.00-5 Nose Wheel Assy, Cleveland 40-77 Tire, 4-Ply Blackwall Tube	1241156-2 1241156-12 C262003-0102 C262023-0101	8.0* 4.1 1.2	47.2* 47.2 47.2 47.2
021-R-1	Wheel & Tire Assy, 5.00-5 Nose Wheel Assy, McCauley Tire, 4-Ply Blackwall Tube	0541215-1 C163002-0201 C262003-0102 C262023-0101	8.4* 3.2 4.1 1.1	47.2* 47.2 47.2 47.2
021-0	Wheel & Tire Assy, 6.00-6 Nose Oversize (Requires Item 023-0 Oversize Nose Wheel Fork) Wheel Assy, McCauley Tire, 4-Ply Blackwall Tube	0541215-5 C163002-0301 C262003-0101 C262023-0102	13.2* 5.2 6.2 1.8	47.2* 47.2 47.2 47.2
021-0-1	Wheel & Tire Assy, 6.00-6 Oversize Nose (Requires Item 023-0 Oversize Nose Wheel Fork) Wheel Assy, Cleveland 40-76A Tire, 4-Ply Blackwall Tube	1241156-7 1241156-11 C262003-0101 C262023-0102	12.8* 4.8 6.2 1.8	47.2* 47.2 47.2 47.2
022-0	Whitewall Tires Replacing Blackwall Tires of Items 020-R and 021-R (Net Change) Main Tire, 6-Ply Whitewall Nose Tire, 4-Ply Whitewall	0501031 C262001-0201 C262001-0102	0.0* 7.1 4.1	- * 123.8 47.2
023-0	Oversize Nose Wheel Fork Instl. (Net Change)	1743000	1.0	53.5
030-R	Altimeter	C661012-0101	0.7	73.2
030-0	Altimeter, Sensitive	C661071-0101	1.0	72.5
030-0-1	Altimeter, Sensitive (Feet & Millibars)	C661071-0102	1.0	72.5
031-R	Compass, Magnetic	C660501-0101	0.5	82.0
032-R	Gage Cluster, Left Fuel & Oil Pressure	C669504-0103	0.5	74.0
033-R	Gage Cluster, Right Fuel & Oil Temperature	C669505-0101	0.5	74.0
034-R	Gage Cluster, Cylinder Head Temp & Ammeter	C669509-0102	0.5	74.0
035-R	Gage, Fuel Pressure	C662023-0102	0.5	73.0
036-R	Gage, Manifold Pressure	C662035-0101	0.9	73.0

ISSUED: 31 July '72

REVISED:

SHT 2 OF 10



EQUIPMENT LIST (CONT'D) MODEL 177B (1973)

CESSNA AIRCRAFT CO

WICHITA, KANSAS

ITEM NO	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
037-R	Indicator, Airspeed	C661060-0104	0.6	73.0
037-O	Indicator, True Airspeed	1713219	0.5	73.0
038-R	Indicator, Audible Pneumatic Stall Warning	1706014	0.5	115.5
039-R	Tachometer Installation, Engine	1750001	0.9*	70.3*
	Recording Tachometer Indicator	C668020-0103	0.7	73.0
	Tach Flexible Shaft (ASES 1605-24)	S-1605-2	0.2	61.0
050-R	Lights, Navigation (Set of Three)	1770002	1.0	139.5
051-R	Light - Navigation	1771000	1.3*	
	Whelen LED Beacon		1.1 lbs	297.5
	Switch, Circuit Breaker, and Wiring		0.2	126.6
060-R	Seat, Pilot Fixed Height	1714063-11	13.0	101.0
060-O	Seat, Infinite Adjust - Pilot	1714064-9	22.0	98.0
061-S	Seat, Co-Pilot Fixed Height	1714063-11	13.0	101.0
061-O	Seat, Infinite Adjust - Co-Pilot	1714064-9	22.0	98.0
062-S	Seat, Rear (One Piece Back Cushion)	1714082-14	28.4	139.0
062-O	Seat, Rear (Two Piece Back Cushion)	1714083-9	29.4	139.0
063-R	Belt Assy, Pilot Lap	S-2070-115	1.0	93.0
064-S	Shoulder Harness Assy, Pilot	S-2070-205	1.0	93.0
065-S	Belt & Shoulder Harness Assy, Co-Pilot Lap	S-2070-16	2.0	93.0
066-S	Belt Assy, Rear Occupant Lap (Set of two)	S-1746-16	2.0	135.0
066-O	Belt & Shoulder Harness Assy, Rear Occupant Lap (Set of Two)	1701022	4.0	135.0
080-S	Baggage Net	2015009	0.5	162.0
081-S	Paint, Standard Stripe Exterior	1704010	3.5	135.2
081-O	Paint, Overall Exterior		11.5*	150.9*
	Overall White Base (96,266 in ²)	1704010	8.4	157.0
	Color Stripe (22,860 in ²)		3.2	135.2
082-O	Wings - 60 Gal. Fuel Net Change		3.6	118.8
100-R	Placard, Operational Limitations, VFR	1205001-47	0.0	--
100-O	Placard, Operational Limitations, IFR (requires gyros & Nav/Com radio)	1205001-48	0.0	--
200-A	Arm Rests, Rear Seat (Set of Two)	0514079	2.1	137.3
201-A	Axle, Heavy Duty (Set of Two) (Net Change)	0541171	1.0	123.5
202-A	Clock Installation	1713222-1	0.4	96.2*
	Electric Clock	C664508-0101	0.4	73.6
203-A	Cables, Corrosion Resistant Control (Net Change)	1700123	0.0	--
204-A	Controls Installation, Dual	1760007-1	6.3*	76.0*
	Control Wheel, Right Side		1.4	82.6
	Rudder Pedals, Right Side (Set of Two)		1.1	62.1
205-A	Corrosion Proofing, Internal	1700123	6.0	140.0
206-A	Detectors, Navigation Light (Set Of Two)	0701013	0.0	--
207-A	Fairings Installation, Wheel (Set of Three)	0501015-2	17.7*	109.3*
	Nose Wheel Fairing	0543065-9	3.6	59.0
	Main Wheel Fairing (each)	0541203	5.9	126.1

ISSUED: 31 July '72

REVISED:

SHT 3 OF 10



EQUIPMENT LIST (CONT'D)

CESSNA AIRCRAFT CO

MODEL 177B (1973)

WICHITA, KANSAS

ITEM NO	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
210-A	Fire Extinguisher Installation	1701008-3	3.0*	125.5*
	Fire Extinguisher	C421001-0101	2.6	125.5
	Fire Extinguisher Bracket	C421001-0102	0.3	125.5
211-A	Ground Service Plug Receptacle	1770004-1	2.5	66.0
212-A	Gyros, Horizon & Directional (requires item 252-A Vacuum System)	1713217-5	6.0	71.0
213-A	Gyros, Horizon and Cessna Directional (requires item 252-A)(used W NOM300) Directional Gyro w/heading selector	1713217 and 1201126-1	6.4	70.5
214-A	Headrests, Front (Set of Two)	0514048	2.0	107.0
215-A	Headrests, Rear (Set of Two)	0514048	2.0	148.0
216-A	Heating System, Pitot (Net Change) Heated Pitot Head	1720099-4 0721105-33	0.9* 0.4	112.5* 117.6
217-A	Holders, Retractable Cup (Set of Two)	1701023	0.1	74.5
218-A	Hourmeter	1701013-1	1.0	53.5
220-A	Indicator, Carburetor Air Temperature Temperature Sender Gage	1713216-3 0550209 S1311-3	1.2* 0.1 1.0	68.7* 37.7 73.2
221-A	Indicator, Economy Mixture	1701012-1	1.0	62.0
222-A	Indicator, Outside Air Temp (C668507-0101)	1713117-1	0.1	85.9
223-A	Indicator, Rate-Of-Climb (C661080-0101)	1700128-1	0.9	72.6
224-A	Indicator, Turn Coordinator (C661003-0504)	1713223-1	1.3	72.4
225-A	Indicator, Turn Coordinator Brittain (Use with Item 402-A Wing Leveler)	1700124	2.8	71.6
226-A	Indicator, Turn Coordinator ARC 35060-0014 (Use with item 500-A Nav-O-Matic 300)	1701009	1.9	71.6
227-A	Indicator, Turn and Bank S-1413N2	1713220-1	2.0	71.6
230-A	Leather Seating (Net Change)	CES 1164	2.0	120.0
231-A	Lift Handles, Tailcone (Set of Two)	1712150-1	1.2	252.7
232-A	Light Installation, Cowl Mounted Landing Lamp (G.E.)	1701017 4522	1.7* 0.8	41.0* 39.2
233-A	Light, Map (Control Wheel Mounted)	1770019-6	0.2	83.0
234-A	Lights, Courtesy (Set of Three)	1770005-2	1.0	109.0
235-A	Lights, Strobe (Wing Tip Mounted) Flasher Power Supply (Set of Two) Strobe Light, Wing Tip (Set of Two)	2010013 C622007-0101 C622006-0101	3.1* 2.3 0.2	120.0* 125.0 106.5
236-A	Mirror, Rear View	1713224-1	0.3	72.4
240-A	Priming System, 3-Cylinder (Net Change)	1756003-3	0.5	42.0
241-A	Rings, Cargo Tie-Down (Installed Arm Shown)	1712017-1	1.0	147.5
242-A	Rings, Airplane Hoisting	1700122-1	1.8	120.7

ISSUED: 31 July '72

REVISED:

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EQUIPMENT LIST (CONT'D)

CESSNA AIRCRAFT CO

MODEL 177B (1973)

WICHITA, KANSAS

ITEM NO ▶	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
243-A	Seat Installation, Auxiliary	0501009	8.5*	168.8*
	Seat Assembly, Fold-Away	1714005-2	7.6	168.8
	Belt Assembly, Lap	S-1746-5	0.8	168.8
	Miscellaneous Hardware		0.1	168.8
244-A	Seats, Vinyl Cushion (Net Change)		0.0	--
245-A	Stabilator Abrasion Shield	1701016-1	1.3	276.5
246-A	Static Source, Alternate	1701018-2	0.5	86.0
247-A	Stretcher Installation (Boxed)	0700164	Use actual installed weight and arm change	
248-A	Sun Visors (Set of Two)	1701001	1.0	93.0
250-A	Tow Bar (Stowed)	0501019	1.6	162.0
251-A	Upholstery, Cardinal Interior (Net Change)	1715010	0.0	162.0
252-A	Vacuum System Installation, Engine-Driven	1713217	5.5*	53.8*
	Dry Vacuum Pump, Airborne 200CC-9	C431003-0101	3.6	50.5
	Filter Assembly	C294501-0101	0.5	63.4
	Vacuum Gage	C6688509-0101	0.1	73.7
	Vacuum Relief Valve, Airborne 133A16	C482001-0401	0.5	60.2
253-A	Valve, Oil Quick Drain (Net Change)	1701015-1	0.0	--
254-A	Valves, Fuel Quick-Drain (Net Change)		0.0	--
255-A	Ventilation System, Rear Seat	1706052-1	1.8	124.5
256-A	Windows, Tinted (Set of Six, Net Change)	1701010	0.0	--
257-A	Wing Leveler Provisions (for complete installation, see item 402 Group)	1700124-1	8.1*	134.6*
	Aileron Actuator Servos (Set of Two)	1005-1-0	1.3	131.5
	Rudder Actuator Servos (Set of Two)	1100-0-0	1.3	196.9
	Tubing		2.3	102.6
	Miscellaneous Parts		3.2	133.4
258-A	Winterization Kit Installation, Engine		0.6*	35.4*
	Breather Tube Insulation		0.2	53.3
	Two Cowl Inlet Air Covers (Installed)		0.3	25.0

ISSUED: 31 July '72

REVISED:

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EQUIPMENT LIST (CONT'D)

CESSNA AIRCRAFT CO

MODEL 177B (1973)

WICHITA, KANSAS

ITEM NO ▶	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
400-A	Primary Group Kit Consists of Items: 030-0 Sensitive Altimeter (Exchange) 202-A Clock Installation 222-A Outside Air Temperature Gage 223-A Rate-of-Climb Indicator 224-A Turn Coordinator 232-A Landing Light, Cowl-Mounted 247-A Sun Visors (Set of Two)	1701025-3 C661071-0101 1713222-1 1713117 1700128 1713223 1701017 1701001	5.9* 0.3 0.6 0.1 0.9 1.3 1.7 1.0	69.4* 70.9 96.2 85.9 72.6 72.4 41.0 93.0
401-A	Cardinal Equipment Kit Consists of Items: 200-A Arm Rests, Rear Seat (Set of Two) 207-A Fairings, Wheel (Set of Three) 212-A Gyros, Horizon & Directional 223-A Map Light, Control Wheel Mounted 250-A Tow Bar (Stowed) 251-A Cardinal Upholstery (Net Change) 252-A Vacuum System Installation 400-A Primary Group Kit 081-0 Paint, Overall Exterior (This item is required by, but not included in Cardinal Equipment Kit Weight)	1700002 0514079 0501015 1713217 1770019 0501019 1715010 1713217 1701025	39.9* 2.1 17.7 6.0 0.2 1.6 0.0 5.5 5.9	93.1* 137.3 109.3 71.0 83.0 162.0 162.0 53.8 69.4
402-A	Wing Leveler Installation (FK 77-129) Consists of Items: 225-A Indicator, Turn Coord. (Exchange) 257-A Wing Leveler Provisions	1700124	9.6* 1.5 8.1	124.6* 70.9 134.6
402-A-1	Wing Leveler Installation (FK 77-129-C) Consists of Items: 225-A Indicator, Turn Coordinator 257-A Wing Leveler Provisions	1700124	10.9* 2.8 8.1	118.4* 71.6 134.6
402-A-2	Wing Leveler Installation (FK 77-129-B) Consists of Items: 225-A Indicator, Turn Coordinator 257-A Wing Leveler Provisions 252-A Vacuum System	1700124	16.4* 2.8 8.1 5.5	96.7* 71.6 134.6 53.8
ISSUED: 31 July '72			REVISED:	
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CESSNA AIRCRAFT CO

EQUIPMENT LIST (CONT'D)
MODEL 177B (1973)

WICHITA, KANSAS

ITEM NO ▶	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
500-A	Nav-O-Matic 300 (with item 213-A Gyros) Controller Amplifier Gyro Installation (Item 213A) Miscellaneous Wiring and Parts Omni Coupler Turn Coordinator (Item 226-A) Vacuum System (item 252-A) Wing Servo Actuator Wing Installation Miscellaneous Parts	1701009	21.6* 1.1 6.4 1.2 0.8 1.9 5.5 3.2 1.5	78.3* 74.0 70.5 67.8 63.1 71.6 53.8 126.6 126.7
501-A	Nav-O-Matic 300 Instld in Cardinal Controller Amplifier Gyro Installation (Net Change) Miscellaneous Wiring and Parts Omni Coupler Turn Coordinator (item 226-A)(Net Change) Wing Servo Actuator Wing Installation Miscellaneous Parts	1701009	8.8* 1.1 0.4 1.2 0.8 0.6 3.2 1.5	99.5* 74.0 63.0 67.8 63.1 69.9 126.6 126.7
510-A	Electronic Option A Nav-Com Provisions 520-A Antenna & Cable, Left VHF Com Ant 521-A Antenna & Cable. VOR Nav 524-A Audio Junction Box With Muting Relay 525-A Headset Installation 526-A Microphone Instl., Hand-Held 528-A Radio Cooling System 530-A Speaker Installation, Cabin Circuit Breaker	1770000- 1770000 1770000 1770000-716 1770000-703 1770000-725 1770000 1770000-705 S-1360-5	5.8* 1.0 1.7 0.4 0.4 0.5 0.3 1.5 0.1	136.3* 111.8 236.9 65.0 70.0 74.0 62.6 110.9 74.5
511-A	Electronic Option B Right VHF Ant. Instl. Antenna	1770000-41 C598501-0104	1.0* 0.5	111.8* 132.0
512-A	Electronic Option C ADF Antenna Provisions 300 ADF Loop Antenna Cables	1770000-42 32827-0000	1.3* 0.6	80.5* 76.8
513-A	Electronic Option D Nav-O-Matic Wing Provisions	1200014-2	0.3	162.4
ISSUED: 31 Jul '72			REVISD:	
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EQUIPMENT LIST (CONT'D)

CESSNA AIRCRAFT CO

MODEL 177B (1973)

WICHITA, KANSAS

ITEM NO ▶	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
520-A	Antenna & Cable, Left VHF Communications Antenna	1770000 C598501-0104	1.0* 0.5	111.8* 132.0
521-A	Antenna & Cable, VOR Navigation	1770000	1.7	236.9
522-A	Antenna Coupler & Calbes, VOR (S-2086-1)	1770000-620	0.2	65.0
523-A	Audio Isolation Amplifier (KA-25C)	1770000-723	1.5	64.0
524-A	Audio Junction Box With Relay	1770000-716	0.4	65.0
525-A	Headset Installation (C596501-0104)	1770000-703	0.4	70.0
526-A	Microphone Installation, Hand-Held	1770000-725	0.4	74.0
527-A	Microphone Instl., Doorpost Mounted Boom	1770000-727	1.0	86.6
528-A	Radio Cooling System (Each Radio)	1770000	0.3	62.6
529-A	Radio Selector Switches	1770000-728	0.5	73.0
530-A	Speaker Installation, Cabin (C596504-0201)	1770000-705	1.5	110.9
550-A	Cessna 300 ADF (546A or 546E) R-546A Receiver or R-546E Receiver With BFO M-346A Mounting Box IN-546 Indicator L-346A Antenna, Fixed Loop Sense Antenna Installation	1770000 41240-1001 41240-0101 40900-0000 41250-1001 41000-1001 1770000-623	8.4* 3.3 3.3 0.5 0.9 1.4 0.2	77.8* 69.5 69.5 69.5 71.0 96.5 177.0
551-A	Cessna 300 DME (KN-60C) KN-60C Transceiver 066-1028-03 Mounting Box KA-32 Antenna	1770000 C582602-0301 1770000-611	9.5* 6.8 0.6 0.4	74.0* 68.8 68.4 148.5
552-A	Cessna 300 Marker Beacon (502B) R-502B Receiver Antenna, "L" Shaped Rod	1770000 31240-0014 0770681-1	3.0* 1.0 0.4	90.5* 68.5 171.0
553-A	Cessna 300 Nav-Com 100 Channel (508A) RT-508A Receiver Transmitter Mounting Box IN-514R VOR Indicator	1770000 39360-1014 40550 31640-0000	8.8* 6.7 0.8 0.7	68.3 68.0 68.0 73.5
554-A	Cessna 300 Nav-Com 360 Ch.(328A & IN-514R) RT-328A Receiver Transmitter Mounting Box IN-514R VOR/LOC Indicator	1770000 41740-1114 40550 31640-0000	9.2* 7.1 0.8 0.9	68.4* 68.0 68.0 73.5
555-A	Cessna 300 Nav-Com 360 Ch.(328A & IN-525A) RT-328A Receiver Transmitter Mounting Box IN-525A VOR/ILS Indicator	1770000 41740-1114 40550 32350-0000	9.3* 7.1 0.8 1.0	68.5* 68.0 68.0 73.5
ISSUED: 31 July '72		REVISED:		SHT 8 OF 10



EQUIPMENT LIST (CONT'D)

MODEL 177B (1973)

CESSNA AIRCRAFT CO

WICHITA, KANSAS

ITEM NO	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
1	INSTRUCTIONS FOR USING RADIO EQUIPMENT LISTINGS:			
	Complete radio installations require certain supporting equipment in addition to the individual radio items listed. The following installation examples and notes should be used as a guide in the determination of complete installations.			
1.	First Unit Cessna 300 Nav/Com 360 Channel with VOR/ILS Indicator Complete Installation. Consists of Items:		15.0*	94.7*
	556-A Cessna 300 Nav/Com 360 Ch. (328A & IN-525A)		9.3	68.5
	520-A Antenna & Cable, Left VHF Communications		1.0	111.8
	521-A Antenna & Cable, VOR Navigation		1.7	236.9
	524-A Audio Junction Box with Relay		0.4	65.0
	525-A Headset Installation		0.4	70.0
	526-A Microphone Installation, Hand Held		0.4	74.0
	528-A Radio Cooling		0.3	62.3
	530-A Speaker Installation, Cabin		1.5	110.9
2.	Second Unit Cessna 300 Nav/Com 100 Channel with VOR Indicator Complete Installation. Consists of Items:		10.8*	72.3*
	554-A Cessna 300 Nav/Com 100 Channel (508A)		8.8	68.3
	520-A Antenna & Cable, Right VHF Communication		1.0	111.8
	522-A Antenna Coupler & Cables, VOR		0.2	65.0
	528-A Radio Cooling		0.3	62.3
	529-A Radio Selector Switches		0.5	73.0
3.	Second Unit Cessna 300 ADF with BFO Complete Installation Consists of Items:		8.9*	77.5*
	550-A Cessna 300 ADF (546E)		8.4	77.8
	529-A Radio Selector Switches		0.5	73.0
4.	Third Unit Cessna 300 Marker Beacon Receiver Complete Installation. Consists of Item 552-A only.		3.0	90.5
5.	Fourth Unit Cessna 400 Glideslope Receiver Complete Installation. Consists of Item 559-A only.		5.5	152.4
NOTES:				
1.	Item 523-A (KA-25C Audio Isolation Amplifier) is required for all multiple radio installations not incorporating a "Cessna Crafted" VHF or HF.			
2.	All panel-mounted transmitters require item 528-A (Radio Cooling System).			
	68 THINROW APOLLO I LORANC		3.68	72.3
	COM ANT WHIP ANTENNAE VCT-121 SP		1.00	109.0
	AG- PREAMPLIFIER		1.17	109.0
ISSUED: 31 July '72 REVISED:				
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EQUIPMENT LIST (CONT'D)
MODEL 177B (1973)

CESSNA AIRCRAFT CO

WICHITA, KANSAS

ITEM NO ▶	DESCRIPTION	REF DRAWING	WT LBS	ARM INS
556-A	Cessna 300 HF Transceiver (PT-10A) PT-10A Transceiver Mounting Box PT-10-PS-14 Remote Power Supply DX-10-RL-14 Antenna Load Box 351 Inch Long Antenna Wire	1770000-43 C582103-0101 C582103-0201 C589502-0101 0570400-616	23.0* 4.2 8.6 4.2 0.3	153.0* 72.5 184.3 200.0 140.8
557-A	Cessna 300 VHF Transceiver (524A) RT-524A Transceiver M-514R Mounting Box	1770000-1 31390-1114 30420-0000	8.0* 6.6 0.7	69.0* 68.0 68.0
558-A	Cessna 300 Transponder (KT-78) KT-78 Receiver Transmitter 066-1034-00 KA-48 Antenna 071-1048-00	1770000 C589520-0104	4.3* 2.8 0.1	74.0* 68.5 122.0
559-A	Cessna 400 Glideslope (443A) R-443A Receiver Mounting, Rigid Antenna	1770000 41650-0000 36450-0000 1200098-2	5.5* 2.7 0.3 0.2	152.4* 181.3 181.3 91.0
560-A	Cessna 300 Nav-Com 360 Ch. (528E & IN-514R) RT-528E Receiver Transmitter Filter Mounting Box IN-514R VOR/LOC Indicator	1770000 41380-1114 41260 40550 31640-0000	9.2* 7.1 0.8 1.0	68.4 68.0 68.0 73.5
561-A	Cessna 300 Nav-Com 360 Ch. (528E & IN-525A) RT-528E Receiver Transmitter Filter Mounting IN-525A VOR/ILS Indicator	1770000 41380-1114 41260 40550 31640-0000	9.3* 7.1 0.8 1.0	68.5* 68.0 68.0 73.5
580-A	Sunair SSB HF Transceiver (ASB-125) RE-1200 Single Side Band Transceiver Mounting Box PA-1010A Remote Power Amplifier CU-110 Antenna Coupler 351 Inch Long Antenna Wire	1770000-54 99680 99682 99816 1770000-614	24.0* 4.5 0.5 8.9 4.9 0.4	152.5* 68.5 68.5 188.3 200.8 140.8
581-A	Emergency Locator Transmitter Transmitter (Leigh SHARC 7A) Antenna	0401008 C589510-0102 C589510-0103	2.4* 2.1 0.1	196.9* 196.9 195.5
ISSUED: 31 July '72		REVISED:		SHT 9 OF 10

CESSNA AIRCRAFT COMPANY

WICHITA, KANSAS

Weight & Balance and Installed Equipment Data

1744E-36A
R112

CONTROL NUMBER	DATE	MODEL	REGISTRATION NUMBER	CESSNA SERIAL NUMBER
303173	02/14/73	177 CARDINAL	N34626	17701907

ITEM	WEIGHT	ARM	MOMENT
STANDARD AIRPLANE (EMPTY, DRY, UNPAINTED) COMPUTED	1454.0	104.4	151798
INCLUDES EQUIPMENT ITEMS REQUIRED FOR FAA CERTIFICATION			
UNUSABLE FUEL 1.0 GALLONS	6.0	100.0	600
ALLOVER EXT 326 GRANADA GREEN/NUTMEG/VES WHT	11.5	150.9	1735
INTERIOR CF GOLDEN OLIVE FABRIC/OLIVE	NEGL.		
300 NAVCOM 360CH W/VOR/LOC 1ST RT328A	14.9	94.8	1413
INDICATOR TRUE AIRSPEED EXCH	.1	73.0	7-
CONTROLS DUAL	6.3	76.0	479
DETECTORS NAVIGATION LIGHTS	NEGL.		
GROUND SERVICE PLUG RECEPTACLE	2.5	66.0	165
HEATED PITOT EXCH	.9	112.5	101
LIGHTS COURTESY SET OF THREE	1.0	109.0	109
LOCATOR BEACON	2.4	196.9	473
SEAT FRONT LH ARTICULATING VERT ADJ EXCH	9.0	93.7	843
SEAT FRONT RH STD	NEGL.		
STATIC SOURCE ALTERNATE	.5	86.0	43
VENTILATION SYSTEM REAR SEAT	1.8	124.5	224
WINDOWS ALL TINTED EXCH	NEGL.		
MODEL 177 CARDINAL	39.9	93.1	3715
LICENSED EMPTY WEIGHT	1550.6	104.3	161691
GROSS WEIGHT 2500.0 LICENSED WEIGHT 1550.6 USEFUL LOAD	949.4		

WEIGHT & BALANCE CHANGE - Issued - 6-29-80

Type Aircraft: Cessna 177B N 34626
 Empty Weight 1568.62 Empty Wt. C.G. 104.48 Moment 163889.41
 Useful Load: 931.38 Reason for change: addition of
#2 Nav/Comm & VOR Indicator
 Date: 6-29-80 Signed: Gerald Z. Robertson

ATP 1015598

GOODRICH AVIATION, INC.

Municipal Airport - Ames, Iowa 50010

Telephone 515-232-7662

AIRCRAFT EQUIPMENT LIST

AIRCRAFT MAKE & MODEL : Cessna 177B

SERIAL # : 17701907 N 34626

NUMBER	DESCRIPTION	WEIGHT	ARM
8-29-73 1.	Item 218A Hourmeter Drawing # 1701013-1	1.0 lbs	53.5
8-29-73 2.	Item 550A Cessna 300 ADF model 5464 Drawing # 1770000	8.4 lbs	77.8
1-19-76 3.	ITEM 558A CESSNA 300 300 TRANSPONDER RT-78	4.3 lbs	74.0
2-29-77	Haskins Brito Star Strobe	1.6 lbs	210.0
6-7-79	Collins Micro Line Nav/Comm Transceiver & VOR Ind.	10.8	72.3
6-7-79	Antennae Coupler & Cor. Cable	.02	65.0
6-7-79	antennae & Cable 1/4 V.H.F. Communications	1.0	111.8
6-7-79	Audio Amp & Switching Panel	1.5	72.3
6-7-79	Remove : Item 218A - Hourmeter	1.0	53.5
8-10-79	Wing light Strobe System (Navastar) II	3.1	120.0
6-29-80	HALON FIRE EXTINGUISHER #1211	45	93.7
9-12-81	EXCHANGE COLLINS VOR IND FOR GLIDESCOPE Indicator - S/N 4708 - NO WEIGHT CHANGE		
9-13-81	INSTALLED CAUTION INTERCOM IN Radio Stack -	1.0	72.3
9-14-81	INSTALLED COLLINS GLIDESCOPE RECEIVER	1.0	184.5
9-15-81	INSTALLED E.S.I. DIGITIZER - (BLIND FINDER) 840 NO WT CHANGE → 618	1.0	56.0
16. 12-19-83	INSTALLED APOLLO 1- LORANC-MODEL 602 618 4 PREAMP COMANT	3.68	72.3
12-19-83	INSTALLED LORANC - ANTENNAE - P/N CJ-121SP	1.17	109.0
18.			
19.			
20.			